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# An Analysis and Evaluation of Sit Stay Read: Is the Program Effective in Improving Student Engagement and Reading Outcomes?

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AN ANALYSIS AND EVALUATION OF SIT STAY READ:  
IS THE PROGRAM EFFECTIVE IN IMPROVING STUDENT  
ENGAGEMENT AND READING OUTCOMES?

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Submitted in partial fulfillment  
of the requirements of  
Doctor of Education  
In the Foster G. McGaw Graduate School

National College of Education  
National-Louis University

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AN ANALYSIS AND EVALUATION OF THE SIT STAY READ  
PROGRAM: IS THE PROGRAM EFFECTIVE IN IMPROVING  
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## ABSTRACT

Sit Stay Read is a unique literacy intervention program that uses dogs in the classroom to improve student reading and writing outcomes in select, disadvantaged Chicago Public Schools. The goal of this research study was to analyze and evaluate the effectiveness of the Sit Stay Read program in improving student engagement and reading outcomes.

As evaluated during the 2008/2009 school year, through mixed methods research, the Sit Stay Read program was effective in improving second grade students' oral reading fluency scores with students in the program group (N=152) gaining 8 words per minute more on average, but up to 14 words per minute more in some cases, than students in a comparison group (N=98). This represents a 20 percent improvement in the program group over the comparison group in oral reading fluency gain. No significant gender differences were noted, though girls responded somewhat more favorably to the program than did boys. No significant difference was noted in attendance rates between the two groups, though attendance data were limited.

Qualitative analysis of interview data with teachers, students, and the program's executive director suggests that all groups have very favorable perceptions of the program and that Sit Stay Read supports the three key components of the construct of engaged learning with the program positively impacting students' competence level in reading and writing, supporting the development of a community of learners, and exposing children to authentic work that is meaningful to them.

## ACKNOWLEDGEMENTS

To complete what I set out to complete; this has been my journey. Whoever may have said that writing a dissertation is fun or easy, probably never attempted to write one. My father, Dr. Harold Serra, has influenced me more than any other individual on this earth and his passing in January, 2009 has challenged me more than any other life event that I have experienced. While my father once encouraged me to write a book, I never thought that book would be a dissertation. My father modeled more than he preached, listened more than he spoke, and loved more than he intellectualized. During my last conversation with my dad I told him that I would finish this work, and so it had to be. It is my father's wisdom, intellectualism, and approval that have inspired me to complete this dissertation and it is with joy that I see his name on this page and feel him here with me. In addition to my father I wish to acknowledge and thank the many wonderful people who have assisted me with completing this project: These include:

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- Dr. Robert Clark, former committee chair, life mentor, and perpetual cheerleader.

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Charlie, Jesse, Chelsea, Katie, and Coal you are cherished!

In Memory  
of  
My dad  
Dr. Harold Albert Serra  
1922-2009

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## CHAPTER ONE

### INTRODUCTION

I have always been advised to follow my passions in life. Love, family, and the value of intellect have been guiding principles for me. When I became a school psychologist over 20 years ago, I consciously selected this field because of my interest in education as well as human emotion and motivation. Additionally, I chose a field that I believed to be flexible in the days before flexible work settings were commonplace. For many years, I was able to work part time while honing my professional skills and also devoting myself to raising my own children. As I continued in the field of school psychology, I became disheartened, at times, by facing students' challenging home and learning situations and being overly focused on psychometrics, as if "scores" could sum up a child's learning profile and guide subsequent educational decision making. Hence, when an opportunity arose in the suburban school district where I was employed about 10 years ago to introduce animal assisted therapy into the special education setting, I jumped at the opportunity. I was thrilled to follow another of my passions, dogs and my belief in the power of the human-animal bond, and to weave this into my professional role.

The literature abounds with references to dogs being used in assistance settings, in hospitals and recreation settings, and as therapeutic agents and "cotherapist" in mental health settings. The introduction of dogs in the classroom, however, appears to be more novel, particularly when linked with academic goals of students rather than with therapeutic goals and special education populations. An extensive review of the literature follows in the second chapter of this dissertation.

I knew as I embarked upon dissertation studies that I wanted to explore a topic that was personally meaningful to me as well as relevant to the education world in a dynamic manner. When I heard about The Sit Stay Read Program in Chicago, a program that uses dogs to assist elementary aged children with the development of their reading skills, I was immediately interested in getting involved. Furthermore, when the program director's need for program evaluation was voiced, I knew that I had a dissertation topic that resonated with me and had the potential to impact thousands of grade school students.

The following quote from the Sit Stay Read website provides a program overview:

Sit Stay Read is the leading literacy organization in the United States to utilize therapy dogs to improve reading skills and foster the love of learning in disadvantaged children in second and third grades (ages 7-9). The organization brings trained fluency tutors and certified therapy dog teams to schools and community facilities in Chicago's most impoverished neighborhoods. Through a curriculum designed with the University of Illinois at Chicago (UIC) Center for Literacy, Sit Stay Read improves children's reading fluency, helps them become successful readers, and inspires them to explore the world through books. (Sit, Stay, Read, 2008)

The program goals are further listed as helping students to increase reading fluency, to instill confidence in reading, to improve ability to write to convey meaning, and to demonstrate respect for people and animals. The goals are accomplished through a comprehensive curriculum that is written to correspond with the Illinois State Teaching standards. The yearlong program includes eight Dog Visitation Sessions, five Guest Reader Sessions, and a Reading Rewards component. In each dog team visitation session a team of seven trained literacy volunteers focus on fluency activities, writing activities, and reading aloud with the certified therapy dog teams. The guest readers include

professionals such as an opera singer, a poet, an artist, and a fire fighter, who read a dog-related story to students and discuss how reading is important in their work. The Reading Rewards is a dog themed reading incentive program that offers small tokens to students at selected intervals to help encourage their independent reading.

When the program was initially evaluated during the 2004-2005 school year, measures of Oral Reading Fluency were utilized, under the guidance of University of Illinois-Chicago (UIC) staff, to evaluate reading fluency scores in both a control and comparison group of second grade students. Children who received the Sit Stay Read intervention demonstrated a gain of 24 words per minute while children who did not participate in the program demonstrated only a nine word per minute gain. Hence, initial program evaluation efforts were begun. Subsequently, my inquiries about the Sit Stay Read Program, along with the program administrator's desire for ongoing program evaluation, were the inception of our match. The Literature Review includes a discussion of the structure of the Sit Stay Read Program.

#### Previous Research Efforts in Program Evaluation

In 1988, I completed a Master's thesis as part of my School Psychology studies at National Louis University entitled, "An Evaluation of Two Treatment Programs for Emotionally Disturbed Adolescents." At that time, most adolescents with significant emotional disabilities were treated through inpatient programming in hospitals and mental health settings. It was a novel concept for public school districts to initiate in district programming to accommodate students with such needs. During the 1987/1988 school year, School Association for Special Education Districts (SASED), a special education cooperative in the western suburbs of Illinois where I was serving as a school

psychology intern, initiated a pilot day treatment program with 17 students as an alternative to hospitalization. Program administrators wished to evaluate the efficacy of this new program, in cost and treatment outcomes, as compared to a more standard inpatient, hospital program. Results reflected dramatic savings in dollars, with a per capita fee of only \$4,293 for the day patients versus a per capita fee of \$15,258 for the inpatients. Regarding treatment outcomes, greater behavioral improvement was noted among the day treatment patients than among the inpatients, with more than half of the inpatients attaining Level 2 community functioning status (based on a three level system) compared to more than half of the day patients attaining Level 3 functioning. Numerous limitations of the study were noted as well (Smith, 1988).

It is interesting that I am focusing on program evaluation again through completion of this dissertation. However, 20 years later, while program evaluation continues to be paramount in the educational setting, evaluation must also be viewed from a somewhat different lens. While funding and economic factors will always be an impetus for program evaluation, the impact of the Response to Intervention (RtI) initiative cannot be overlooked. This initiative demands the collection of data and emphasizes a quantitative approach to research over a qualitative approach. Programs being evaluated today must demonstrate, through both the curriculum and interventions employed, that they are scientifically, research-based. In addition, student progress must be monitored, both academically and behaviorally. Additionally, while 20 years ago, I do not think it was atypical to consider program evaluation retroactively, today there seems to be far greater emphasis on providing for assessment at the onset of a new program's initiation.

### Changes in Self as Researcher and Personal Philosophy

When I completed my thesis research in 1988, I did not work directly with the therapeutic program, nor did I have keen interest in day treatment programs, nor emotionally disturbed adolescents. I was in need of a thesis topic and School Association for Special Education in DuPage County (SASED) was in need of some sort of program evaluation. Thus, my study was born. Now, however, I recognize that I must be fully invested in a topic of research and believe that it is a meritorious area of study before embarking upon my dissertation. While I can collaborate with others, it is no longer satisfactory to me to be "assigned" a research topic in order to complete my research requirements. Now I know that I must own my research by having a longstanding interest in the topic, an awareness of quality research methodology, and a commitment to the research process.

While I have learned that research can be scientifically significant but still not have practical significance, I realize that my own bias in both conducting and reviewing research is that practical significance is critical. Pragmatism is a distinctly American movement, promulgated by nineteenth century philosophers and educators, including Charles Peirce and John Dewey (Cohen, 2008). As a practitioner and educator, I recognize the importance of quality educational practices and programming for children. In conducting my own research, one of my goals is to help contribute to the field of educational research in a meaningful way; specifically, in this case, to help analyze the elements of a unique reading program which, in part, uses dogs in the classroom to advance students' learning.

I believe that research should be succinct and be readable to both the practitioner and researcher alike. As a school psychologist, I was always taught that reports should be “readable” to the layperson; if they were not, what was the point of them being written? I take this bias with me to the dissertation research field, as I hope that my research will have merit and be optionally read by those who identify as practitioner, researcher, or both.

#### Preliminary Research Efforts with the Sit Stay Read Program

Throughout the last year, as I have been enrolled in advanced research classes, I have focused my academic efforts on reviewing the literature in the area of animal assisted intervention, particularly as applied to the school setting, and have begun collaboration and preliminary research efforts with the Sit Stay Read program administrators.

This unique reading program has been positively received within the city schools of Chicago, and schools are on a waiting list in order to participate. The program has also been featured in the local media, including newspapers and television, and has recently, as of August, 2008, received national attention through an NBC news feature. Consequently, program administrators indicate that they have received over 50 inquiries from across the country as to how to implement such a program. What I appreciate about the Sit Stay Read program administrators is that they are highly interested in maintaining the integrity of the program and are not quick to “sell” their program to others prematurely. Having seen the program in operation, I am well aware of how systematically the program is implemented in each classroom, with the fidelity of the intervention maintained. Program administrators also recognize the importance of

program evaluation. They believe that it is not enough that the program “appears” to work and is being requested by numerous outside parties, but that it is essential that evaluation data reflect its efficacy.

As Dynamic Indicators of Basic Early Literacy Skills (DIBELS) measures of Oral Reading Fluency (ORF) were used in past evaluation practices, and since these are data collected by elementary teachers in the Chicago Public Schools, it was agreed that ORF would be an appropriate measure to continue to utilize. In accordance with current Response to Intervention initiatives (RtI), the use of scientifically-evidenced interventions, implemented with fidelity, and allowing for ongoing progress monitoring, is critical in evaluating the effectiveness and appropriateness of educational practices. Hence, the timing was key for my research efforts to align with the need of the Sit Stay Read program administrators to secure data-driven program evaluation.

Throughout the 2007/2008 school year I was enrolled in two advanced quantitative research courses at National, along with one advanced qualitative course. All of my research efforts were directed toward the Sit Stay Read program. As a result of running some preliminary data, with the supervision of several NLU professors, we reviewed Dynamic Indicators of Basic Early Literacy Skills (DIBELS) oral fluency data from select second grade classrooms and issued the following statement which Sit Stay Read program administrators have since released in promotional materials (Sit, Stay, Read, 2008):

The Sit, Stay, Read Program was evaluated during the 2007/2008 school year through analysis of DIBELS (Dynamic Indicators of Basic Early Literacy Skills) oral reading fluency scores, or words read per minute. National Louis University professors, Dr. Jan Perney and Dr. Robert Clark, report that 104 second grade students who participated in the program raised their reading fluency by 38 words per while 40 students in

a control group, without the program, raised their oral fluency by only 27 words per minute. This difference of 11 words per minute is considered to be statistically significant, with data from over 140 second grade students analyzed. Research efforts are expected to be continued throughout the 2008/2009 school year.

#### A New Direction for Research

Another interesting aspect of evaluation of this program is a qualitative piece, which until now, has not been systematically approached. While pre and post test measures of reading oral fluency do appear to be a valid way of measuring student improvement in relation to a structured reading intervention program, this in itself does not evaluate the effectiveness of the program overall nor tap the underlying reasons as to why the program is successful in engaging students and staff in the reading process. More specifically, while DIBELS data reflect part of a student's skill repertoire, these data do not represent the student fully, including the student's internal social-emotional or motivational state.

Students, teachers, and program coordinators talk about how motivating this program is for students, how engaged students appear to be with their learning, and about how calm classrooms are on the day of the dog visits. Teachers also emphasize how high student attendance rates are on the day of the visitations. Are students inclined to attend school more regularly on days the program is practiced and the dogs are present in their classrooms? Furthermore, because there are ongoing reading incentives built into this program throughout the school year, is attendance greater throughout the school year for those participating in this novel reading program versus those who are not? There are so many practical, positive implications for consistent school attendance which could serve

as a by product of this program. The more students are in school, the more they are available for learning, and the more likely their learning ensues.

Additionally, what is of prime interest to me as an educator, researcher, and believer of animal-assisted intervention is the belief that this program is effective largely because of its motivational effect on student reading and availability for learning. It appears appropriate to also focus research efforts on students' and teachers' attitudes about the program particularly as related to factors relevant to engaged student learning.

One of the aspects of the program that resonates well with me, as a researcher and educator, is that the Sit Stay Read administrators believe in the worth of their program because they believe that it is beneficial for children. If program evaluation indicates that this is a viable program to improve student reading performance and engagement with the learning process, Sit Stay Read founders would love to see the program replicated across the country.

Finally, in considering forthcoming research efforts, it must be recognized that the Sit Stay Read is a highly structured and complex literacy program with many components. This program includes both reading and writing elements, along with adult volunteer readers, dog handlers and therapy dogs, a reading incentive charting program, and guest readers. It is not the intention of this research to evaluate if "dogs in the reading classroom" improve children's reading performance, but rather, if the Sit Stay Read program is effective in helping to improve reading outcomes for underachieving second grade students in the Chicago Public Schools.

