STARS

Electronic Theses and Dissertations, 2004-2019

2006

Investigation Of The Impact Of Video-based Anchored Instruction On The Implementation Of Inclusive Practices By Students With Learning Disabilities

Christopher O'Brien
University of Central Florida

Part of the Education Commons

Find similar works at: https://stars.library.ucf.edu/etd

University of Central Florida Libraries http://library.ucf.edu

University of Central Florida

STARS
Showcase of Text, Archives, Research & Scholarship

INVESTIGATION OF THE IMPACT OF VIDEO-BASED ANCHORED
INSTRUCTION ON THE IMPLEMENTATION OF INCLUSIVE PRACTICES BY
STUDENTS WITH LEARNING DISABILITIES

by

CHRISTOPHER P. O'BRIEN

B.A. University of Central Florida, 1998
M.A. University of Central Florida, 2000

A dissertation submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy
in the Department of Child, Family, and Community Sciences
in the College of Education
at the University of Central Florida
Orlando, Florida

Summer Term
2006

Major Professors: Lisa A. Dieker
Jennifer C. Platt

ABSTRACT

For several years emerging trends in special education services have favored inclusion for students with disabilities. Concurrent to this evolution of philosophy in special education has been the advent of what could be considered inclusive instructional practices—those methods that aid in the successful inclusion of students with disabilities. These inclusive practices include co-teaching, cooperative learning, peer-mediated instruction, positive behavioral support, embedded learning strategies, and content-enhancements (Ehren, Lenz, & Deshler, 2005; King-Sears, 1997).

As inclusive placements become an increasingly common standard of practice, particularly for students with learning disabilities, the need to assist general educators in establishing inclusive classrooms becomes a major priority. It is logical then to prioritize the propagation of inclusive practices in general education classrooms—practices that would take into account the natural diversity of student populations likely to be present in American classrooms. Cooperative learning, in the form of *Literature Circles*, is offered in this study as a highly effective method for laying the groundwork for inclusion. This study, rooted in the theory of anchored instruction, attempted to address the need for incorporating inclusive practices by investigating the potential for students with learning disabilities to implement Literature Circles by viewing video models.

This research evaluated the impact of video models on three levels—the extent to which the video models improve the ability for students with learning disabilities to a) learn the foundational information and rationale of a strategy, b) implement the strategy

effectively, and c) improve academic outcomes by implementing the strategy. Finally, an attempt was made to further probe student perception of learning a strategy from a video model through focus group interviews.

Data was collected using a quasi-experimental design. Forty-nine classrooms were randomly assigned to video-based and traditional treatments. Students attempted to implement Literature Circles in their middle school social studies classes. Following data collection, quantitative statistical analysis was completed using Multivariate Analysis of Variance (MANOVA) to examine group differences in knowledge of the essential elements of the strategy, implementation of the strategy, and content achievement. Qualitative analysis of student focus group responses was completed by scrutinizing transcripts for general themes (Erickson, 1986).

This study made a connection between lines of research on video-based anchored instruction for students with learning disabilities and video-anchors in teacher preparation. The full sample of 196 students, including 43 students with learning disabilities, demonstrated significantly more effective implementation of Literature Circles. Students in the video model focus group indicated that they benefited from the explicit, positive peer models demonstrated in the video. The continued proliferation of visual images in the form of video-based models represents a positive step toward increasing available resources to students and teachers and ultimately improving outcomes for students with learning disabilities.

ACKNOWLEDGMENTS

On a personal level, I would like to thank a very long list of people who helped me to complete my work in the Ph.D. program. Before considering the dissertation process, there are several very important people who made the difference in my career. My three years as a teacher at Howard Middle School dramatically changed my life. Howard is the reason I have pursued a career in the field of education. I owe my current career in education to several people who supported my efforts when I first became a teacher. I appreciate the support of Tim Smith for hiring me at Howard Middle School, Heather Eberts, who made me realize that my weird ideas were actually considered good teaching, and the entire faculty of Howard Middle School for all of their support while I was a teacher there and as I've completed my studies at UCF. Specifically, Cheri Katner was immensely helpful in the completion of this dissertation and I appreciate her support. It was a pleasure to spend time in her class this last year.

In the process of developing my skills as a teacher educator in the doctoral program, no one has been more instrumental than my advisor and co-chair Dr. Lisa Dieker. Lisa helped me find my way in this process and has constantly reminded me of my strengths particularly during my many periods of self-doubt when I've wondered if this is the right

path for me. Our working relationship has always been collegial and represents what I believe is the key to success in anyone's life—a pairing of hard work and abundant opportunity.

Dr. Jennifer Platt, also my advisor and co-chair, supported me from (literally) day one of my program. It was during my time working for Dr. Platt as a graduate assistant that I first developed the confidence that I might actually make it through the doctoral program. Dr. Platt has never been anything but encouraging and generous of her time going out of her way to be sure my experience in this program was a positive one.

Dr. Denise Ousley is not the reason that I am finishing this program, but she is the reason that I want to finish this program. She has inspired my thinking on too many occasions to remember and I can't imagine feeling the passion that I do about teaching and the field of education without her constant enthusiasm and truly keen insights.

Dr. Bill Gaudelli has been extremely important in re-inspiring my general love of learning beyond a desire to "develop competencies." Further, Bill has exposed me to a perspective unique from the dominant perspectives of the special education community and helped me to remain fascinated by my work, realizing there is so much I don't know.

Dr. Nancy Lewis has been critical in the last nine months of my program. Her level of feedback and critical insights always amaze me. The elements of this study I enjoyed most are the result of our great discussions. I truly appreciate her support.

In the actual process of conducting this study, several people made it possible for me to finish. The dedicated social studies teachers in the Orange and Seminole County Schools exhibited a degree of professionalism that allowed me complete this study when

at times it didn't seem possible. Also, I have to express my gratitude to Michelle Urquhart and her daughter Shauna who literally gathered three bright children from their neighborhood and brought them to school so that I could get the additional footage I needed for the video. Their scenes proved to be the most valuable.

I also have to thank Kim Davis and Chrissy Ogilvie for their support during my data collection. The time they spent in the local schools co-observing and completing fidelity checks made it possible for me to complete this project.

I have to thank my cohort: Laura, Nancy, Willette, and Kim for all of their support for the last three years. Nancy Aguinaga, in particular, has kept me from losing my mind on far too many occasions and I have to thank her for that. Also, Linda Alexander should be thanked in every acknowledgment section of every dissertation produced from our program. I cannot overemphasize how supportive she has been.

There truly is a fairly endless list of individuals who made it possible for me to complete this program and this dissertation. I would like to express my appreciation to my mother and father whose divergent personalities are probably responsible for the conflicted nature of my personality—undying idealism (my mom) and perpetual cynicism (my dad). These features, I hope, will be the keys to my success in academic life. Finally, I have to express how important my first co-teacher and fiancée Becky has been to me for the last three years. I know that I have been an intolerable pain as I struggled to adjust to a new way of life but she has never stopped supporting and encouraging me. I could not have kept my sanity (assuming I have) without her help.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER ONE: INTRODUCTION

Background: Need for the Study

For several years emerging trends in special education services have favored inclusion as the most natural or at least the idealized placement for students with disabilities. This is particularly true when considering educational developments for students with learning disabilities. Concurrent to this evolution of philosophy in special education has been the advent or proliferation of what could be considered inclusive instructional practices—those methods that aid in the successful inclusion of students with disabilities. These inclusive practices include such instructional approaches as co-teaching, cooperative learning, peer-mediated instruction, positive behavioral support, embedded learning strategies, and content-enhancements (Ehren, Lenz, & Deshler, 2005; King-Sears, 1997; Lenz, Deshler, & Kissam, 2004).

Inclusion is often referred to as a philosophical and ideological approach to classroom placement of students with disabilities (Brantlinger, 2004; Fitch, 2003). To some extent the inclusive educational philosophy stands in contrast to the traditional doctrine advanced by the Individuals with Disabilities Education Act (originally the Education for All Handicapped Children Act of 1975) including the unofficial but universal notion of the *continuum of services* and *least restrictive environment* (Hardman & Nagle, 2004). Inclusion, in contrast to the mainstreaming philosophy, presumes that the general education classroom is the most natural and logical setting for children with disabilities to receive their education, giving them the opportunity to participate in school no differently

1

than their non-disabled peers. To a large extent, this philosophy draws from a view of equitable schooling and the educational rights of children to be included in meaningful educational opportunities (Brantlinger, 2001; Skrtic, 2004).

The greatest challenge to this inclusive philosophy, despite its grounding in valid logic, is the potential for students with disabilities to lose what is intended to be special about special education (Fuchs & Fuchs, 1995; Heward, 2003; Lieberman, 1996). Many in the field of special education research and services have denied the efficacy of inclusion because it seems to negate the opportunity for the highly individualized and specialized instruction which students with disabilities are meant to experience (Anderegg & Vergason, 1996; Fuchs & Fuchs, 1994; Kauffman & Hallahan, 1995; Swanson, 2000). Rather, they would argue that inclusive placements assign students with disabilities to classrooms with general education teachers who, no matter how well intentioned, have not been prepared to teach students with disabilities (Kauffman & Hallahan, 1995; Mock & Kauffman, 2002).

As inclusive placements become an increasingly common standard of practice, particularly for students with learning disabilities, the need for assisting general educators to establish inclusive classrooms becomes a major priority. A significant challenge has been establishing classroom learning environments which are conducive to the effective implementation of inclusion. The traditional model of classroom structure in American public schools includes students working independently, quietly, often at single-person desks arranged in straight rows (Good & Brophy, 1987; Johnson & Johnson, 1999). This lack of openness, flexibility, and interaction among students creates a real challenge to

implementation of fundamental inclusive practices such as collaboration both among students and teachers in the case of co-teaching (Pearl, 2004). Although inclusive ideology has reached a point of dominance in educational dogma, practical limitations continue to plague the actual implementation of inclusive education (McLeskey, Hoppey, Williamson, & Rentz, 2004).

In light of challenges to the practical realization of inclusive philosophy and ideology, it is logical to prioritize the propagation of inclusive practices in general education classrooms—practices that would take into account the natural diversity of student populations likely to be present in a typical American classroom. This process may begin by simply changing the way teachers arrange desks. It may ultimately lead to the consistent and effective use of peer support models through specialized implementation of cooperative learning that promotes the elements of peer-mediated instruction found to be so helpful to struggling learners (Maheady, Harper, & Mallette, 2001; Sapon-Shevin, Ayres, & Duncan, 1994), particularly students with learning disabilities who account for approximately 50% of the overall population served by special education funding (U.S. Office of Special Education Programs, 2004).

Cooperative learning and various forms of peer support may be most accurately viewed as highly effective methods for laying the groundwork for inclusion. Cooperative learning has a strong research base to support its use for students with learning disabilities in inclusive settings if *active ingredients* are included. Cooperative learning impacts the achievement of students with learning disabilities when individual

3

accountability and group rewards are components of the strategy (McMaster & Fuchs, 2002).

The term cooperative learning refers to a collection of structures and strategies for collaborative group work with certain common threads. Johnson and Johnson (1994) identify five features of cooperative learning that promote greater productivity than other instructional approaches. These features include 1) an explicit focus on positive interdependence, 2) extensive group member interaction, 3) a clear focus on individual work to contribute to the achievement of the whole group, 4) established use of interpersonal and small-group skills, and 5) open reflective discourse regarding group functioning. Cooperative learning has, since its origin as a defined instructional practice, focused largely on accommodating heterogeneity in classroom learning experiences (Johnson & Johnson, 1999). In recent years, cooperative learning has been further defined as an inclusive instructional practice for students with learning disabilities with the advancement of this notion paralleling the advent of inclusive educational philosophy amongst special educators (Jenkins & O'Connor, 2003).

Peer support structures, especially when built into a class as a universal design feature (Hehir, 2002; Pisha & Coyne, 2001), are highly logical and effective methods for accommodating the heterogeneity of a classroom (Daniels, 2002b). For students with learning disabilities, reading is the most common area of academic weakness in which peer support could be so critical (Fletcher, Morris, & Lyon, 2003; Lerner, 1989). Certain strategies such as Literature Circles (Daniels, 2002a) aid students in complementing each other's strengths and weaknesses by analyzing texts in cooperative groups. The Literature

Circles strategy also exemplifies the key elements of effective cooperative learning structures for students with disabilities—individual accountability, group rewards, and presumed heterogeneity of group members (Daniels, 2002b; McMaster & Fuchs, 2002).

Inclusive structures such as Literature Circles are particularly relevant to students with learning disabilities as they transition from the elementary school years into secondary education beginning with middle school curricula. Academic content in middle school increases in complexity and challenge each year, requiring students to read and write prolifically, something students with learning disabilities have likely struggled with throughout their years in school (Deshler et al., 2004). Compounding the increased difficulty of middle school is the transition from *learning to read* (as in elementary school) to *reading to learn* (Taub, McGrew, & Keith, 2005), a fundamental factor in experiencing success in content classes, such as social studies (Passe & Beattie, 1994) often heavily loaded with factual information and new vocabulary (Lenz, Bulgren, Kissam, & Taymans, 2004).

Students with learning disabilities often become unmotivated and pessimistic about their potential for academic success (Deshler & Lenz, 1989). Research on the academic performance of students with learning disabilities indicates that performance in reading proficiency, for example, generally levels off at the point of entering middle school and rarely improves more than one grade level throughout the remainder of their secondary schooling (Sprick & Deshler, 2005). Students with learning disabilities entering secondary school find themselves overwhelmed by the vast amounts of new content and

the break-neck pace in which it is offered, indicating that teachers need to provide content in a more meaningful manner (Deshler et al., 2004).

<div align="center">Statement of the Problem</div>

Considering the body of research to support instructional approaches that support students with learning disabilities in academic performance and establish more inclusive learning environments, the challenge becomes how to bridge the gap between awareness of inclusive practices and implementation of these practices in actual classrooms. This study attempted to address this challenge by investigating the potential for students with learning disabilities to implement inclusive learning strategies such as Literature Circles by viewing video models.

Grounded in the learning theory of anchored instruction, the video presents an inclusive practice (i.e., Literature Circles), which could be implemented in content area classes such as social studies in middle school in order to engage struggling readers. The study focused on the needs of students with learning disabilities by evaluating the impact of video-based anchored instruction on the implementation of inclusive practices such that the students would experience positive academic outcomes. As the research literature in situated cognition, particularly anchored instruction, supports the use of video-based anchors for enhancing learning experiences of student with learning disabilities, the presentation of video models represents a potential response to challenges of implementing evidence-based inclusive practices.

Purpose of the Study

The purpose of this research is to contribute to the existing knowledge related to bridging the gap between research on instructional practices and their implementation in actual classrooms. This research adds to the body of knowledge related to successful inclusion of students with disabilities by offering methods for demonstrating inclusive practices students and their teachers in a manner which has high utility and efficiency. This study examined the effectiveness of video models for improving application of research-validated instructional practices (i.e. cooperative learning—Literature Circles) by students with learning disabilities in general education settings.

Teacher educators need ways to demonstrate evidence-based practices to their students (both student and practicing teachers), and the use of video models has potential to address this need. Further, video models have the potential for addressing the need for students to better understand the behaviors or skills they are to exhibit in class by viewing exemplary models of evidence-based practices. Despite the potential impact of video models on teacher and student learning, research in this area is sparse and the effects unclear (Hughes, Packard, & Pearson, 2000).

Although there is limited research on modeling effective practice to teachers and students in actual classrooms with video (Dieker, et al., 2004), considerable research exists on video-based anchored instruction for teaching complicated, sometimes abstract, concepts (The Cognition and Technology Group at Vanderbilt, 1990). Gersten (1998) referred to anchored instruction as "learning through experience" (p. 166). An expansion of the conceptualization of anchored instruction has lead to the implementation of video-

7

based anchored instruction for students with learning disabilities. Numerous authors have shown the effectiveness of this approach for students with learning disabilities (Glaser, Rieth, Kinzer, Prestidge, & Peter, 1999; Rieth et al., 2003; Xin & Glaser, 1996). The question remains as to whether this same video-based anchored instructional approach could be utilized to aid students with learning disabilities in implementing inclusive practices.

Application to Practice

A primary focus of the study is to ensure that video examples reflect *best practice* and have a direct impact on student learning. Over the past several decades, educational research has developed a knowledge base that could positively impact instructional practice for students. However, research-based practices often are not translated into classroom practice. Bridging the gap between educational research and effective classroom practice is a challenge for all educators (Gersten & Dimino, 2001; Gersten & Smith-Jones, 2001).

Some scholars (e.g., Carnine, 1997; Greenwood & Abbott, 2001) argue that a research-to-practice gap exists because researchers do not typically disseminate findings in an accessible format. While there is an array of potential barriers to the integration of research-based practices in K-12 schools, a primary barrier is that research is communicated to teachers in ways that are meaningless, lack clarity and do not resonate with the day-to-day realities teachers face (Carnine, 1997). A reasonable method for addressing this issue is providing visual, video-based representations of effective practice

for academically diverse student populations, particularly students with learning disabilities. Further, the ability to demonstrate instructional practices directly to those students expected to benefit from them has considerable potential.

<center>Research Question</center>

The overarching research question and subquestions are as follows:

1. Do students with learning disabilities in inclusive settings who view a video model of a cooperative learning strategy demonstrate significantly more effective implementation of that strategy than students with learning disabilities who do not view a video model?

    A. Do students with learning disabilities in inclusive settings who view a video model of Literature Circles demonstrate more effective recognition of the names of the five roles in the structure and the purpose of each of these roles?

    B. Do students with learning disabilities in inclusive settings who view a video model of Literature Circles exhibit more effective application of the specific responsibilities of their role and the multiple elements of cooperative learning?

    C. Do students with learning disabilities in inclusive settings who view a video model of Literature Circles improve content learning outcomes by effectively applying the strategy?

    D. What are the perceptions of students with learning disabilities in inclusive settings related to viewing a video model of Literature Circles as a means for implementing the strategy in their class?

<center>9</center>

The research question and subquestions reflect an attempt to evaluate the impact of video models on three levels—the extent to which the video models improve the ability for students with learning disabilities to a) learn the foundational information and rationale of a strategy, b) implement the strategy effectively, and c) improve academic outcomes by implementing the strategy. The final subquestion is an attempt to further probe the nature of the impact of the video models at the student level by examining the student perceptions of *how and why* factors (i.e., If the video model helped the students to implement the strategy, how and why did it help?).

Definitions of Terms

Video Models

Regarding the development of the video model, the literature supports the use of video as a tool for learning, particularly as a form of anchored instruction, in which the video serves as a support to traditional instruction (Glaser, Rieth, Kinzer, Colburn et al., 1999; Kinzer et al., 1994; Rieth et al., 2003; Shyu, 2000). For this project, the video model was in a DVD format. Included in the DVD was a full-length video demonstrating actual classroom implementation of Literature Circles in a social studies classroom as a means of examining expository, supplementary texts. The DVD format allowed the viewer to stop, play, replay, pause, read captioning, read or reread inserted text. Interspersed throughout the classroom footage are PowerPoint inserts with narration explaining the video content and guiding questions to alert the viewer to key points.

Literature Circles

For the purpose of this study *Literature Circles* is defined as a cooperative learning

strategy focusing on heterogeneous grouping for the purpose of completing reading-

related learning tasks. Specific to this study, Literature Circles is further defined as an

inclusive practice for reading expository, supplementary texts in content-area classes

such as social studies. The role of the teacher is to facilitate cooperative learning. The

Literature Circles strategy is student-centered (Daniels, 2002b). Peer support was

emphasized through purposive selection (by the teacher) of group partners whose skills

were complementary. Members of the Literature Circles selected specific roles based on

their strengths and were required to contribute to the overall group goal. Important to

note is the *terminology drift* associated with Literature Circles. Although the term

Literature Circles is the common name for this cooperative learning strategy, the names

of the roles differ slightly for nonfiction texts and the strategy is often called Nonfiction

Literature Circles or simply *Reading Circles*. Content area teachers who don't consider

themselves literature teachers often prefer the term Reading Circles.

Inclusive Setting

Inclusion refers to the state of education for students with disabilities being

equitable to their same-age non-disabled peers—an education which maintains emphasis

on student rights and the natural state of human diversity in school populations (Fitch,

2003). From a practical standpoint, this means that students with disabilities educated in

an inclusive setting are being educated in a general education classroom alongside those

students not identified as having special needs (Choate, 2004).

11

Research Design

This study focused on the implementation and study of a video model as a means for students with learning disabilities to implement Literature Circles. This project involved both quantitative and qualitative methods to investigate the effects of viewing a video model on students with learning disabilities ability to a) learning of the strategy elements, b) implementation of the Literature Circles strategy, c) achievement related to specific social studies content, and d) experiences/perceptions of efficacy. Student implementation of the instructional strategy was evaluated through structured observations of students included in middle school social studies classrooms. Observation protocols allowed observers to evaluate the fidelity of the applied instructional approach. Focus group interviews were conducted with a sample of the students with learning disabilities included in the study in order to gain insights into their experiences and perceptions of learning from the video models.

Treatment Conditions

Teachers' classrooms were randomly assigned to one of two treatment groups. Of the ten teachers, each had an equal likelihood of random assignment to one of the two treatment groups. Prior to random assignment all participant teachers received parallel opportunities to view the video model of Literature Circles.

In treatment group 1, teachers (n=5) were given a detailed lesson plan for implementing Literature Circles (see Appendix A) and asked to implement Literature Circles with their students. Teachers in Group 1 were meant to provide a traditional

approach to preparing students for a new instructional strategy. Traditional instruction consisted of transparencies (see Appendix B) to be shown on an overhead projector. The overhead transparencies detailed the critical elements of the strategy and summarized the methods involved in Literature Circles (i.e., list of roles and description of responsibilities). In order to maintain comparable treatment across all classrooms, teachers providing traditional instruction were given specific guidelines for preparing students to implement Literature Circles (see Appendix E for scripted instructions).

In treatment group 2, teachers (n=5) were given a detailed lesson plan for implementing Literature Circles comparable to the preparation materials used in treatment group 1 (see Appendix A). This did not include the transparencies provided to Group 1. Students in treatment group 2 viewed a video model of Literature Circles. Included in the video model were explicit descriptions of the roles and responsibilities comparable to the overhead transparency presentation provided in treatment group 1.

Following these *day one* treatments, each teacher was asked to implement the Literature Circles strategy with their classes on *day two*. As the implementation was conducted with middle school social studies content, a specific nonfiction expository text (i.e., *Teen Newsweek*) was selected in a parallel fashion across all classrooms. The content of the video model emphasized student implementation of nonfiction Literature Circles with *current events* materials (i.e., social studies/news magazines for young readers). The classroom implementation in the study also focused on implementation of nonfiction Literature Circles with similar current events materials in a social studies classroom.

Research Timeline

The timeline for student preparation and implementation of Literature Circles was consistent across all ten teachers and both conditions. In effect *Teacher One* prepared his/her students to use the strategy on *day one* of the overall timeline and implemented the strategy with his/her class on the following day—*day two* of the overall timeline. On day two, the observing researcher assessed student implementation based on the treatment implemented on day one. Each of the ten teachers continued in this fashion in such a way that the researcher could monitor day one fidelity and observe all classroom implementations.

Data Collection Procedures

Students in treatment group 1 and treatment group 2 completed a pre-test and post-test (see Appendix D) to determine if learning gains had been achieved related to their *basic knowledge of Literature Circles*. Critical to this phase of the research were the in-person observations of the students' implementation of Literature Circles. The researcher observed all classroom implementations on *day two*. In order to prevent bias and establish reliability of observational data, an additional field observer accompanied the primary researcher.

A formal observation instrument (see Appendix G) was developed in order to conduct structured observations of student implementation. Observation items were specifically chosen based on previous research from Johnson and Johnson (1999) and Daniels

(2002b). The observation instrument was further validated through expert review and a pilot study in comparable classrooms in the central Florida schools. Observation scores by two observers were obtained. These scores, based on a Likert rating scale, were compared using point-by-point inter-rater reliability in an effort to attain unbiased scores.

Pre and post measures of content knowledge were collected using an *assessment of content knowledge* (see Appendix F), related to their current events topic, presented on *day one* and *day two*. Pre and post measures were given a score by comparing them to a pre-determined rubric (see Appendix H).

In order to establish social validity and enhance triangulation of data collection, a sample of students with learning disabilities who participated in the group viewing the video of Literature Circles and implementing the strategy were invited to participate in a follow-up focus group. Students were asked to describe their experiences related to learning a new classroom strategy using the video-based anchored instructional approach. A focus group interview process was utilized to examine the students' perception of efficacy of this approach and the extent to which they felt prepared to use the strategy after viewing the video.