## Research Questions

The Sit Stay Read program is a unique literacy intervention program that pairs disadvantaged children and dogs in select Chicago Public Schools. The goal of this research is to evaluate the effectiveness of this program by focusing on student reading outcomes (ORF), attendance figures, and level of engaged learning. The following questions will guide this study:

1. Do second grade students participating in the Sit Stay Read program demonstrate higher gains in Oral Reading Fluency (ORF) than students not participating in the program? Are any gender differences evidenced?
2. Do second grade students participating in the Sit Stay Read program demonstrate higher rates of school attendance than students not participating in the program?
3. What are students' and teachers' perceptions of students' learning when participating in the Sit Stay Read Program?
4. How do students' and teachers' perceptions of their learning in the Sit Stay Read Program reflect the construct of engaged learning?

## CHAPTER TWO

### LITERATURE REVIEW

#### Introduction

As it is hypothesized that animals in the classroom help engage students in their learning and subsequently improve students' learning outcomes, this literature review begins with an overview of motivation theory as applied to the concept of classroom engaged learning. An overview of animal-assisted intervention follows, focusing on mental health settings, key organizations, applications in the classroom, and applied research.

In discussing a unique reading program utilizing animal assisted intervention, the construct of motivation must be considered in reviewing the reading program in its entirety. Why does this program appear to be successful in engaging students in their learning, and why does this engagement appear to have a subsequent positive effect on student reading achievement outcomes? In order to address these questions, an overview of motivation in learning contexts appears appropriate, with a particular focus on engaged student learning in the classroom.

#### Overview of Motivation in Learning Contexts

Initially, motivation was viewed through the behaviorist lens with early research focused on animal behavior, inclusive of rewards, consequences, and reinforcement with this research later generalized to the study of human behavior. However, by the 1960's and 1970's, motivation theory was evolving from the behavioral perspective to the construct of two unique processing domains, namely cognition and motivation. Cognition related to information processing skills, a general disposition toward learning

traits and needs, goal orientation, and the tendency to both value learning and to approach learning through effort and thought. Motivation was thought of as more fluid and less stable, related to emotions such as pride, shame, and guilt influencing individuals' behavior. Subsequently, a battle began developing between the two domains as to which was more responsible for the phenomenon of learning, cognition or motivation (Brophy, 2004; Jarvela & Volet, 2001).

By the late 1980s research on motivation began contributing to research on learning led largely by the work of educational psychologists. The melding of cognitive and motivational influences on learning was emphasized, leading researchers to conclude that learning is not a product of one or the other, but rather, that the two are inseparable. Furthermore, by the late 1990s, the context of learning was noted, reflecting both social and cultural influences (Jarvela & Volet, 2001; Wigfield & Eccles, 2002).

Jarvela and Volet (2001) discuss the context of learning through both the socio-cognitive perspective and the situative, socio-cultural perspective. Socio-cognitive factors include schools, classrooms, family, peer groups, community, country, culture, ethnicity, and the historical context. Situative-sociocultural factors, in contrast, include individuals' active engagement in learning activities and stress the importance of the learner's appraisals, emotions, and current concerns on the learning process. As Boekaerts (as cited in Jarvela & Volet, 2001), states, "Students who are allowed to engage in social interactions in the classroom learn in a fundamentally different way than students who are passively listening to teachers' presentations" (p. 20).

## School Reform and Student-Centered Learning

Proposals for educational reform, focusing on learner centered psychological principles, were introduced through publications such as *A Nation at Risk: The Imperative for Educational Reform* in 1983 and *Striving for Excellence: The National Educational Education Goals* in 1991 (Lambert & McCombs, 1998). Consequently, the American Psychological Association (APA) and the Mid-Continent Regional Educational Laboratory teamed and produced the document entitled, *Learner Centered Psychological Principles: Guidelines for School Reform and Design*, published in 1993 and revised in 1996. Twelve basic principles, divided into five major categories, were espoused which focused on the learner-centered process. Learner-centered can be described as “the best available knowledge about learning and how it occurs and about teaching practices that are most effective in promoting the highest levels of motivation, learning, and achievement for all learners (Lambert & McCombs, p. 9).

The five factors related to learner-centered principles include the following: the knowledge base, strategic processing or executive control, motivation and affect, development and individual differences, and situation or context. Research on these factors scientifically acknowledged the importance of the interaction of these factors on students’ learning suggesting that to fully engage students in learning, needs such as choice, competency, and connectedness, had to be addressed in educational programs.

## Classroom Application of Learning-Centered Principles and Student Engagement

Brophy (2004) and other researchers elaborate on the classroom context of motivation describing student motivation as the degree to which students invest attention and effort in various pursuits, noting that it is rooted in students' subjective experiences and connected to their willingness to engage in learning activities and their reasons for doing so. The quality of students' cognitive engagement in a learning activity is emphasized, more so than the intensity of the physical effort they devote to it or the time they spend on it.

Stipek (as cited in Wigfield & Eccles, 2002), further notes that best classroom practices enhance student learning indirectly by enhancing students' motivation, self confidence, enthusiasm, and desire to understand and develop skills. This increased motivation in turn leads to active engagement in academic tasks that maximize learning. Authentic instruction, challenging thinking, and active participation are emphasized.

Newman, Wehlage, and Larnborn (1992) note that "engagement stands for active involvement, commitment, and concentrated attention, in contrast to superficial participation, apathy, or lack of interest" (p. 11). They note that engagement implies more than motivation; it calls special attention to the social contexts that help activate underlying motivation. They identify three broad factors that help students engage in academic work namely, students' underlying need for competence, the extent to which students experience membership in the school, and the authenticity of the work they are asked to complete.

These same three factors are noted by numerous other researchers, as well, particularly in relation to discussions revolving around intrinsic motivation. In his work entitled *150 Ways to Increase Intrinsic Motivation in the Classroom*, Raffini (1996) states that students' motivation in the classroom is fueled by their desire "to do things that help them feel successful (competence); to feel part of something larger than themselves (belonging and relatedness)...and to find pleasure in what they do (involvement and stimulation) (p. 3).

### *Competence*

Competence is noted as a powerful base for human action and motivation, particularly amongst children. As Newman et al. (1992) note, "Achieving cognitive understanding and skill mastery--- getting it right--- are personally rewarding, especially as they enable people to have some impact on the world" (p. 19). Researchers including Brophy (2004) also note the importance of competence in discussing motivation in the classroom, emphasizing the expectancy times value model. Specifically, this model contends that the amount of effort that people are willing to expend on a task is the product of the degree to which they *expect* to be able to perform the task (competence) and the degree to which they *value* the rewards that successful task performance will bring.

### *School Membership*

The second factor identified by Newman et al. (1992) related to student engagement in the classroom is school membership. The authors note that students must perceive "the general enterprise of schooling as legitimate, deserving of their committed effort, and honoring them as respected member" (p. 19). They further stress the

importance of bonding during which students develop affective, cognitive and behavioral connections to the school community. This can be achieved through the school's clarity of purpose, its sense of fair treatment of students, the level of personal support and caring it provides to students, and most importantly, through the insurance of students' success in their development of competence.

The sense of belonging or the concept of the community of learners has been analyzed by numerous researchers including the renowned theorist, Lev Vygotsky and many of his followers. Vygotsky's concept of the ZPD, or the Zone of Proximal Development, examines development in relation to the individual's interactions with others around him over time. Through social interactions and the guidance of others, Vygotsky (as cited in Moll, 1990), contends that children's learning may extend beyond their current zone of development to their potential zone of development.

The establishment of a classroom community is also emphasized by Brophy (2004) who notes that a school environment should be created where students feel comfortable, valued, and secure. This then encourages students to form positive emotional bonds with their teachers and peers and a positive attitude toward school which in turn translates into improved academic motivation and learning.

In McNamee's (as cited in Moll, 1990) longitudinal study of community change in learning to read and write in an inner city setting, the importance of socialization and Vygotsky's learning community is again emphasized. In line with a Vygotskian perspective of literacy as a social-cultural activity, the author notes that literacy and its development in the community depend on arrangements of relationships among people around stories. If teachers wish to assemble true communities of active readers and

writers teachers need to develop facility at giving even the most reluctant student full opportunity to participate in such communities.

### *Authentic Work*

Finally, the third key factor identified by Newman et al. (1992) to help students engage in academic performance is the concept of authentic work. Authentic work is considered meaningful to the student, valuable, and worthy of one's effort. It may be associated with both extrinsic and intrinsic rewards, a sense of ownership and connection to the real world, and the experience of fun. As the authors note, learning can be hard work, and in order to sustain task engagement educators should not overlook the importance of fun, play, and humor.

Vygotsky (as cited in Moll, 1990) also notes the importance of fun in promoting student engagement. In addition to relying on socialization and the help of others in helping children achieve their proximal zones of development, he notes the importance of play and the capacity for imagination.

### *Motivational Scaffolding*

Brophy (2004) further notes that creating motivationally optimized learning environments requires attention to both curriculum and instruction. He states that "learners may need to develop relatively elaborated schemas that include motivational as well as cognitive components before they can engage in learning activities with appreciation (not just learning goals) and can experience some of the satisfaction or intrinsic reward potential that they offer" (p. 264). Motivated learning can be described as a schema which allows students to become engaged in academic activities with the intention of accomplishing their goals. The importance of sociocultural learning is

emphasized. As Brophy clarifies, “Both in selecting activities in which to engage learners and in scaffolding their subsequent engagement, the mentor’s work should be guided by motivational goals as well as learning goals” (p. 265).

In school-related cognitive tasks the role of mentor is particularly emphasized in order to scaffold the student’s learning experience. More specifically, scaffolding begins with selecting learning activities that are engaging, introducing them in ways that clarify the activities’ purposes, providing coaching that helps students appreciate the activity, and providing feedback that stimulates students’ growing knowledge base and expertise.

### *Social Emotional Learning*

Theorists espousing the situative-sociocultural model of engagement and motivation in the classroom opened the door to the importance of social emotional learning. Boekaerts (as cited in Volet & Jarvela, 2001), contends, for example, that while learners focus on learning tasks in context, they are also constantly alert to cues in the immediate environment that may be emotionally arousing.

In *Promoting Social Emotional Learning: Guidelines for Educators* (Elias et al., 1997), the authors note that there is a rising understanding among educators that students’ social emotional learning (SEL) can and should be promoted in the schools. They suggest that a child’s ability to learn is profoundly affected by his emotional state. Processes that were once considered purely cognitive are now seen as phenomena in which cognitive and emotional aspects work synergistically. Students also tend to work better when they are cared about and tend to seek out caring and thrive in its presence. Research further suggests that when school systems attend to students’ social emotional skills, the academic achievement of children increases, the incidence of behavior

problems decreases, and the quality of the child's social relationships surrounding him improves.

Regarding the structuring of social emotional learning curriculum, the authors of the aforementioned guidelines note that the most beneficial programs integrate and incorporate cognitive, affective, and behavioral skills and convey prosocial attitudes. They are also immersed and reinforced within the general curriculum and use active instructional techniques. Furthermore, they typically involve partnerships among students, parents, and community members. Systematic program monitoring and evaluation is also essential (Elias et al., 1997).

#### Current Action Research on Engaged Learning

A review of the literature notes numerous action research studies conducted during the last decade on means for improving students' engagement in their classwork. Three selected studies of elementary school students conducted in the Chicago area are reviewed to provide evidence for the precedence for this type of research.

Brooks, Freiburger, and Grotheer (1998) noted that students engaged in learning typically display four characteristics: responsibility for learning, enthusiasm for learning, strategic problem solving, and collaborative problem solving. They introduced an intervention that focused on thematic integrated units, student assignment choices, and problem solving whereby students were specifically made aware of ten identifiers of engaged learning. These indicators included the following: remains on task, displays effort, has necessary materials, follows directions, works independently, eye contact on speaker, demonstrates cooperation, remains on desired task, is an active listener, and participates verbally. Level of engaged learning was documented through observation of

class participation, as assessed through checklists and teacher narrative, along with a student attitude survey. As reported in study results, students seemed to become more aware of their responsibilities as learners and members of a group as evidenced by their enthusiasm for selecting their assignment choices and integrating the problem solving model in their learning.

Janes, Koutsopanagos, Mason, and Villaranda (2000) noted that poor student motivation and problematic social skills interfered with the academic growth of second and third grade elementary school students. They cited the importance of “flow” in student engagement, or the specific state of mind that develops when one is working on a project of interest. In order to achieve this state, they further noted that students must be highly motivated and must enjoy the activity. They provided a 12-week intervention that incorporated the use of cooperative learning, multiple intelligences, and the provision of an engaged learning environment. By offering activities in the seven intelligences their goal was to help students to become intrinsically motivated and to understand that they could have fun and learn at the same time. Assessment methods included reading test scores, student attitude surveys and journaling, attendance records, and teacher observation checklists. Researchers concluded that students’ reading scores increased moderately and that cooperative learning and engaged learning were used together to successfully increase student motivation and achievement.

In the third and final action study being presently reviewed, Brackemyer, Fuca, and Suarez (2001) utilized a process of engaged learning with kindergarteners and second graders through the introduction of an integrated curriculum focusing on the development of phonetic skills through use of The Wright Skills Program. Reading running records

were used to assess students' reading skills over the four-month intervention period, with pre and post tests administered. The researchers concluded that most students who were actively engaged in phonetic learning activities were able to retain skills and concepts and transfer them into the area of reading. Furthermore, they noted that students were enthusiastic and looked forward to learning and entering school each day.

### Historical Perspectives of Animal Assisted Intervention

Historically, the terms, Animal Facilitated Therapy (AFT) and pet therapy have been commonly used to describe the therapeutic use of animals in both clinical and nonclinical settings. McCullouch (as cited in Katcher & Beck, 1983) suggests that AFT was first begun in the United States in 1942 at the Pawling Army Air Force Convalescent Hospital in Pawling, New York with farm animals serving to help veterans convalesce from battle injuries and emotional trauma.

In 1962, psychologist Boris Levinson is credited as being the first to specifically discuss the psychotherapeutic benefits of contact with pets for children and adults in both inpatient and outpatient settings. In his paper, entitled, "The Dog as Cotherapist" Levinson discussed how he made significant progress with a disturbed child when his own dog, Jingles, attended therapy sessions (Beck & Katcher, 1983).