Data Analysis

Following data collection, quantitative statistical analyses were completed using Multivariate Analysis of Variance (MANOVA) to examine group differences in knowledge of the essential elements of the strategy, implementation of the strategy, and content achievement. Content achievement measures were analyzed by obtaining pre-post scores (compared to an established rubric) and examining the continuous data for

between-group differences. Data from the three instruments were entered into SPSS and a MANOVA calculated to determine statistically significant differences between students in classes randomly assigned to the two treatment groups. Although the three dependent variables could be analyzed through separate one-way ANOVAs, the likelihood of a type I error is diminished by using MANOVA.

Qualitative analysis of student focus group responses was completed using an informal approach to interpretivism (i.e., phenomenology). Focus group interviews were recorded and transcribed for analysis. General themes were drawn from these qualitative data using the interpretivist approach advanced by Erickson (1986). Basic conclusions were developed by scrutinizing transcripts for broad themes and seeking disconfirming evidence until consensus was achieved.

CHAPTER TWO: LITERATURE REVIEW

<u>Chapter Overview</u>

This chapter will present an extensive overview of the current challenges facing American public education regarding the need to educate a diverse population of students, particularly students with learning disabilities. Relevant to this discussion is a brief introduction to the conceptualization of learning disability in the current educational climate, including the varied perspectives on this categorization of low achievement and the resulting challenges to policy, research and practice. An argument will be presented as to the innate logic of *inclusion*—in contrast to both segregation and mainstreaming.

Following a theoretical overview, a more practical look at the issues of learning disability calls for an overview of the day-to-day consequences of inclusion, specifically, how to teach low achieving students in the traditional classroom. First, an overview of classroom structure, philosophy of learning, instructional modification, and intervention strategies will be presented. Included in this overview will be an extensive look at evidence-based practices meant to accommodate academic diversity including peer-mediation in general and an exhaustive summary of the use of cooperative learning strategies with students with learning disabilities. In addition, recent advances will be summarized including the use of a peer support literacy strategy called Literature Circles. Next, is a discussion of the considerable challenge facing public education, namely an extensive theoretical foundation for instruction that consistently fails to be put into practice in classrooms across the country. Finally, reflections on the research to practice

gap are presented and potential solutions offered in the form of video models

representing evidence-based practices—in this case, the strategy called Literature Circles.

Trends in Education for Students with Learning Disabilities

Growth in Identification and Developments in Services

Schools in the United States have recently witnessed tremendous growth in the

number of students receiving special education services under the auspices of the

Individuals with Disabilities Education Act (most recently reauthorized in 2004). Most

significant in this growth has been the special education category of Specific Learning

Disability to the point that this population represents approximately 50% (now the largest

category) of the total student population served by special education funding (U.S. office

of Special Education, 2004). Consistent in the growing population served by special

education has been a growing ambiguity in the conception of learning disability

(Algozzine, 1985; Skrtic, 2005) along with developing acceptance of the label as a means

for students to receive additional support in school (Hallahan & Mock, 2003; Kavale &

Forness, 2003).

Further, developments in services for students with disabilities nationwide have

presented numerous challenges in providing adequate instruction for students with

disabilities (Rea, McLaughlin, & Walther-Thomas, 2002; Zigmond, 2003). The

mainstreaming movement and subsequent *inclusion movement* have significantly

impacted the way we view education for students with disabilities (Yell, Drasgow,

Bradley, & Justesen, 2004). While traditional perspectives have held that students with

disabilities are best supported by receiving intensive individualized instruction in separate settings—a logical action considering the nature of academic struggle experienced by students with disabilities—a paradigm shift in the field of special education has engendered an emphasis on providing these principles of specialized education to the general education classroom (Ehren et al., 2005; King-Sears, 1997; Rea et al., 2002; Stainback & Stainback, 1996).

Controversy in Conceptualizing Learning Disability

The concept of learning disabilities has historically been disputed on several levels for numerous reasons. Researchers and social critics from both inside and outside of the special education community have recognized the somewhat shaky foundation upon which the learning disability label stands (Carrier, 2004; Skrtic, 2005; Spear-Swerling & Sternberg, 1998; Sternberg & Grigorenko, 2002; Warner, Dede, Garven, & Conway, 2002). Major contributors to the special education literature subspecialty of learning disabilities have struggled for decades to come to consensus as to the indisputable nature of learning disabilities and thus the precise way to detect and treat them (Fuchs, Mock, Morgan, & Young, 2003; Mellard, Deshler, & Barth, 2004; Peterson & Shinn, 2002; Scruggs & Mastropieri, 2002; Sternberg & Grigorenko, 2002; Warner, Dede, Garvan, & Conway, 2002).

Traditionally, the most common *agreement* about the definition of learning disability is that it is symptomatically characterized by a significant difference between the perceived, or measured, aptitude of students and their actual achievement in school. The

19

symptom-oriented diagnosis is thus meant to be objective although it fails to isolate etiology of this implicitly pathological condition. One substantial element of controversy surrounds the means by which a student's aptitude and achievement should be determined (or whether they *can* be reliably and objectively determined). The process typically involves the development of a discrepancy score between IQ scores and achievement scores—scores that have highly questionable validity (Sternberg & Grigorenko, 2002; Warner et al., 2002).

Intelligence testing is the widespread approach to assessing students' innate intellectual capacity, expected to exist as a diagnostically distinct construct from their performance and achievement in school. The challenge, of course, to this approach exists with the fervent criticism among multiple disciplines of the accuracy or fairness of intelligence testing, to say nothing of the skepticism about the nature of intelligence, which is itself a theoretical construct referred to as *g* in the psychology literature (Gardner, 1999; Gould, 1996). Some argue that intelligence testing is incapable of precisely measuring the inherent promise of a child; the assessment process fails to isolate universal abilities existing in a vacuum because human traits simply do not work that way. Rather, social organisms are a product of their social experiences and it may be impossible to remove the influence of social, cultural, and economic experience on the process of assessing human potential (Dudley-Marling, 2004; Gardner, 1999).

Possibly the strongest critique of the intelligence testing process exists related to the extreme bias against members of ethnic and linguistic subcultures. African Americans, for example have historically lived in socio-cultural isolation distanced from the varied

European cultures that comprise a *majority culture* in the United States as a result of racial prejudice and the link between racial minority status and poverty (Losen & Orfield, 2002; Patton, 1998).

Looking past the issue of intelligence testing alone, theorists within the school psychology community—those ultimately responsible for the diagnostic procedures leading to special education placement—note numerous statistical flaws related to this traditional model. Flaws include test-retest fluctuations due to statistical regression and the increased statistical likelihood of students with higher IQ scores to qualify while students with more typical scores fail to meet the necessary placement criteria (Spear-Swerling & Sternberg, 1998). In fact, Merrell and Shinn (1990) note that the critical variable in school psychologists' consideration of special education placement for students with learning disabilities is the lack of academic achievement of the child in question, rather than irrefutable diagnostic data—a factor which may account, in part, for the recent changes in SLD identification in IDEA (2004). The newly implemented Responsiveness to Intervention (RTI) approach to SLD placement typically involves monitoring student progress for persistent failure and proceeding with identification only after a sufficient track record of school failure has been established (Fuchs et al., 2003).

Despite, the numerous points of attack waged on the learning disability label mentioned to this point, the critiques are unified in their limitation to one paradigm of scientific thought (Kuhn, 1970), what Skrtic (1995c) calls *functionalism*. According to Skrtic (1995b) the functionalist view of special education involves several assumptions upon which the vast majority of special education work is premised:

1. School failure is a (psychologically or sociologically) pathological condition

that students have; 2. Differential diagnosis (i.e., homogeneous classification by

ability or need) is an objective and useful practice; 3. Special programming (e.g.,

in-class ability grouping, curricular tracking, and segregated and pull-out special

needs programs) is a rationally conceived and coordinated system of services that

benefits diagnosed students; 4. Progress in education (i.e., greater academic

achievement and efficiency) is a rational-technical process of incremental

improvements in conventional diagnostic and instructional practices (pp. 68-69).

Skrtic (2004) also describes special education as lacking in a valid theoretical foundation;

actions including research and practice proceed based on a confounded theory. He claims

that special education researchers' unquestioning acceptance of the integration of

statistical and medical theory serves as the foundation for problems in special education.

The logic of statistics applies no value; data points are simply judged to be closer or

further from mean or median values with no attribution of merit to that variance. In

contrast, medical/biological theory judges conditions to be either normal or pathological

(implying disease). The integration of these two distinct paradigms results in a statistical

model that attributes pathology to characteristics that differ significantly from a mean

value (Skrtic, 1995b, 1999, 2004, 2005). Consideration of the SLD identification criteria

in light of this flawed theoretical foundation highlights the limitations of the

identification criteria that measure symptoms but do not clearly relate to some specific

etiology. No clear *condition* is identified when a student is identified as having a specific

learning disability. Although, research on dyslexia indicates there is neurobiological

evidence of difference in information processing (Pugh et al., 2001; Shaywitz & Shaywitz, 2004), the studies involving use of neuroimaging are clearly disconnected from the practical diagnostic procedures used in schools (Spear-Swerling & Sternberg, 1996).

Particularly questionable in the functionalist paradigm is the concept of labeling itself, as it has an effect of stigmatization and has long been viewed as a necessary evil in educational policy (Hardman & Nagle, 2004). Assigning to a child a negative label, indicative of a permanent substandard condition, can hardly represent the best intentions for the life of that child. Spear-Swearling and Sternberg (1996) note that making a distinction between a student who struggles with reading and a student with a reading disability involves acceptance of a set of "erroneous, potentially damaging assumptions that are embedded in the concept of reading disability" ultimately diminishing the student's potential for academic success (p. 1).

Representing a unique perspective on disability, Levine (2002) explains that this categorization process represents a dichotomy between *lumpers* and *splitters.* He states that the desire to develop problem-oriented categories like dyslexia, ADHD, and emotional handicap does little to make progress for the children receiving those labels; alternatively, Levine offers a perspective on disability as simply a manifestation of natural human diversity. In contrast to the notion of deficit, he suggests that educators recognize the natural state of differences among individuals— a perspective suggesting that children do not exhibit characteristics of learning *dis*ability, but rather unique and varied characteristics of *ability*. Levine's perspective on the issue is based in neuropsychological and neurobiological research and suggests that although

23

characteristic weaknesses in students typically identified with learning disabilities would represent areas in need of compensation and possibly remediation, intervention should be based on less of a negative, deficit-based orientation. In fact, Levine suggests that there is little value in use of terms like *learning disability*, *ADHD*, and *dyslexia*; rather each child is best viewed as unique in his or her experiences and cluster of strengths and weaknesses.

In looking at learning disabilities from this neuropsychological view, Levine (2002) suggests that multitudes of individuals exhibit a broad array of neuro-developmental profiles as a result of varied, specific manners of neurodevelopmental function, or dysfunction. Levine offers a unique perspective on shortcomings in memory, attention, and fine motor coordination. Within this perspective of neuropsychological pluralism, there can be no arbitrary line drawn between typical performance and that which must be diagnosed as abnormal, as is typically seen in statistical and psychological paradigms.

Some argue that the field of special education continues to be plagued by its positivist foundation regarding views of impairment and disability (Lipsky & Gartner, 1987, 1996; Skrtic, 2004). Essentially the medically oriented perspective on disability reflects a deficit-based orientation viewing difference as abnormality rather than a feature of natural human diversity. The desire to designate every difference in human performance as a disorder or dysfunction and the subsequent need to "fix" these dysfunctions is foundational thinking in the medical, or "pathological model" and pervasive in the perspectives of many special educators (Skrtic, 2004, p. 82). This philosophical viewpoint is evidenced in the desire of the special education field to create endless labels

and semantic categories for discussing individuals—a desire to collapse unique human experiences into larger, more easily discussed categories (e.g., mild disabilities, severe disabilities). Although there is certainly a practical orientation involved in this kind of thinking, it may be problematic that special educators often accept without any critical reflection on the foundation of this categorization process the undeniable accuracy of its labels (Skrtic, 2004).

A major criticism, or at least an alternative conception of the learning disabilities label is the notion of the social construction of disability. Common to the scientific paradigms of Interpretivism (Ferguson & Ferguson, 1995) and Radical Humanism, also known as Social Interpretivism (Kiel, 1995), is the idea that reality is socially constructed and research can never be entirely objective. In practice, this perspective suggests that children identified as having learning disabilities are only disabled to the extent that certain demands are placed upon them. In other words, a child with a learning disability may exhibit characteristic behaviors of a learning disability when asked to independently complete a 5-paragraph essay, but without this requirement he or she may exhibit no clear deficits or impairments. Therefore, the social construction of "essential skills for academic success" *creates* the disability in the child; the disability exists in the child only to the extent that the teacher makes certain demands (Dudley-Marling, 2004).

Even more controversial, theorists within the paradigm called Radical Structuralism further attack the concept of SLD as generally fictitious and self-serving to the category's founders. Sleeter (1995) suggests that the learning disability label was an invention of the white majority culture as a way to explain academic failure in light of increased academic

standards in the early years of the cold war. Whereas students of color were assigned

labels such as *mental retardation* or *cultural deprivation* to explain failure without regard

for the stigmatizing consequences, the privileged class needed some way of justifying

academic failure in their children while maintaining their "normality." Although this

effect may have diminished, the initial impetus, according to Sleeter (1995) was to

protect low-achieving white children from an increasingly inflexible educational system.

Skrtic (2005) furthers the previous two arguments suggesting that the categorization

of students with learning disabilities represents a "perfect storm in the historical

development of public education—the fateful convergence of a dramatic increase in

student diversity and the extensive bureaucratization of schools in the first half of the

20th century" (p. 149). He agrees with the interpretivists denying the innate pathology of

learning disabilities—a common assertion among supporters of the inclusion movement

(Skrtic, 1995a)—and further suggests that learning disabilities are better described as

"organizational pathologies" (Skrtic, 1995d, p. 190) in effect suggesting that the

disability does not reside within the child but is instead generated by the defective

organization of the schools. Skrtic (1995d; 1999; 2005) argues that the "machine

bureaucracy" structure of schools supported by the supposed efficiency of scientific

management does not naturally serve to educate all children, but rather sorts them by

ability as would an industrial machine or assembly line. Students whose skills, interests,

or motivation conflict with the status quo are simply sorted out of the system. The system

they are sorted into is called special education and serves as a reactive effort to deal with

the failure of public schools (Skrtic, 1999).

<u>Framework for Inclusion</u>

Notably consistent in the arguments previously reviewed is the questionable credibility of *learning disability* as a term for isolating a distinct, homogeneous population of students who should be studied and treated separately from *normal* students. Whether considered within the functionalist paradigm or more subjectivist perspectives (i.e., interpretivism, radical humanism), use of the learning disability label is problematic. However, the reality of the current school climate is that children who struggle due to neurodevelopmental dysfunctions or socially constructed inadequacies are often labeled as learning disabled; and so that language will be reflected in the literature review to follow. For the purposes of this study, the terms *learning disability* and *mild disability* are maintained for academic and semantic purposes, despite the alternative perspectives which might counter the use of this language.

Most important, in considering the questionable credibility of the learning disabilities category, is the validity of the subsequent decision to remove a student from his or her grade level peers. The segregation of students with learning disabilities into classrooms other than those to which they would typically be assigned presumes acceptance of the learning disabilities label and the uniformity of the population of students included in this category. Considering the vast body of evidence and numerous points of attack on the learning disabilities label, some in the special education community find it difficult to imagine how schools can justify the exclusion of students identified with learning disabilities (Brantlinger, 2004; Carrier, 2004; Dudley-Marling, 2004). Therefore the

notion that inclusion is the natural state of education for children labeled as learning

disabled, struggling learner, or at-risk, is a fundamental framework for the work of many

researchers and student advocates (Brantlinger, 2001, 2004; Fitch, 2003; Gartner &

Lipsky, 2004; Sapon-Shevin et al., 1994).

In contrast to the tenets of functionalism that Skrtic (1995b) suggests provide the

foundation for special education research and practice, Daniels (2005), known for his

work with reading instruction in urban environments, suggests alternatives. Daniels offers

the following assumptions as fundamental to the ideology of inclusion:

[1] Each of us already has a disability, or will develop one during our lifetime

(e.g., old age). [2] Differences among people are normal. [3] Diversity is an asset;

we learn more from people who are different from us. [4] Every classroom is

diverse. [5] All teachers are special educators. [6] School structures and

procedures cause some "disabilities" (e.g., rules requiring absolute silence or

stillness) (2005, p. 54).

These guiding assumptions differ markedly from traditional perspectives but may

represent a more progressive orientation toward meeting the needs of students with

disabilities.

<div align="center">Examining the Inclusive Educational Paradigm</div>

An excellent example of the emerging value of inclusion is represented by the work

of Fitch (2003). Fitch (2003) sought to look beyond academic gains and outcome data to

more closely assess the impact of inclusive schooling on the lives of children with

identified disabilities. Performing a qualitative inquiry, the author interviewed 11

students with mild disabilities identified as Developmentally Handicapped (a term applied to students with mild deficits in learning or cognitive function) at two urban junior high schools. Results indicated that students in inclusive classrooms experienced a markedly different and more positive "sense of themselves" when compared to students in traditionalist classrooms and segregated settings (p. 233). Critical in this conclusion was the placement of students not only in integrated settings but also with teachers who exhibited the ideology of inclusion—a belief system that embraces differences and emphasizes collaboration and diversity as natural features of the classroom culture.

In contrast to the positive outlook in more inclusive classrooms, students who were merely integrated in a physical but not ideological sense, continued to feel isolated. In response, some students demonstrated feelings of safety and confidence in special education classes similar to what many traditional special educators have espoused for generations (see Kauffman & Hallahan, 1995). However, these same students appeared to exhibit this perspective only as a response to their feelings of rejection. Ultimately, those students placed in segregated learning environments "took on a kind of deviant subcultural identity as outsiders" in their own school (Fitch, 2003, p. 238). Students felt ashamed and embarrassed of their educational placement.

Fitch (2003) goes on to describe the dichotomy in the ideology that underlies special education services. The author uses the terms *traditionalist* and *inclusive* (Brantlinger, 1997) to explore the belief systems represented in these diverging perspectives. The traditionalist view of diversity in schools and society is problem-oriented with disabilities existing as intrinsic *conditions*, which are best addressed by applying labels. Further, this

perspective holds that the best support services for students with disabilities are provided in separate settings by special educators with expertise in meeting their needs. The basis of this thinking is that students struggling with academics will benefit from the specialized and intensive instruction available in segregated settings and that the notion of segregation is rooted in logical and efficient systems of services which are innately fair and appropriate (Fitch, 2003).

Fitch (2003) suggests that inclusive ideology is quite different in many ways and essential as a foundation to the advent of inclusive instructional practices. In contrast to the traditionalist perspective, the author indicates that a truly inclusive belief system emphasizes diversity as natural, expected, and thus valued. A general consensus within this ideology is that *categories* including those related to disability are to some extent socially constructed. In that vein, assigning labels to students is neither helpful nor appropriate. Cooperation, collaboration, and interdependence are valued in inclusive ideologies for both students and teachers. Naturally, the author offers that instructional approaches such as cooperative learning and collaborative instruction are common in truly inclusive classrooms (Fitch, 2003).

Legislative Roots of the Inclusive Education Movement

Historically, the Individuals with Disabilities Education Act (IDEA) has been the legislation upon which special education is built. It provides both the mandate for addressing the needs of children and adolescents with disabilities in schools as well as the practical implications for policy development. IDEA has been periodically reviewed by

the United States legislative bodies and subsequently reauthorized (amended) with sometimes subtle and sometimes dramatic changes related to the concerns of parents, advocacy groups, and changing political currents. One consistent shift in the most recent reauthorizations of IDEA has been the ever-increasing emphasis on serving the needs of students with disabilities in the most inclusive environment (Gable & Hendrickson, 2000). A first step in this process was the Regular Education Initiative (REI) sponsored by the Department of Education in the mid to late 1980s (Hallahan & Mock, 2003; Yell et al., 2004).

Educators in special education consistently refer to the continuum of services when considering the many steps possible to bring each student closer to the ultimate goal of education in the general curriculum. This trend toward placement in the general education classroom, typically a process in which a student's strong performance in a special education class is seen as indicative of their preparedness for a "regular class," is typically referred to as *mainstreaming* (Wang & Baker, 1986). The 1997 reauthorization of IDEA further emphasized this trend. However, in contrast to the notion of gradually moving students with disabilities into the general education classroom, the philosophical notion of *inclusion* presumes that this is the most natural setting for all children (Gable & Hendrickson, 2000).

As legislation has changed over the years, schools have increasingly been held to a higher standard regarding the quality of educational services provided for students with disabilities (Hardman & Nagle, 2004; Katsiyannis, Yell, & Bradley, 2001). The most recent version of IDEA (2004) more closely aligns with the No Child Left Behind Act of

2001, taking one more significant step toward the education of students with learning and other disabilities in the general curriculum and holding schools accountable for their education (Hardman & Nagle, 2004).

Moving Beyond Ideology in Inclusive Education for Students with Learning Disabilities

Despite a burgeoning mandate for more inclusive education, significant controversy persists related to the relative efficacy of service delivery models for students with learning disabilities. Many in the special education community suggest that inclusion diminishes what is *special* in special education (Fuchs & Fuchs, 1995) while proponents of inclusive schooling insist that students with learning disabilities will experience higher expectations, appropriate role models, and true opportunities for generalization of skills—ultimately leading to improved outcomes (Walther-Thomas, Korinek, McLaughlin, & Williams, 2000). Although the evidence base to support inclusion is still emerging at this point as models of inclusion and the reality of inclusive services varies across school settings (Dieker, 2001a; McLeskey, Hoppey et al., 2004), numerous studies indicate positive achievement and social outcomes in general education for students with learning disabilities (e.g., Affleck, Madge, Adams, & Lowenbraun, 1988; Baker, Wang, & Walberg, 1995; Carlberg & Kavale, 1980; Deno, Maruyama, Espin, & Cohen, 1990; Walther-Thomas, 1997; Wang & Baker, 1986; Zigmond & Baker, 1990).

Most recently, Rea, McLaughlin, and Walther-Thomas (2002) examined this issue by performing both quantitative and qualitative analyses of district data in Virginia. Students with learning disabilities were compared between two different middle schools, one

32

implementing an inclusive model (n=36 students), and one implementing a pullout (i.e., separate classroom) model (n=22 students). All students were in 8th grade and any students who had not been receiving special education services from the school in question for at least 2 years were removed from the sample. Both schools were relatively representative of suburban, middle class student populations. As there is limited potential to experimentally investigate an issue such as inclusion, the authors evaluated the relative achievement and social outcomes of the two samples experiencing their special education in different ways by matching students on critical variables: age, gender, IQ, parental education, time spent in special education, SES, and time in the school district.

Analysis of available statistics suggested that students with learning disabilities educated in the inclusive setting outperformed their counterparts in the traditional group; they received higher grades, attained higher standardized test scores in math and language, and attended more days of school. Disciplinary action was fairly equivalent indicating that students with disabilities integrated into general education classrooms do not exhibit more severe behavior problems. Overall, based on these data, it appears that students with learning disabilities in suburban, average-income schools performed better in some but not all areas when included in the general education setting and at the very least did not appear to fare more poorly in any measured area (Rea, McLaughlin, & Walther-Thomas, 2002). A limitation to this study is that it offered little opportunity to generalize theory to more urban, high-poverty schools.

The practical implications of inclusive education are often misrepresented. King-Sears (1997) explains that inclusion does not mean that students shown to experience difficulty in general education classrooms should be put back in those very classrooms with the hope that "everything will work out." Rather, inclusive special education must involve a new view of service provision, drawing what has been shown to be effective from the traditionalist literature and applying it, when possible, to inclusive settings (King-Sears, 1997). This philosophical shift in service provision is reflected in the recent development of embedded strategy instruction. Strategies that had long been advanced as appropriate for separate, intensive instruction are not being reorganized and suggested as elements of daily learning (Ehren et al., 2005). Students experiencing their education in the general education classroom require no less specialized instruction or support from special educators, as they will continue to experience a significant struggle to keep pace with their grade-level peers in academic areas (King-Sears, 1997).

Critical areas of struggle for students with learning disabilities include reading and written expression and in general, the ability to develop in-depth knowledge and understanding of multiple content areas over their years of schooling. There are various reasons for difficulty in accessing content, particularly at the secondary level. Researchers in the area of learning disabilities have identified cognitive and metacognitive factors to be critical in the struggles of students with learning problems (Lenz & Deshler, 2004). Students with learning disabilities often experience significant struggles with *executive functioning* which inhibits students' ability to independently

complete complex tasks (Ellis, Deshler, & Schumaker, 1989). Executive functioning refers to a cognitive process in which planning, monitoring, attention, and concentration support goal-directed behavior. In effect, students experience challenges with proceeding toward academic goals due to cognitive limitations in the ability to coordinate all of the prerequisite tasks (Taub et al., 2005). Limitations in cognitive processing speed and working memory, which are interrelated with executive functioning, further complicate the ability to complete multi-faceted activities such as reading (Fletcher et al., 2003; Gersten, Fuchs, Williams, & Baker, 2001; Swanson & Saez, 2003). Reading comprehension, for example, requires tremendous agility with reading fluency. Many students with learning disabilities experience working memory overload due to difficulty with text decoding and thus fail to develop sufficient comprehension (Jenkins & O'Connor, 2002).

The school experience for students with learning disabilities is further exacerbated in middle and high school. After years of failures and struggle, students often become unmotivated and pessimistic about their potential for academic success (Deshler & Lenz, 1989). Many teachers perceive these students to be apathetic learners with bad attitudes—a factor that serves as a self-fulfilling prophecy. Students appear not to care, so teachers treat them as if they cannot or will not learn (Ellis, 1989).

Students with learning disabilities begin to experience the greatest struggle at the secondary level at which point, curricular demands and quantity of content increase dramatically (Lenz et al., 2004). Students in middle and high school are required to read and write prolifically, something they have likely struggled with throughout their years in

school (Deshler et al., 2004). Unfortunately, the disparity in academic potential becomes more conspicuous upon entering secondary schooling. Academic content in middle and high school increases in complexity and challenge each year with the assumption that students' skills will keep pace with these increases (Deshler et al., 2004). However, research on the academic performance of students with learning disabilities indicates that performance in reading, for example, generally levels off at the point of entering middle school and rarely improves more than one grade level throughout the remainder of their secondary schooling (Sprick & Deshler, 2005). Students with learning disabilities entering middle and high school find themselves overwhelmed by the vast amounts of new content and the break-neck pace in which it is offered indicating that teachers need to provide content in a more meaningful, memorable, and organized manner (Deshler et al., 2004).

<center>Practical Implications of Inclusion in Schools</center>

Regardless of philosophical orientation, the ultimate goal of special education is to provide services to students with disabilities such that they will experience the greatest level of successful outcomes possible. Thus, the true challenge to the inclusion movement is making it work practically in actual schools across the United States. This raises the question of what service delivery model (i.e., instructional strategies, learning environments) will best serve the needs of students with learning disabilities in inclusive settings.

Included in a discussion of service delivery in schools that serve students with learning disabilities is the dichotomy between the *idealized* notion of service delivery and the *practical realities* occurring in schools. The current status of service delivery in schools for students with learning disabilities could still be appropriately described as inconsistent and at times even as "disjointed service delivery" (Dieker, 2001, p. 264). Dieker (2001) described the current state of inclusive practice as varying across districts, states, and even across schools creating a situation in which children might begin their schooling in a highly inclusive environment, and progress through middle and high school with sometimes-turbulent changes in their educational placements. McLeskey et al. (2004) similarly reported that inclusive practice in the United States varies considerably and that, in fact, most states and school districts have done very little to advance the inclusion of students with learning disabilities. Unfortunately, these facts represent some of the practical limitations to the delivery of services to students with learning disabilities.

As previously noted, the current status of service delivery continues to focus on serving students with an individualized placement along the continuum of educational placements and services but is characterized by a change in philosophy which emphasizes retaining students in the general education classroom (Gable & Hendrickson, 2000; Yell & Shriner, 1997). Facing numerous challenges related to the practical issues of educating students with learning disabilities in the general education setting, there has been considerable advancement in innovative, inclusive practices. Included in many service delivery models for students accessing the general curriculum is collaborative instruction

from both general and special educators. This instructional practice is typically referred to as cooperative teaching or co-teaching and involves the collaborative partnership between a general educator acting as a content specialist and a special educator acting as a specialist in instruction for students with disabilities (Bauwens & Hourcade, 1991; Cook & Friend, 1995).

There are several general models or *structures* of co-teaching, which allow teachers to share responsibility for whole class instruction and focus on individual student needs in varying ways. Some prominent examples of these models include 1) *One Teach, One Support*, 2) *Station Teaching*, 3) *Parallel Teaching*, 4) *Alternative Teaching*, and 5) *Team Teaching* (Friend & Reising, 1993). Co-teaching is by no means new to special education, but continues to be an emerging trend in special education service delivery.

Trends in service delivery have come under stronger scrutiny in recent years in light of the No Child Left Behind Act's emphasis on providing scientifically validated, or research-based, practices. Researchers in special education have in recent years attempted to identify what practices are effective to address the needs of students with disabilities. The *research-based* terminology is quite common in the special education literature and has prompted considerable effort by special education researchers in recent years to critically reflect on the work done in the field to this point, a process often conducted via the performance of a quantitative research method called meta-analysis (see Forness, Kavale, Blum, & Lloyd, 1997; Lloyd, Forness, & Kavale, 1998; Murawski & Swanson, 2001). Results from this work have enabled special educators to focus more closely on those practices, which have been supported by an extensive body of research and avoid or

end the use of those practices found to have little positive impact for students with disabilities. Notable in this pursuit of instructional practices supported by scientific evidence is the philosophic orientation suggesting that certain practices can be established as *research-based practices* for students everywhere. This view is not universally shared and certain notable voices of dissent exist within the field of special education (although quietly) suggesting that there are no clear-cut research-based practices; rather all instruction is context-based and will inevitably vary across instructional settings (Brantlinger, Jimenez, Klingner, Pugach, & Richardson, 2005; Brantlinger, 2001; Skrtic, 2005).

To this point, however, researchers in the field of special education have strongly established the effectiveness of certain instructional practices through the use of meta-analysis. Possibly the most thoroughly supported in the research literature is the use of Direct Instruction, also referred to as intensive-explicit instruction (Ellis, Deshler, Lenz, Schumaker, & Clark, 1991; Kinder & Carnine, 1991; Knight, 2002) as a means of teaching specific, often prerequisite, skills. Another instructional approach supported through strong quantitative research is the use of mnemonic strategies (Brigham & Brigham, 2001; Forness et al., 1997). Mnemonic strategies are methods which enable students with memory problems to compensate for difficulty with recall of large amounts of information, something that could come in quite handy during the current trend towards formal standardized testing (Brigham & Brigham, 2001). Typically included or accompanying the use of mnemonic strategies is the creation of graphic representations such that students can visualize information to be learned (Brigham & Scruggs, 1995).

39

Meta-analyses conducted by Forness and colleagues (1997) and Lloyd and colleagues (1998), found explicit reading instruction and behavior modification as strongly supported methods of instruction for students with disabilities (learning disabilities, in particular). The authors found that some methods have been slightly less clear in their potential promise. Although of apparent pragmatic use as inclusive practice, the various forms of peer-mediated instruction (e.g. Classwide Peer Tutoring, cooperative learning, Cross-Age Peer Tutoring, etc.) have had inconsistent results on academic achievement, a fact which could be related to fidelity of implementation, but may necessitate some caution (Forness et al., 1997; Lloyd et al., 1998).

Co-teaching is another example of a promising practice which some have suggested should be evaluated with caution (Zigmond & Magiera, 2001). Murawski and Swanson (2001) assert the potential effectiveness of co-teaching as a means for including students in the general curriculum but advise that the body of empirical research was limited and therefore it would be premature to fully accept the efficacy of this instructional practice. Other promising practices which seem beneficial but have marginal empirical support to categorize them as "clearly effective" include the use of computer-assisted instruction and reduction of class size for improved student teacher ratios (Forness et al., 1997; Lloyd et al., 1998).

Aside from clarifying what practice is effective, recent work has helped to differentiate those practices, which do not appear to have significant impacts on the achievement of students with learning and other mild disabilities. For example, social skills training has been found to have limited outcomes when applied through a rigid

instructional practice rather than in the context of daily classroom routines. Other

practices which appear to have limited effectiveness include the use of special diets (i.e.

the Feingold Diet) and placement of students in special classes (Forness et al., 1997;

Lloyd et al., 1998). Considering the emphasis of No Child Left Behind on research-based

practices and the alignment of IDEA 2004 with NCLB, the special education community

will likely continue to see an emphasis on defining which instructional practices have

their basis in scientifically rigorous research. A challenge in this process is determining

what qualifies as scientifically rigorous (Odom et al., 2005). As some strategies more

easily lend themselves to scientific scrutiny (e.g., Direct Instruction) than do others (e.g.,

co-teaching), dispute will likely persist over what can be promoted as the premiere

instructional strategies.

Although the establishment of research-based practices has merit when providing a

foundation of instructional strategies which impact student achievement, some

researchers have attempted to identify those instructional practices with a reasonably

strong evidence-base and clear, practical implications for inclusion. King-Sears (1997)

summarized *best academic practices* for inclusion noting that such practices are not

necessarily limited to achievement in content areas but must extend to management of

behavior and enhancement of social skills, which underlie the potential for academic

success. Included in her summary of best practices were 1) Cooperative Learning, 2)

Strategy Instruction, using the explicit, intensive model of instruction, 3) Differentiated

Instruction 4) Self-Determination, 5) Explicit or Direct Instruction, particularly for more

structured content, 6) Curriculum-Based Assessment, 7) Generalization Techniques, 8)

Collaboration between general and special education, 9) Proactive Behavior

Management, and 10) Peer Support/Social Interaction.

Strategy instruction included in the review by King Sears (1997) is an appropriate

instructional approach to negate the tendency toward minimizing educational experiences

of students with mild disabilities—sometimes referred to as *watering down* the

curriculum (King-Sears, 1997). Rather, the Strategic Instruction Model is an approach

which assists students in overcoming areas of deficit in their skill repertoire and

improving their metacognitive practices to improve performance in academic content—a

process which in contrast has been referred to as "watering up the curriculum" (Ellis,

1997, p. 407). Not included in the meta-analyses mentioned earlier, research in these

strategies has been provided predominantly through use of single-subject research, a

highly respected mode of inquiry in special education which in some instances (i.e.,

research on students with low incidence disabilities) may be the only possible approach

(Horner et al., 2005).

The underlying philosophy of the Strategic Instruction Model is a response to what

has been perceived as an inefficient approach to serving the needs of students with

learning disabilities in general education classes, which has focused on accommodations

and modifications of curriculum. This traditional approach could be classified as a more

reactive approach to meeting the needs of students with learning disabilities requiring

special education teachers to constantly serve in a tutorial role, often minimizing

student's exposure to the general curriculum as an attempt to protect them from failure or

assisting them with "making it" from day to day. In contrast, the Strategic Instruction

Model enables students to develop a repertoire of skills that are likely to aid them in independently accessing the general curriculum. The philosophical basis at work in this model is comparable to the traditional allegory "Give a man a fish and you feed him for a day. Teach a man to fish and you feed him for a lifetime" (Chinese proverb). The SIM approach typically resonates with general educators who often become frustrated with monitoring and differentiating instruction for each student with learning problems. Typically those accommodations and modifications made are those which can become universally applied and have broader utility (Lenz & Harris, 2005).

The Strategic Instruction Model is broken down into two major areas of intervention: teacher-focused interventions and student-focused interventions. Teacher-focused interventions involve the enhancement of typical secondary instruction to improve the potential for student success, and are typically referred to as Content Enhancement Routines part of the Content Enhancement Series. These routines are meant to enhance whole group instruction, typically the instruction provided by general education teachers in inclusive classrooms. Student-focused interventions involve the development, among students, of specific strategic approaches to learning content by addressing areas of deficit. The larger collection of these learning strategies is referred to as the Learning Strategies Curriculum and includes a continuum of strategies to address skills in acquisition of knowledge, storage or maintenance of knowledge, and expression or demonstration of knowledge. Strategies in this curriculum include strategies for reading comprehension (e.g. The Word Identification Strategy, The Paraphrasing Strategy), memorization of information (e.g. The FIRST-Letter Mnemonic Strategy, The LINCS

Vocabulary Strategy), expression of information (e.g. The Sentence Writing Strategy, The Paragraph Writing Strategy), and demonstration of competence (e.g. The Test-Taking Strategy) which have been shown to be effective in improving student learning and performance (Lenz, Deshler, & Kissam, 2004).

In recent years, learning disabilities researchers have continued to explore innovative approaches to supporting students with learning disabilities in the general education classroom. Not all methods of instruction have existed over a period of time to establish a substantial body of empirical research but may nonetheless represent positive trends in instruction. Gersten (1998) in his summary of advances in instruction for students with learning disabilities beyond the limited scope of remediation, includes *anchored instruction,* as one strategy in a "broad array of instructional approaches with the potential for providing students with LD meaningful access to the general curriculum and increasing their active engagement" (p. 169).

Gersten (1998) refers to anchored instruction as "learning through experience" (p. 166). An expansion of the conceptualization of anchored instruction has lead to the implementation of video-based anchored instruction for students with learning disabilities. Numerous authors have shown the effectiveness of this approach for students with learning disabilities (e.g., Glaser, Rieth, Kinzer, Prestidge et al., 1999; Rieth et al., 2003; Xin & Glaser, 1996).

Another instructional approach with substantial research support is peer-mediated instruction—a general term for a collection of inclusive practices to support students with disabilities in the general education classroom (Maheady et al., 2001). Included under

this umbrella are practices such as Classwide Peer Tutoring (CWPT), Peer-Assisted Learning Strategies (PALS), and Reciprocal Teaching.

Cooperative learning also has research to support its use in inclusive settings if "active ingredients" are incorporated. For true cooperative learning to exist, individual accountability and group rewards must be components of the strategy (McMaster & Fuchs, 2002). An excellent model of cooperative learning that can be adapted for students with disabilities in the general education setting is Literature Circles (Daniels, 2002a). Literature Circles, in contrast to skills-oriented strategies like CWPT, are an effective method for promoting positive affect toward reading and higher order thinking (Daniels, 2002). Various formal structures for implementing cooperative learning exist in special education. Cooperative learning and peer supports may be most accurately viewed as highly effective methods for laying the groundwork for inclusion.

If, as Fitch (2003) states, truly inclusive ideology includes an emphasis on cooperation, collaboration, and interdependence, practical strategies must closely reflect this ideology. Clearly, with a strong focus on positive social interdependence and community-oriented collaboration, a deeper assessment of cooperative learning may be critical to considering future trends in inclusive education.

Conceptualizing Cooperative Learning

Considerable debate exists over the utility and effectiveness of cooperative learning for the purpose of accommodating the needs of students with learning disabilities, despite a fairly substantial body of empirical evidence to support its use (McMaster & Fuchs,

2005). Much of this debate may exist due to a widespread misrepresentation of what cooperative learning truly is. An explication of the intended and comprehensive qualities of cooperative learning is necessary to continue a discussion of the impact of this instructional practice on students with learning disabilities.

A common report related to the inadequacy of cooperative learning relates to problems with one member of a group doing all of the work while others sit idly by and reap the benefits. Represented in this complaint is a lack of understanding of what well implemented, accurately structured cooperative learning is supposed to look like in classrooms (Johnson & Johnson, 1992). McMaster and Fuchs (2002), for example, state in their summary report on the effects of cooperative learning on the achievement of students with learning disabilities that the research suggests cooperative learning is only effective when there are two key ingredients: *individual accountability* and *group reward*. The problem with this statement is that, in fact, an implementation that does not include these two factors is not truly cooperative learning (Johnson, Johnson, & Stanne, 2000). This statement is tantamount to concluding that cooperative learning only works well when it *is* cooperative learning. The conceptual contradiction in McMaster and Fuchs's (2002) conclusion reflects the ambiguity associated with cooperative learning among the educational community.

Defining Cooperative Learning

Possibly one of the greatest barriers to understanding how to effectively implement cooperative learning is the fact that it reflects an educational, and in a larger sense,

societal philosophy; thus, cooperative learning does not lend itself to being narrowly defined in simple directions or checklists. The structure of schools and learning environments very much reflects the larger society. American schools are a mirror image of the American mindset on achievement and work—great emphasis on the effort of individuals competing for success. However, this philosophy ignores the incredible value of group and community efforts. The notion that all learning and achievement must occur in an individualistic vacuum serves as a foundation for the traditional model of establishing learning environments in American schools. In contrast, true cooperative learning represents an emphasis on social interdependence (Johnson & Johnson, 1999).

Cooperative learning is not easily operationalized as a specific set of procedures as might be seen in some other learning and instructional strategies (e.g., the Strategic Instruction Model, Classwide Peer Tutoring). Instead, the term refers to a collection of structures and strategies for collaborative work with certain common threads. Johnson and Johnson (1994) identify five features of cooperative learning that promote greater productivity than other instructional approaches. These features include 1) an explicit focus on positive interdependence, 2) extensive group member interaction, 3) a clear focus on individual work to contribute to the achievement of the whole group, 4) established use of interpersonal and small-group skills, and 5) open reflective discourse regarding group functioning. In summary, the spirit of cooperative learning is related to students' individual efforts contributing to group accomplishments through considerable group processing and social interdependence.

Because cooperative learning is to some extent an informal approach representing a philosophy of teaching, it becomes difficult to delineate what kinds of implementations should and should not represent cooperative learning from a research perspective. Johnson, Johnson, and Stanne (2000) conducted a comprehensive review of cooperative learning used in schools for the purpose of a meta-analysis of the instructional approach. Included in the study were 164 studies of cooperative learning defined as a set of 8 distinct but similar approaches including Learning Together (LT), Academic Controversy (AC), Student-Team-Achievement-Divisions (STAD), Teams-Games-Tournaments (TGT), Group Investigation (GI), Jigsaw, Teams-Assisted-Individualization (TAI), and Cooperative Integrated Reading and Composition (CIRC). To be included in the meta-analysis, studies had to include achievement as a dependent variable. Additionally, the authors operationalized cooperative learning as strategies, which included positive interdependence as a critical element in the implementation. Examples of this positive interdependence included mutual goals for the group, joint rewards for the group, resource interdependence (a need for each member to contribute something to the whole), and role interdependence (assignment of a specific role or task to each group member). From the 164 studies, 194 effect sizes were examined with the overall conclusion that all 8 methods had a positive impact on student achievement.

Although mean effect sizes were positive for all 8 included strategies, a definite range of impact was identified. Johnson, Johnson, and Stanne (2000) report that Learning Together appears to have the greatest impact when compared to both competitive learning and individualistic learning. In contrast, strategies like Jigsaw are less

impressive when compared to competitive learning (E.S. = 0.29) and individualistic

learning (E.S. = 0.13). Strategies with at least moderate effect sizes (E.S. ≥ 0.50) when

compared to either competitive or individualistic learning include Learning Together,

Academic Controversy, Student-Team-Achievement-Divisions, Group Investigation, and

Team-Games-Tournaments.

Cooperative learning has, since its origin as a defined instructional practice, focused

largely on accommodating heterogeneity and diversity in classroom learning experiences

(Johnson & Johnson, 1999). In recent years, cooperative learning has been further

defined as an inclusive instructional practice with the advancement of this notion

paralleling the advent of inclusive educational philosophy amongst special educators

(Jenkins & O'Connor, 2003). The assertion by researchers in special education (e.g.,

Goor & Schwenn, 1993; Sapon-Shevin et al., 1994) that cooperative learning should be

held as a standard of practice for accommodating diversity *and* disability has served as

the source of dispute for extensive lines of research to follow (e.g., McMaster & Fuchs,

2002; Tateyama-Sniezak, 1990).

Sapon-Shevin, Ayres, and Duncan (1994) defined the role of cooperative learning in

inclusive schools and developed some preliminary guidelines for implementing

cooperative learning as an inclusion strategy. The authors note the importance of

establishing a classroom work ethic that supports cooperation, a community or classroom

culture, which embraces differences among students and emphasizes connections

between students. Further, an open classroom dialogue is appropriate to create awareness

of the differing needs and strengths of students in the class as a means of emphasizing the

value of complementary, heterogeneous cooperation. As this premise has advanced, so has the argument over implementing cooperative learning—what it is, how it should be implemented, whether it makes a difference for students with disabilities, particularly students with learning disabilities.

Cooperative Learning for Students with Learning Disabilities

The debate over cooperative learning extends into the field of special education. Again, there are questions regarding the impact of cooperative learning on outcomes for students with learning disabilities related to defining *true* cooperative learning, determining the factors which make cooperative learning effective for students with disabilities, and the overall feasibility of these strategies for students with learning disabilities. The argument over true cooperative learning is a result of proponents pointing to overwhelming evidence that well-implemented cooperative learning has positive impacts on the education of students with disabilities and critics suggesting that the implementations are complicated, unrealistic, and nonexistent in actual classrooms (McMaster & Fuchs, 2005).

Probably the greatest voice of dissent to the establishment of cooperative learning as an effective inclusion strategy came from Tateyama-Sniezak's (1990) review of the literature. The literature review is commonly cited as a strike against cooperative learning, but it is not a meta-analysis. Without effect sizes, or mean effect sizes clear conclusions cannot be drawn. Additionally, the studies reviewed are meant to present an array of research and therefore do not provide for a solid foundation of consistent study

50

designs with comparable implementation, design, or measured variables. This is due largely to a lack of studies specific to students with disabilities. The inconsistencies in research designs account for many of the challenges related to definitive conclusions about cooperative learning (Jenkins & O'Connor, 2003).

Researchers in cooperative learning have countered the assertions put forth in Tateyama-Sniezak's (1990) work (Stevens & Slavin, 1991). However, a careful review of Tateyama-Sniezak's (1990) argument reveals that the major contention of her paper was not that cooperative learning failed to help students with disabilities; rather the critical elements influencing the success of this strategy seemed to still be somewhat ambiguous leaving teachers and researchers with further questions to be answered.

Two major challenges exist in reviewing the literature on cooperative learning for students with learning disabilities. First, a tremendous body of literature exists, which does not specifically look at the academic impact on students with learning disabilities. Second, although, there are numerous studies regarding cooperative learning for students with learning disabilities, many are *mixed models* (Jenkins & O'Connor, 2003), and therefore somewhat convoluted studies of cooperative learning blended with various other approaches such as computer-based instruction (Malouf, Wizer, Pilato, & Grogan, 1990; Xin, 1996; Xin, 1999), peer tutoring (Jenkins, Jewell, Leicester, Jenkins, & Troutner, 1994; Utay & Utay, 1997), strategy instruction for reading comprehension (Klingner, Vaughn, & Schumm, 1998) and written expression (Wong & Butler, 1996). Thus, an exhaustive review of cooperative learning for students with learning disabilities is confined to studies which compare the effectiveness of specific cooperative learning

51

strategies to other instructional approaches for students with learning disabilities, and studies that observe the instructional process for students with learning disabilities in cooperative learning environments.

In Tateyama-Sniezak's (1990) review of studies related to cooperative learning as an inclusion strategy, the author reviewed nine studies of the comparative effects on achievement of cooperative and individual learning for students with disabilities. Of those nine, seven were specific to students with mild disabilities (i.e., learning disabilities). Of those seven, three found significant effects favoring the use of cooperative learning for students with disabilities over individual learning. A challenge in the review was the inconsistent design of multiple studies. For example, different studies implemented cooperative learning with different age groups, different school populations, different grouping of gender, and different emphasis on individual roles. The variability among studies leads the author to conclude that too little was known about the specifics of effective cooperative learning and that special educators should use caution in *assuming* that cooperative learning will single-handedly ameliorate the challenges of inclusion.

Stevens and Slavin (1991) respond to Tateyama-Sniezak's (1990) critique of cooperative learning by adding to the author's review and clarifying misconceptions. The authors point out that there is a great deal of variety in the ways cooperative learning can be implemented with varying goals in mind; in fact, achievement gains may not always be the intended goal. Rather, the focus of certain implementations may be improved social skills or establishing a supportive, cooperative work ethic in the classroom.

In order to establish a common thread among the diverse strategies regarded as shades of cooperative learning, Slavin (1983) notes two key variables which lead to positive achievement outcomes compared to traditional instruction: individual accountability and group reward. Stevens and Slavin (1991) explain that although cooperative learning may represent a vast array of strategies, certain consistent approaches must be implemented when attempts are made at increasing student achievement.

With this perspective in mind, Stevens and Slavin (1991) claim the results of Tateyama-Sniezak's (1990) review should be reevaluated noting that no meta-analysis has been performed and thus no effect sizes have been included to give a bigger picture of findings. Additionally, the authors note that certain studies included in the initial review should not be considered as they were not substantial studies focused on the key elements previously mentioned and one additional study needed to be added (Stevens, Madden, Slavin, & Famish, 1987). When reevaluated based on the premise that individual accountability and group rewards are the critical ingredients for achievement gains, the authors demonstrate that the effect sizes favor the use of cooperative learning for students with mild disabilities ranging from .46, a moderate effect size, to .90, a relatively large effect size in two favorable studies. Also, results in those studies, which did not find statistical significance appeared to at least favor the use of cooperative learning. Overall, the mean effect size, the typical standard of meta-analysis given a larger number of studies, was approximately .48 indicating a clear, if not dramatic,

advantage to cooperative learning for improving achievement of students with learning disabilities (Greenwood & Abbott, 2001; Lloyd et al., 1998).