In the 1970s, mental health professionals built upon Levinson's work with Samuel and Elizabeth Corson initiating and evaluating a pet therapy program in a psychiatric ward. Corson described "a widening circle of warmth and approval as a result of positive reactions of patients to pets, which included improved relationships with therapists, other staff on the ward and patients" (as cited in Katcher & Beck, 1983, p. 413). David Lee, a psychiatric social worker at Lima State Hospital in Lima, Ohio noted

that there were dramatic effects after the introduction of pet therapy which included decreased violence, improved morale of staff and patients, and improved level of trust.

Animal facilitated therapy, now often referred to as Animal Assisted Intervention and the focus of this literature review, is not to be confused with Assistance Dog (AD) training programs that are designed to reduce the impact of disabling conditions on a day-to-day basis for individuals suffering within the health, mobility, or employment domains. The first AD training program in the United States was Seeing Eye, Inc., founded in 1929, which trained guide dogs for individuals who were blind. AD training programs significantly expanded in the 1970s providing support for individuals with other limitations including mobility issues and deaf and hard of hearing (Sachs-Ericsson, Hansen, & Fitzgerald, 2002).

Another aspect of Animal Assisted Intervention relates to equine assisted activities and equine assisted therapy, which are particularly targeted for persons with disabilities. While equine assisted activities include therapeutic horseback riding, equine assisted therapy is typically provided by a medical professional within a medical treatment model. The American Hippotherapy Association was founded in 1993, with hippotherapy described as a treatment that uses the multidimensional movement of the horse by specially trained physical, occupational, and speech therapists to treat clients' movement dysfunction. The improvement of neurological and sensory functioning is emphasized (American Hippotherapy Association, 2009).

The benefits of the calming effect of animals have been well documented in the literature for over 50 years. Pitts (2005) notes that the benefits of pet/person relationship have been related to the areas of attachment, comfort, sensorimotor and nonverbal

learning, responsibility, competence, learning about grief, psychological benefits, benefits to physical health, nurturing, ecological awareness, and ethical responsibility.

#### Early Organizations Promoting Animal Assisted Therapy

In the 1970s veterinary groups began to study the legitimacy of the human animal bond, introducing this concept into their research and training programs. According to Beck and Katcher (1983), The Center for the Interaction of Animals and Society at the Veterinary School of the University of Pennsylvania was established in 1977 bringing together scholars from many disciplines within the university to examine the meaning of animal companionship. Previous to this “there were no controlled observational studies of people interacting with pets or any reports of the impact of pets on objective measures of health” (p. 10).

Merged efforts within the arenas of medicine and veterinary medicine continued to create a climate for the study of the human- animal relationship. According to Beck and Katcher (1983), Leo Bustad, Dean of the College of Medicine at Washington State University and Dr. Michael McCulloch, a psychiatrist in Portland, Oregon were instrumental in founding the Delta Society in 1977, which is described as a “scholarly organization that has cemented relationships between scientists of many disciplines who are studying pets and people” (p. 13).

The Delta Society continues to be a leading international resource for the human-animal bond. As noted on their website, the Delta Society has been the force to validate the important role of animals for people’s health and well-being by promoting the results of research to the media and health and human services organizations. While the early members were primarily from the veterinary, health professions, and university faculties,

in the 1980's they expanded their membership to pet owners and the broader general public. In the 1990's, they began providing the first comprehensive training in animal-assisted therapy and activities (AAA/T) to volunteers and health care professionals. The Society developed the *Standards of Practice in Animal-Assisted Activities and Animal-Assisted Therapy*, which provides guidance in the administration of AAA/T programs including animal selection, personnel training, treatment plan development, and documentation (The Delta Society, 2008).

Another key organization in the history of animal assisted therapy is Therapy Dogs International, Inc. known as TDI. This organization was founded in 1976 in New Jersey by Elaine Smith who was a registered nurse who observed the benefits of pets interacting with patients. She focused on bringing the concept of pet therapy to health care facilities. TDI is credited as being the oldest registry for Therapy Dogs in the United States and is described as a “volunteer organization dedicated to regulating, testing, and the registration of therapy dogs and their handlers for the purpose of visiting nursing homes, homes, hospitals, other institutions and wherever else therapy dogs are needed (Therapy Dogs International, Inc., 2006, Brief History section).

#### Recent Applications of AAT, Terminology, and Evaluation

The literature abounds in applications of animal assisted therapy in medical, psychological, and the care of the aged arenas since the 1970s. For example, a frequently cited medical study by Friedmann and Thomas (1995) noted that among 369 patients who had experienced heart attacks, both owning pets and having more support from other people tended to predict one year survival. Specifically, those who owned dogs were approximately 8.6 times more likely to be alive in one year than those who did not own

dogs. Additionally, Fine (2006) noted that the presence of an animal has been found to lower anxiety and motivate patients in therapy while Edwards and Beck (as cited in Fine, 2006) demonstrated significant increases in nutritional intake among residents of specialized Alzheimer's units by simply placing aquariums in dining rooms.

While the focus of this literature review is primarily related to research in the United States, it should be noted that animal assisted intervention has an international research basis as well. Odendaal (2001) of South Africa uses the Latin term, *attentionis egens* to describe the need for positive interaction which can often be supported by the human-animal bond. In his study, an experimental group interacted with their own dogs while a control group interacted with unfamiliar dogs. Physiological indicators were measured, including blood pressure and blood chemistry levels, accompanied by completion of an anxiety questionnaire. He concluded that there is a reciprocal, positive, physiological basis for animal assisted therapy.

According to Jalongo, Astorino, and Bomboy (2004) trained therapy dogs are becoming increasingly familiar in many educational and health settings. The authors specifically discussed working within the 5-8 year old population and recommended that individuals who consider implementing such programs consider the following: work exclusively with registered therapy animals, prepare children for the canine visit, assess individual children's suitability for interaction with dogs, and consider the dog's safety and well being. They concluded that "we now have evidence to support and to guide in exerting a surprisingly powerful, positive force on children's physical health, psychological well being, social interaction, and academic achievement: trained therapy dogs that visit classrooms and hospitals" (p. 16).

## Terminology

While the terms, animal facilitated therapy and pet therapy, have fallen into disfavor over recent years, a broad term, animal assisted intervention, is more recently being utilized which encompasses both animal assisted therapy (AAT) and animal assisted activity (AAA). Both AAT and AAA are experiencing a rise in popularity and are now being applied in many counseling and school settings across the United States (Chandler, 2005). In 2005, Pitts reported that “AAT has grown extensively in the past five years and an Internet search revealed over 40,000 references” (p. 38).

Jalongo (2005) describes animal assisted therapy as an applied science, incorporating the use of animals to assist in resolving human problems. According to Souter and Miller (2007), Animal Assisted Therapy (AAT) is defined as a goal directed intervention in which an animal is an integral part of the treatment process. Animal Assisted Activity (AAA), however, provides opportunities for motivational, educational, recreational, and therapeutic benefits to enhance quality of life. In reality, the authors noted that the two terms are often used interchangeably.

Jalongo (2005), also points out what animal assisted therapy is not, noting that it is not the same as keeping a classroom pet. As she states, “Both the handler and the animal in therapy programs have been thoroughly trained, evaluated, and registered, enabling them to adapt to many different environments and situations” (p.11).

In an attempt to promote the standardization of terminology, The Delta Society has published the following definitions (Fine, 2000):

AAT (Animal Assisted Therapy) - A goal directed intervention in which an animal that meets specific criteria is an integral part of the treatment process. AAT is directed and/or delivered by a health/human service professional with specialized expertise and within the scope of practice of

his/her profession. Key features include specified goals and objectives for each individual and measured progress.

AAA (Animal Assisted Activity) - Provides opportunities for motivational, educational, recreational, and/or therapeutic benefits to enhance quality of life. AAAs are delivered in a variety of environments by specially trained professionals, paraprofessionals, and/or volunteers in association with animals that meet specific criteria. Key features include absence of specific treatment goals; volunteers and treatment providers are not required to take detailed notes; visit content is spontaneous. (p. 23)

### Animals in the Classroom

Scanning the literature, there is an increasing number of references to animals in the educational setting. Many of these references relate to the adoption of a pet in the classroom with accompanying guidelines on the selection, treatment, and care of the pet. The Institute for Laboratory Animal Research (ILAR), for example, published “Principles and Guidelines for the Use of Animals in Precollege Education,” a document that lists ten basic principles for humanely studying and using animals in the educational setting (National Academics, 2006). Other searches reflect discussion of animal abuse, animal bite prevention, and pet loss and grief issues.

Searching the literature through the terms AAT, AAA or AAI and educational setting, reveals numerous studies related to animals and special student populations, including, but not limited to, special education students with early childhood needs, communication disorders, autism, or behavior-emotional disabilities. Betts (2006) discusses inclusion strategies for students on the autism spectrum, citing a study by Weiss reflecting students’ increased spontaneous speech interactions in the presence of a dog as well as a study by Anderson reflecting students with Asperger’s Syndrome increased appropriate verbal and physical interactions in the presence of daily dog visits.

Law and Scott (1995) note that pet care programs in the classroom serve as a vehicle to improve children's receptive and expressive language skills, along with helping to improve both social skills and problem solving skills. Katcher (1997) states that dog teams can support the goals of inclusion, noting that in one study of peer interaction, a child without disabilities was ten times more likely to interact with a peer who had disabilities if the child was paired with a dog.

The literature also reflects that numerous books and workbooks have been published which share curricular ideas/lesson plans with school staff about ways to incorporate animals and animal assisted interventions in the classroom. Many of these materials relate to animal and pet care, maintaining safety around animals, and animal related activities and careers. *Pets and Me*, for example, published by the University of Pennsylvania (1992), provides a pre-k-5 grade thematic learning experience built on the relationship between animals and people. The Delta Society's *Animals in the Classroom* (1999) also provides a compilation of articles and resources related to structuring animal related activities and AAT in the school setting. Few of these, resources, however, focus specifically on animals and academics, or animals and reading.

#### Animal Assisted Intervention and Reading

The use of therapy dogs to improve student reading outcomes is a relatively new idea in both practice and the literature. Furthermore, while dogs have informally been used to promote student reading in school and library settings, few programs have been developed that systematically use the dogs as a reading intervention that is scientifically evidenced. A discussion of organized reading programs, utilizing dogs as an intervention, is subsequently presented.

## Reading Education Assistance Dogs Program

One program was developed by Intermountain Therapy Animals and is entitled, “R.E.A.D” (Reading Education Assistance Dogs), begun in 1999 in Salt Lake City, Utah. The mission of R.E.A.D. is to improve the literacy skills of children through the assistance of registered therapy teams as literacy mentors. ITA web literature indicates that R.E.A.D is the first comprehensive literacy program built around the appealing idea of reading to dogs. Today, hundreds of registered dog teams work throughout the United States and Canada. R.E.A.D. is delivered in the school setting with children reading weekly to the dog and dog handler. Some attempts at collecting oral reading fluency data within this program have been reported (Intermountain Therapy Animals, 1996-2008).

Jalongo and Rench (2005) also explore the Intermountain Therapy Animals R.E.A.D. (Reading Education Assistance Dogs) program. The use of registered therapy dogs to motivate and support children as they practiced reading aloud in the company of the dog and the dog handler was discussed. They specifically noted how the presence of a calm, well trained dog offered a unique form of social support, stress reduction, and enhanced self esteem to the reader. Data from a two- year longitudinal research study at a local elementary school were also presented and noted by the authors as “promising” (p. 154) with all of the children improving their reading scores significantly.

On The Intermountain Therapy Animal website updated in August, 2008 by Executive Director K. Klotz, 15 pages of frequently asked questions about the R.E.A.D. program are provided (Intermountain Therapy Animals, 1996-2008b, Read Program section). In the school setting, the teacher refers children who would benefit most from the program and children read individually to the dog on a weekly basis for 20-30

minutes. When the child reads ten books, he or she is allowed to select a new book to keep which is then “pawtographed” by the dog. The dogs are all certified, registered, and insured therapy dogs and their dog handlers have participated in a unique reading training program before entering the classroom.

The intervention is described as AAT, because specific goals are set for each child, documentation kept, and progress recorded. Regarding evaluation, program administrators indicate that they feel that it is most credible if they go with the school’s own testing instruments, thus, they typically look at the test scores of the children participating. The magic of the program is described as allowing the child to serve as a helper. “When s/he thinks she/he’s helping the dog understand the words and the story, the child gets the empowering feeling of being the helper and teacher – rather than having the whole experience focus on the child’s lack of skill” (Intermountain Therapy Animals, 1996-2008b, Read program section).

#### Tail Waggin’ Tutors Program

Another reading program utilizing dogs is Therapy Dog International’s (TDI) “Tail Waggin’ Tutors Program” where schools and libraries make a written request for therapy dog visits. According to their website, “Children who might be hesitant, embarrassed, or shy about their reading abilities feel at ease around a dog who is just there to listen to the story and not there to judge how well he or she reads.....More confidence in reading could lead to improved grades and improved grades mean happy children and parent” (Therapy Dog International, 2008c, Children Reading to Dogs section).

### Rainbow Animal Assisted Therapy Program

Rainbow Animal Assisted Therapy is an additional organization founded in 1987 that services the city of Chicago and surrounding six-county metropolitan area. In their “Read to the Dog” program, dog teams work with many librarians and allow children to read in 10-15 minute intervals with the dog. As noted on their website, “In this environment, there is no risk of being embarrassed when the child mispronounces a word, reads at a slow speed, or does not comprehend the exact meaning of the sentence” (Rainbow Animal Assisted Therapy, 2008b, Programs section).

Numerous other reading programs utilizing therapy dogs are noted in the literature. “Reading with Rover” is a program sponsored by the King County Library System in the state of Washington ([www.kcls.org](http://www.kcls.org)). In this program companies such as Barnes and Noble and Home Depot collaborate to provide sites in their stores for dog reading teams to meet to help evaluate how the teams adjust to new settings.

### The Sit Stay Read Program

The Sit Stay Read Program is described as a Chicago-based volunteer literacy organization that brings dogs and elementary-aged students together to make reading fun. It was initiated in 2003 and designed in conjunction with literacy specialists from the University of Illinois at Chicago (UIC) to support reading in low income families. It is inclusive of both classroom and community-based activities and is a highly structured program. Regarding efficacy, measures of Oral Fluency Data were used during the 2004/2005 school year with second graders reflecting significantly stronger oral reading fluency gains in the group of children receiving the reading intervention than in the group

that did not; 24 words per minute gained, versus 9 words per minute, respectively (Sit, Stay, Read, 2008).