Cooperative Learning vs. Individualistic Learning for Students with Learning Disabilities

As the concept of educating students with learning disabilities in the general education classroom has developed in recent years, researchers specializing in cooperative learning have sought to examine their fundamental principles of heterogeneity in cooperative learning by including students with learning disabilities in cooperative groups. Many studies (Armstrong, Johnson, & Balow, 1981; Cosden, Pearl, & Bryan, 1985; Johnson & Johnson, 1982; Johnson & Johnson, 1984; Johnson, Johnson, Scott, & Ramolae, 1985; Madden & Slavin, 1983; Smith, Johnson, & Johnson, 1982) focused on comparing the use of cooperative learning with individualistic learning—an intensive instructional approach, not to be confused with whole group traditional instruction (Johnson & Johnson, 1999). The following studies were included in reviews by Tateyama-Sniezak (1990) and Stevens and Slavin (1991).

Armstrong, Johnson, and Balow (1981) conducted a study of the impact of cooperative learning looking at vocabulary development and reading comprehension with a sample of 40 students, among them 10 students with learning disabilities and 30 typically achieving students. A comparison was made against individual learning with a conclusion that students with learning disabilities achieved higher scores in the cooperative learning condition. Unfortunately, the study by Armstrong and others (1981) is difficult to interpret as the cooperative groups included only one product per group

thereby obfuscating the individual achievement of the students with learning disabilities (Jenkins & O'Connor, 2003; Tateyama-Sniezek, 1990).

Smith, Johnson, and Johnson (1982) reported results of a study looking at 55 sixth-grade students of whom 7 had mild disabilities comparing cooperative and individualistic learning. Students with mild disabilities (predominately learning disabilities) in the cooperative condition were found to score equally well on a test as their nondisabled peers. Overall, the experimental group retained significantly more of the class content than students in the individualistic learning condition.

Johnson and Johnson (1982) compared cooperative and individual learning in the area of consumer math with 37 high schools students, 6 of whom had mild disabilities. Differences between conditions were not statistically significant but the authors indicated that, as differences were found at the .10 level, results at least seemed to favor cooperation.

Madden and Slavin (1983) continued the theme of comparing cooperative and individual learning with a slight difference. In this case, the comparison was against *focused instruction*. The cooperative learning implementation was Student-Teams-Achievement Divisions or STAD (Slavin, 1978) a strategy which holds closely to the principles of individual accountability and group rewards. The sample included 143 typically achieving students and 40 students with mild disabilities in grades 3, 4, and 6. Results indicated greater achievement in the total sample in the cooperative condition, however, the students with learning disabilities showed no difference. Madden and Slavin (1983) clarify that the consistent feedback utilized in focused instruction may have been

more helpful to the students with learning disabilities than traditional instruction—equal to that of the cooperative condition, and a stronger trend toward cooperative learning would have been seen given a more traditional learning scenario as the control.

Johnson and Johnson (1984) examined similar circumstances, this time with 48 fourth-grade students of whom 12 had mild disabilities. Students participated in an elementary unit on local geography and ecology and were tested weekly, individually, to determine the comparative impact of cooperative and individual learning. Again, the authors failed to achieve a strong level of confidence in their findings (i.e., significance at .10 represents a strong chance of Type I error) but maintained there was a clear trend in favor of students in the cooperative condition (Shavelson, 1996).

Johnson, Johnson, Scott, and Ramolae (1985) again assessed the impact of cooperative learning compared with individual learning on the achievement of students with learning disabilities stating a concern that the traditional, individualistic approach to learning may be "detrimental to their achievement" (p. 215). A rather complex, and thus difficult to interpret, design was employed assigning 128 typically achieving students and 26 students with learning disabilities to three conditions including two cooperative, one mixed-sex and one single-sex, and one individualistic. Results indicated students with learning disabilities achieved at a higher level in the cooperative condition than the individual condition.

Cosden, Pearl, and Bryan (1985) compared the impact of cooperative and individual structures on students with and without learning disabilities including a total of 138 students. Thirty-eight students had learning disabilities while the remaining 100 did

56

not have identified disabilities. Although this study is often included in literature reviews of cooperative learning for students with disabilities, it differs in the fact that cooperative learning usually refers to several students in groups whereas this study uses cooperative dyads, a structure that might often be considered peer-tutoring—a somewhat different approach. Dyads were created by assigning students to male-only LD-Non LD pairs, male-only Non LD-Non LD pairs, female-only LD-Non LD pairs, and female-only Non LD-Non LD pairs. As the design was quite complex, results were mixed with certain students faring better in certain conditions and some performing equally well. The authors concluded there was no clear indication of cooperation improving the performance of students with learning disabilities.

Comparison of Cooperative Learning to Traditional Classroom Instruction

The previous studies compared cooperative learning to individualistic instruction with considerable effort to make the conditions parallel (e.g., use of feedback, rewards, competition-oriented instruction). Other studies have attempted to compare cooperative learning to the conditions that could typically be expected of everyday classroom instruction. Essentially, the following studies compared cooperative learning to more common, traditional teaching strategies.

Slavin, Leavey, and Madden (1984) examined the effectiveness of the cooperative learning approach called Team Assisted Individualization (TAI), an approach with strong emphasis on individual progress and group reward for joint progress made. Their assessment lasted for 10 weeks and compared the achievement gains on the

Comprehensive Test of Basic Skills (CTBS) in mathematics between the TAI sample and

a sample experiencing the control, a traditional approach to mathematics instruction.

Students in the overall sample were 375 4th, 5th, and 6th graders, including 15 students

with identified learning disabilities. The TAI approach appears to be highly specialized

and prescriptive, not always the case in cooperative learning strategies. Although it is

difficult to determine the impact of the highly structured design, results strongly favored

students in the TAI sample who scored much higher than students in the traditional

classroom.

　　Slavin, Madden, and Leavey (1984b) looked again at the success of TAI for students

in elementary school, grades 3, 4, and 5, including 1,258 typically achieving students and

113 students with identified disabilities—a slightly more realistic representation of

diverse student populations than their previous study. Again, the authors assessed the

impact of TAI by comparing the dependent variable CTBS test scores in mathematics

computation, concepts, and applications between the TAI group and a control, traditional

instruction group. The analysis lasted for 24 weeks and again concluded that students

with and without disabilities using TAI achieved higher scores than the traditional

sample.

　　Slavin, Madden, and Leavey (1984a ;1985) combined the efforts of the previously

summarized research studies by comparing cooperative learning to both individual

learning and a traditional, control condition. The authors continued to assess cooperative

learning through implementation of the Team-Assisted Instruction (TAI) approach.

Consistent with previous studies by this team of researchers, the dependent variable was

achievement scores in mathematics computation on the CTBS test. To more closely

examine the effects of cooperation Slavin, Madden and Leavey (1984a) attempted to

establish an individualized learning treatment with overall instructional components

comparable to the TAI treatment. Students in the individual condition received the same

level of assistance and reward and were even seated in groups but rather than evaluation

being based on the group effort, their progress was assessed entirely on an individual

basis. Due to a lack of total control in this 10-week study of 387 typically achieving

students and 117 students with identified disabilities in grades 3, 4, and 5, the overall

results were somewhat ambiguous. The authors acknowledge that no explicit effort was

made to ensure students in the *individualistic groups* did not work together suggesting

that the results of the individualistic groups may have been somewhat reflective of group

cooperation.

In the final conclusions Slavin, Madden, and Leavey (1984a) note no significant

differences in the outcomes for students with disabilities among the three treatments. The

overall sample indicated no significant difference between the TAI approach and the

individual condition. Additionally, no significance was found between the individual

condition and the control condition. However, in the full sample of students the

researchers did find a statistically significant difference between the achievement of

students in the TAI condition and those in the control condition, similar to previous

findings. These findings raise some questions about the impact of TAI for all student

populations. Although, the results are encouraging overall, the efforts of special

education research are, most often, related to bridging the gap in achievement between

students with disabilities and their typically achieving peers. This study in particular seems to cast some doubt on the likelihood of that occurrence.

Stevens, Madden, Slavin, and Famish (1987) in a study of Cooperative Integrated Reading and Composition (CIRC) specifically assessed the impact of cooperative learning for students with disabilities in a mainstreamed reading class. The analysis of CIRC actually compared the effects of cooperative learning on students with disabilities in an inclusive environment with students using the same instructional procedures in a traditional special education setting and found that those students who were included in general education reading instruction experienced gains in their reading achievement through cooperative learning. These results appear to reinforce the significance of heterogeneity in groups to supporting students with disabilities.

Recent Developments in Cooperative Learning for Students with Learning Disabilities

Goor and Schwenn (1993) summarize research on the use of cooperative learning as a standard practice for accommodating diversity and disability in school. The authors highlighted the need to implement cooperative learning procedures *with care* to create a learning environment which accommodates the needs of students with disabilities. Wood, Algozzine, and Avett (1993) also reinforce the use of cooperative learning suggesting that there was sufficient evidence in the literature to move forward with cooperative learning as a strategy for inclusion of students with disabilities.

However, as previously noted, the literature review by Tateyama-Sniezak (1990) established a clear need for continued research on cooperative learning for students with

learning disabilities. Appropriately, many authors (e.g., Brandt & Ellsworth, 1996; Gillies & Ashman, 2000; Klingner & Vaughn, 1996b; O'Melia & Rosenberg, 1994; Stevens & Slavin, 1995a, 1995b) have since examined the impact of cooperative learning in varying manners seeking to clarify factors, which support successful implementation and ways to extend the impact of these strategies to new academic areas.

O'Melia and Rosenberg (1994) assessed the impact of Cooperative Homework Teams (CHT) to help students with learning disabilities in middle school to improve their grades through improving accuracy and completion of homework in mathematics. The strategy was meant to be a follow-up to independent completion of homework so that students with learning disabilities could complete challenging homework and assess accuracy of their completed work. The study was conducted over an 8-week period and indicated that students with learning disabilities significantly improved their completion and accuracy of homework. Differences in achievement were not detected on standardized tests as a result of the strategy; however, the limited experience with the strategy might not be sufficient for changes in test scores to be observed.

A team of researchers in cooperative learning (Slavin, Madden, Dolan, & Wasik, 1992) implemented Success for All (SFA), an intensive intervention approach intended to prevent referral to special education and provide assistance to struggling learners in elementary school prior to the development of significant achievement gaps. Stevens and Slavin (1995a) assessed the outcomes for SFA in reading along with cooperative learning in mathematics. Two years of implementation were observed with results indicating no difference between students with disabilities and control populations in the first year but

significant advantages for students with disabilities over controls following the second year. Students with disabilities outperformed controls in reading vocabulary, comprehension, and mathematics calculation with small to moderate effect sizes respectively.

Stevens and Slavin (1995b) implemented Cooperative Integrated Reading and Composition (CIRC) comparing students with disabilities, mostly students with learning disabilities, and typically achieving students in a CIRC condition with the same population in a condition using traditional reading instruction. Students with disabilities showed achievement gains over control conditions with small effect sizes (0.33 and 0.20) in the areas of reading vocabulary and comprehension.

Klingner and Vaughn (1996a) experimented with both cooperative learning and cross-age peer tutoring with 26 seventh and eighth grade English language learners to improve reading comprehension. Researchers ensured comfort with both of the two strategies and subsequently students were randomly assigned to one of the two treatments. Results indicated that students improved reading comprehension incrementally over time in both treatments with no definitive advantage for either approach. These outcomes demonstrate the advantage of peer-mediated instruction, in general, for students with learning disabilities.

Brandt and Ellsworth (1996) assessed cooperative learning with a somewhat different perspective. Whereas the majority of the literature on cooperative learning attempts to establish the array of instructional strategies as fundamentally inclusive for students with disabilities in general education classrooms, Brandt and Ellsworth (1996) selected urban

self-contained classrooms for students with disabilities in high schools and implemented the *Learning Together* (Johnson & Johnson, 1999) approach to cooperative learning. This study is particularly unique in light of the recurrent theme of heterogeneity in the cooperative learning literature. Classrooms were randomly assigned to comparison groups and the experimental group was taught the essential elements of the Learning Together approach focusing on cooperative work ethic and foundational concepts like positive interdependence. Results indicated that students with disabilities using cooperative learning academically outperformed their counterparts (Brandt & Ellsworth, 1996). This study is notable for establishing the feasibility of cooperative learning for students with learning disabilities, but does not truly add to the literature on inclusive practices as students were in segregated instructional settings.

Gillies and Ashman (2000) in an observational study of the implementation of cooperative learning examined the methods of preparing students for cooperative learning and the subsequent effects of differing preparedness. The authors observed classrooms including 152 students of which 22 students had learning disabilities. Students in third grade social studies classrooms were randomly assigned to two conditions: explicit instruction in cooperative learning procedures, and informal, unstructured preparation. Essentially, the authors sought to determine the extent to which teaching students how to interact in cooperative learning would impact their ability to implement the strategies effectively. The observations were conducted identifying specific observable, quantifiable behaviors considered indicative of effective cooperative learning experiences. Behaviors were identified as cooperative or noncooperative behaviors and

63

task-oriented or non-task-oriented behaviors. Verbal interactions were identified as directives, solicited or unsolicited explanations, solicited or unsolicited terminal responses, interruptions, and nonspecific interactions. Results indicated that students taught explicitly to implement cooperative learning used more directives and fewer solicited explanations. Notably, students in the structured explanation group performed somewhat better on learning outcomes following the experiment. Also notable was a greater level of group involvement (less off task behavior) in the cooperative learning groups who were given the structured preparation.

The research on cooperative learning, specifically in recent years, appears to generally support the use of this strategy for supporting the needs of students with learning disabilities in general education classrooms. Few studies have continued to examine cooperative learning in isolation as it seems that educators have, in general, accepted the instructional approach as sound practice (Jenkins, Antil, Wayne, & Vadasy, 2003). Research by Gillies and Ashman (2000) casts some new light on the implementation of cooperative learning suggesting that students require a formalized approach to learning the instructional strategy in order for the strategy to have the greatest impact. A clear trend has developed in favor of cooperative learning in both the educational research and practice communities.

The political currents in recent years have applied pressure to look beyond trends of opinion and more closely examine what instructional methods can be definitively established as scientifically-based—not a simple task within the complicated context of educational research (Deshler, 2003). In order to qualify cooperative learning as an

evidence-based instructional practice, the features that comprise such a practice must be clearly delineated. The research literature seems to maintain a focus on comparative achievement measures between more traditional approaches to education and more cooperative approaches. Consistently, those skeptical of cooperative learning note the absence of an overwhelming body of research indicating the clear advantage of cooperative learning. In contrast, a clear body of research showing results to the contrary is missing. Even the less remarkable results in the minority of studies indicate that cooperative learning has at least equal benefits. If educators are to concede that these instructional methods may be more appropriately described as different rather than having a relationship of inferiority-superiority, educators must still attend to the numerous benefits of cooperative learning beyond achievement gains: development of community principles, cooperative work ethic, spirit of interdependence, and ultimately a more inclusive environment (Johnson & Johnson, 1999; Sapon-Shevin et al., 1994).

Practicality of Cooperative Learning for Students with Learning Disabilities

Accepting that the idealized conception of cooperative learning carries at least a moderate base of research support for supporting students with learning disabilities, the practice has been further analyzed in terms of its impact on the daily learning experiences of students across the country in actual classrooms. Research in recent years has extended the evaluation of cooperative learning to the practicality of these instructional practices.

The notion of cooperative learning as a boon to academic success for struggling learners is based in the principles of purposive heterogeneity and intrinsically established

peer support (Johnson & Johnson, 1999). Advocates of cooperative learning highlight the tendency for the structures to keep students actively engaged in learning tasks with increased individualized help (Malmgren, 1998). Important to note is that in the case of students with learning disabilities, executive functioning is often a major challenge meaning that students struggle to move through a course of multiple instructions or routines independently and fail to make strategic attempts to problem-solve. Instead, students with learning disabilities tend to get stuck, confused, and ultimately frustrated (Ellis et al., 1989). Cooperative learning structures are designed with peer support in mind enabling students with learning disabilities to overcome challenges that may seem insurmountable when faced as individuals (Jenkins et al., 2003).

Researchers and educators more skeptical of cooperative learning as the great panacea for the challenges of inclusion have cited obstacles related to the feasibility of the practice noting problems with establishing group assignments for peer support, helping students with learning disabilities maintain focus and attention, making necessary accommodations with cooperative learning structures, and handling problematic behavior (O'Connor & Jenkins, 1996). The common response by advocates of cooperative learning as an inclusion strategy has been to question the fidelity or strength of implementation of the strategy in the study. Johnson and Johnson (1999) state that one of the greatest challenges in the assessment of the impact of cooperative learning in the educational research literature is establishing the extent to which the particular structures were implemented with strength and accuracy.

With emphasis on practicality rather than rhetoric, O'Connor and Jenkins (1996) attempted to examine more closely the impact of cooperative learning strategies on the achievement and daily classroom experiences of students with mild disabilities. The authors noted that cooperative learning models have potential to assist struggling students by establishing a "better learning environment for students with disabilities, one characterized by higher participation levels, better task engagement, and more opportunities for involvement in challenging work" (O'Connor & Jenkins, 1996, p.31). The authors conducted extensive classroom observation in order to examine the classroom-level reality of this theory. The great majority of their sample included students with learning disabilities.

Their conclusions were mixed regarding the successful implementation of cooperative learning as an inclusive model. Challenges encountered included groups in which students with learning disabilities were left behind while other group members moved on with the task, simply copied the work of other group members completing little or no work, and were unable to independently complete reading and writing tasks in order to contribute to the group. In summary, the authors found that merely 40% of students (4 out of 10) benefited fully from the cooperative learning model indicating that practical implementation of this approach had questionable merit for students with learning disabilities. Differences in success appeared to be attributable to differences in selection of group partners, facilitation by teachers, and establishment of a cooperative work ethic (O'Connor & Jenkins, 1996).

Looking at this particular study with a critical eye, one cannot keep from noticing flaws in the implementation of the observed cooperative learning groups in the study and additionally, some flaws in logic in the authors' conclusions. Specifically, O'Connor & Jenkins (1996) note that students with learning disabilities were often left behind the rest of the group. In a truly cooperative interaction, an individual cannot be left behind because they would have a valuable role and piece of the total work to be contributed (Johnson & Johnson, 1999). Therefore, the group would not be able to continue. Important to note, in examining research on cooperative learning, is that the act of students completing individual learning while seated in close proximity does not define the ideal state of cooperative learning.

Additionally, O'Connor and Jenkins (1996) offer concerns related to students with learning disabilities simply "going along for the ride." Again this is reflective of group work but not true cooperative learning. A well-implemented cooperative learning task must include some specific effort to guarantee *individual accountability* by rewarding the entire group (e.g., grades, class recognition, etc.) based on the performance of each group member. Effectively, the success of the whole group is only as strong as its *weakest links* (Johnson & Johnson, 1999).

Regarding the authors' concerns about the inability of group members to complete reading and writing tasks in a group, students with learning disabilities would experience comparable limitations in an individualistic setting. Therefore blaming the cooperative condition for this element of struggle seems inappropriate. A cooperative grouping strategy that promotes the independent effort of multiple individuals with limited peer

68

support and standard expectations for academic proficiency simply disregards the nature of learning disability and could not, therefore, be regarded as *inclusive*. In fact, a priority in implementation of cooperative learning for students with disabilities should be to explicitly establish those specific models, which could be deemed *pro-inclusive.*

In contrast to traditional group work, a cooperative learning strategy that allows for emphasis on the strengths of individual students with learning disabilities, whether they are strong leadership skills, artistic ability, or heightened verbal agility, while limiting expectations for performance in areas of weakness, would be truly inclusive. This purposive emphasis on complementary skills and heterogeneity of talents is particularly important to consider in secondary schools where students must master vast amounts of content knowledge in subjects like science and social studies. Secondary content teachers are not traditionally viewed as having responsibility for promoting literacy but must find ways for diverse groups of students to access content knowledge regardless (Lenz, Bulgren et al., 2004).

Paralleling concerns over the practical implementation of cooperative learning espoused by O'Connor and Jenkins (1996), Antil, Jenkins, Wayne, and Vadasy (1998) examined the prevailing trends in implementation of cooperative learning in schools. Teacher reports indicated that 93% of teachers in the elementary grades reported using cooperative learning. Notably, teachers also reported a tendency to modify strategies to their personal preference or the needs of their classes suggesting that their use of cooperative learning was not entirely in keeping with the established principles in the research literature. In fact, a major concern among teachers was the complexity of

existing research-based prescriptions for cooperative learning, which many felt made it too complicated to use in a practical sense.

In a follow-up to Antil, et al, (1998), Jenkins, Antil, Wayne, and Vadasy (2003) examined the perspectives of 21 general education teachers regarding their use of cooperative learning for students with disabilities in their classes. Teachers in the sample were quite optimistic about the quality of interactions among heterogeneous groups, and the efficacy of cooperative learning for their students who struggled with learning, although they did admit that there are differential benefits among students. They cited as major benefits: a safe learning environment, enhanced self-esteem for students with learning disabilities, and overall improved rates of success. Jenkins, et al (2003) emphasize still that the manner in which cooperative learning is implemented may be more significant than the mere fact that it is implemented in the classroom.

Persisting Issues and Future Trends in Cooperative Learning for Students with Learning Disabilities

A common theme in the special education literature regarding cooperative learning for students with disabilities is the concern that this strategy will not "solve the inclusion problem," that it is not the cure-all to liberate teachers from the burden of having students with learning disabilities in their classrooms. Rather, a considerable challenge remains in meeting the individual needs of students with disabilities, to establishing a classroom culture that promotes positive interactions of diverse student populations, and to facilitating learning through well thought-out lessons and keen attention to student

progress (McMaster & Fuchs, 2002; McMaster & Fuchs, 2005; 1993; O'Connor & Jenkins, 1996; Tateyama-Sniezek, 1990). Certainly, no specific instructional practice can be expected to relieve professional educators of their roles. Additionally, the task of the special educator is to teach diagnostically, with a constant vigilance to the specific and individualized needs of their students. Despite a substantial body of evidence to support the use of cooperative learning as a means of improving academic achievement, many teachers continue to avoid cooperative learning or struggle to implement the strategies with any real strength of fidelity due to concerns that cooperative learning strategies are simply too complicated to implement in their classrooms. Teachers struggle to translate the complexity of explanations of cooperative learning in the literature into their actual classroom practice (McMaster & Fuchs, 2005). The argument that practitioners are failing to implement cooperative learning according to the expectations of experts is not an attack on the practice itself, but rather on the lingering disconnect that exists between the research and practice communities (Carnine, 1997).

Rather than focusing on these extraneous obstacles, the research and practice communities might best be served by a clear explication of the value of cooperative learning for students with learning disabilities. Cooperative learning works for students with learning disabilities when it is 1) implemented with attention to the academic strengths and weakness of students and 2) heterogeneous groups are established with emphasis on synching complementary talents and abilities so that all students contribute as individuals to the success of the whole group (Johnson & Johnson, 1999; Sapon-Shevin et al., 1994).

71

Although a considerable challenge remains in establishing an instructional practice as research-validated when the research base is vast and complicated by myriad factors, a sufficient history of success exists in order to describe cooperative learning as an *inclusive instructional practice*. Further, despite the controversy related to the impact of cooperative learning on academic achievement of students with learning disabilities, a more optimistic view of cooperative learning can be taken—a perspective which views cooperative learning as a foundation for more complex and intensive interventions in inclusive environments such as co-teaching, content enhancements, and embedded strategy instruction (Lenz & Harris, 2005), simply one piece in the puzzle of establishing highly inclusive learning environments.

Peer-Mediated Instruction and Specific Strategies for Cooperative Learning

Peer-mediated instruction (PMI) is well established in the special education literature as a promising intervention for students with learning disabilities (Fuchs, Fuchs, Mathes, & Simmons, 1997; Greenwood & Delquadri, 1995; Greenwood & Terry, 1993; Maheady, 1988; Maheady et al., 2001). Cooperative learning represents a collection of strategies—slightly differing implementations of similar principles. Peer-mediated instruction typically refers to specific interventions such as Classwide Peer Tutoring (Greenwood & Delquadri, 1995) or Peer Assisted Learning Strategies (Fuchs et al., 1997); however, cooperative learning could be considered an example of a larger concept of PMI as it reflects an emphasis on peer support. In the larger conceptualization of PMI, a range exists between peer tutoring strategies such as Classwide Peer Tutoring (CWPT) and the

approaches referred to as cooperative learning. Certain strategies exist somewhere along the continuum—not as prescriptive as CWPT but not as ambiguous as cooperative learning.

Strategies like Numbered Heads Together (Kagan, 1992) have strong research support as *simple structures*—interventions which have many of the characteristics of cooperative learning without the complexity of some other structures (Maheady, Mallette, Harper, & Sacca, 1991). Strategies like Numbered Heads Together (NHT) are helpful for establishing peer support as part of the daily learning environment. The procedure involves assigning a number to each group member in a less structured cooperative group. During teacher-led instructional time students may be assigned small activities or asked discussion questions related to the content being explored. The group is given time to consider the task or activity as a whole and each student feels a need to participate and support their group as each member/number has an equal chance of sharing their groups' results with the class. Teachers randomly pick a number, and the group member with that number shares his or her groups' response (Maheady et al., 2001). The strategy has been shown to increase participation (i.e., on-task behavior) and engagement in class discussions (Maheady et al., 1991).