The Sit Stay Read classroom program is very prescribed and includes an eight week intervention offered once per week for a one-hour session. During the first half hour, the adult volunteer tutors lead the children in a reading activity utilizing a primer book about dogs. A five-step reading process is followed. First, the adult “models” reading by reading the story aloud. Second, adult and students read the story aloud through “choral reading.” Third, the adult engages students in “echo reading,” with the teacher reading a sentence aloud and students mimicking. Fourth, students engage in “paired reading,” with each pair of students taking turns reading alternate pages of the book to each other. Finally, students engage in “guided reading,” whereby the adult listens to each student read at least once during the paired reading. All adult literacy tutors have completed a Sit Stay Read training class and are further directed in each classroom session by a volunteer coordinator who introduces the lesson and helps ensure that the prescribed program is implemented with fidelity.

For the second half hour, students engage in a writing and illustrating activity with written prompts given about the story read. At the completion of the eight-week program, each student’s writings are bound in an individualized book which is laminated and given to the student to keep. Pages for signatures are included at the back of the book with children encouraged to read their book aloud to friends and family and to attain their signatures after the book has been read to them.

Throughout the hour-long session, as the reading and writing activities are being completed, students are pulled individually to read aloud to one of three dog and dog

handler teams situated in three separate areas in the back of the room. The dog handlers are adult volunteers who have completed specialized Sit Stay Read training. All dog handlers and dogs have also met Sit Stay Read standards in order to ensure appropriate dog aptitude and disposition.

Throughout the entire school year, monthly guest readers visit these classrooms, with readings, again, related to the topic of dogs. Additionally, students complete book reports on one of two book report forms provided by Sit Stay Read and log the number of books that they are reading on a classroom chart, with dog related incentives offered to them as they reach particular reading goals. Incentives include items such as dog stickers, erasers, pencils, etc. At the end of the school year, a Reading Rewards assembly is held with all Sit Stay Read participants receiving recognition and rewards. Additionally, all children are given two books to take home at the end of the year, being instructed to keep one for themselves and to give one to a special friend or relative.

#### Evaluation of Animal Assisted Intervention Programs

A review of the literature reflects that few empirical studies have been conducted that quantitatively measure the effect of AAI on individuals' health, educational, or psychological variables. Souter and Miller (2007) conducted a meta-analysis of five research studies to determine if animal assisted activities effectively treated depression. To be included in the meta-analysis, studies had to have used random assignment, a comparison group, and a self report measure of depression. The authors concluded that the aggregate effect size for these studies was of medium magnitude and statistically significant, indicating that AAT/AAA intervention programs are associated with fewer depressive symptoms.

Another study was recently conducted by Velde entitled, “The Development of a Research Evaluation Instrument to Assess the Effectiveness of Animal-Assisted Therapy.” Data from therapists and dog handlers in four western states were analyzed suggesting that this new tool was a useful instrument in “helping provide direction and focus during AAT.” The hope exists that a valid and reliable universal AAT guidance and evaluation tool can be developed and used on a wide scale basis (The Delta Society, 2008e).

#### Evaluation of Animal Assisted Intervention Programs in the Classroom

While the use of therapy dogs in the classroom, specifically to help improve students’ reading skills in a novel and appealing idea, the need for scientifically, researched- based interventions is of paramount importance in education today. RtI, or Response to Intervention, is a current regular and special educational initiative designed to deliver quality instruction and interventions to students, while continually monitoring student progress to achieve desired educational outcomes. According to Fuchs and Fuchs (2006), intervention serves RtI’s two purposes: “to provide struggling students with early, effective instruction and to provide a valid means of assessing learner needs” (p. 95). They further note that the interventions must be evidence-based and implemented with integrity.

Few research studies have been documented that either qualitatively or quantitatively evaluate the efficacy of animal intervention programs that have been initiated in the United States specifically with the goal of improving student reading outcomes.

Kaymen (2005) conducted a qualitative study as a Master's Thesis to explore the ways in which remedial readers responded to reading aloud to a dog at the resource reading lab at a suburban elementary school in California. The program was entitled, "Share a Book" and included four third grade students. The method of inquiry included some direct observation, semi-structured open ended interview, and use of a questionnaire. While the study was limited by a small sample size, major findings included improved focus and motivation of students for reading because of animal assisted therapy being a "fun and nonthreatening experience" (p. 37). In addition to enjoyment of the dog, children also seemed to enjoy the support of the adults reading with them. No mention of the effect of this programming on students' actual literacy skills was made.

#### Future Research with Animals in the Classroom

The human animal bond and animal assisted therapy, animal assisted activity, and animal assisted intervention is gaining in popular acceptance, and with greater frequency, being introduced into higher education multidisciplinary study programs and college curricula. A survey course in Animal Assisted Therapy and Animal-Assisted Activities is being initiated in spring, 2009 at Camden County College in New Jersey. A review of the literature reflects Human-Animal Bond Centers throughout the country at many prestigious universities within Veterinary Schools, Nursing Schools, Medical Schools a Schools of Public Health, and Education Departments. Tufts University, Purdue University, Michigan State University, Washington State University, University of Minnesota, University of Tennessee, and University of Pennsylvania are amongst the schools with established programs where ongoing research is being conducted

([www.Animaltherapy.net](http://www.Animaltherapy.net)). Animal assisted interventions, within the education world, and world of reading more specifically, is gaining momentum.

### Summary and Implications

The premise of engaged learning was explored in the literature review reflecting that it is engaged learning that underlies many successful educational outcomes, including student reading performance. The situative-sociocultural perspective, student-centered learning, social emotional learning, and a subsequent focus on factors including competence, motivation, affect, executive control, authenticity, and learning communities, were all noted as having bearing on students' level of engaged learning. As we continue to address educational programs and practices that work, including dogs in the classroom, research efforts must focus not only on measurable student outcomes but also on the underlying theoretical foundation that supports these outcomes.

The benefits of the human-animal bond have been well documented in the literature for over 50 years with this literature review focusing on how the application of Animal Assisted Intervention, encompassing both Animal Assisted Therapy and Animal Assisted Activity, has expanded from clinical and health settings into the classroom. Professional organizations, including The Delta Society, The Rainbow Therapy Group, and Intermountain Therapy Dogs are some of the groups that have been instrumental in providing resources and training for the successful implementation of educational programs utilizing dogs. The Sit Stay Read program, a unique literacy intervention program pairing children and dogs in the Chicago Public Schools since 2003, was described in detail with the need for program evaluation emphasized.

More than ever, as the Response to Intervention Initiative guides academic programming and the monitoring of student progress in the schools, the identification of scientifically evidenced interventions is paramount. In the area of reading, Oral Reading Fluency was discussed as one of the key indicators of a student's level of skill acquisition, correlating strongly with reading comprehension ability. Therefore, continued use of ORF measures in a reading program that utilizes animal assisted intervention appears justified.

While dogs in the classroom is an exciting venture, research must be conducted that validates the efficacy of such programming in improving student reading outcomes while also investigating the underlying theoretical foundation that supports these outcomes.

## CHAPTER THREE

### METHODOLOGY

The purpose of this study was to analyze and evaluate the effectiveness of the Sit Stay Read program in improving student engagement and reading outcomes. In order for school administrators, teachers, and students to invest precious school time in a unique literacy endeavor, data must support the efficacy of the effort and provide insight into the unique components of the program that contribute to its success. Additionally, if a program, such as Sit Stay Read, yields positive results, then there is opportunity for this program to be replicated, potentially enhancing the learning of an even broader group of students. Furthermore, in order for the sponsoring group to maintain the support of its constituency and to continue to secure financial backing, program evaluation is expected.

According to some researchers, evaluation may be differentiated from research in several ways. While evaluation yields data, research purports to explain. As stated in Cohen (2008), “Proper and useful evaluation can be conducted without producing an explanation of why the product or project is good or bad or of how it operates to produce its effects” (p. 43).

Hence, one of the goals of this research study is to attempt to explain. While reading oral fluency measures and student attendance rates can be measured, the collection of this data alone could be utilized to evaluate the effectiveness of the Sit Stay Read program, but this would not constitute true research. Research implies analysis and goes the extra step, delving into the exploration of the underlying construct. If students oral reading fluency scores and attendance rates improve as a result of participating in the Sit Stay Read program, what are the factors in the learning and instructional environment

which lead students to become more engaged with their learning and advance their educational outcomes?

Data from the pilot study conducted during the 2007/2008 school year suggest that the Sit Stay Read program is successful, but now the research questions go further, focusing on both program analysis and evaluation.

### Research Questions

The research questions to be answered in this study include the following:

1. Do second grade students participating in the Sit Stay Read program demonstrate higher gains in Oral Reading Fluency (ORF) than students not participating in the program? Are there gender differences?
2. Do second grade students participating in the Sit Stay Read program demonstrate higher rates of school attendance than students not participating in the program?
3. What are students' and teachers' perceptions of their learning experience when participating in the Sit Stay Read Program?
4. How do students' and teachers' perceptions of their learning experience in the Sit Stay Read program reflect the construct of engaged learning?

### Research Design

A mixed methodology research design was utilized to investigate the research questions, with core, quantitative inquiry generally supplemented with qualitative inquiry. In addressing the first two questions, related to oral reading fluency scores and attendance figures, a quantitative approach to data collection and analysis was utilized.

The third and fourth research questions, however, related to perceptions of engaged learning, were best addressed through qualitative methodology.

### *Mixed Methods Design*

Mixed methods research is formally defined as “the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language in a single study” (Johnson & Onwuegbuzie, 2004, p. 14). The authors note that quantitative purists believe that research should be objective and that researchers should empirically test their hypotheses, eliminate their biases, and remain emotionally uninvolved with their objects of studies. Qualitative purists, in contrast, believe that research is value bound, emphasizing idealism, humanism, rich observational data, and emotional involvement with the sources being studied.

Researchers, including Denizen, introduced the concept of triangulation in the late 1970s. Denizen defines triangulation as “the combination of methodologies in the study of the same phenomenon” (Johnson, Onwuegbuzie, & Turner, 2009, p. 112). He identifies several types of triangulation, recommending the use of between-methods triangulation, which involves the use of both quantitative and qualitative approaches.

The goal of mixed methods research is to draw from the strengths of both paradigm approaches and to minimize the weaknesses. According to Johnson and Onwuegbuzie (2004), “investigators who conduct mixed methods research are more likely to select methods and approaches with respect to their underlying research questions, rather than with regard to some preconceived biases about which research paradigm should have hegemony in social science research” (p. 23).

Jick (as cited in Johnson, Onwuegbuzie, & Turner, 2007) suggests that mixed method designs and triangulation offer many advantages to the researcher including the following: “a) it allows researchers to be more confident of their results; b) it stimulates the development of creative ways of collecting data; c) it can lead to thicker, richer data; d) it can lead to the synthesis or integration of theories; e) it can uncover contradictions, and f) by virtue of its comprehensiveness, it may serve as the litmus test for competing theories” (Johnson, Onwuegbuzie, & Turner, 2007, p. 115).

According to Morse (2003), when researchers combine and increase the number of strategies used within a single study, the scope and depth of the project are increased resulting in a more complete picture of human behavior and experience. Morse further suggests that in mixed method design, typically either a quantitative or qualitative approach to research is dominant, with supplementary data supplied by use of the research methodology that is not normally described as part of that design. Morse also suggests that methodological triangulation may be either simultaneous or sequential. While simultaneous triangulation represents the simultaneous use of qualitative and quantitative methods, sequential triangulation is used when the results of one methodology are necessary to plan for the use of the alternate methodology (Johnson, Onwuegbuzie, & Turner, 2007; Morse, 2003).

#### *Mixed Methods and Current Research Design*

As stated previously, mixed methodology was utilized in the current study with simultaneous triangulation evidenced. While the quantitative approach was the predominant methodology employed, with the focus on oral reading fluency, qualitative inquiry related to student and teacher interview information was also utilized to explore

the underlying construct of engaged learning which is hypothesized to support Sit Stay Read program efficacy. It was the goal of this researcher to augment oral reading fluency and attendance data with the thicker, richer data provided by teacher and student perceptions of program experiences and benefits.

#### Participants in the Current Study

One hundred and fifty-two second grade students who participated in the Sit Stay Read program during the 2008/2009 school year were selected for the quantitative dimension of this study, along with 98 students in a comparison group who did not participate in the program. Students, collectively, were selected from seven different Chicago Public Elementary Schools with all school identified as low income schools. Students in the program group consisted of students in nine different classrooms coming from six different schools. Students in the comparison group consisted of students in four different classrooms coming from three different schools. Two of the schools were sites for both program and comparison group classrooms. The program participants were selected through the collaboration of Chicago Public School administrators and Sit Stay Read program administrators in accordance with established procedures for school and classroom participation in the program. Second grade students serving as members of the comparison group were also selected by Sit Stay Read program administrators, though this group consisted of students enrolled in classrooms that did not participate in the Sit Stay Read program. One criterion for all schools in the comparison group, however, was that their school administrators desired for them to participate in Sit Stay Read in the future. While student names were not provided to this researcher, gender was indicated.

The criteria for the selection of students for interviews from the program group described above are detailed later in this Methodology section.

In order to assure that the program and comparison groups were comparable in demographic characteristics, it is appropriate to review available demographic data derived from the 2008/2009 Illinois School Report Cards and as noted in Table 1 and Table 2. Considering the six program schools, daily average attendance rates ranged from 90-95 percent, with the percentage of low income students ranging from 93-98. Regarding number of second grade students per class, the average was 19, with the actual numbers of students ranging from 14-29. The percentage of limited English proficiency was less than 1 for five of the schools, with one school being at 20 percent.. Ethnicity was 99-100 percent Black in five of the schools and 69 percent Hispanic and 26 percent Black in the sixth. The mobility rate ranged from 21-37 percent. Finally, considering overall school enrollment, numbers ranged from 253 students to 746.

Considering the three comparison schools, daily average attendance rates ranged from 91-93 percent. The percentage of low income students ranged from 93-98 percent and the average number of second grade students per class was 22. The percentage of limited English proficiency was less than 1 percent for all schools and ethnicity was 98-99 percent Black. The mobility rate ranged from 22-28 and overall school enrollment ranged from 564-572.

Table 1  
*Program School Demographic Profiles-2008/2009*

School	N Students In School	Avg N 2 <sup>nd</sup> graders per class	Attendance rate	% Low Income	% Limited English Proficient	% Mobility Rate	White	Black	% Ethnicity Hispanic	Other
1	253	14	90	98	0	37	0	98	0	2
2	295	16	95	97	0	25	0	99	0	1
3	746	23	90	96	20	33	1	26	69	4
4	564	20	91	98	0	22	0	98	0	2
5	504	19	92	97	1	21	0	99	0	1
7	538	29	93	93	0	28	0	99	0	1

\*Note: Information obtained from Illinois State Report Card.

Table 2  
*Comparison School Demographic Profiles-2008/2009*

School	N Students In School	Avg N 2 <sup>nd</sup> graders per class	Attendance rate	% Low Income	% Limited English Proficient	% Mobility Rate	White	Black	% Ethnicity Hispanic	Other
4	564	20	91	98	0	22	0	98	0	2
6	572	16	91	94	0	29	1	99	0	0
7	538	29	93	93	0	27	0	99	0	1

\*Note: Information obtained from Illinois State Report Card

### *Adult Participants*

Four teachers were selected for classroom interviews, with three of these teachers randomly selected and the fourth chosen due to her involvement with the program since its inception. The executive director of the Sit Stay Read program was also selected for interview as this researcher wished to explore her knowledge and insights about the program as she has also been with the program since its inception.

### Sit Stay Read Program

As described in Chapter Two, Sit Stay Read is a very prescribed program and includes an eight-week intervention offered once per week for a one-hour session. During the first half hour, three adult volunteer tutors lead their own small group of children in a reading activity utilizing a primer about dogs. A five step reading instructional process is followed. First, the adult “models” reading by reading the story aloud. Second, adult and student s read the story aloud through “choral reading”. Third, the adult engages students in “echo reading” with the teacher reading a sentence aloud and students mimicking. Fourth, students engage in “paired reading,” with each pair of students taking turns reading alternate pages of the book to each other. Finally, students engage in “guided reading,” whereby the adult listens to each student read at least once during the paired reading. All adult literacy tutors have completed a Sit Stay Read training class and are further directed in each classroom session by a volunteer coordinator who introduces the lesson and helps ensure that the prescribed program is implemented with fidelity.

For the second half hour, students engage in a writing and illustrating activity with written prompts given about the story read. At the completion of the eight-week

program, each student's writings are bound in an individualized book which is laminated and given to the student to keep. Pages for signatures are included at the back of the book with children encouraged to read their book aloud to friends and family and to attain their signatures after the book has been read to them.

Throughout the hour-long session, as the reading and writing activities are being completed, students are pulled individually to read aloud to one of three dog and dog handler teams situated in three separate areas in the back of the room. The dog handlers are adult volunteers who have completed specialized Sit Stay Read training. All dog handlers and dogs have also met Sit Stay Read standards in order to ensure appropriate dog aptitude and disposition.

Throughout the entire school year, monthly guest readers visit these classrooms, with readings, again, related to the topic of dogs. Additionally, students complete book reports on one of two book report forms provided by Sit Stay Read and log the number of books that they are reading on a classroom chart, with dog related incentives offered to them as they reach particular reading goals. Incentives include items such as dog stickers, erasers, pencils, etc. At the end of the school year, a Reading Rewards assembly is held with all Sit Stay Read participants receiving recognition and rewards. Additionally, all children are given two books to take home at the end of the year, being instructed to keep one for themselves and to give one to a special friend or relative.

#### Data Collection Measures

In accordance with mixed methods research, both quantitative and qualitative measures were utilized. The quantitative measures include the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) and Attendance Statistics. DIBELS was selected as

a measure of oral fluency as it was a goal of this research to assess students' reading skills. Attendance data was also reviewed as it was hypothesized that students who participated in the Sit Stay Read program may attend school more regularly than those who do not.

The qualitative measures consist of student, teacher, and executive director interviews along with researcher observation of the program. It was the goal of this researcher to explore individuals' perceptions of the Sit Stay Read program and to reflect on how these perceptions may support the construct of engaged learning.

#### *Dynamic Indicators of Basic Early Literacy Skills (DIBELS)*

DIBELS is described as a set of procedures and measures for assessing the acquisition of early literacy skills from kindergarten through grade six. These measures were specifically designed to assess the "Big 5" of literacy, namely phonemic awareness, phonics skills, fluency, vocabulary, and comprehension. All of the measures are linked to each other, psychometrically and theoretically, and have been found to be good predictors of students' later reading proficiency. Oral reading fluency, in particular, is known to correlate strongly with students' reading comprehension ability and is typically used as one of the second grade reading benchmarks (University of Oregon, 2008).

The Oral Reading Fluency Measure of the DIBELS is described as follows:

DIBELS is a standardized, individually administered test of accuracy and fluency with connected text. The ORF passages are designed to a) identify children who may need additional instructional support, and b) monitor progress toward instructional goals. Student performance is measured by having students read a passage aloud for one minute. Words omitted, substituted, and hesitations for more than three seconds are scored as errors. Words self corrected within three seconds are considered correct. The number of correct words per minute from the passage is the oral reading fluency score. DIBELS ORF includes both benchmark passages to

be used as screening assessments across the school year as well as 20 alternate forms for progress monitoring. (University of Oregon, 2008)

Regarding technical data, the DIBELS is a highly regarded instrument with second grade ORF data referenced as follows: test-retest reliability .92-.97, alternate form reliability .89-.94 and criterion-related validity .52-.91 (University of Oregon, 2008).

#### *Attendance Statistics*

Chicago Public School 2008/2009 end of year attendance figures were released to Sit Stay Read program administrators for the second graders selected for this study from the seven participating schools. Information was not attainable from all buildings, however. School enrollment was based on 170 days of attendance.

#### *Interviews and Researcher Observation*

Three semi-structured interview protocols were developed by this researcher to explore students' and adults' perceptions of the program and to reflect on how these perceptions support the construct of engaged learning. The three interview protocols developed included, a Teacher Interview protocol (see Appendix A), a Sit Stay Read Executive Director Interview Protocol (see Appendix B), and a Student Interview Protocol (see Appendix C). The interviews included open ended questions and a Likert rating scale, with the Likert ratings for the children reflecting the use of smiley face response cues (see Appendix D).

This researcher observed the program in its entirety as being implemented in a second grade classroom during the fall of 2008. The goal was to become more familiar with the program and to observe student and teacher responses to the instructional setting.

## Procedures

### *Consent Forms*

Student consent forms for participation in the Sit Stay Read program were obtained in accordance with established Sit Stay Read procedures at the start of the 2008/2009 school year (see Appendix E). An additional consent form was developed by this researcher and written in English and Spanish (see Appendices F and G) allowing for second grade students to be interviewed about the program. Finally, an adult consent form was developed by this researcher allowing for teachers and Sit Stay Read executive director to also be interviewed about the program (see Appendix H).

### *DIBELS Data Collection*

To address the first research question, an established measure of oral reading fluency was administered to second grade students, in both the program and the comparison groups, in order to assess their oral reading fluency skills. Classroom teachers in the selected schools, in accordance with established Chicago Public school practice, administered the Oral Reading Fluency (ORF) measure of the Dynamic Indicators of Basic Early Literacy Skills, or DIBELS, to all second graders at three intervals throughout the 2008/2009 school year. These data were gathered during the months of September, 2008, January, 2009, and May, 2009. All ORF data from second graders participating in the Sit Stay Read program the 2008/2009 school year, as well as for second graders serving in the comparison group, were collected and recorded by Sit Stay Read program administrators and this researcher in June, 2009.

### *Collection of Attendance Data*

To address the second research question regarding student attendance, second grade attendance data for the 2008/2009 school year were gathered from Sit Stay Read program administrators' review of students' annual attendance records. These data were attempted to be attained for both the students participating in the Sit Stay Read program, as well as for the students serving in the comparison group of students who did not participate in the program. Available attendance data was collected and recorded by Sit Stay Read administrators and this researcher in June, 2009.

### *Interviews*

In order to address the third and fourth research questions related to students' and teachers' perceptions of the program and how these perceptions may support the construct of engaged learning, this researcher gathered qualitative information about the instructional setting and learning environment. Evidence of the scaffolding of student competence, school membership, and authentic work completion was explored. This was done through:

1. Semi-structured interviews with 4 classroom teachers, semi-structured interviews with 13 second grade students, and a semi-structured interview with the Sit Stay Read executive director were conducted. The teachers were selected from two different schools where the program is implemented, with the demographics of the two schools representing the demographics of the collective group of seven schools. Students were asked to have parents sign and return a permission form in order to be interviewed. Those selected to be interviewed were chosen from the pool of students who returned permission

forms through a combination of teacher recommendation and random selection. Regarding teacher recommendation, if the teacher believed that a particular student has been strongly influenced by the program, this researcher wanted to know this and wanted the opportunity to speak to this student to explore the components of the program that were particularly motivating for him. All interviews were tape recorded.

2. The program was observed in its entirety while being implemented in a second grade classroom. This researcher attempted to intuitively develop an understanding of the program, exploring those factors in the instructional environment that appeared to promote the construct of engaged learning as discussed in the Literature Review of this document.

#### Pilot Study

As mentioned in Chapter One, in accordance with coursework completed by this researcher in one of her advanced research classes taken during the 2007/2008 school year, some preliminary data related to Oral Reading Fluency were collected and analyzed in May, 2008. At that time second grade data were analyzed for 50 students; 21 of these students were in the program group and had participated in the Sit Stay Read program and 29 students were in the comparison group whereby they were not exposed to the program. DIBELS Oral Reading Fluency scores were obtained from September, 2007 and January, 2008 assessments. A subsequent Multiple Analysis of Variance (MANOVA) was conducted in order to determine if there was a statistically significant difference between the program group receiving Sit Stay Read intervention and the comparison group, not receiving the intervention with regard to the dependent variables

measuring reading skill, Oral Reading Fluency and Words Uttered Fluently. Results of the analysis indicated that there was a statistically significant difference between beginning and midyear reading scores of the students who received the reading intervention program and those who did not, with an F value of 10.707 ( $p < .001$  level). Students in the program group raised their oral reading fluency by 38 words per minute while students in the comparison group only raised their oral reading fluency by 27 words per minute.

### Data Analysis for the Current Study

#### *Oral Reading Fluency*

Oral Reading Fluency scores from the Dynamic Indicators of Basic Elementary Literacy Skills (DIBELS) were collected at the beginning and the end of the 2008/2009 school year for both second grade students participating in the Sit Stay Read program as well as for students in the comparison group. A repeated measures analysis of variance (ANOVA) was conducted in regard to the change in the oral reading fluency scores from the beginning to the end of the year. This analysis also determined if there was a statistically significant difference in Oral Reading Fluency between the group receiving the Sit Stay Read intervention and the comparison group that did not receive the intervention. An Analysis of Covariance (ANCOVA) was also conducted to determine if the difference was statistically significant while controlling for the variation in beginning Oral Fluency scores within both groups.

*Attendance*

Beginning and ending 2008/2009 attendance data were analyzed for both the students participating in the Sit Stay Read program and for the students in the comparison group. A t- test was conducted to determine if there was a statistically significant difference between the attendance rates of the two groups.

*Construct of Engaged Learning*

Data from student, teacher, and Sit Stay Read executive director interviews, along with researcher observation, were analyzed qualitatively and themes related to engaged learning extracted.

## CHAPTER FOUR

### RESULTS

The purpose of this study was to analyze and evaluate the Sit Stay Read program and determine if the program is successful in improving student engagement and reading outcomes. This chapter includes quantitative and qualitative data collected through employment of mixed methods research methodology.

#### Quantitative Data Analysis

The first two research questions this study sought to answer were as follows:

- Do second grade students participating in the Sit Stay Read program demonstrate higher gains in Oral Reading Fluency than those not participating in the program and are gender differences evident?
- Do second grade students participating in the Sit Stay Read program demonstrate higher rates of attendance than those not participating in the program and are gender differences evident?

These questions were answered by analyzing oral reading fluency and attendance data gathered during the 2008/2009 school year.

#### *Oral Reading Fluency Data*

As stated in Chapter Three, Methodology, Oral Reading Fluency data from 152 second graders participating in the Sit Stay Read program during the 2008/2009 school year was analyzed, along with ORF data from 98 students serving in a comparison group. The distribution of gender is presented in Table 3.

Table 3  
*Participants*

Group	Male	Female	Total
Program	92	60	152
Comparison	50	48	98

An Analysis of Covariance (ANCOVA) was conducted to determine if there was a statistically significant difference between oral reading fluency scores (ORF) of the group participating in Sit Stay Read and the comparison group not participating in the program, including gender as an additional independent variable. Results of the analysis indicate that there was a statistically significant difference between Beginning and End of the year oral fluency scores for the students who participated in the program and those who did not with  $p$  at the  $<.02$  level ( $F= 5.784$ ). The estimated marginal means, adjusted means, for the ending Oral Reading Fluency scores was 78.38 for the program group and 71.04 for the comparison group. No significant gender differences were noted.

Considering descriptive statistics, the mean ORF beginning score of the program group was 38.69 and the mean end of the year ORF was 81.9, reflecting a gain of 43.32. For the comparison group, the mean ORF beginning score was 27.62 and the ending ORF was 62.73 reflecting a gain of 35.11 (see Table 4).

Table 4  
*Oral Reading Fluency Score Means*

	All		Program group		Comparison group	
	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Beginning of year	34.37	25.24	38.69	27.05	27.62	20.49
End of year	74.54	38.87	81.90	41.10	62.73	31.78

Regarding gender, for the females in the program group, the mean ORF beginning score was 47.68 and the mean ending ORF was 93.39. For the females in the comparison group, the mean beginning ORF was 32.67 and the mean ending ORF was 69.96 (see Table 5).

Table 5  
*Oral Reading Fluency Scores by Gender (Female)*

	M All Females	M Program Females	M Comparison Females
Beginning of year	41.01	47.68	32.67
End of year	83.49	93.69	69.96
Beginning to end of year	42.48	46.01	37.29

For the males in the program group, the mean beginning ORF was 32.88 and the mean ending ORF was 73.80. For the males in the comparison group, the mean beginning ORF was 22.78 and the mean ending ORF was 55.92 (see Table 6).

Table 6  
*Oral Reading Fluency Scores by Gender (Male)*

	M All Males	M Program Males	M Comparison Males
Beginning of year	29.35	32.88	22.78
End of year	62.48	73.80	55.92
Beginning to end of year	33.13	40.92	33.14

Considering school differences, beginning oral reading fluency mean scores for the program group ranged from 23.42-57.74 while ending scores ranged from 59.45 to 112.9. Beginning oral reading fluency scores for the comparison group ranged from 20.11 to 29.82 while ending scores ranged from 57.73 to 64.67. Descriptive data for program schools versus comparison schools is also provided (see Tables 7 and 8).