NHT would be an effective strategy for students with learning disabilities as it requires student groups as a whole to work problems out together with no assurance of who will speak for the group. It reinforces peer support and group reliance with a final emphasis on individual assessment of achievement. In contrast, the Jigsaw strategy (Kagan, 1992) is more questionable. The strategy requires students to do work

independently and subsequently report back to their group members. This expectation

ignores the challenges faced by students with learning disabilities related to completion

of independent activities. In contrast, a whole class jigsaw might be more appropriate in

which students in small groups study parts of a topic together assuring that all group

members understand enough to report as a team to the rest of their class, thus allowing

for support and expression of achievement in a individualized fashion (e.g., a student

with a learning disability designing the poster which displays the group's summary while

other more accomplished readers select specific reading passages to support the group's

conclusions).

As previously noted, cooperative learning strategies are often implemented to support

academic diversity and disability by establishing heterogeneity and built-in peer support

in cooperative groups. A cooperative learning strategy gaining increasing popularity,

which certainly maintains these norms and draws upon the strengths of PMI in general, is

a strategy called Literature Circles (Daniels, 2002b). Daniels (2002b) has attempted to

capitalize on the strengths of cooperative learning strategies while attempting to

distinguish the strategy identifying it instead as a form of *collaborative learning* so as to

remove it from the well-established ambiguity associated with the term cooperative

learning.

Defining Literature Circles

Like cooperative learning, Literature Circles, is not a clear-cut, easily operationalized

reading strategy that can be summarized in a checklist of consistent and unambiguous

74

directions. Rather, Literature Circles is a strategy, which could generally be described as collaborative, group interaction related to reading texts—texts that are interesting and allow for discussion. Although there is some sense of a "true" Literature Circle based on the work of Daniels (2002b), there is also considerable room for variation depending on the specific texts (i.e., fiction, non-fiction), grade level, ability level, and subject matter. In some ways these variations make it easier to define this strategy by explaining what it is *not*.

However, some general guidelines do exist for the traditional approach to this strategy. The key elements of traditional Literature Circles include 1) the ability for students to choose their own reading materials, 2) establishment of small groups which continue temporarily based on choice of reading materials, 3) different reading groups working with different reading materials, 4) establishment of a regular, routine schedule for students to meet in their reading groups, 5) use of notes to guide further discussion either in writing or in drawings, 6) student lead discussions including student selection of topics, 7) focus on natural dialogue in open group discussions, 8) teacher as facilitator not dispenser of knowledge, 9) assessment performed through teacher observation and student self-evaluation, 10) positive atmosphere of *reading for enjoyment*, 11) group conclusions that include a sharing session with classmates followed by establishment of new reading groups.

According to Daniels (2002b), Literature Circles can vary in numerous ways and be adapted to more closely fit varied implementations, but educators should have at least a foundation in the original intent of this strategy. Clearly, the approach is highly

constructivist in its roots and represents an approach to instruction far more characteristic of the best practice literature in the reading and English language arts education communities than the special education research community. However, the varied implementations clearly draw from the intended, original spirit of the cooperative learning literature as defined by Johnson and Johnson (1975).

Daniels (2002a) clarified the potential for Literature Circles to extend into content-area classrooms such as social studies or science. Although the addition of Literature Circles to content classrooms could be done by incorporating actual literature into the social studies classroom, expository non-fiction texts are far more common in this setting. In fact, Daniels (2002b) laments the proliferation of the title *Literature Circles* for the strategy suggesting it would have been more appropriately called *Reading Circles*. The current title, unfortunately, dissuades educators from using the strategy with nonfiction texts assuming that the structure is specifically intended to be a form of a book club.

Responding to concerns about the misdirection of this strategy, particularly in secondary content classrooms, Daniels (2002a) asserts that the structure has great potential for improving collaborative reading experiences for students providing that expository texts are not defined as textbooks. Rather, expository texts are perfect for the Literature Circles structure given that there is actually something for a group to discuss or interact with the text. For example, a text structure that informs or persuades—an expository text which provokes meaningful discussion, disagreement, or controversy, will support strong implementation of non-fiction Literature Circles.

76

Daniels (2002b) promotes use of the strategy as a semi-structured approach to collaborative reading, which varies in roles and discussion dependent on the text structure and content. Thus, Literature Circles can be used for students in high school social studies to read *Anne Frank: The Diary of a Young Girl* (biographical works are nonfiction texts) to learn about the holocaust or Eric Schlosser's *Fast Food Nation: The Dark Side of the All-American Meal* to discuss modern American culture and economics. Textbooks, however, are not appropriate for nonfiction reading circles as they lack the characteristics necessary for discussion—rather, a textbook is a compendium of *information* (Daniels, 2002b). Rarely, do textbooks typically offer topics for discussion and debate, or compelling stories to explain historical events. Instead, history textbooks, for example, tend to offer a perspective, established as factual, and generally pare down engaging historical periods into "just the facts" reference materials (Daniels & Zemelman, 2003; Loewen, 1995).

Daniels (2002a) is not alone in suggesting Literature Circles as an effective content-area reading strategy. Manning and Manning (1995) recommended use of Literature Circles for nonfiction biographies and the incorporation of content relevant literature (e.g., historical fictions) into content classes. Related to content-area reading, Stien and Beed (2004) reflected on the transition from the focus on fiction to stronger implementations of Literature Circles with nonfiction texts. The authors note the affinity of students for discussing nonfiction informational texts—an emerging trend in reading education (Jobe & Dayton-Sakari, 2002). Students in Stien and Beed's (2004) study reported positive perceptions of using Literature Circles to discuss nonfiction

entertainment fact books and biographies after reconsidering roles and discussion procedures.

According to Daniels (2002b) the student roles in a non-fiction Literature Circle (or Reading Circle) include: Questioner, Passage Master, Vocabulary Enricher, Connector, and Illustrator. In this process, the job of the Questioner is to write down questions for the group to discuss. The questions could be written down while students are reading or immediately after to be shared with the group members. The job of the Passage Master is to select sections of the reading that he or she wants to share with the group. Selections should hopefully be funny, interesting, or controversial (i.e., the information that is memorable and promotes natural discourse). The role of the Passage Master highlights the importance of nonfiction texts being engrossing, discussable material—not compilations of discrete facts. The next role is the Vocabulary Enricher. The responsibilities of this role include making constant notes of unknown words so the group can discuss and use context clues to understand the new vocabulary.

The role assignments in Literature Circles are dependent on the number of students. Three students could potentially complete this task but typically four to five students comprise a highly effective Literature Circle. Enlarging the group to four would add either a Connector or an Illustrator depending on the preferences of the teacher or the students in the group. The Connector's role is similar to the role of the Predictor (a common role in traditional Literature Circles) in the sense that this group member cannot be wrong. The duty of the Connector is to recognize connections with the text being examined and thoughts in the outside world, other books, or previous classroom

discussions. The student in the role of Connector is inspired by the text to further discussion related to ideas outside the text (e.g., referencing a show on the Discovery Channel about mummies while reading about Egyptian history, or remembering a lesson on Communism and Marxism while reading a current magazine article about Hong Kong's Free Trade Zone).

Finally, a highly creative and artistic role in the group is the role of the Illustrator. The underlying theory serves to support the classical idea of the artistic and creative child for whom reading and writing are somewhat elusive skills. However, the role can be interpreted equally successfully by having the student create traditional graphic representations as well as more developed graphic organizers. For example, drawing a thinking map or chronological timeline which represents the events or ideas in the text would be helpful in the group discussion of the text (Daniels, 2002b).

Daniels (2005) in his most recent work describes Literature Circles as best practice for inclusion of students with learning and other disabilities precisely because the strategy assumes that each student will bring to the group precisely whatever they do well. There is no assumption that each student will necessarily accomplish everything as an individual; rather students are expected to be interdependent by emphasizing their strengths in their role. Establishing Literature Circles as inclusive practice is primarily based on the foundation of strong cooperative learning research. Daniels (2002b) notes the essential elements of group interdependence and individual responsibility (Johnson & Johnson, 1999; Slavin, 1983; Stevens & Slavin, 1991) are fundamental in the implementation of effective Literature Circles.

Beyond this broader support, there is limited direct evidence of the impact of the specific Literature Circles strategy on students with learning disabilities. Blum, Lipsett, and Yokom (2002) described the potential impact of Literature Circles as a strategy for increasing self-determination of students with disabilities suggesting the approach requires development of metacognitive skills including recognition of success and failures in reading. Primarily though, Literature Circles are offered as means for addressing the challenges of diverse inclusive classrooms. Qualitative analysis and basic questionnaire-oriented quantitative measures were compiled to assess the impact of Literature Circles on a multiage inclusive middle school classroom. Results indicated that students with reading problems (i.e., students with learning disabilities) exhibited strengths in metacognition related to reading ability. Further, students experience improved perception or confidence related to reading ability following use of Literature Circles. Blum, Lipsett, and Yokom (2002) concluded that Literature Circles was an effective approach for accommodating student diversity in inclusive classrooms.

The Research to Practice Gap in Special Education

Given that research-supported inclusive instructional practices exist in the research literature, the more important question persists as to how to establish these strategies as standards of practice in schools. A consistent challenge in the special education research community is the failure of practices that seem to have a potentially positive impact on the lives of children, to find their way into actual classrooms (Carnine, 1997, 1999;

Deshler, 2003; Gersten, 2001; Gersten & Smith-Jones, 2001; Greenwood & Abbott, 2001).

Deshler (2003) states that one of the most significant challenges faced in the special education community is "getting research-based instructional practices into the hands of professionals who teach students with learning disabilities" (p. 1). Beginning even earlier than the establishment of the disability legislation in education (i.e., The Education for All Handicapped Children Act of 1975), the Bureau of Education for the Handicapped proposed a clear structure for special education research suggesting that the end goal would be the integration of research findings into curricula and the adoption of those findings by public schools. However, the process of scaling up and sustaining research-based instructional practices has been a significant missing piece in the overall scheme (Deshler, 2003).

Carnine (1997) describes the state of the research-to-practice gap as an "us and them" shouting match with researchers claiming that their findings go unused because practitioners fail to take advantage of their work whereas practitioners blame the problem on the rhetoric and obscure nature of research findings which seem distant from the day-to-day realities of classroom instruction. Carnine (1997) highlights the roots of the underutilization of research findings as issues of "trustworthiness, useability, and accessibility" (p. 12). Carnine (1997) describes the gap in research and practice as a challenge to be overcome by addressing the relationship between producers and consumers. Researchers must produce high quality research, which resonates with the

81

practical needs of teachers and their findings must be disseminated to practitioners in a manner that has high utility and ease of access.

In contrast to the common emphasis on research-based practices, Ferguson and Ferguson (1995) describe the challenge as a breakdown "between 'preferred' and 'current' practices" suggesting that teachers are often aware and interested in *best practices* but struggle to take the necessary steps toward implementing these practices (p. 117). Teachers express concerns about solving their own problems and making progress in their teaching independently. Ferguson and Ferguson's suggestions for progress in instructional practices focus on the use of teacher work groups in which teachers solve their own problems and seek out resources to advance their teaching.

Ferguson and Ferguson (1995) take a step in a unique direction by emphasizing the professionalism of teachers and the need for reinforcing their professionalism by breaking down the barriers that restrict their professional development. The traditional perspective on research and practice suggests a top-down structure in which theory is developed by researchers, scientifically-validated, and transferred to practitioners (Skrtic, 1995e) via a "rational-technical process" (Skrtic, 1995a, p.69). Important to note is the objectivist/functionalist basis of research that underlies this perspective (Skrtic, 1995a).

In contrast to the idea of top-down, authoritarian transfer of universal knowledge, Skrtic (2005) promotes a fundamentally subjectivist perspective on theory and practice in which multi-disciplinary teams of professionals develop innovative solutions to their own instructional needs (not dissimilar from Ferguson and Ferguson's notion of teacher work groups). Using the term *adhocracy* for this alternative to the traditional perspective,

82

Skrtic explains that "adhocracies are premised on innovation rather than standardization, on the invention of personalized practices through organizational learning grounded in collaboration, mutual adaptation, and reflexive discourse among the organization's members and the people it serves" (2005, p.150). In effect, in this form of professionalism practitioners independently develop theories and implement community-determined best practice.

Skrtic (1995d; 1999; 2005) suggests that progress in special education theory and practice is not only based on the fundamental assumption of progress as a "rational-technical process" (p. 69), but is also characterized by the same *machine bureaucracy* organizational configuration that plagues schools in general. Theory is developed by experts in ways that are separate and distinct from their intended audience and subsequently handed down to practitioners in an authoritative manner. Although there is reason to validate the usefulness of practices in education, attempts to establish a research foundation based on the limitations of micro-objective research methods, will continue to answer schools' problems in a disconnected fashion perpetuating the problem of a research-to-practice gap.

Certainly, the proliferation of professional discourse on this topic does not indicate an end in sight to this challenge. Rather, the critiques discussed provide some guidance and impetus to reflect on the achievement of special education research and the appropriateness of paths taken thus far. As noted by numerous authors (e.g., Greenwood & Abbott, 2001, Gersten, 2001, Carnine, 1997), there is sufficient cause to reexamine the efforts made in special education research. Practicing teachers feel distant from the

research community which claims to support their efforts, researchers expend hours on small questions with limited relevance to classroom practice, and the realities of research positions in higher education rarely encourage collegial relationships with community stakeholders (Greenwood & Abbott, 2001). The special education research community needs to clarify what can be said about instruction with some certainty and extend a concerted effort to ensuring these practices find their way to teachers to improve outcomes for students with disabilities. As Carnine (1997) asserted, these efforts must maintain a focus on the needs of practitioners by emphasizing useability and accessibility.

Potential for Bridging the Research-to-Practice Gap in Special Education

Dieker, et al. (2004) offered the example of streaming video available at all times in all stages of professional development to both pre-service and in-service educators as a means for demonstrating exemplary content-specific instructional practices which meet the needs of diverse student populations. Highlighted in this example is a focus on providing examples of classroom practice that are meaningful, usable, and allow flexibility in access as suggested by Carnine (1997).

Although the streaming video concept developed by Dieker, et al. (2004) seems logical and practical, a question remains of whether the actual video has potential to impact classroom instructional practices. Sherin (2000) suggested that watching instruction occur on video has certain advantages for the viewer. As the viewer can watch and re-watch instructional events on video without a need for immediate action, the

process promotes reflective thinking about the teaching and learning environment. Although this discussion is aimed at teachers, the question remains of whether this notion could be logically extended to students viewing instructional events.

Research on the use of video instruction in teacher education is limited, but positive in its implications for preparing teachers to implement best practice. Friel and Carboni (2000) used a video pedagogy approach in a mathematics teacher education program. Findings suggested that the use of video pedagogy enabled pre-service teachers to move beyond didactic instruction to more student-centered reflective practice. The video enabled the preservice teachers to broaden their understanding of the development of mathematical thinking and how to provide instruction with these concepts in mind.

Schrader, et al, (2003) conducted research on the preparation of pre-service teachers to provide literacy instruction. Their study was conducted using traditional instruction, commercially produced instructional video, and case-oriented video and indicated that pre-service teachers developed greater confidence in their ability to implement research-based practices in literacy instruction after viewing video as a supplement to traditional instruction. Qualitative differences favored the more interactive use of case-based video examples.

Looking more at implementation of evidence-based practices, Dieker, et al. (2004) conducted multiple pilot studies across three different university sites with preservice special educators with the intent of examining the potential of streaming web-based video to prepare teachers. Each site focused on different research-validated instructional practices for teaching content (i.e., math, science, reading) to diverse populations of

students, particularly students with disabilities. Additionally, the investigation focused on the external validity of their findings by examining the impact of streaming video models of research-based practices on practicing, in-service, teachers. Results suggested that although the differences in basic knowledge of instructional strategies only marginally favored the streaming video instruction group, the differences in fidelity and quality of implementation and depth of understanding clearly favored the teachers who viewed the video examples.

Efficacy of Video as a Learning Tool in Education

Although video has been extensively examined in fields outside of education, evidence of the impact of video on learning in schools is less clear. One feature of video, which has been thoroughly supported in the literature as a support for learning, is the notion of *interactivity*. Interactive video is the term typically used in the literature to refer to digital video or video discs—not the traditional analogue videotape, which allows the learner to interact with the media (i.e. stopping to read overlaid text, replaying segments).

Rather than passively viewing an instructional video on television or in class with an instructor playing a full-length video, the term interactivity refers to the learner's ability to control the video and monitor his or her own learning. Although technologies change over time, video in most studies is comparable to the level of interactivity, which would be involved in a more modern web-based implementation of video, typically in a streaming format. Most studies of interactive video incorporate video-discs (Wetzel,

Radtke, & Stern, 1994). The most current version of the videodisc would be the DVD format and could be assumed to have some degree of interactivity.

In considering the potential impact of video models on student learning, it is important to consider the existing body of research on learning and teaching with video. Numerous meta-analyses exist in the research literature indicating positive effects of video (Bosco, 1986; Fletcher, 1989; Fletcher, 1990; McNeil & Nelson, 1991). Fletcher (1990) in his meta-analysis concluded that video-based instruction produced at least moderate achievement gains over traditional methods of instruction. In looking at use of interactive video in higher education, Fletcher found an average achievement gain of .69 standard deviations when compared to traditional instruction. A meta-analysis by McNeil and Nelson (1991) examined the effectiveness of interactive video reviewing 63 studies. They found the overall effect size for achievement related to interactive video to be .53, clearly indicating that the use of video has traditionally been shown to be effective. The conclusions of this meta-analysis suggested some ambiguity about the specifics of implementing instructional video, but clearly found in favor of using interactive video as a supplement to traditional learning (McNeil & Nelson, 1991).

The aforementioned meta-analyses represent significant bodies of research drawing largely from work done in the areas of military and large government funded research projects. The examination of video as a source for enhancing educational experiences in K-12 schools is less substantial. Instead video and particularly television has long been criticized as a force against literacy, which would ultimately turn students into passive receivers of information. Even this criticism exemplifies the need for video to serve as

part of a larger interactive experience and the desire to avoid passivity in the learning experience (Wetzel et al., 1994).

Some studies have looked purely at the impact of instructional video on enhancing learning experiences for students in K-12 schools and the quality of instruction provided by teachers. For example, Harwood and McMahon (1997) looked at the impact of instructional video as a supplement to traditional science instruction specifically examining achievement in secondary chemistry content. Using a quasi-experimental design with both formal and criterion-referenced assessment tools, the authors determined that achievement in chemistry was enhanced by the implementation of instructional video (Harwood & McMahon, 1997). Important to note in these findings is the importance of video in a larger context of learning experiences. Reconsidering the emphasis of video, the concept of video-based anchors within the theory of anchored instruction has been an important development.

Video-based Anchored Instruction in the Preparation of Teachers

Drawing from the work of the Cognition and Technology Group, several researchers (e.g., Glaser, Rieth, Kinzer, Colburn, & Peter, 1999; Rieth et al., 2003) in the areas of instructional technology, teacher education, and special education have examined the potential of video-based anchored instruction. Their research has suggested that video serves as a strong learning tool enabling instructors to build upon or bypass basic text-based instruction—a particularly powerful implication for educating students with learning disabilities (i.e., non-readers). The use of anchored instruction has recently

begun to extend to the preparation of pre-service teachers via multimedia case-based learning, interactive video being an essential part of these cases (Kinzer & Risko, 1998).

Extending the notion of video-based instruction with an emphasis on interactive processing of information is a model called anchored instruction. Anchored instruction is a major research area related to improving learning by providing common or shared experiences, anchors—often, video-based anchors from which students can draw for future learning. The concept of anchored instruction has arisen largely from the research of The Cognition and Technology Group at Vanderbilt. This concept is strongly linked to the idea that prior knowledge and social experience strongly influence the ability of students to experience success in classroom activities (Salinger, 2003). The video examples of various concepts provide an *anchor* for students' knowledge. The original research which lead to the concept of anchored instruction is rooted in a concept called *situated learning* or *situated cognition* (The Cognition and Technology Group at Vanderbilt, 1996). Situated learning involves a unique perspective on the classroom learning process. The SL model draws from the concept of learning as a process which exists, always, within a social, cultural context—a process which cannot occur without common experience or relationship of knowledge of discrete skills to problem-solving opportunities or everyday situations (McLellan, 1996).

A major component of situated learning theory is the concept of *cognitive apprenticeship*. The idea of cognitive apprenticeship relates to the need to educate students regarding authentic practices through activity and social interaction (Brown, Collins, & Duguid, 1989). In effect, this theory suggests that the experience of learning in

89

a classroom should be comparable to the experience of learning a trade through apprenticeship—a process that strongly emphasizes modeling of target behaviors followed by social interaction. The experience of the student should focus on exposure to the ideal model of a particular skill or concept and an attempt to pick up the key components adding them to their repertoire. One cannot simply tell students how to do something, but rather, the student must have an exposure to the concept as an ideal model (Tripp, 1996). The work of the Cognition and Technology Group at Vanderbilt in anchored instruction has maintained a strong emphasis on modeling to students (Moore et al., 1996).

The Cognition and Technology Group at Vanderbilt (CTGV) has focused on the development of video-based anchors to be used in the classroom. However, these videos were meant to be unlike the common experience of learning with video found in many classrooms. Rather than a passive viewing experience with emphasis on lecturing and transmittal of knowledge to students—a flow of knowledge from expert to novice, the assumption in this process is that students and teachers will interact with the visual images asking and answering questions about what is seen and using the images as a foundation for future learning. In this sense, anchored instruction is seen by many as an appropriate implementation of the situated learning concept in actual classroom experiences.

Bransford and colleagues at the Cognition and Technology Group at Vanderbilt argue that video has multiple instructional advantages. For example, video is a rich source of information related to visual and auditory cues which helps students to form mental

models (Cognition and Technology Group at Vanderbilt, 1990). Video programs can provide an anchor or a situation to aid students in developing skills. Potentially video-based anchored instruction will develop rich learning environments and a more realistic context for students (Brown et al., 1989).

The use of video-based anchors is not universal to the concept of anchored instruction. In fact, various experiences could have potential success for providing an anchor for future learning in a classroom. For example, the use of computer-based *gaming* options could be expected to have similar impact. However, the use of video-disc anchors has been most common in anchored instruction related to the high utility of video. Budget constraints and limited comfort with technology have been major factors in using video-discs. Although there is potential for instructional technology advances to create tremendous outcomes for students, there always remains the challenge of creating products that will likely be used in actual classrooms. User-friendly options increase the potential for acceptance by teachers (Cognition and Technology Group at Vanderbilt, 1996).

Impacting Classroom Instructional Practices with Anchored Instruction

Conceptualizing video-based instruction as a form of anchored instruction, researchers in teacher preparation have examined the impact of video on learning instructional skills. Langone (1998) studied extensively the use of anchored instruction, with an emphasis on teacher learning. He described anchored instruction (i.e., video-based instruction) in his investigation as an approach, which allows a link to be created

91

between traditional lecture presentations and video examples of field-based teaching strategies. In his study, Langone focused on preparation of preservice teachers for careers in special education, specifically the effective instruction for students with mental retardation. Again this video-based instruction emphasized the more interactive approach using videodisc and CD-ROM. Results indicated that the augmentation of traditional instruction with video examples of actual classroom practice improved the perception of learning and performance of preservice teachers.

Langone, Malone, Stecker, & Greene (1998) examined the impact of anchored instruction on the knowledge of general educators. They examined the knowledge of these teachers using pre-tests, post-tests, and follow-up tests and found that the anchored instruction format was at least equal if not better than a traditional approach to instruction. Langone, Malone, & Clinton (1999) reported a similar investigation looking at the comparison between anchored versus nonanchored instruction for the learning of pre-service special educators. They used a design, which allowed for equivalent lectures but established the independent variable as videodisc-based examples of classroom practice. Results favored the anchored instruction group for long-term (8 weeks follow up) retention of information. Although this line of research (i.e., Langone, 1998; Langonge et al., 1998; Langone et al., 1999) examines differences in teachers' knowledge, it does not consider, or measure, the impact of video-based instruction on the long-term in-class performance of practicing teachers.

Video-based Anchored Instruction for Students with Learning Disabilities

Based on the need to bypass text-driven instruction and provide broader shared experience and prior knowledge for struggling learners, the concept of anchored instruction, rooted in research on cognition, has emerged as a promising practice for students with learning disabilities. Numerous implementations of anchored instruction have capitalized on the perceived advantage of visual images for students with learning disabilities (Gersten, 1998).