Table 7  
*Oral Reading Fluency Scores – by Program Schools*

School	Number of Students	Beginning of Year	End of Year	Gain
1	37	34.00	79.19	45.19
2	16	45.56	96.18	46.06
3	21	32.60	59.45	28.95
4	19	23.42	77.21	54.53
6	19	57.74	112.90	58.94
8	42	41.38	78.19	36.81

Table 8  
*Oral Reading Fluency Scores – by Comparison Schools*

School	Number of Students	Beginning of Year	End of Year	Gain
5	57	29.82	63.93	33.98
6	20	20.11	64.67	48.42
7	22	28.41	57.73	29.32

#### *Analysis of Attendance Data*

Attendance data reflect no statistically significant difference in the number of days attended by students in the program group versus students in the comparison group. Data from 71 students in the program group were analyzed reflecting an average school year attendance of 158.6 days with a standard deviation of 18.7. Data from 52 students in the comparison group was analyzed reflecting an average school year attendance of 156.5 days with a standard deviation of 13.35. School year attendance was based on 170 days of enrollment, with students needing to attend at least 145 days in order for their data to be included in this study.

#### Qualitative Analysis

As discussed in Chapter Three, Methodology, mixed methods research may support the use of qualitative, interpretive data to support quantitative findings. In this research study, while student Oral Reading Fluency and attendance data were collected to help evaluate the effectiveness of the Sit Stay Read program, interview data with teachers, students, and the program's executive director was also solicited to look at the program more analytically. This information was gathered to review individuals'

perceptions of the programs and to determine if these perceptions help to support the construct of engaged learning discussed in the Literature Review of this dissertation. The questions this research sought to answer were as follows:

- What are teachers and students' perceptions of their learning experience when participating in the Sit Stay Read program?
- How do students' and teachers' perceptions of their learning experience in the Sit Stay Read program reflect the construct of engaged learning?

Interview data are presented below with a discussion of the construct of engaged learning reserved for the final chapter, Chapter Five.

#### Teachers' Perceptions of the Program

##### *Overall Success and Key Features of the Program*

Four second grade teachers were interviewed individually, all of whom had participated in the program for 2-5 years. Each teacher presented as very enthusiastic about the program and felt that the program was successful because it carried out its mission to help encourage children to read and is a valuable use of class time. They noted that the program is motivating for students, emphasizing how it helps them to develop their reading skills and to take pride in their work. Excerpts from teacher interviews include the following:

Interviewer:

Do you think Sit Stay Read is successful?

Teacher #1:

Yeah. Children lack a real life experience. The program is like science – book science. It's interactive. It's hands on. Students can smell, touch, listen, read, write, and draw. You can smell the wipers. It's part of the experience. There's discussion before and after. The children can connect and relate. All of the components are connected.

Teacher #2:

Yes. It carries out its mission to provide a therapeutic environment for kids to read. It gives books to kids. Kids get to take one book home...one for the child and one for them to give to someone else.

Teacher #3:

Yes. Each year there's really one student who shines. (Name) was a non reader. He did so many book reports.....

Teacher #4:

...I was a skeptic at first. When I was told I'd lose an hour a week, I couldn't wrap my head around it... But I saw how organized it is and the kids caught on to it very quickly and really got excited about reading....

When teachers were asked about the best features of the program, their comments included that it was fun, organized, and that having the dogs in the classroom was exciting. Additionally, the program was described as well constructed, with strong scaffolding built into it so that lessons were presented like guided reading lessons. The teachers also noted that the program was very predictable, meaning that program administrators always followed through with what they said they were going to do. Excerpts from interviews are provided below.

Interviewer:

What do you think are some of the best features of the program?

Teacher #1:

The dogs. The pet aspect calms children down. The dogs are empathetic listeners...

Teacher #2:

It's the consistency and the routine. Children are given directions on expectations. Kids get to be in small groups, they read aloud. There's peer sharing, taking turns. They learn to respect one another. They listen critically. They learn to get along...

Teacher #3:

.....They arrived on the appointed day and on time. If children were told they would receive prizes and that there would be an awards day, there were prizes and awards. If the children were told they would make a book and take it home, they did this, too.

Teachers were asked to rate each of the following components of the Sit Stay Read program based on a 5-point Likert scale, with 5 as the highest rating, and 1 as the lowest rating. The averages for the three teachers in each of these areas are listed in Table 9.

Table 9  
*Teacher Likert Ratings of Individual Program Components*

Component	Mean	Standard Deviation
Adult reading/writing facilitators	4.75	.43
Reading activity with adult facilitator	4.12	1.03
Writing activity with adult facilitator	3.88	.85
Final laminated book made by children	4.88	.25
Guest readers during the year	4.75	.5
Reading incentive chart and prizes	4.88	.25
Presence of the dog and dog hander	4.63	.75
Child reading to the dog	5.00	0

When asked why reading to the dog was so important, teachers mentioned that the dogs were nonjudgmental and were good listeners. They noted that the children looked forward to the dogs coming and seemed to be calmer on those days as well. Two teachers stated that the dogs were “the really fun part.”

The teachers also mentioned the importance of the reading incentive chart and reading rewards for the children. They reported that children really liked recording their book reports, getting prizes along the way, and being recognized in the January and May Reading Rewards sessions. For many students, they indicated, the competitive nature of the program, trying to reach a certain number of books read, was highly motivating for them. Excerpts from teacher interviews appear below:

Interviewer:

Why is reading to the dogs so important?

Teacher #1:

The dogs are fun. It's out of the ordinary. It's motivating. Kids come in excited. They tell others about it.

Teacher #2:

At the end of the day, all of the kids wanted to go to the dogs.

Teacher #3:

It's fun. They try. Someone is listening. Ninety percent of the kids are dying to go visit the dogs.

### *Additional Learning*

Teachers were also asked about the impact of the Sit Stay Read program on students' behavior skills and affect, interest in dogs, attendance, motivation and effort, task focus and responsibility, and general classroom climate and cooperative learning skills.

Teachers reported that the program seems to have a calming effect on their students for hours afterward and sometimes, for the entire school day and that there are

very few behavioral incidents on those days. One teacher shared the following anecdote as described below.

Interviewer:

What impact, if any, do you think the program has had on your students in the area of student behavior?

Teacher #1:

There are no behavior issues...When a teacher in a different Sit Stay Read classroom, was absent, a substitute teacher was having difficulty controlling the classroom and was going to cancel the Sit Stay Read session. Sit Stay Read staff encouraged him to let them come, and students were great. They calmed down right away. The sub couldn't believe it.

Regarding student interaction skills, teachers noted that they enjoyed the cooperative nature of the lessons because students listened to each other read, took turns reading, and seemed to learn to get along with each other and practice the use of good manners. Because children were heterogeneously placed in their reading groups, students learned to respect one another and showed patience and kindness with one another as well. Children seemed to be very aware of Sit Stay Read days, knowing that Monday was their day, for example, and cheering when it was Monday morning. Regarding attendance, teachers felt that students did not want to be absent on a Sit Stay Read day.

Excerpts from one of the teacher interviews appear below:

Interviewer:

Can you tell me what impact, if any, the program has on your students in the area of cooperative learning?

Teacher #1:

...I like that everyone succeeds. No one gets pulled out of the room. My special needs kids have come a long way. The lower level learners get judged when they're in their small groups. But with Sit Stay Read this doesn't happen. They get to show off. It's a way to bring the class together as a team.

Teacher #2:

Students clean up before they come. It's like having invited guests. We have follow up discussion afterwards.

Teacher #3:

It's one more way to bring the class together as a team.

Regarding the dogs, the teachers mentioned that the majority of their students did not have a pet dog at home and that many of the children had been exposed to improper use of dogs in fighting situations. While some students expressed fear at the beginning of the sessions, this reportedly quickly dissipated. No teachers reported any children not wishing to read with the dog several sessions into the program. Teachers also stated that students learned about dog safety in the program, along with dog care and information about dog breeds.

#### *Sit Stay Read Compared with Other Reading Programs and SES Groups*

Teachers were asked how the Sit Stay Read program compared with other reading intervention programs that they might currently be using or have used in the past. The teachers spoke highly of Sit Stay Read noting that with other programs, there was often not the same student enthusiasm generated, nor the same predictableness and clearness of expectations as evidenced in the Sit Stay Read structure. One teacher noted that she loves the thematic nature of the program, using a dog theme in her classroom throughout the entire school year. For example, on non Sit Stay Read days she may conduct guided reading sessions with children, with children grouped by a particular dog breed name. Teachers also noted that because there are so many capable adults in the classroom on program days, it affords them the opportunity to be more diagnostic in their role as teachers. Excerpts from some of the teacher discussion appear below:

Teacher #1:

It's nice to be in class but not running the show. You can pull kids aside. It's informative for the teacher. It lets me see students' authentic writing.

Teacher #2:

Other programs are school based. People coming in from outside is what makes it special. The themes make it fun.

Teacher #3:

Other programs are sterile, narrow. They're unpredictable, sometimes boring. Kids try (with Sit Stay Read) because someone's listening.

Teacher opinion varied on whether or not they thought the Sit Stay Read program would serve students of higher SES as well as it seems to serve their disadvantaged student population. While most thought there would be benefit for all students, two of the teachers thought the benefit would not be as great for the more advantaged students because they would most likely be familiar with key components of the program including pets, visits to the library, making connections between real life and what they are reading, making their own books, etc. One teacher felt that more advantaged students would benefit equally, however, noting that she was familiar with a literacy program that used dogs successfully with identified gifted students. Regarding appropriate age levels for the program, teachers felt that this program was suitable for primary classes and probably not as effective beyond the third grade. As one teacher noted, "Beyond the third grade the program probably couldn't capture the children's imaginations."

### *Suggestions for Changes to the Program*

The teachers seemed to be very satisfied with the Sit Stay Read program and would love to have the program extended, either by introducing it several days a week or by extending the program beyond the eight week prescribed time frame. When pressed on what suggestions for improvement they might have, teachers offered the following:

Teacher #1:

More physical classroom space would be helpful. I have a large class of second graders and 7 extra people, plus dogs, creates a crowded setting. Getting more books on their levels would be good.

Teacher #2:

Adult volunteers would benefit from training in special needs and inclusion. Knowing how to better work with a student with autism....helping a student who stutters...would be helpful.

Teacher #3:

It's a perfect program. I wouldn't change a thing.....Ok, maybe we could have it more often....In a perfect world...Ok, three times a week.

### Students' Perceptions of the Sit Stay Read Program

Thirteen second grade students were interviewed in June, 2009, all of whom had participated in Sit Stay Read in either October/November of 2008 or January/February of 2009. Students were first asked how they liked the program and then if they thought the program was fun. All 13 students described the program as either "fun" or "good". They typically said that "you get to read to the dogs, play with them, rub or pet them, and feed them treats." Some children also reported that "you get to do book reports, read dog stories, learn about dogs, write books, and get prizes." Others noted that "the dogs lick you and sometimes do tricks." Overall, students emphasized that the program was fun

and that they loved interacting with the dogs. Many children commented on dogs by name, telling me, for example, that they liked “Laverne” or “Black Bear”.

Students were asked to rate each of the following components of the Sit Stay Read program based on a 5-point Likert scale facilitated by the use of smiley face prompts. Five was the highest rating, correlating with a broad smiley face and one was the lowest, correlating with a frown face (see Appendix D). The average ratings for the 13 second grade students in each of the areas are listed in Table 10.

Table 10  
*Student Likert Ratings of Individual Program Components*

Program Component	Mean	Standard Deviation
Reading in your small group	4.46	.75
Writing in your small group	4.85	.36
Making a book	4.77	.58
Having Guest Readers	4.77	.58
Using the reading chart and getting prizes	4.62	.84
Having dogs in your classroom	4.69	.61
Having extra grown ups in your classroom	4.54	.75
Talking, reading, writing, and learning about dogs	4.92	.27
Reading to the dog	5.0	0

### *Discussion of Program Through Student Interviews*

Students were asked if they thought that Sit Stay Read was making them better readers and writers. All students said yes, with responses reflecting that they read more now and that the program helps them to read. One student reported, “I used to read like a robot, but now I read better.” Another student said, “It gives you better ideas and makes you smarter.” A third student stated, “They teach me harder words and how to sound words out.” Several students also noted that they now read chapter books and several students commented on the day of the week that Sit Stay Read came to their class, noting, for example, that “Tuesday is Sit Stay Read.”

When asked what they learned about dogs, children were generally quite talkative. They discussed how to be safe around dogs, reported how dogs come in different sizes and breeds, and noted that dogs can be trained. One student shared that “you can’t let your dog run away”. Another child said that “if you see a dog, stay still and it will sniff you and not bite you. If you run, it will chase you”. Children also talked openly about different stories that they read during the year, naming book titles such as *Mudge* and *Pizza for Sam*, and describing story characters and plots in detail, at times, seemingly as if these books had made a strong impact on them.

When asked about other adults’ reactions to the program, including their parents and their teachers, most students felt that their teachers really liked the program and some reported talking about the program at home. Children most frequently reported telling others about the dogs and about things they learned about dog safety.

When asked about class behavior and the program, children typically reported that their classmates behaved “good”. Some said that their classmates were better on program

days than on other days though one student noted that the children “talk very loud”, another reported that they “said bad words”, and a third student said that children acted “the same”. Several students reported that you have to be quiet around the dogs. When asked how they felt if they had to miss school on a Sit Stay Read day, children generally reported that they would be “sad” or “wouldn’t like it”.

Finally, when asked if they had any special stories to tell, students typically did not have any anecdotes to share, but did mention books that they read or specific dogs who they liked or with whom they had interacted.

#### Sit Stay Read Executive Director’s Perceptions

When asked what she considers to be the most valuable aspects of the program, the executive director noted that since the focus is on literacy, and since this is the mission of Sit Stay Read, that literacy is the most important single component. She expressed how the side benefits are fabulous, such as improved student attention and cooperation, and noted that many of these behavioral and affective components are encompassed seamlessly. When asked if she thinks the program is successful, she emphatically said yes, noting that if you were to walk into a classroom, you would see the program in action and note how engaged the students were with the class activities.

When asked about the program’s impact on teachers, the director stated that Sit Stay Read gives them a chance to enjoy their students, since they can listen to their students read without having to lead the class as a whole. She emphasized how the program “gives them tools” and that “the longer they have had the program, the more they get out of it”. She stated, for example, that students tend to log more books read during the school year the longer that the teachers continue with the program.