Research on video-based anchored instruction has extended beyond the instruction of students with learning disabilities. The concept has been used to examine gains in achievement in mathematics for students in general (Shyu, 2000) and teaching students and professionals about assistive technology (e.g., Blackhurst & Morse, 1996). Anchored instruction is not necessarily limited to the used of video-based anchors and can be conceptualized many unique ways. Hypermedia instruction, for example could be another implementation of anchored instruction assuming it offered students opportunities to learn by connecting with *real life* situations (e.g., Ferretti & Okolo, 1996).

Kinzer, Gabella, and Rieth (1994) examined the use of a videodisc of the film *To Kill A Mockingbird* in a social studies classroom to establish common, anchors, or shared experiences with concepts highlighted in the film such as justice, equity, and the legal system. Instructionally appropriate segments from the film were shown to students as necessary throughout the year to provide anchors of experience as new concepts arose. Gersten (1998) suggested this video-based approach offers students with learning

93

disabilities an opportunity to realize their potential through alternative instructional avenues, which highlight strengths and bypass purely text-driven methods.

Glaser, et al., (1999) assessed the impact of anchored instruction on an inclusive social studies eighth-grade classroom with a focus on student-teacher interactions. The student sample of eighth graders (ranging from 13 to 15 years old) included 19 students of whom nine were identified (by the author) as having mild disabilities. The authors found that student-teacher interactions increased and that not only did teachers ask more high-level questions, but students also responded in turn. Teachers in the study reported that following use of anchored instruction, students who typically experienced academic struggles and exhibited poor behavior improved achievement showing greater attention and participation. Additionally, teachers reported less time addressing issues of classroom management.

Xin and Rieth (2001) examined the effects of using video for increasing vocabulary acquisition and reading comprehension skills for students with learning disabilities in 4th, 5th, and 6th grade. The study was completed using a pre-post control group design with random assignment with 70 students in special education resource rooms assigned to video and nonvideo groups. Students were in the last grades of elementary school in an urban school. Results indicated that students' vocabulary acquisition scores were significantly higher in the groups who viewed video. No significant differences were detected in the measures of generalization and reading comprehension between students who watched video and those who did not. Xin and Rieth (2001) suggest that the video is helpful for vocabulary development based on the premise of anchored instruction, but the

development of enhanced vocabulary cannot alone promote increased reading comprehension—simply knowing words will not ensure meaningful interaction with text.

Rieth, et al., (2003) observed implementation of anchored instruction in two ninth-grade language arts classes with emphasis on student and teacher behaviors including student participation in classroom activities. Rieth, et al., observed classrooms and interviewed teachers following the anchored instruction intervention. In this case, the film *To Kill a Mockingbird* was again used as a source of video anchors, although this time in a classroom focused on literature rather than social sciences. Baseline assessment indicated that the teacher's preferred method of instruction was lecturing. She typically spent 6 weeks teaching the novel To Kill a Mockingbird, with daily activities dedicated to learning vocabulary, discussing characters and themes, writing papers and ultimately taking a test. The experimental, anchored instruction, implementation maintained the same general elements but students viewed the film rather than reading the book in its entirety. Results indicated that anchored instruction had favorable outcomes for the high school students in the study including those with high incidence disabilities. Among the positive outcomes of the anchored instruction intervention were increased use of high level questioning by the teacher, improved participation and questioning by students, and generally a more interactive classroom.

Bottge, Heinrichs, Chan, Mehta, and Watson (2003) studied the effects of video-based anchored instruction on the ability of 8th grade students to solve computation and word problems. Although this study was not specific to students with learning disabilities, the authors did differentiate between 26 students deemed to be typically

achieving and 11 students who were *low achieving*. Results suggested that performance for both groups was improved during anchored instruction when compared to baseline performance.

Okolo, Feretti, and MacArthur (2002) reported an attempt at incorporating multimedia support into social studies classrooms for the purpose of supporting the needs of students with mild disabilities in 5th and 6th grade in urban settings. Included in this attempt was an approach called Strategy Supported Project-Based Learning (SSPBL). SSPBL organizes social studies content into units with focus on big ideas while implementing strategy instruction, lessons in historical analysis, technology tools including video-based anchors for the purpose of discussing critical ideas for which students might have limited prior knowledge. Results indicated that students using these multiple strategies demonstrated increased knowledge and understanding of historical concepts. Of course, this design was quite complex and it would be difficult to isolate video anchors as a key source of impact.

Chapter Summary of Literature Review

Multi-media, or video-based, anchored instruction has been utilized as a tool for promoting vocabulary development for students with learning disabilities (Xin & Glaser, 1996). The strategy has been used with positive results to promote content understanding in social studies (Glaser, Rieth, Kinzer, Colburn et al., 1999; Glaser, Rieth, Kinzer, Prestidge et al., 1999; Okolo et al., 2002) and English language arts (Rieth et al., 2003) and to develop proficiency with mathematics (Bottge et al., 2003). Anchored instruction

appears to have a somewhat limited but positive research base thus far. However, to this point no experimental attempt has used this approach, to help students develop proficiency with implementing inclusive practices.

Notable in the reviewed studies examining video-based anchored instruction for students with learning disabilities (Bottge et al., 2003; Glaser, Rieth, Kinzer, Colburn et al., 1999; Kinzer et al., 1994; Okolo et al., 2002; Rieth et al., 2003; Xin & Glaser, 1996) is the consistency of age group. Nearly all of the participants in these studies were adolescents, particularly students in the middle school grades (i.e., 6-8). This raises the additional question as to whether video-based anchored instruction is most appropriate for students in this transitional developmental period. In considering developmental psychology, Piaget's (1954) theory of cognitive development has established the years of middle school as the transition phase into *formal operations*—a period in which students are most likely to begin to process more abstract thoughts and conceptualize challenging, multi-dimensional ideas. The formal operations level of cognitive development allows for learners to move beyond concrete understanding to a point at which teachers can engage them in complex and controversial issues—concepts best discussed and debated. However, some students seem to experience this transition into formal operations over a longer period of time than others (Flavell, 1982)—including students with learning disabilities (Riley, 1989) many of whom may benefit from instructional methods which aid in this transition by providing some kind of scaffold, such as a video-based visual representation (Rosenshine & Meister, 1992).

97

The question yet to be answered is whether video-based anchored instruction could be used to help students, particularly adolescents with learning disabilities, implement inclusive strategies like cooperative learning. The selection of Literature Circles is also in line with research on adolescent development. In considering the needs of the adolescent brain, Sprenger (2005) suggests that students in adolescence are often in need of a little stress—something to inspire adrenaline flow. This stress does not have to be negative, rather it could simply involve students interacting, role-playing, or discussing the issues in their class. Students in adolescence experience real challenges with attending to tedious stimuli for long periods of time. They thrive on novelty and emotion. Further suggestive of the need for verbal interaction is what Sprenger (2005) describes as adolescents' intensity of feelings that causes them to feel a desperate desire to express themselves. Tomlinson and Doubet (2005) describe adolescents as learners who crave group interaction—the ability to feel engaged in their learning activities discussing issues or concepts which have obvious relevance to their lives.

Selecting Literature Circles, as a specific example of inclusive practice for adolescents with learning disabilities, this study will attempt to further the research on anchored instruction while simultaneously attempting to bridge the research-to-practice gap. Students with learning disabilities will attempt to learn to use inclusive strategies via video-based anchors.

CHAPTER THREE: METHODOLOGY

Introduction

The purpose of this study was to investigate the impact of video-based anchors (i.e., a video model of Literature Circles) on the implementation of Literature Circles by students with learning disabilities in inclusive middle school social studies classrooms. This chapter begins with the statement of the guiding research questions. The next section describes the Definition of Terms used in the research. Next, the context of the study including a description of the research participants is discussed. A description of the research design including specific procedures and timeline is followed by a discussion of data collection procedures, and instrumentation. Finally, data analysis procedures are presented.

Research Question

The overarching research question and subquestions are as follows:

1. Do students with learning disabilities in inclusive settings who view a video model of a cooperative learning strategy demonstrate significantly more effective implementation of that strategy than students with learning disabilities who do not view a video model?

   A. Do students with learning disabilities in inclusive settings who view a video model of Literature Circles demonstrate more effective recognition of the names of the five roles in the structure and the purpose of each of these roles?

   B. Do students with learning disabilities in inclusive settings who view a video model of Literature Circles exhibit more effective application of the specific

responsibilities of their role and the multiple elements of cooperative learning?

C. Do students with learning disabilities in inclusive settings who view a video model of Literature Circles improve content learning outcomes by effectively applying the strategy?

D. What are the perceptions of students with learning disabilities in inclusive settings related to viewing a video model of Literature Circles as a means for implementing the strategy in their class?

The research question and subquestions reflect an attempt to evaluate the impact of video models on three levels—the extent to which the video models improve the ability of students with learning disabilities to a) learn the foundational information and rationale of a strategy, b) implement the strategy effectively, and c) improve academic outcomes by implementing the strategy. The final subquestion measures the social validity of the video models at the student level by examining student perceptions.

General Research Hypothesis

Null Hypothesis 1:

No statistically significant difference exists in recognition of the names of the five roles and the purpose of the roles of Literature Circles between students with learning disabilities who do and do not watch a video model of Literature Circles.

Null Hypothesis 2:

No statistically significant difference exists in the application of the roles and elements of cooperative learning included in Literature Circles between students with learning disabilities who do and do not watch a video model of Literature Circles.

Null Hypothesis 3:

No statistically significant difference exists in content learning outcomes between students with learning disabilities who do and do not watch a video model of Literature Circles.

Definitions of Terms

Video Models

Regarding the development of the video model, the literature supports the use of video as a tool for learning, particularly as a form of anchored instruction, in which the video serves as a support to traditional instruction (Glaser, Rieth, Kinzer, Colburn et al., 1999; Kinzer et al., 1994; Rieth et al., 2003; Shyu, 2000). For this project, the video model was in a DVD format. Included in the DVD was a full-length video demonstrating actual classroom implementation of Literature Circles in a social studies classroom as a means of examining expository, supplementary texts. The DVD format allowed the viewer to stop, play, replay, pause, read captioning, read or reread inserted text. Interspersed throughout the classroom footage are PowerPoint inserts with narration explaining the video content and guiding questions to alert the viewer to key points.

Literature Circles

For the purpose of this study *Literature Circles* is defined as a cooperative learning strategy focusing on heterogeneous grouping for the purpose of completing reading-related learning tasks. Specific to this study, Literature Circles is further defined as an inclusive practice for reading expository, supplementary texts in content-area classes such as social studies. The role of the teacher is to facilitate cooperative learning. The Literature Circles strategy is student-centered (Daniels, 2002b). Accordingly, group members read the article either individually/silently or quietly with a group partner and subsequently engaged in a structured conversation about the reading. Peer support was emphasized through purposive selection (by the teacher) of group partners whose skills were complementary. Members of the Literature Circles select specific roles based on their strengths and are required to contribute to the overall group goal. Important to note is the *terminology drift* associated with Literature Circles. Although the term Literature Circles is the common name for this cooperative learning strategy, the names of the roles differ slightly for nonfiction texts and the strategy is often called Nonfiction Literature Circles or simply *Reading Circles*. Content area teachers in this study who didn't consider themselves literature teachers often preferred the term Reading Circles.

The student roles for non-fiction texts include *Questioner, Passage Master, Vocabulary Enricher, Connector*, and *Illustrator*. In this process, the job of the Questioner is to write down questions for the group to discuss. The job of the Passage Master is to select sections of the text that he or she wants to share with the group. The Vocabulary Enricher is responsible for making constant notes of unknown words so the

group can discuss and use context clues to understand the new vocabulary. The duty of the Connector is to recognize connections with the text being examined and thoughts in the outside world, other books, or previous classroom discussions. Finally, the role of the Illustrator can be interpreted by having the student draw creative pictures or develop more detailed graphic organizers (e.g., thinking maps, chronological timeline). The group goal is to sufficiently process the text including each member's share of the work and report to the rest of their classmates about the current event chosen by their group.

Inclusive Setting

Inclusion refers to the state of education for students with disabilities being equitable to their same-age non-disabled peers—an education which maintains emphasis on student rights and the natural state of human diversity in school populations (Fitch, 2003). From a practical standpoint, this means that students with disabilities educated in an inclusive setting are being educated in a general education classroom alongside those students not identified as having special needs (Choate, 2004).

Setting and Population

The population and setting for this study included ten middle school social studies teacher's classrooms in local public schools in central Florida. In central Florida, middle school is grades 6, 7, and 8—a transition experience following elementary school meant to prepare students for high school. The student sample population was dependent upon teachers selected for this study. The student population in central Florida is highly diverse representing a cross section of the nation's overall diversity. In 2003, approximately 60%

of the students were from culturally and linguistically diverse backgrounds (FLDOE, 2003). The student population sampled in this study included students in the middle school grades learning the general education curriculum, specifically social studies content. Important to the social validity of the study is the diversity of the student population with emphasis on students with identified learning disabilities served under the Individuals with Disabilities Education Act (2004). Students identified as having a Specific Learning Disability in the local schools at the time of the study were identified based on the earlier amendments of the IDEA (1997) in which the definition emphasized "a severe discrepancy between achievement and intellectual ability in one or more of the following areas: (1) oral expression; (2) listening comprehension; (3) written expression; (4) basic reading skill; (5) reading comprehension; (6) mathematics calculation; or (7) mathematics reasoning" not due to some other primary disability of cognition, vision, hearing, or behavior. Further, the state of Florida requires evidence of a discrepancy of at least one standard deviation "between an intellectual standard score and an achievement standard score in basic reading skills, reading comprehension, oral expression, listening comprehension, mathematics calculation, mathematics reasoning, or written expression" if students are between ages 7 and 10 (Florida Department of Education, 2005, p. 115). For students eleven or older, students must exhibit a discrepancy of at least one and one-half standard deviations.

Study Participants

The study participants (see Table 1 for student demographics) are defined as students with learning disabilities (i.e., SLD) currently included in general education social studies

classrooms in middle school (i.e., grades 6-8 in these specific classrooms). Data related to specific academic deficits and severity of learning disability were not available for the student participants. Student characteristics such as race, gender, and grade level were recorded at the time of classroom observation. Data revealed that the sample was disproportionately comprised of students of apparent Black (e.g., African-American, Caribbean Islander) racial background (24 of 43 students) at a rate of 56% of students. This rate is greater than the percentage of students of Black racial background in any of the four schools in which observations were conducted. Eleven of the students were of an apparent White racial background (26%) and 8 were of an apparent Hispanic background (19%). No students of Asian or Native American ancestry were included in this sample. Males also were disproportionately represented in this sample—not an uncommon trend in the overall population of students identified as having a specific learning disability (Deshler et al., 2002)—with 27 of the 43 students (63%) being male. Although the researcher did not target any specific level, 7th graders comprised the majority of the sample with 29 out of the 43 students currently enrolled in the 7th grade (67%).

Table 1

Student Participant Demographics

	Apparent Race*		Gender		Grade Level	
Black	24	Male	27	6th	10
White	11	Female	16	7th	29
Hispanic	8			8th	4

* Racial descriptions were general and based on apparent features

In order to gain access to these students, ten in-service teachers (see Table 2 for teacher demographics) were selected to assist by viewing the Literature Circles video, implementing the strategy, and allowing observation in their classrooms. The largest number of teachers (n=5) came from School 2. The majority of the teachers were White females. However, there were four males (40%) including 1 male of Hispanic descent and one male of Black racial background. A considerable range of experience characterizes the teacher group in this study with two teachers teaching in their first year and several teachers with greater than five years of experience.

Table 2

Teacher Participant Demographics

Teacher	School	Gender	Race	Experience	Education	Grade Level
Teacher 1	School 1	Female	White	3 years	Master's	7th
Teacher 2	School 1	Female	White	1 year	Bachelor's	8th
Teacher 3	School 2	Female	White	18 years	Bachelor's	8th
Teacher 4	School 2	Male	White	9 years	Bachelor's	6th
Teacher 5	School 2	Male	White	2 years	Bachelor's	7th
Teacher 6	School 2	Male	Hispanic	1 year	Bachelor's	7th
Teacher 7	School 2	Female	White	21 years	Master's	6th
Teacher 8	School 3	Female	White	6 years	Bachelor's	7th
Teacher 9	School 4	Male	Black	2 years	Master's	7th
Teacher 10	School 4	Female	Black	8 years	Master's	7th

Selection of these teachers was based on their current placement in a middle school (grades 6-8) setting, their role as instructor of social studies content, and a student population, which includes students with learning disabilities. In addition, the ten teachers were selected with the understanding that they were not already implementing Literature Circles in their class as an attempt to exclude students' prior knowledge of the strategy as a contributing variable. Participating teachers were compensated monetarily for their time facilitating the research process including viewing the video model of

Literature Circles and assisting with data collection by providing the day one treatment, selecting the specific groups (that included students with learning disabilities) to be observed by the researcher, and confidentially informing the researcher of student status as SLD.

Efforts were made to find school sites that represented varying segments of the population in the local schools. Included in this variability are characteristics of cultural and linguistic background, geography, racial makeup, and economic level. Table 3 summarizes the commonly recorded school demographic information for each of the school sites.

Table 3

School Demographics

School	School 1		School 2		School 3		School 4	
	#	%	#	%	#	%	#	%
Disadvantaged[a]	651	76%	719	52%	549	48%	672	42%
LEP[b]	95	11%	44	3%	115	9%	100	6%
ESE[c]	190	22%	157	11%	186	15%	256	16%
Black	420	49%	340	25%	114	9%	113	7%
Hispanic	167	19%	259	19%	321	26%	429	27%
White	239	28%	651	47%	704	57%	988	61%
Asian	26	3%	71	5%	69	6%	49	3%
Other	1	< 1 %	6	< 1 %	4	< 1 %	5	< 1 %
Total	860		1386		1228		1607	

[a]Economically Disadvantaged based on eligibility for free or reduced price lunch.

[b]English Language Learners (ELL)

[c]Students with identified disabilities receiving special education services.

In this study, an emphasis was placed on observing students who had no prior knowledge of Literature Circles as a cooperative learning strategy in the social studies classroom. Use of Literature Circles is rare in social studies classrooms as the strategy

was originally developed within the English language arts and reading professional communities (Daniels, 2002b).

Sampling

This study used a voluntary sample of convenience for selection of teacher participants. Within each teacher's classroom for each class period of the teacher's scheduled instructional day, one *Literature Circle* was selected based on the inclusion in that group of at least one student identified as having a specific learning disability (SLD) in accordance with school district policies for identification. Participating teachers were instructed to create heterogeneous groups based on the model suggested by Johnson and Johnson (1999) which suggests groups consisting of one high-achieving, two typically-achieving, and one low-achieving student to each group. Observed groups consisted of at least one student with an identified specific learning disability.

The study took place in the classrooms of 10 practicing teachers. Each teacher's classroom included students with learning disabilities at some point in their instructional day, however not every class period included students with learning disabilities. Several students failed to attend on both day one and day two of the study or had a level of exposure to the Literature Circles strategy prior to the study that could invalidate the results. An a priori decision was made that students who indicated previously reading in cooperative groups, but not using Literature Circles would be included in the sample. Students were required to indicate their prior knowledge and use of Literature Circles on their post-test of strategy knowledge. Although some students indicated knowledge of Literature Circles prior to the study, follow-up questions by the classroom teacher

110

typically clarified that students had simply read in groups with their peers. Essentially, a few students indicated they had, at some point, sat a table and took turns reading aloud.

No students indicated prior use of the Literature Circles strategy with nonfiction social studies materials. Only two students out of 50 classrooms were removed from the sample due to prior use of Literature Circles in their reading class. Finally, one student with SLD was removed from the sample due to illness (as reported by the classroom teacher). Ultimately, related to these inclusion criteria, the anticipated total sample of 50 observed students with learning disabilities (10 teachers X 5 class periods X 1 student with SLD) amounted to 43 students. These 43 students represent all of the 10 classrooms (see Table 4) with a range of 1 student from Teacher 3 (two students were excluded due to absence on day two) to 7 students from Teacher 1 and Teacher 7 (multiple class periods including more than 1 student with SLD in a group). Following random assignment of treatments, the sample amounted to 20 students in the video group and 23 students in the nonvideo group.

Table 4

Number of Student Participants Sampled from the Ten Teacher's Classrooms

Teacher	School	Treatment Group	Number of Students with SLD
Teacher 1	School 1	Video	7 Students
Teacher 3	School 2	Video	1 Student
Teacher 4	School 2	Video	3 Students
Teacher 8	School 3	Video	3 Students
Teacher 10	School 4	Video	6 Students
			20 Students
Teacher 2	School 1	Nonvideo	3 Students
Teacher 5	School 2	Nonvideo	3 Students
Teacher 6	School 2	Nonvideo	6 Students
Teacher 7	School 2	Nonvideo	7 Students
Teacher 9	School 4	Nonvideo	4 Students
			23 Students
Total			43 Students

The sampled students with learning disabilities were selected based on highly discrete teacher identification of students receiving exceptional student education (ESE) services from the school (via computerized classroom rolls) and limited to those students formally identified as having a specific learning disability (SLD) and no additional ESE status.

Teachers indicated student status as SLD to the researcher, confidentially (see Appendix A for teacher instructions for confidentiality).

Research Design

This study focused on the implementation and study of video models as a means for students to implement Literature Circles. This project involved both quantitative and qualitative methods to investigate the effects of viewing a video model on students with learning disabilities' a) learning of the strategy elements, b) implementation of the Literature Circles strategy, c) achievement related to specific social studies content, and d) experiences/perceptions of efficacy. A nonequivalent dependent variables design was used to measure student achievement and learning of the essential elements of Literature Circles. Student implementation of the instructional strategy was evaluated through structured observations. An observation instrument allowed observers to evaluate the fidelity of the applied instructional approach. Focus groups were conducted with a sample of the students with learning disabilities included in the overall study in order to gain insights into their experiences and perceptions of learning from the video models. Focus group questions related to students' perception of learning a strategy with or without a video model and the extent to which they felt prepared to implement Literature Circles.

Treatment Conditions

All selected teachers were given both traditional preparation in the use of Literature Circles and video models designed to demonstrate the instructional effectiveness of Literature Circles as an inclusive practice for middle grades content-area reading. Conditions of preparation were parallel and adequate across all selected teachers such that experimental treatments impacted students only.

Next, the teachers' classrooms were randomly assigned to one of two treatment groups. Of the ten teachers, each had an equal likelihood of random assignment to one of the two treatment groups. Random assignment was performed by randomly assigning each teacher from a list to treatment group 1 or treatment group 2 using a random number generator (www.randomizer.org). Prior to random assignment all teachers received parallel opportunities to view the video model of the Literature Circles strategy and ask follow-up questions for clarification.

Due to practical constraints related to technical assistance and established rapport with schools and teachers, the researcher was aware of which classrooms were assigned to each of the treatment groups. However, an a priori decision was made to have an additional field observer join the investigator during at least 80% of classroom observations. This observer was not informed of the status (i.e., treatment group 1, treatment group 2) of the classrooms. This step was taken in order to prevent a scoring bias at the time of observation.

The researcher and the additional field observer developed substantial comfort with the observation protocols prior to observing in the formal study. Prior to formal observation in the selected classrooms, the investigator and additional field researcher spent considerable time observing students implement the strategy in a local school that was not part of the study until the two observers came to consensus about the characteristics of low level, moderate, and high level implementations of the various roles and the cooperation during their discussion time. Finally, the two observers conducted a final observation with the formal observation instrument and individually observed students implementing the strategy. An a priori decision was made to compute point-by-point reliability between the item scores of the two observers. Two groups were selected to determine the level of inter-rater reliability prior to formal observation. It was determined that observation scores should not differ by more than one point on the five-point Likert scale and point-by-point reliability would meet a standard of 80% prior to formal observation of the 10 teachers' classrooms. These criteria were met for each observation item (see Table 5 for pilot study reliability). During the formal study with the ten selected teachers' classrooms, an additional a priori decision was made that the investigator's observation scores would meet a criteria of 80% point-by-point inter-rater reliability between the two observers in order to preclude observer bias in the final scores.

Table 5

Inter-rater Reliability for Pilot Observation.

Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7
90%	80%	90%	90%	100%	90%	90%

In treatment group 1, teachers (n=5) were given a detailed lesson plan (see Appendix A) for implementing Literature Circles and asked to implement Literature Circles with their students. Teachers in Group 1 were meant to provide a traditional approach to preparing students for a new instructional strategy. In order to maintain comparable treatment across all classrooms, teachers providing traditional instruction were given specific guidelines for preparing students to implement Literature Circles. Traditional instruction consisted of overheads (see Appendix B) to be shown on an overhead projector. The overheads detailed the critical elements of the strategy and summarized the methods involved in Literature Circles (i.e., list of roles and description of responsibilities). Teachers were instructed to follow the specific guidelines using the traditional approach to explanation and limit the instruction to a 10-12 minute period prior to student questions. Based on discussion with currently practicing teachers, traditional instruction included use of an overhead projector and whiteboard/chalkboard. Students' follow-up questions were limited to issues of clarification from the overhead presentation. Although student questions were answered related to the new information

116

provided in the lesson, teachers did not provide any further modeling or elaborate discussion to present the information.