When asked how the program impacts students, the director noted that the students learn “respect for the dogs, how to be safe around dogs, and how not to be afraid”. She reflected on how students like their “book buddies” (adult volunteers) and how they seem to emulate the volunteers, volunteers who tend to model good behavior rather than preach about it. She also noted that students seem to form attachments to the volunteers and miss the adults if they are not present at school on program days. If a dog cannot come to school on a regularly scheduled day, the adult volunteers typically come anyway so as not to disappoint the children nor change their routines. The director was also asked if she had any unique anecdotes to share about the program, with some of these anecdotes depicted in the transcription presented below.

Executive Director:

.... If a dog is sick we ask the team handler to come without their dogs.. They still come and the kids sit on the blanket without the dog. The kids get to read to them. They get to ask what’s going on with the dog...We’d say (dog name) wasn’t feeling well. The kids all wanted to know how she was doing. We said she’s doing fine. She’ll be back next week. One little boy asked if they could send letters to (dog name). We said yes, but first you have to finish your stories. We never saw kids get done with their stories so quickly so they could write letters to (dog name). We love getting the letters.

.....One of our first volunteers was 80 years old. She would have trouble hearing. She would feel so bad and say, “Honey, I didn’t hear you”. They would say, “It’s ok (name). They were showing compassion for her. They were protective of her and taking care of her.

.....There’s a parent. Yesterday we got a personal donation. We all were in tears and had goosebumps. We don’t usually get to see parents. Parents aren’t very involved. She happened to be in the school that day on student celebration day. She said the program really brought the best out in her son. He was really reserved and withdrawn. He’s much more outgoing since the program, which doesn’t really have to do with reading. But he’s on top of it now and loves reading. I found out that the second grade teacher told the third grade teacher, “Oh, he’s going to love Sit Stay Read and the dogs. You can push him on that because he loves the program. You’ll really be able to get him engaged because of that”. So they used it.

Finally, when asked about what changes she would make to the program, the director noted that she holds a focus group at the end of the school year where she solicits feedback from the participating teachers. Teachers tend to be very enthusiastic about the program and once involved with the program, continue to request it in subsequent years. There has been some discussion related to employment of the program with special education students and differentiation of classroom books used during the whole group reading instruction. The director noted, again, that there is a long waiting list for the program, leading her to believe that they must be doing a lot of things right.

## CHAPTER FIVE

### DISCUSSION, IMPLICATIONS, AND CONCLUSIONS

In this chapter, I attempt to integrate the results of this study, discussing both quantitative and qualitative data in my analysis and evaluation of the Sit Stay Read program. I sought to determine if the Sit Stay Read program was effective in improving student reading outcomes while also exploring the construct of engaged learning which was presupposed to underlie the program's structure having a positive effect on students' motivation for reading. With educators' emphasis on Response to Intervention today and the necessity of interventions reflecting scientific, research based evidence as to their efficacy, this research has broad implications for the validation of a unique, literacy intervention program.

#### Discussion of Oral Fluency Data - Program versus Comparison Groups

The first research question addressed was "Do second grade students participating in the Sit Stay Read program demonstrate higher gains in Oral Reading Fluency (ORF) than students not participating in the program and are gender differences evident?" Data reflect that students participating in the program did demonstrate statistically significantly higher gains in ORF than those not participating in the program. Students participating in the program had a beginning oral reading fluency mean score of 38.69 and an ending oral reading fluency mean score of 81.90; students in the comparison group had a beginning oral reading fluency mean score of 27.62 and an ending oral reading fluency mean score of 62.73. This reflects a gain of 43.21 words per minute (wpm) for the Sit Stay Read group and only a gain of 35.11 for the group not exposed to the program, a difference of 8.1 words per minute (wpm). Given that the average gain in ORF for all second grade

students was 40.17, a gain of 8.1 reflects a 20 percent improvement in oral reading fluency outcome for the students participating in Sit Stay Read.

Furthermore, when individual schools in the comparison group are considered, this gain is even greater in some settings with up to a 14 wpm difference demonstrated. Because students in the program group and students in the comparison group did not begin with comparable Beginning Oral Fluency scores, (a mean of 38.69 versus a mean of 27.62), an Analysis of Covariance was conducted to control for the difference in the means at the beginning of the study. With this statistical analysis, the estimated ending oral fluency score for the program group and comparison group, respectively, was 78.38 and 71.05, a difference of 7.33. This difference is also statistically significant, suggesting that if all students could have started out with comparable beginning fluency scores, the program group would have scored at least seven points higher than the comparison group.

#### Discussion of Oral Reading Fluency Data – Gender Differences

Considering gender differences, girls tend to outperform boys overall, with girls demonstrating higher beginning and ending oral fluency scores as well as gains in ORF throughout the school year (see Tables 8 and 9). This finding is consistent with that of other researchers including Ketterlin –Geller and Tindal, (2004) who found that in a study of other 1000 third graders, girls outperformed boys in oral reading fluency mean scores. With a spring assessment, the girls’ mean score was 112 wpm while the boys mean score was 100 wpm, reflecting a statistically significant difference.

In the current research the average gain for girls was 42.48 and the average gain for boys was 33.14. Girls in the program gained 46.01 wpm, and boys gained 40.92; girls in the comparison group gained 37.29 and boys in the comparison group gained 33.14.

Though these differences were not found to be statistically significant, the scores suggest that girls may respond somewhat more positively to the Sit Stay Read program than do the boys.

#### Interpretation of Current ORF Data and Pilot Study Data

In looking at the data, unique factors must be considered that may have bearing on ORF scores. It was reported in the results of the pilot study conducted during the 2007/2008 school year that the average gain for students in the program group as compared to students in the comparison group was 11 wpm. Current results, while statistically significant at 8 wpm, are somewhat lower in comparison. In reflecting on the possible reasons for this difference, it must be noted that both the program and comparison groups differed considerably in some ways during the two school years. First, the sample size used for the pilot study was considerably smaller than that used in the current study with only 21 students in the pilot program and 29 students in the comparison group. The current study had 153 students in the program group and 98 in the comparison group. Furthermore, students in the pilot study program had received the program for several years while the class that comprised the comparison group, did not report using any other significant reading intervention programs during the school year. The significance of this last statement will be better understood through the discussion of limitations that is to follow.

Per the report of the executive director of Sit Stay Read, the full benefit of the program is not typically expressed during its first year of implementation in a particular school. School number 8, which represented 46 students, was exposed to the program for the first time during the 2008/2009 school year. It had an ORF gain of 36.81 when the

mean gain for schools with the program was 43.21. Thus, ORF gains may be higher in future years as the class and teachers become familiar with the components of the Sit Stay Read program and work with students to maximize their benefits from it.

When considering the comparison groups, other reading intervention programs that were employed in those classrooms must also be regarded as having possible benefit on student reading outcomes. In school number 5, for example, which represents 57 students of the 98 in the comparison group, it is reported that three other reading intervention programs were in place, Reading is Fundamental, Book Worm Angels, and Great America. These programs provide reading incentive for children and bring additional books into the classrooms and into children's homes. It is to be expected that reading oral fluency scores in this comparison group, where outside reading intervention programs were utilized, would be higher than those in schools that were not involved with other reading incentive programming. In school number 7 in the present study, for example, where no reading incentive programs were reported, students in the Sit Stay Read program outperformed students in this classroom by 14 wpm, as opposed to the 8 wpm in the overall comparison group.

Differences in gender composition of the program and control groups may also have had some effect on ORF results. Ninety-two males were in the program group and 60 females. While no statistical difference was noted for the interaction of gender and program type, descriptive data reflects that girls responded somewhat more favorably to the program than did boys. Perhaps, if a larger same of girls had been in the program group, Oral Reading Fluency gains may have been even larger than those presented.

### Discussion of Attendance Data

The second research question asked was “Do students in the Sit Stay Read program demonstrate higher rates of school attendance than those not participating in the program?” The data suggest that no significant difference was noted with students in the program attending an average of 158.6 days and students in the comparison group attending an average of 156.5 days. Data for only 71 students in the program group were collected, however, and for only 52 students in the comparison group. While student full year enrollment is based on 170 days of attendance, in order to have attendance data counted in this study, it was decided that students needed to have been enrolled in school for at least 145 days. Data were limited by both this parameter as well as by logistical limitations of not having all end-of-the-year attendance data made available to the researchers from the school system.

It would also have been interesting to have collected attendance data during the actual days of Sit Stay Read programming and during the eight weeks blocks of its implementation in a particular school. Perhaps, while whole year attendance effects may not be seen, attendance may have been positively affected during the duration of the in-class Sit Stay Read programming.

### Discussion of Interview Data

Students and teachers were interviewed in order to address the third research question, “What are students’ and teachers’ perceptions of their learning experience in the Sit Stay Read program?” Overall, students and teachers responded very favorably to the program, with student Likert ratings ranging from 4.5 to 5.0 on a 1-5 scale for various components of the program. Teacher ratings of program components ranged from 3.9 to

5.0. Both groups unanimously assigned “reading to the dog” the highest component rating, reflecting that the presence of the dog and the dog/child interaction is essential to the program’s success. Dogs are perceived to be both fun and nonjudgmental.

Furthermore, the high ratings of all program components reflect the perceived value of the program in its entirety. Students and teachers seem to highly value the adult reading and writing small group facilitators, the guest readers who visit throughout the school year, the laminated book that children make and keep, and the reading incentive chart and granting of reading awards to children. Considering any differences between students’ and teachers’ perceptions, it appeared that students valued the writing activity even more positively than did the teachers.

Overall, students interviewed seemed to feel that the program was fun, loving the dogs and learning about dogs and dog safety throughout the year and through their independent reading choices. Their interview responses reflected that they believed Sit Stay Read was making them better readers and writers. Their value of the program was emphasized by children expressing that they would be “sad” if they couldn’t be in school on a Sit Stay Read day.

Teachers felt that the program was fun, extremely well organized, and delivered with consistency with quality volunteers interacting with students. Again, an overriding theme seems to be that the program works in its entirety, with the dogs and the dog theme serving as the focal point around which quality literacy components are integrated.

Additionally, teachers stress the non literacy benefits of the program, emphasizing the spirit of cooperation that the program inspires in children, including improved listening and attending skills, turn taking, and general behavioral compliance. The calmness of the

classroom on Sit Stay Read days also seemed to be emphasized, along with teachers' appreciation that they could gain diagnostic information on children's skills during program sessions as they were able to more informally interact with students during program sessions. Teachers felt that an additional benefit for children was actually learning about dogs and dog safety. All teachers wished to continue with the program during the next school year, perceiving it as a valuable expenditure of classroom instructional time.

#### Data Analysis and Construct of Engaged Learning

The final question to be answered by this research study was, "Do student and teacher perceptions of their learning experience in the Sit Stay Read program reflect the construct of engaged learning?" The answer to this question appears to be affirmative. The construct of engaged learning was explored in Chapter Two with it hypothesized that it is engaged learning that underlies many successful educational outcomes, including student reading performance. The definition of engaged learning utilized by this researcher was presented by Newman, Wehlage, and Larnborn (1992) who noted that "engagement stands for active involvement, commitment, and concentrated attention, in contrast to superficial participation, apathy, or lack of interest" (p. 9). The three factors that they identified as helping students engage in academic work were students underlying need for competence, the extent to which students experience membership in the school, and the authenticity of the work they are asked to complete. Both data gathered quantitatively and qualitatively in this study support all three identified indicators of engagement and will be discussed below.

### *Competence*

The primary goal of Sit Stay Read is to improve student reading performance. As measured by Oral Reading Fluency scores, the program is successful; those second graders participating in the program demonstrated gains in oral reading fluency that were considered to be statistically significantly larger than the gains made by those students not participating in the program, or in the comparison group. The program group gained 8 wpm more than the comparison group on the average, with gains of up to 14 wpm evidenced over the performance of one subgroup of the comparison group. The 8 wpm gain reflects a 20 percent increase in the program group's scores over those of the comparison group.

Student and teacher interview reflect that students and teachers believe that the program is having a positive impact on students' reading performance. Students report that they are becoming better readers and writers because of Sit Stay Read and teachers perceive students' increased motivation toward reading through both direct observation and data collection of number of books read through the Sit Stay Read reading rewards component.

### *School Membership*

Teacher and student interview suggests that students and teachers feel a sense of camaraderie and joy through their participation in Sit Stay Read. Both students and teachers value being in school on those days and emphasize the calmness of the classroom, along with the spirit of cooperation that is typically evidenced. Students listen to each other, take turns, clean up the classroom and prepare for visitors, and generally, feel unified because they are the Sit Stay Read class. Students are grouped

homogeneously for Sit Stay Read instruction and activities and generally support each other's learning. Few behavior incidents are reported on these days, reflecting that students likely feel bonded, affirmed, and socially emotionally well adjusted during Sit Stay Read learning sessions. Students are treated respectfully by the program volunteers and seem to be equally valued. Furthermore, the affective ties that develop between students, teachers, and the visiting dogs likely enhance their sense of community, security, and safety even further.

### *Authenticity*

Authentic work is that which is considered meaningful to the student, valuable, and worthy of one's effort (Newmann, Wehlage & Lamborn, 1999). It may be associated with both extrinsic and intrinsic rewards, a sense of ownership and connection to the real world, and the experience of fun. The importance of fun, play, and humor are not to be underestimated in the elementary school classroom.

Teachers praised Sit Stay Read in their interviews because it is so real for students. They have fun and learn at the same time, experiencing the richness of reading and writing through direct experience and the use of multimodalities of instruction. Students see the dogs, touch them, smell them, learn about them, read about them, write about them, and create and keep their own books. It is a complete experience. They are not learning about a topic abstractly, but rather, experiencing it first hand. For many students who do not have life experience with dogs as pets, or who do not regularly visit libraries or own books, this is extremely enriching for them. Furthermore, students seem inspired by the reading rewards program, enjoying writing book reports, logging their number of books read, and being rewarded with small prizes at various intervals

throughout the year. While they seem to be growing in competence intrinsically, the extrinsic recognition for their reading efforts and rewards also seems to be inspiring.

#### Limitations of the Study

Considering ORF data, while ORF scores were analyzed for a large group of second grade students enrolled in school during the 2008/2009 year, with both large program and comparison groups included in the study, the program and comparison groups were not exactly comparable in size nor in gender composition. The program group had 152 students while the comparison group had only 92. Furthermore, there were approximately one third more boys in the program group than girls. Additionally, the ORF testing was conducted by school personnel with results given to Sit Stay Read administrators and this researcher, thus this researcher had no control over how that testing may have been conducted and reported.

Considering unique characteristics of students in both the program and comparison groups, while there was some reporting of students with IEPs in most classrooms data on actual numbers of special education students, nor particular exceptionality identified were not available. For the most part, it is believed that students with IEPs had their ORF data included with the full classroom sample. Furthermore, it is this researcher's assumption that second grade students were grouped in their classrooms heterogeneously considering ability levels. If this were not the case, and if any individual classes tended to have higher or lower ability levels of students, this was not controlled for in this study.

Another limitation was that variability among schools was not taken into account within the program and comparison groups. While between group variance was

statistically analyzed in relation to the oral reading fluency scores of students in the program schools and comparison schools, within group variance, or the differences in oral reading fluency scores within the program schools and within the comparison schools was not analyzed.

The timing of the delivery of the Sit Stay Read program may be another limitation of the study. Some of the classes received the eight week program in the fall of the school year and some in the winter. While no significant difference in ORF scores was noted due to this factor, the timing of the intervention may nonetheless have impact on student performance and perceptions of the program.

Additionally, some of the classes receiving the program were first year participants which may have skewed overall program effectiveness results, as typically, lower reading gains have been reported in the first year of Sit Stay Read implementation over subsequent years. Furthermore, additional reading intervention programs may be in place in both program and comparison schools that may have had positive or negative effect on reading fluency scores in both groups, particularly as discussed previously in reference to one of the comparison schools.

Another limitation of the study was the lack of availability of some of the attendance data. Attendance data was not available for almost half of the sampled group, nor during the eight week program intervention period, limiting analysis of the effectiveness of the program on student attendance.

A final limitation of the study is that all participants were students of low socioeconomic status who were considered at risk and attending underperforming urban,

public schools. Any results from this study cannot be generalized to other populations of students representing different demographic characteristics.

### Conclusions and Implications

The goal of this research study was to evaluate and analyze the effectiveness of the Sit Stay Read program in improving student engagement and reading outcomes. While evaluation typically yields data, research and analysis attempts to explain. It was the goal of this research study to not only evaluate if the program improves oral reading fluency scores and attendance rates, but if this were true, or true in part, to then attempt to explain why these were the outcomes.

As evaluated during the 2008/2009 school year, through mixed methods research, the Sit Stay Read program was effective in improving second grade Oral Reading Fluency scores, with students in the program group gaining 8 wpm more on average, but up to 14 more wpm than students in a comparison group. While the program showed no significant effect on yearly student attendance, attendance data was limited and not recorded specifically during the 8 week intervention period.

In order to further analyze the program, students and teachers were interviewed to assess their perceptions of the program, reflecting that both teachers and students highly value and enjoy the program, believing that the program is helping to make students better readers and writers. While the presence of the dog appears to be the program's focal point, the additional program components, including adult volunteers, a reading rewards program, guest readers, and student book making appear to be essential to the program's success as well. Teachers' and students' perceptions of the program support the construct of engaged learning, suggesting that the program's true success is built upon

the premise of improving students' reading competence, facilitating the development of a community of learners, and promoting students' authentic learning whereby students have fun and value what they are learning.

It is essential that programs be evaluated in order to support their development and to help secure critical funding in order to keep innovative programs viable. It is also more important than ever in the education world that interventions be research based and that students' Responses to Interventions be well monitored and documented. The current study gives research based evidence that the Sit Stay Read program is effective in improving students' reading outcomes and level of engaged learning. Giving at risk students tools to both enjoy school, acquire skill sets, and become more competent learners is a benefit for them individually and for society at large. Additionally, the opportunity for successful programs like Sit Stay Read to be replicated with fidelity and for hundreds of additional students to potentially benefit from a well scaffolded and innovative literacy program is an exciting proposition.

#### Personal Reflection

As stated in Chapter 1, I became involved with Sit Stay Read because of my own experiences as a school psychologist working successfully with animal assisted therapy in the classroom. It should be noted that while I have attempted to remain unbiased while conducting this research, because of my strong positive regard for the program it is possible that some examiner bias may be evidenced in the qualitative interpretation of interview data. I believe passionately in the power of the human – animal bond and have become an ardent believer in the efficacy of Sit Stay Read as I have followed the program and conducted this dissertation research over the past several years. I hope that this

research helps give scientific support to the validity of the program so that Sit Stay Read can continue to thrive, receive funding, and convince any skeptics that a well constructed program, using dogs as a focal point, can help develop children's literacy skills and provide beneficial social emotional effects as well. I wish to remain active with Sit Stay Read and will continue to advocate on its behalf, as well as to participate directly as a volunteer of the organization. In a time when so many educational interventions are focusing on the use of technology, it is especially pleasing to me that an intervention that is low tech and affective in nature can be so powerful. The psychologist in me says that children and adults need ties, that they need to care for one another, and have both hearts and minds opened in the classroom. Sit Stay Read is an amazing volunteer based program that teaches children to read and write within the context of a greater humanity.\

#### Future Research

The benefit to students of programming that uses animals in the classroom warrants continued research efforts. While animals have been studied in therapeutic settings, little research exists that documents the value of using animals as partners in academic efforts. Sit Stay Read may benefit from continued research on student reading outcomes, including possible gender differences, while also investigating writing outcomes in support of its goals to improve student literacy. Additionally, the social-emotional benefits of animals in the classroom may be explored, along with effects on classroom climate and behavior management. The extension of Sit Stay Read programming with populations of children beyond second grade, with special needs children, and with children not considered at risk due to socioeconomic factors may also present meritorious areas for future research.

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## APPENDIX A: TEACHER INTERVIEW

1. How long have you been involved with the “Sit Stay Read” program and how did you get involved?
2. Do you think the program is successful? Why or why not?
3. What do you think are some of the best features of the program?
4. Can you tell me what impact, if any, you think the program has had on your students in the following areas:  
 Reading (skill, interest – in and out of the classroom) Writing  
 Dogs  
 Attendance  
 Motivation /Student Effort  
 Classroom Climate/ Student Affect  
 Student Behavior/ Task Focus/Responsibility  
 Cooperative Learning
5. Are there any features of the program that you would change?
6. Do you think this program would be successful with students who were not of low SES and not considered at risk?
7. Do you have any particular anecdotes to share about any of your students involved with this program?
8. How does this reading intervention compare to other unique reading interventions that you may have tried in your classroom? What do you think of thematic learning?
9. How would you rate the importance of each component of the program on a 1-5 scale, with 1 being “the least” important and 5 “the most important”?  

adult reading/writing facilitators	guest readers during the year
reading activity with adult facilitator	reading incentive chart and prizes
writing activity with adult facilitator	child reading to the dog
the laminated final book made by children	presence of dog and dog handler
10. Is there anything else that you would like to share?

## APPENDIX B: SIT STAY READ EXECUTIVE DIRECTOR INTERVIEW

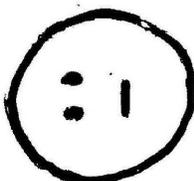
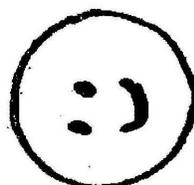
1. How long have you been involved with the Sit Stay Read program and how was Sit Stay Read initiated?
2. How has Sit Stay Read been received within Chicago Public Schools and the community? How does it impact teachers? How does it impact students?
3. What do you think are the most valuable aspects of the program?
4. Why do you think the program is successful?
5. What do you think are the most challenging aspects of the program?
6. How has the program changed since it was first initiated?
7. How is the program funded?
8. Please tell me about the training that your program volunteers receive.
9. What is your vision for Sit Stay Read? What are your plans for the future?
10. Do you have any particular anecdotes to share about any of your experiences in the school or community?
11. Is there anything else that you would like to share?

## APPENDIX C: STUDENT INTERVIEW

1. How do you like Sit Stay Read?
2. Is it fun? If yes, what's fun about it?
3. How would you feel if you ever had to miss school on a Sit Stay Read day? What would you miss?
4. Since you've been in Sit Stay Read, do you like reading more than you used to? Is it making you a better reader? A better writer?
5. How does your teacher like Sit Stay Read?
6. Did you ever tell your mom or dad or a family member about Sit Stay Read?
7. What if you couldn't read to the dog, how much would you still like Sit Stay Read? What other parts are fun?
8. Do students in your class behave any differently on Sit Stay Read days?
9. Do you remember any stories you read about dogs this year?
10. Can you tell me about anything special about Sit Stay Read? Do you have any stories to share?
11. Since beginning Sit Stay Read, what have you learned about dogs?
12. I'm going to name different parts of the Sit Stay Read program and I want you to tell me how much you like each one by pointing to the picture of the face that shows how you feel. (Smile faces correlate with very happy-5, happy-4, ok-3, don't like-2, really don't like-1)
 

reading in your group	1 2 3 4 5
writing in your group	1 2 3 4 5
making a book	1 2 3 4 5
having guest readers	1 2 3 4 5
using the reading chart and getting prizes	1 2 3 4 5
having the dog in your classroom	1 2 3 4 5
reading to the dog	1 2 3 4 5
having extra grown ups in your classroom	1 2 3 4 5
talking, reading, writing, and learning about dogs	1 2 3 4 5
13. Anything else?

## APPENDIX D: STUDENT INTERVIEW RESPONSE PROMPT



Dear Parent/Guardian:

\_\_\_\_\_ is happy to announce our participation in the Sit Stay Read literacy program. This program is dedicated to improving the reading skills of children using certified therapy dog teams as literacy mentors.

This permission form is to let you know that there will be Sit Stay Read therapy dogs in the school. The specially trained dogs and their handlers have undergone reading education training in addition to certification for animal-assisted therapy.

There is no charge for this program. Volunteers will work with the students in the classroom in small groups. Your child will read to a dog for approximately 5-10 minutes each week and will write about the experience. The program will take place for one hour on:

\_\_\_\_\_

**Your written permission is necessary for your child to participate.** Should you have any questions or concerns, please contact me and I will be happy to assist you.

Sincerely,

---

I give permission for my child to participate in the Sit Stay Read Program at \_\_\_\_\_  
 Yes             No

I give permission for Sit Stay Read Inc to use photographs of my child as well as artwork or writing done by my child during the class. Photos may be used in print materials, on the Sit Stay Read web site, or other media.    Yes             No

\_\_\_\_\_  
 Student's Name (please print)

\_\_\_\_\_  
 Signature of Parent or Guardian

\_\_\_\_\_  
 Date

**Please return completed form to class as soon as possible. Without a signed form, your child cannot participate in this free reading program. Thank you!**

## APPENDIX F: PARENT CONSENT FORM

## National Louis University Research Project

Student's Name \_\_\_\_\_ School \_\_\_\_\_

I understand that my child may participate in a 5-10 minute interview at school about the Sit Stay Read program and that the interview may be tape recorded. The information may be used to help improve the program for students participating in the future.

This participation is voluntary and consent may be discontinued at any time.

Information will be shared with "Sit Stay Read" program coordinators and with Mrs. Corinne Smith, a doctoral student at National Louis University. Information shared by your child may appear in study results, but no names will be identified.

I agree to allow my child to participate in the research study by being interviewed by Mrs. Corinne Smith about the Sit Stay Read program.

Parent Signature \_\_\_\_\_ Date \_\_\_\_\_

If you have any questions, please contact Corinne Smith at [csmith@nl.edu](mailto:csmith@nl.edu). You may also contact the dissertation chairpersons, Dr. Rita Weinberg ([rweinberg@nl.edu](mailto:rweinberg@nl.edu)) or Dr. Vera Kemeny ([vkemeny@nl.edu](mailto:vkemeny@nl.edu)) at National Louis University, 5202 Old Orchard Road, Skokie, Illinois, 60077.

## APPENDIX G: PARENT CONSENT FORM (SPANISH)

Consentimiento de padre, tutor o encargado  
Proyecto de Investigación de la Universidad National Louis

Nombre del estudiante \_\_\_\_\_ Escuela \_\_\_\_\_

Se me ha informado de la posibilidad de que mi niño/a participe en una entrevista de 5-10 minutos en la escuela sobre el programa SitStayRead (Siéntate, Quédate, Lee) y que la entrevista podría ser grabada. La información será utilizada para ayudar a mejorar el programa para los estudiantes que participen en el futuro.

Esta participación es voluntaria, y podré remover el consentimiento en cualquier momento.

Se compartirá la información con los coordinadores del programa “SitStayRead” y con la Sra. Corinne Smith, estudiante de doctorado en la Universidad National Louis. La información compartida por mi niño/a podrá aparecer en los resultados del estudio, pero no se identificará ninguno de sus nombres.

Autorizo a que mi niño/a participe en el estudio de investigación y a que sea entrevistado/a por la Sra. Corinne Smith sobre el programa SitStayRead.

Firma del padre \_\_\_\_\_ Fecha \_\_\_\_\_

Si tiene alguna pregunta, por favor comuníquese con Corinne Smith al [csmith@nl.edu](mailto:csmith@nl.edu). Podrá también comunicarse con su directora de tesis, la Dra. Rita Weinberg ([rweinberg@nl.edu](mailto:rweinberg@nl.edu)) or con la Dra. Vera Kemeny ([vkemeny@nl.edu](mailto:vkemeny@nl.edu)) de la Universidad National Louis, 5202 Old Orchard Road, Skokie, Illinois, 60077.

## APPENDIX H: ADULT CONSENT FORM

## National Louis University Research Project

Name \_\_\_\_\_ School \_\_\_\_\_

I am willing to participate in an interview about the Sit Stay Read program and that the interview may be tape recorded. The information may be used to help improve the program for students participating in the future.

This participation is voluntary and consent may be discontinued at any time.

Information will be shared with “Sit Stay Read” program coordinators and with Mrs. Corinne Smith, a doctoral student at National Louis University. Information shared may appear in study results, but no names will be identified.

I agree to allow my child to participate in the research study by being interviewed by Mrs. Corinne Smith about the Sit Stay Read program.

Signature \_\_\_\_\_ Date \_\_\_\_\_

If you have any questions, please contact Corinne Smith at [csmith@nl.edu](mailto:csmith@nl.edu). You may also contact the dissertation chairpersons, Dr. Rita Weinberg ([rweinberg@nl.edu](mailto:rweinberg@nl.edu)) or Dr. Vera Kemeny ([vkemeny@nl.edu](mailto:vkemeny@nl.edu)) at National Louis University, 5202 Old Orchard Road, Skokie, Illinois, 60077.