In treatment group 2, teachers (n=5) were given a detailed lesson plan/description (see Appendix A) for implementing Literature Circles comparable to the preparation materials used in treatment group 1. This second preparation package did not include the overhead transparencies provided to Group 1. Classrooms/students in treatment group 2 viewed a video model of Literature Circles. Included in the video model were explicit descriptions of the strategy roles and responsibilities comparable to the text-based overhead presentation provided in treatment group 1. The video was approximately 10 minutes long. An additional five minutes for questions related to video content or requests to review segments of the video was included in the overall time for preparation.

Following these treatments, each teacher was asked to implement Literature Circles. As the implementation was conducted with middle school social studies content, the same nonfiction expository text from *Teen Newsweek's Poverty in America: Why the Number of Poor People in the United States is Growing* was implemented in a parallel fashion across both treatment groups. A fidelity checklist (see Appendix C) was developed to ensure parallel implementation and a day one fidelity check was conducted during the first period class of every teacher in the study. The fidelity checklist included a detailed list of lesson events (including the constraints of those events) based on the lesson plans given to the teachers.

The content of the video model emphasized student implementation of nonfiction Literature Circles studying current events materials (i.e., social studies/news magazines

for young readers). The classroom implementation in the study focused on implementation of nonfiction Literature Circles with current events materials in a social studies classroom comparable to the example classroom highlighted in the video model.

Research Timeline

The timeline for student preparation and implementation of Literature Circles was consistent across all ten teachers in both conditions. The timeline consisted of a *day one* preparation, and *day two* (the next day) implementation of the strategy. In effect *Teacher One* prepared his/her students to use the strategy on day one of the overall timeline and implemented the strategy with his/her class on the following day—*day two* of the overall timeline. The observing researcher and an additional field observer alternated fidelity checks on day one completing the aforementioned fidelity checklist to ensure each teacher limited their preparation to the guidelines of the lesson plan and scripted instructions (see Appendix C for details). The researcher arrived on day two to assess student implementation. Each of the ten teachers continued in this fashion over a staggered timeline in such a way that the researcher could observe each of the classroom implementations.

Day One Procedures

The specific procedures used on day one account for the variability in the experiences of students in the study between treatment group 1 and 2. The fidelity checklist used during the day one observation accounts for the consistency within treatments such that

118

the highest assurance is given to attributing the variability of outcomes to the independent variable. As mentioned previously, the experience of teachers' preparation in the strategy was parallel across both conditions. The first step for teachers in both conditions was to distribute to students the *basic knowledge of Literature Circles* pre-test (see Appendix D). Included in this assessment were measures of factual recognition and purpose related to Literature Circles. This pre-test ensured that students did not have preexisting knowledge of the strategy. Students were asked to write their first name and class period and answer the items only if they had prior knowledge of the strategy—students were not required to guess if they did not know anything about Literature Circles.

Following the *basic knowledge of Literature Circles* pre-test, students were given one of two methods of preparation to aid them in implementing the strategy on the following day. The teachers taught Literature Circles by using either typical overhead transparencies (to represent traditional classrooms) or a video model depicting the strategy *in action*. All teachers were given explicit instructions on how to present the strategy to students via a clear script. The script was given to teachers with an understanding that conditions must be equivalent as an attempt to remove teacher quality or experience as a contributing variable. All teachers shared with students a scripted explanation of the rationale of the strategy and the plan to learn the strategy *today* and try to use it *tomorrow*. Teachers provided preparation exactly as the script indicated (see Appendix E) and did not provide any additional opportunities for practice or modeling beyond the descriptions provided. Teachers only answered questions specifically elicited by students for clarification, as it would be inappropriate to deny student-learning

opportunities. This strict adherence to the script and lesson plan was monitored by the researcher by using the fidelity checklist to observe the day one implementation. In all instances, fidelity checklist results indicated that teachers abided by the constraints of their randomly assigned preparation method.

Next, teachers gave students an *assessment of content knowledge* related to the social studies content—current events information—to be learned during the lesson. Students completed the assessment of content knowledge pre-test (see Appendix F) related to the specific current events information provided in the text. Although the strategy is student-centered and typically allows each group to select their choice for reading, a selected reading was provided based on content of recent current events magazines (across all classrooms) in order to strengthen the research design. The article titled *Poverty in America: Why the Number of Poor People in the United States is Growing* was selected by the researcher based on its connection to the recent natural disaster—Hurricane Katrina—which was well documented in the media at the time of the study. This article selection was approved by each of the teachers.

Teachers were asked to form groups for the Literature Circles to be sure there was sufficient heterogeneity in academic ability throughout groups in the class (see Johnson & Johnson, 1999). *Current events* served as the social studies content for the two day implementation, as current events curricula span the three grade levels of middle school social studies that otherwise are somewhat distinct (e.g., eastern hemisphere geography, western hemisphere geography, United States history). Copies of the middle school current events magazine *Teen Newsweek*'s article *Poverty in America: Why the Number*

of Poor People in the United States is Growing were distributed to all students in the class.

Next, the participating teachers distributed color-coded role sheets for each member of the group; each group was given five role sheets. On each role sheet was a name of a role (i.e., Questioner, Passage Master, Connector, Vocabulary Enricher, Illustrator) and a brief reminder of the responsibilities of that role. Color-coded role sheets clarified the uniqueness of each role and made explicit that each student had a different task and would contribute to the overall discussion.

Students were then instructed to select the role that most appropriately fit them. The teacher explained that each group member should select his/her specific role in the Literature Circle in order to complete the assigned reading based on his/her strengths and ability to contribute to the whole group. The teacher subsequently explained that on *day two* students would discuss the article in their groups using the Literature Circles strategy they learned and they would ultimately be responsible for the learning of all of the members of their group.

The remainder of the class period was used to read the selected article. Due to concerns about whether students would have equal exposure to the text, each of the ten teachers read the article aloud to the students while each student held an individual copy of the article to read along.

<u>Day Two Procedures</u>

On day two, teachers reminded students that they would be implementing the Literature Circles strategy learned the previous day. Teachers distributed the *basic*

knowledge of Literature Circles post-test (see Appendix D) to measure change in recognition of strategy elements and purpose from the previous day's lesson. Teachers then provided an advance organizer of the day's activities including a maximum ten-minute period for students to review the previous day's reading and complete the during-reading duties of their role. Next, students had a maximum 15-minute period to complete their discussion of the reading that included each student completing and sharing their assigned Literature Circle role.

Following the advance organizer, students were instructed to fulfill their roles while reviewing the reading and contribute to the group discussion based on their roles when they reconvened. Students discussed their reading using the structure of Literature Circles. Students who were unsure of how to complete the duties of their role often requested assistance from their teacher. To avoid impact on the results of the day one treatment, teachers were given explicit lesson plans (see Appendix A) directing them on how to respond to such requests. Teachers were asked not to re-teach the role or delve into simulation of the roles. Rather, teachers directed students to "think about what we learned yesterday." Only if students remained confused, did the teachers provide further explanation to a small number of students. This did not occur among any of the groups observed by the researcher.

The study researcher and additional field observer observed both the preparation for and implementation of the Literature Circles discussions. Following this discussion, students took five minutes to complete the *assessment of content knowledge* post-test (see

Appendix F) related to current events. Students were given a nearly identical assessment to complete from Day One.

Data Collection Procedures

Students in treatment group 1 and treatment group 2 completed a pre-test and post-test to determine if any learning gains had been achieved related to the *basic knowledge of Literature Circles*. The study researcher and additional field observer observed on *day two* for all participants. The observations lasted the entire school day selecting one Literature Circle, which included a student identified as SLD, from each class. The additional field observer accompanied the primary researcher to observe students in order to prevent bias and establish reliability of observational data,.

The observation instrument (see Appendix G) was utilized following adaptation from the work of Daniels (2002b), a national expert and advocate for Literature Circles and Johnson and Johnson (1999), national experts in cooperative learning, in order to examine the comparative effectiveness of the student cooperative learning groups and specifically the comparative success of the students with learning disabilities both within their groups and between treatment conditions. Selection of specific observation items was based on well-established research from Johnson and Johnson (1999) and Daniels (2002b).

Observation scores by two observers were obtained. The observation instrument included observation items for each of the five roles of the nonfiction Literature Circles. Although typically only one student was identified as SLD in each group, an a priori

decision was made to observe the performance of the other nondisabled students in the Literature Circle as well. However, pilot observations revealed that it was overly difficult to reliably evaluate the performance of five different students without intruding on the natural efforts of the group. Also, due to inconsistencies in grouping (related to absences, small class sizes, etc.), every group did not include five students. Due to these concerns, the researcher and additional field observer determined that four students would be the optimum number they could reliably score without being intrusive. These additional data from the nondisabled students were not specifically related to the research questions, but enabled the researcher to analyze the data for a larger, extended sample of students allowing for an enhanced assessment of the data trends.

Pre and post measures of content knowledge were collected using assessment of content knowledge related to current events presented on *day one* and *day two* (previously discussed in the research timeline). Pre and post measures were given a score by comparing them to a pre-determined rubric (see Appendix H).

Finally, in order to establish social validity and enhance triangulation of data collection, a sample of students with learning disabilities who participated in the group viewing the video of Literature Circles and implementing the strategy were invited to participate in a follow-up focus group. Students were then asked to describe their experiences related to learning a new classroom strategy using the video-based anchored instructional approach. Focus groups were used to examine the students' perception of efficacy of this approach and the extent to which they felt prepared to use the strategy after viewing the video. Students were also asked to report their previous knowledge of

the Literature Circles strategy, their current understanding of the strategy, and the elements of the video that helped or failed to help them develop proficiency with the strategy (see Appendix I for focus group questions).

Instrumentation

Three instruments were used in this study: (1) *the basic knowledge of Literature Circles* pre-post test (a 10-item assessment of factual knowledge of the critical elements and roles used in the Literature Circles strategy), (2) the *observation instrument* to evaluate implementation of critical strategy elements, and (3) *the assessment of content knowledge*. The use of observation protocols is well established in the special education research literature as a means to assess implementation of instructional and learning strategies (see Greenwood & Terry, 1992).

The 10-item *basic knowledge of Literature Circles* pre-post test is grounded in the extensive work of Daniels (2002b) drawing from previous work which specifically defines the roles included in Literature Circles including the features of each. The protocol validity has been enhanced through review by a content and instructional expert in the area of English language arts and secondary reading instruction.

The observation instrument, which measures the specific elements of Literature Circles and cooperative learning, is again strongly grounded in the work of Daniels (2002b) and Johnson and Johnson (1999). Elements of the observation instrument include items related to student demographic information and classroom descriptive information adapted from the Local Systemic Change Observation Protocol developed by Horizon Research, Inc. (2000). The specific observational elements include assessment of overall

125

fidelity to cooperative learning's major tenets (i.e., positive interdependence, individual accountability and responsibility, promotive interaction and cooperative skills, and group processing), and specific assessment of Literature Circles role completion.

Previous publications and extensive research by Daniels (2002b) provide a strong foundation for identifying the features to be observed in an effective implementation of Literature Circles. Again, the items included have been validated by a content expert in the area of English language arts and secondary reading instruction. Items related to effective use of cooperative learning are also drawn directly from an extensive body of publications and research by Johnson and Johnson (1999) which identifies the four specific elements to be observed in cooperative learning groups.

Finally, the observation instrument was piloted in a central Florida school in order to assess the overall validity of the observation instrument. Prior to formal observation of students in the study, the study researcher and additional field observer developed comfort with the observation instrument, came to agreement about objective interpretation of items, and further piloted the instrument while observing students using Literature Circles in three teacher's classrooms at a school that did not participate in the formal phase of the study.

The *assessment of content knowledge* assesses development of content knowledge related to the middle grades social studies curriculum. The instrument's scoring rubric was drawn specifically from the reading materials related to the current events article from *Teen Newsweek* used by the students in the selected social studies classrooms. Validity of the instrument was enhanced by review by multiple content experts including

126

a university level specialist in curriculum for secondary social studies and a sample of practicing social studies teachers in the local schools.

Data Analysis

Following data collection, quantitative statistical analyses were completed using Multivariate Analysis of Variance (MANOVA) to examine group differences in knowledge of the essential elements of the strategy, implementation of the strategy, and content achievement. Content achievement measures were analyzed by obtaining pre-post scores (compared to an established rubric) and examining the continuous data for between group differences. Data from the three instruments were entered into SPSS and a MANOVA was calculated to determine statistically significant differences between students assigned to the two treatment groups. The Multivariate Analysis of Variance is useful as an extension of the traditional one-way Analysis of Variance (ANOVA) when more than one dependent variable is present. MANOVA allows for one categorical variable and numerous dependent variables. Although the three dependent variables could be analyzed through separate one-way ANOVAs, the likelihood of a type 1 error is diminished by using MANOVA.

However, additional assumptions exist for effective use of MANOVA including sufficient sample size (20 or more is considered minimally robust) and normality of data. As students in the sample of this study were drawn from nested groups (i.e., established classrooms), nested factors could influence the results of the MANOVA. Included in the MANOVA analysis is Box's M Test of Equality of Covariance Matrices which will

allows for determination of whether the assumption of homogeneity of variance-covariance matrices has been violated. Violation of these assumptions, indicates a need to analyze the data with separate Analyses of Variance with a more strict alpha value.

Qualitative analysis of student focus group responses were analyzed using an informal approach to interpretivism (e.g., phenomenology). Focus group interviews were recorded and transcribed for analysis. General themes were drawn from these qualitative data using the interpretivist approach advanced by Erickson (1986). Basic conclusions were developed by scrutinizing transcripts for broad themes and seeking disconfirming evidence until consensus was achieved.

Overall, analysis of the data from the three assessments measuring a) learning of the foundational information and rationale of the strategy, b) effective implementation of the strategy, and c) improvement in academic outcomes, allows for strong conclusions to be drawn related to the impact of the video model of Literature Circles on the ability of students with learning disabilities to effectively implement the Literature Circles strategy in middle school social studies classrooms. Analysis of interview transcripts from focus groups with students who viewed the video model add to the full picture when drawing conclusions by adding important information related to *how and why* the video model impacted student implementation of the strategy.

CHAPTER FOUR: RESULTS

Overview of Data Analysis

The purpose of this study was to investigate the extent to which students with learning disabilities are able to learn the basic elements of Literature Circles, implement Literature Circles effectively, and demonstrate content knowledge based on the use of Literature Circles following preparation in the strategy with video-based models. In effect, to answer the following overarching research question and subquestions:

1. Do students with learning disabilities in inclusive settings who view a video model of a cooperative learning strategy demonstrate significantly more effective implementation of that strategy than students with learning disabilities who do not view a video model?

    A. Do students with learning disabilities in inclusive settings who view a video model of Literature Circles demonstrate more effective recognition of the names of the five roles in the structure and the purpose of each of these roles?

    B. Do students with learning disabilities in inclusive settings who view a video model of Literature Circles exhibit more effective application of the specific responsibilities of their role and the multiple elements of cooperative learning?

    C. Do students with learning disabilities in inclusive settings who view a video model of Literature Circles improve content learning outcomes by effectively applying the strategy?

D. What are the perceptions of students with learning disabilities in inclusive

settings related to viewing a video model of Literature Circles as a means for

implementing the strategy in their class?

To investigate the difference between students with learning disabilities in the video and

nonvideo groups, continuous dependent variables were analyzed related to knowledge of

the strategy, implementation of the strategy, and subsequent content knowledge. This

chapter presents the results of these analyses for the sample of students with learning

disabilities and next the larger, extended sample of observed students in order to

determine whether statistically significant differences occurred between the two

treatment groups. Finally, a presentation of feedback from focus groups of students

involved in the study will allow for determination of the social validity of the video

models.

<div align="center">Nature of the Data</div>

Analysis of the three dependent variables consisted of the three instruments involved

in the study. This included Instrument 1, *basic knowledge of Literature Circles,*

Instrument 2*, the observation instrument*, and Instrument 3, *assessment of content*

knowledge. The dependent variables from the three instruments were analyzed using

quantitative analyses. The last data are qualitative consisting of focus group transcripts.

<div align="center">Basic Knowledge of Literature Circles</div>

The *basic knowledge of Literature Circles* instrument was given as both a pre-test and

post-test and also represented an attempt to remove students from the sample who had

prior knowledge of the strategy. Only the post-test scores were included in the analysis, as the students included in the sample had no prior knowledge or exposure to Literature Circles. Due to the low reading level of the questionnaire, students were asked not to guess on day one but rather to leave the form blank if they did not know the strategy; the basic language could make it relatively simple to guess and receive a higher score unrelated to preparation in Literature Circles.

Scores for the basic knowledge of Literature Circles were dependent on the number of accurate responses produced by the student requiring the students to circle the Literature Circles role that corresponds to a brief description (see Figure 1) and could range from 0 (failure to correctly identify any of the roles) to 10 (successful identification of all of the roles).

1.	Q PM VE C I	Writes down a few sentences to share with group members. Picks the part that is really important—the BIG IDEA.
2.	Q PM VE C I	Connects the reading to the world.
3.	Q PM VE C I	Picks out a few special sections of the reading that the group looks at again. Picks the parts that are the most interesting, funny, weird, or important.

Figure 1

Structure of Items on Basic Knowledge of Literature Circles Instrument

Resulting data are continuous meeting assumptions for parametric analysis. The instrument items were identical for the pre-test and post-test but the second day included three additional questions (see Figure 2). Question 1, "Do you know the roles better than yesterday?," results in additional data related to student perception of their preparation and could be compared using descriptive statistics for the nominal data (responses were "Yes" or "No"). Questions 2 and 3, "Have you ever used Literature Circles or Reading Circles before?" and "Have you ever used reading circles with these roles before?" represented an attempt to exclude students from the final sample whose knowledge of the strategy may have been influenced by prior experience.

Figure 2

Follow-up Questions on Day Two of the *Basic Knowledge of Literature Circles*

The Observation Instrument

The observation instrument (see Appendix G) included seven items pertaining to the role completed by each student (e.g., Questioner, Passage Master, Vocabulary Enricher,

Connector, Illustrator) including an assessment of the student's level of cooperation (see

Figure 3).

Student 1: **Questioner** First Name or Initials of Student: _____					Apparent race: Gender:

Student 1: Questioner   First Name or Initials of Student: _____   Apparent race: / Gender:

Criteria	Low Level Implementation		Moderate Implementation		High Level Implementation
1. During reading, lists questions on paper for later review with group members; seeks questions from the text—reflecting on what he or she does not understand.	1	2	3	4	5
2. Leads group discussion by sharing and seeking group discussion of questions, drawing questions from others and seeking answers to questions through collaboration.	1	2	3	4	5
3. Shares questions with group in a manner that promotes natural conversation.	1	2	3	4	5
4. Explicit Focus on Positive Interdependence Learns the material and ensures that all group members learn the assigned material.	1	2	3	4	5
5. Extensive Group Member Interaction	1	2	3	4	5
6. Clear Focus on Individual Work to Contribute to the Achievement of the Whole Group Student is accountable for his/her portion of the group work. He/she contributes his/her fair share.	1	2	3	4	5
7. Established use of Interpersonal and Small-group Skills Enacts a Win/Win attitude encouraging others to complete their tasks to achieve the overall goal. Problem solving and cooperative attitudes are critical.	1	2	3	4	5
Synthesis score for role (items 1-3):					
Synthesis score for cooperative behaviors (items 4-7):					
Synthesis score for overall role performance (items 1-7):					

Items 1-4 adapted from Daniels (2002). *Literature circles: Voice and choice in book clubs and reading groups.* Items 5-8 adapted from Johnson & Johnson (1994). *An overview of cooperative learning.*

Figure 3

Example of Literature Circles Role-Specific Observation Instrument

Items 1-3 are specific to the Literature Circle role and items 4-7 relate to the

fundamental principles of cooperation that underlie successful implementation of

collaborative learning experiences and are expected elements of Literature Circles

(Johnson & Johnson, 1994). Each of these separate item clusters resulted in separate

synthesis scores: Literature Circles *Role Total* and *Cooperation Total*. Data are

continuous and can be analyzed using parametric procedures.

133

Reliability of Instrument Scores

As noted in Chapter Three, observation data for Instrument 2, *the observation instrument* (see Appendix G), were collected by both the primary researcher and an additional field observer in order to prevent bias on behalf of the primary investigator. An a priori assumption for inclusion of valid observation data was observations of at least 80% of the field sites with a reliability of 80% or greater using point-by-point inter-rater agreement between the researcher and a non-biased observer on all items for each of the roles of Literature Circles.

Out of 49 classrooms observed, the nonbiased observer was present for 82% of the total observations meeting the level predetermined as adequate for reliable data collection. Following completion of the study, a random sample of 25% of the 40 classrooms observed was selected to compute point-by-point inter-rater reliability for each item within each of the observed roles of Literature Circles. Items 1-3 on the observation instrument (see Figure 3) were parallel in structure across the roles of Literature Circles but varied slightly due to the specific expectations of each of the roles in Literature Circles (i.e., Questioner, Passage Master, Illustrator, Connector, Vocabulary Enricher). Items 4-7 were assessments of cooperative learning and were consistent across all roles. Reliability scores were calculated specific to the roles of Literature Circles in across each of the specific items to be sure that the standard of reliability did not vary markedly among the roles of Literature Circles. The inter-rater reliability met the criteria

134

for all seven observation items for each of the five roles of Literature Circles with point-by-point reliability ranging from as low as 80% in one cell to as high as 100% on 29 cells (see Table 6).

Table 6

Inter-rater Reliability for Formal Observation

Role	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7
Questioner	100%	100%	88.9%	100%	100%	100%	100%
Passage Master	100%	100%	100%	100%	83.3%	100%	83.3%
Vocabulary Enricher	100%	100%	100%	100%	100%	100%	100%
Connector	100%	100%	85.7%	100%	100%	100%	100%
Illustrator	100%	100%	100%	90%	100%	80%	100%
Total	100%	100%	95%	97.5%	97.5%	95%	97.5%

Assessment of Content Knowledge

The *assessment of content knowledge* required students to list up to 10 factual items reflecting what they learned while using Literature Circles to discuss the article. The instrument included a Day One and Day Two opportunity to show what the students knew about the topic: *Poverty in America*. Because it was reasonable to expect that students might have some prior knowledge of this topic, scores for Day One were used as a baseline. Day One scores were typically low as the content rubric related specifically to

the article content. Regardless, the dependent variable used for later analysis was the difference between Day One content knowledge and Day Two, in effect a gain score reflecting the extent to which students increased their knowledge of the content. Gain scores derived from the data were continuous in nature and thus appropriate for parametric analysis.

Interval data from the instrument included students' rating of their knowledge of the content (see Figure 4). The self-rating data were analyzed separate from the gain scores using an Independent Samples t-test because the data were more subjective and related to students' perception of their knowledge rather than actual performance.

Before you begin reading the article with your reading circle, please rate on a scale from 1 to 10 how well you know this current event topic:

Poverty in America: Why the number of poor people living in the United States is growing.

1	2	3	4	5	6	7	8	9	10

Now that you have read the article with your reading circle, please rate on a scale from 1 to 10 how well you know this current event:

Poverty in America: Why the number of poor people living in the United States is growing.

1	2	3	4	5	6	7	8	9	10

Figure 4

Student Rating of Content Knowledge

Data were entered into an SPSS Version 11 spreadsheet for all students for whom scores were obtained for basic knowledge of the strategy, Role Total, Cooperation Total, and assessment of content knowledge. Although a very large number of students (approximately 1,000) in the 49 classrooms completed the activities associated with this study, scores for all dependent measures exist for only 196 students—the students who were directly observed by the researcher. In order to specifically address the research question which is concerned with the performance of the students with learning disabilities, the sample was reduced further for analysis and limited to only the 43 students (a subset of the larger sample of 196 students) identified as SLD and formally observed by the researcher.

A one-way between-groups Multivariate Analysis of Variance (MANOVA) was performed to investigate differences in strategy knowledge, implementation, and content knowledge due to random assignment of classrooms to a traditional versus video-based treatment group. Three general dependent variables were used: basic knowledge of the strategy, implementation of the strategy, and content knowledge; one variable, implementation, was divided into two separate scores: Role Total and Cooperation Total. These two scores were analyzed as separate variables as there was sufficient reason to suspect that the two variables were only moderately correlated (a requirement of MANOVA) and a total of the two scores was not additionally required because of the strong correlation between the separate variables and a total score (i.e., the two scores added together equal the total observation score).

137

The independent variable was treatment (video-based versus traditional instruction). Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicolinearity, with no serious violations noted. Box's Test of Equality of Covariance Matrices requires a significance level greater than .001 (Pallant, 2004). In this case, the significance level was .415 meeting the criteria.

Levene's Test of Equality of Error Variances assesses the normality of the data and requires a significance level for each dependent variable of .05 or greater. Any score less than .05 indicates a need for a more strict alpha value when evaluating significance in the Tests of Between-Subjects Effects. The dependent variable Cooperation Total had a significance level of .04, not a serious violation of this assumption but indicative that a stricter alpha value is required. Therefore, analysis for the variable Cooperation Total required a stricter alpha value of .01 rather than the typical .05 when reviewing the Tests of Between Subjects Effects in order to reduce the likelihood of a Type I error.

Based on the sample of 43 students with learning disabilities, there was no statistically significant difference between students in the video group (n=19; one student for whom multivariate F could not be calculated) and students in the nonvideo group (n=21; two students for whom multivariate F could not be calculated) on the combined dependent variables: $F_{(4, 35)} = .98$, $p > .05$; Wilks' Lambda = .899; partial eta squared = .101 (see Table 7). The small F value and significance level greater than .05 indicates that there was no statistically significant difference on the combined dependent variable scores based on the independent variable, treatment (video-based vs. traditional).

As noted in the report of statistical significance above, three students were removed by SPSS from the analysis (one from the video group; two from the nonvideo group) because their scores included missing variables. In effect, observation scores were collected by the researcher but in those three instances, some data point across the multiple dependent variables was missing. Specifically, the students failed to return their assessment of content knowledge post-test to their teacher so the *combined* MANOVA *F* could not be calculated by SPSS for their performance. The researcher scrutinized the raw data for these students during analysis. The lost data did not appear to impact the results of the analysis. The removal of these students' data was random and did not favor one group or another.

Although no statistical significance was attained, the independent variable accounted for approximately 10% of the variance in the dependent variables. An effect size (partial eta squared) of .101 has practical significance as a moderate amount of the variance in the dependent variables is accounted for by the independent variable (Cohen, 1988).

Table 7

Multivariate Tests

	Wilks' Lambda	F	Df	Error Df	Significance	Partial eta squared
Treatment	.899	.98	4	35	.43	.101

139

Consideration of the dependent variables separately revealed no statistical significance for any one variable (see Table 8). Assuming a significance of .05 or less (.01 in the case of Cooperation Total) no variables attained the necessary alpha level. However, despite the failure to attain statistical significance in the analysis of variance, effect sizes suggested practical significance of the independent variable. Partial eta squared (a measure of effect size) ranged from .04 to .05 for Role Total, Cooperation Total, and Knowledge of Strategy (see Table 8). Each of these is a relatively moderate effect size (Cohen, 1988).

Table 8

Tests of Between-Subjects Effects

	F	Df	Error Df	Significance	Partial Eta Squared
Role Total	1.59	1	38	.22	.040
Cooperation Total	2.01	1	38	.16	.050
Knowledge of Strategy	1.61	1	38	.21	.041
Content Gain Score	.06	1	38	.80	.002

An inspection of the scores indicated that students in the video treatment group achieved substantially higher observation scores for Role Total; (M=7.68, SD=2.98) and Cooperation Total: (M=10.21, SD=3.41) than students in the nonvideo group (M=6.67, SD=2.08; M=8.90, SD=2.36, respectively; see Table 9). Scores for the video group (M=7.21, SD=2.53) were higher on the measure of strategy knowledge than the nonvideo

group (*M*=6.05, *SD*=3.19). Scores reflecting gain in content knowledge were also only slightly higher for the video group (*M*=1.21, *SD*=1.44) than the nonvideo group (*M*=1.10, *SD*=1.45; See Table 9 for details).

Table 9

Descriptive Statistics for Dependent Variables

	Treatment	Mean	Standard Deviation
Role Total	Video	7.68	2.98
	Nonvideo	6.67	2.08
Cooperation Total	Video	10.21	3.41
	Nonvideo	8.90	2.36
Knowledge of Strategy	Video	7.21	2.53
	Nonvideo	6.05	3.19
Content Gain Score	Video	1.21	1.44
	Nonvideo	1.10	1.45

Beyond the main parametric analysis (MANOVA), certain nominal and interval data were analyzed separately to compare the video-based and traditional groups. As mentioned previously, the knowledge of strategy instrument included an opportunity for students to indicate their perception of knowledge of the strategy elements. Students were asked to report whether they understood the strategy better than they did yesterday. Seventy-two percent of the students in the video group reported improved knowledge of the strategy after the Day One preparation whereas sixty-five percent of the students in the nonvideo group reported improved knowledge (see Table 10).

Table 10

Self-Ratings of Strategy Knowledge

Treatment	Knowledge Improvement	
	Yes	No
Video Group	72.2%	27.8%
Nonvideo Group	65%	35%

Examining the self-report of content knowledge also adds to the overall picture of the data. The video models shown to the students in the video group were intended to prepare the students to use Literature Circles and did not include any content preparation related to the specific content the students would learn with their groups. However, in order to further examine the impact of the video models on the students' effective use of Literature Circles (as it relates to development of content knowledge), they were asked to rate their knowledge of the content before they read the article and after they read the article and concluded their Literature Circle discussion.

Although the interval data involved in the students' ratings relies on a subjective perception of their performance, it can still be analyzed using descriptive statistics and parametric analysis (i.e., Independent Samples t-test). Table 11 shows the most common (mode) responses for students' ratings of their content knowledge on both Day One and Day Two as well as the median responses for both. The most common response for

students in the video group on Day Two was a rating of 8 (out of 10) compared to 1 (out of 10) for the nonvideo group. Also, the median response on Day Two was considerably higher for the video group: a score of 8 compared to a score of 5 for students in the nonvideo group.

Table 11

Descriptive Comparison of Content Knowledge Self-Rating

	Mode 1	Mode 2	Median 1	Median 2
Video Group	1	8	5	8
Nonvideo Group	1	1	3	5

Scores for self-rating of content knowledge were compared using an Independent Samples t-test. Results indicated no statistically significant difference between students in the video group and nonvideo group, $t(33)=.67$, p>.05, on the Day One rating suggesting that students' baseline perception of their knowledge of the content was relatively comparable. However, a statistically significant difference emerged, $t(30) = 2.83$, p<.01, for the Day Two self-ratings of content knowledge suggesting that students with learning disabilities in the video group *perceived* a greater improvement in their content knowledge than did students with learning disabilities in the nonvideo group (see Table 12). This difference in perception of knowledge could be significant in light of the relatively low scores overall on the *assessment of content knowledge*.

Table 12

Analysis of Content Knowledge Self-Rating

		Mean	SD	t	Significance
Self-rating Day One	Video	4.56	3.16		
	Nonvideo	3.84	3.18	.67	.51
Self-rating Day Two	Video	7.67	2.26		
	Nonvideo	4.94	3.07	2.83	.01

Overview of the Data Analysis for Students with Learning Disabilities

In consideration of the overarching research question: "Do students with learning disabilities in inclusive settings who view a video model of a cooperative learning strategy demonstrate significantly more effective implementation of that strategy than students with learning disabilities who do not view a video model?" the data analyzed to this point are equivocal despite consistently higher scores for the students with learning disabilities in the video group. The Multivariate Analysis of Variance (MANOVA) indicated no clear differences between the scores of students in the two treatment groups. However, the effect size (partial eta squared= .101) suggests practical significance of the video treatment group.

Specific inspection of scores on all measures suggests a consistent trend toward improved performance of the students with learning disabilities in the video group despite a lack of statistical significance. This trend raises the question of whether the lack of statistical significance was due to a lack of power in the sample of students with learning

disabilities. Although the sample size of students with learning disabilities technically met the minimum criteria for completion of the MANOVA, the small number of students in each group suggests that statistical significance would rarely occur as the differences in dependent variable scores would have to be quite substantial in order for those differences to translate into statistical significance for the overall analysis (Pallant, 2004). This sample size was limited because the analysis was limited to only those students who were currently staffed into special education for Specific Learning Disability. Numerous other students, however, participated in this study alongside the students with learning disabilities in the inclusive setting.

<u>Data Analysis for the Extended Sample of Students</u>

Due to concerns related to sufficient power to find statistical significance, the larger sample of students (n=196) was analyzed. As noted in Chapter Three, each Literature Circle in each classroom consisted of an inclusive unit of at least four students for whom data was collected including observation scores, knowledge of the strategy, and content knowledge comparable to the analysis presented for the two groups of students with learning disabilities.

In order to determine whether the larger sample would further clarify the effects of the independent variable, video modeling, data were entered into an SPSS Version 11 spreadsheet. A one-way between-groups Multivariate Analysis of Variance (MANOVA) was performed to investigate differences in strategy knowledge, implementation, and content knowledge due to random assignment of classrooms to a traditional versus video-

145

based treatment group. Students in this sample (n=196) included the same students with learning disabilities (n=43) from the previous analysis. As in the previous analysis, three general dependent variables were used: basic knowledge of the strategy, implementation of the strategy, and content knowledge; one variable, implementation, was divided into two separate scores: Role Total and Cooperation Total. These two scores were entered into the analysis as separate variables as there was sufficient reason to suspect that the two variables were only moderately correlated (a requirement of MANOVA) and a total of the two scores was not additionally required because of the strong correlation between the separate variables and a total score (i.e., the two scores added together equal the total observation score).

The independent variable was treatment (video-based versus traditional instruction). Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicolinearity, with no serious violations noted. Box's Test of Equality of Covariance Matrices requires a significance level greater than .001 (Pallant, 2004). In this case, the significance level was .019.

Levene's Test of Equality of Error Variances assesses the normality of the data and requires a significance level for each dependent variable of .05 or greater. Any score less than .05 indicates a need for a more strict alpha value when evaluating significance in the Tests of Between-Subjects Effects (Pallant, 2004). The dependent variable Role Total had a significance level less than .001, suggesting use of a stricter alpha value: .01 rather than the typical .05 (Tabachnick & Fidell, 2001). The assumption testing conducted

ensures that the data meet the necessary requirements for valid analysis with MANOVA including concerns about normality of data and unequal size groups.

Based on the extended sample of students *without* prior knowledge of Literature Circles including the 43 students with learning disabilities for whom data was collected for all relevant dependent variables, a statistically significant difference occurred between students in the video group (n=84) and students in the nonvideo group (n=74) on the combined dependent variables: F (4, 150)=4.49, p< .01 (p=.002); Wilks' Lambda= .89; partial eta squared = .107 (see Table 13). Approximately 11% of the variance (partial eta squared= .107) in the combined dependent variables can be explained by assignment to the treatment group (video-based versus traditional treatment).

Table 13

Multivariate Tests

	Wilks' Lambda	F	Df	Error Df	Significance	Partial Eta Squared
Treatment	.893	4.49	4	150	.002	.107

When the results for the dependent variables were considered separately, two variables reached statistical significance. Using a Bonferroni adjusted alpha level of .013 (Pallant, 2004), only the two implementation variables, Role Total: F (1, 153)=17.67, p<.001; partial eta squared = .104, and Cooperation Total: F (1, 153)= 9.346, p<.01 (p=.002), partial eta squared = .058, achieved statistical significance. The two remaining

147

variables did not reach significance (see Table 14). The independent variable, video-modeling treatment group, accounted for approximately 10% of the variance (partial eta squared= .104) in Role Total scores and 6% of the variance (partial eta squared= .058) in Cooperation Total scores (see Table 14).

Table 14

Tests of Between-Subjects Effect

	F	Df	Error Df	Significance	Partial Eta Squared
Role Total	17.62	1	153	< .001	.104
Cooperation Total	9.46	1	153	.002	.058
Knowledge of Strategy	1.00	1	153	.318	.007
Content Gain Score	.540	1	153	.464	.004

An inspection of the scores indicated that students in the video treatment group achieved higher observation scores for Role Total; (M=8.28, SD=2.75) and Cooperation Total: (M=10.88, SD=3.25) than students in the nonvideo group (M=6.65, SD=1.93; M=9.36, SD=2.83). Scores for the video group (M=7.28, SD=2.75) were only slighter higher on the measure of strategy knowledge than the nonvideo group (M=6.81, SD=3.14). Scores reflecting gain in content knowledge also were only slightly higher for the video group (M=1.67, SD=1.82) than the nonvideo group (M=1.46 SD=1.68; See Table 15 for details).

148

Table 15

Descriptive Statistics for Dependent Variables

	Treatment	Mean	Standard Deviation
Role Total	Video	8.28	2.79
	Nonvideo	6.65	1.93
Cooperation Total	Video	10.88	3.25
	Nonvideo	9.36	2.83
Knowledge of Strategy	Video	7.28	2.75
	Nonvideo	6.81	3.14
Content Gain Score	Video	1.67	1.82
	Nonvideo	1.46	1.68

As in the case of the smaller sample of students with learning disabilities, certain nominal and interval data were analyzed separately from the MANOVA to compare the video-based and traditional groups. As mentioned previously, the knowledge of strategy instrument included an opportunity for students to indicate their perception of knowledge of the strategy elements. Students were asked to report whether they understood the strategy better than they did yesterday. Seventy-six percent of the students in the video group reported improved knowledge of the strategy after the Day One preparation whereas seventy percent of the students in the nonvideo group reported improved knowledge (see Table 16).

Table 16

Nonparametric Comparison of Strategy Knowledge

Treatment	Knowledge Improvement	
	Yes	<u>No</u>
Video Group	76.3%	23.8%
Nonvideo Group	70.1%	29.9%

Again, examining the self-report of content knowledge also adds to the overall picture of the data. Although the interval data involved in students' rating relies on a subjective perception of their performance, it can still be analyzed using descriptive statistics and parametric analysis (i.e., Independent Samples t-test). Table 17 shows the most common (mode) responses for students' ratings of their content knowledge on both Day One and Day Two as well as the median responses for both. The most common response for students in the video group on Day Two was a rating of 9 (out of 10) compared to 5 (out of 10) for the nonvideo group. Also, the median response on Day Two was considerably higher for the video group: a score of 7 compared to 5 for students in the nonvideo group.

Table 17

Descriptive Comparison of Content Knowledge Self-Rating

	Mode 1	Mode 2	Median 1	Median 2
Video Group	1	9	4	7
Nonvideo Group	1	5	1	5

Scores for content knowledge self-rating were compared using an Independent Samples t-test. Results indicated statistically significant difference between student in the video group and nonvideo group, $t(123)=3.70$, p<.01, on the Day One rating suggesting that students' baseline content knowledge self-rating were not comparable.

There remained a statistically significant difference, $t(130) = 2.52$, p<.05, for the Day Two content knowledge self-rating suggesting that students in the video group remained significantly higher than students in the nonvideo group with respect to their self-rating (see Table 18). Although the video group clearly reported higher scores for content knowledge self-rating of the topic on Day Two, the data are less favorable to the video group considering the group also had higher scores at baseline.

Table 18

Analysis of Content Knowledge Self-Rating

		Mean	SD	t	Significance
Self-rating Day One	Video	4.18	2.97		
	Nonvideo	2.43	2.30	3.70	<.001
Self-rating Day Two	Video	6.77	2.56		
	Nonvideo	5.64	2.57	2.52	.01

<u>Overview of Qualitative Data</u>

The following section provides a summary of the qualitative data from the focus group transcripts conducted with students included in the video group in addition to several intriguing quotes from field notes during classroom observations. The qualitative data were gathered in an attempt to answer the subquestion: What are the perceptions of students with learning disabilities in inclusive settings related to viewing a video model of Literature Circles as a means for implementing the strategy in their class?

<u>Focus Group Feedback</u>

Qualitative Data Analysis

Erickson's (1986) approach to Interpretivism serves as the guiding approach to analyzing the qualitative data collected from student focus groups. Erickson reports that there are nine "main elements" (1986, p.145) to consider when reporting one's findings

152

from fieldwork allowing the reader to have a sense of the process the researcher went through during data collection and data analysis and further giving the reader an opportunity to see into the process to an extent that they can determine their own conclusions. These nine essential elements include empirical assertions, analytic narrative vignettes, quotes from fieldnotes, quotes from interviews, synoptic data reports (maps, frequency tables, figures), interpretive commentaries framing particular descriptions, interpretive commentaries framing general descriptions, theoretical discussions, and reports of the natural history of inquiry in the study (Erickson, 1986). Because data collection was limited to focus group interviews and field notes from classroom observation, this analysis is limited to three of Erickson's elements: empirical assertions, quotes from fieldnotes, and quotes from interviews. Most important in Erickson's guiding criteria for qualitative analysis is avoiding the error of "premature typification" (Erickson, 1986, p.144) often caused by biased and reactive conclusions.

Empirical assertions were developed through an inductive process by thoroughly reviewing the transcripts of interviews seeking evidentiary warrant for assertions and repeatedly scrutinizing the interview data to determine if it consistently supported these assertions. Further, it was essential to seek disconfirming evidence or discrepant cases which might affect the assertions being made (Erickson, 1986).

Quotes from interviews and fieldnotes were chosen as a means of explicitly presenting the perspective of the participants. This analysis allows the reader to see direct evidence from the body of data that support the assertions made by the investigator

(Erickson, 1986). In order to preserve the authenticity of the day's discussion, all excerpts are presented as stated by the students.

<p align="center">Brief Description of the Focus Group Participants</p>

The video focus group students included seven members of a 7th grade team from School 1, a predominately urban, low-income school with a relatively high percentage of students identified for special education (see Table 19). Included in this group were five students with learning disabilities, one student identified as gifted, and one student with no identified special education needs. Of the five students with learning disabilities, there was one Hispanic male, one White male, two White females, and one multi-racial (Black, Hispanic) female. The student identified as gifted was a Black male and the last student was a White male.

The researcher met with the students at School 1 in a separate classroom during another teacher's planning period. Students used their lunch period for the focus group discussion and the researcher provided lunch prior to beginning the discussion. The focus group took place approximately six weeks after the initial observation and included only one school in which a sufficient relationship had been established with the teachers and administration to allow for a return visit.

Table 19

Focus Group Participant Demographics

Student	Apparent Race	Gender	ESE Classification	Grade Level
Student 1	Multi-racial	Female	SLD	7th
Student 2	White	Male	SLD	7th
Student 3	Hispanic	Male	SLD	7th
Student 4	White	Female	SLD	7th
Student 5	White	Female	SLD	7th
Student 6	Black	Male	Gifted	7th
Student 7	White	Male	NA	7th

Perceptions of Learning Literature Circles from a Video Model

The students in the focus group were asked six questions related to their experience of learning to using Literature Circles from the video model shown in their class. Students informally responded to the following questions: 1) When you used the literature/reading circles strategy in your class, how well did you understand your role and what the teacher expected you to do? 2) What did your teacher do to help you learn the literature/reading circles strategy? 3) Was the video on literature/reading circles helpful for you when trying to learn and use your role in the literature/reading circle? 4) What parts of the video were the most helpful to you in trying to perform your role in the literature/reading circles? 5) What did you think about seeing other students using the literature/reading

circles strategy on the video? 6) What could have helped you to understand the strategy better?"

Data also were collected related to student perceptions of the video model during field observations and recorded in the researcher's fieldnotes. Student feedback regarding use of the video model to learn to use Literature Circles was limited but informative. Consistent throughout the focus group was a desire to be heard—a desire to have input on their learning experiences. Although students did not have overwhelming input on the video model's usefulness, they did instead have clear consensus on what was useful and important to them. All students indicated the video was at least moderately effective in helping them to implement Literature Circles, with some students suggesting they did not pay close enough attention at the time the video was shown, others suggesting it gave them only a starting point, and still others suggesting their actions were based solely on the implementation in the video model.

A consistent assertion emerged from the commentary during the student focus group interview and field observations. Students placed high value on the use of explicit peer modeling in the video. Students who were high-level implementers commented in their groups during observation that they based their role completion on student models from the video. Student 2 stated, "I understood my role really good because I saw the movie and I saw what they were doing and that just pointed me to do whatever I had to do." During observation, a student commented, "We sat right in front of the television so it was easy for our group to see the video from yesterday. We just did what they did in the video. It was pretty easy" (Fieldnote data). Responding to praise from the researcher

related to an excellent implementation, another student commented to the researcher during observation:

I didn't know what he [the teacher] wanted us to do at first, so I just tried to copy what the girl did in the video. She asked all the people in the group the words that she didn't know so I just did it like that (Fieldnote data).

Other students expressed that there was a role for the video in their learning but clarified that the video alone was not sufficient to help them achieve mastery of the strategy. Student 6 noted,

I was paying attention to the movie to see if it could help me, but after the movie was over, when we started doing the circle thing, I didn't really get what I was supposed to be looking for [in the text].

Suggesting that the video provided them with only a starting point, several students highlighted the need for the video to serve as an explicit model. It was not enough to simply see students using Literature Circles roles. Students indicated an understanding that the students in the video represented a positive model but they sometimes failed to understand the incremental steps it would take to reach that exemplary model. Students in the focus group indicated a need for more specific direction and even highlighted the need for examples and nonexamples so they could get a sense of what a high level implementation looks like compared to a poor implementation. Student 5 suggested,

I want them to actually show the video of the kids reading the story and talking about it and telling what they think about it, so they'd know what they would say about each thing… and show a picture of what they're doing. You did that a little bit, but you

didn't do it all the way.

Student 1 furthered this line of thought adding,

> You can do it [show students] at each table, like the illustrator, how they do their stuff
> and see how they do it and explain how they did their role on all the sections and then
> go to another table and do the same thing and compare them and say… and tell it like
> how things are different from them, like that. And do it with every table (Student 1).

Student 3 highlighted the need for explicit directions suggesting,

> Like a student, like every minute, you go to another table and you do all of the roles
> and one student says, 'I don't know what to do.' And then your voice [the narrator]
> comes in and you explain it.

Students indicated that the Literature Circles strategy was a way of learning that existed substantially outside of their typical learning repertoire. The uniqueness of this classroom structure reinforced the need for explicit models of successful implementation. Students required even greater explicitness in the presentation of the strategy in order to confidently step outside of their comfort zone. During an observation at School 1, a student expressed concern to the researcher asking,

> Are we doing this right? I don't think we're doing it right, because we don't look like
> the kids on the video. They seemed really smart and I really liked the way they talked
> to each other. We don't really get to do stuff like that. We're not usually allowed to
> talk in class so we don't really know what to say (Fieldnote data).

Students were especially appreciative of the video's focus on student models. The focus group students expressed a strong desire to see other students doing what they were

expected to do in the Literature Circles. A clear comment by all students about the video content was the idea that the teachers appeared too much. Because it was a student-centered strategy, Student 3 suggested that the teacher part was unnecessary. "I don't think the teacher needs to help really [in this strategy]." Additionally, Student 1 clarified the need for focus on the student models suggesting,

Instead of having the teacher there, it's just them [the students in the video] in the classroom and just doing the group … then a teacher would come back and see how they're doing and then leave them again and leave them to do the stuff.

Focus group participants expressed a need for information on the strategy and examples of their role. Teachers gave directions and acted as facilitators in the strategy. Because they already had a teacher, the students seemed to see the role of the teacher in the video as redundant suggesting that only other teachers would want to see the teacher in the video.

Instead, the most helpful parts of the video were "when the teacher got out of the picture and you only saw the students." They indicated the best part was "seeing how they [students in the video] explained their role." Students in the focus group indicated that the quality of their implementation of the strategy was dependent on strong peer models from the video in addition to peer support in their class. Student 1 offered that in a good video, "the students should already know what they should do" and "[we should] see it from their point of view."

The students required an exemplary model to serve as an anchor but ultimately, the quality of their interactions depended on the support they provided to each other to work toward actualizing the quality of the video anchor. Student 1 summarizes this point:

We started working with each other, like one of us didn't get what we were doing, we'd help each other. And… we were helping each other saying this is how you're supposed to say this—these are some of the words… that we don't get. And for the drawer, the illustrator, we added some more pictures saying like how we could understand it… we got more into the movie and that's how we got it [Literature Circles].

Although the students tended to downplay the necessity of teachers in the video, they reaffirmed the importance of the narrator indicating that there had to be some way to hear an explicit explanation of the roles and what was expected of their implementation. Student 3 suggested that the narrator was important because "[the narrator] had information. The teacher just says, 'Be quiet, be quiet, be quiet.'"

Context and Discrepant Comments from Fieldnotes

Although the feedback from the focus groups was quite positive regarding the relevance of the video model to their implementation, this was not necessarily a universal theme among all classes. Students in the focus group appeared to have a very strong rapport with their teacher. An additional theme in the focus group transcripts (see Appendix J) beyond the research questions was their genuine loyalty to their teacher; they repeatedly affirmed the value of their teacher as a facilitator to their learning. They

160

explained that while showing the video she was clear about the rationale and expectations of the students. She clearly articulated to the students that the video segments were important and paying close attention would probably make things easier for them on the next day (as indicated in the video lesson plan). When students occasionally struggled on the second day, she urged them to think back to what they had seen in the video—to remember what their role looked like on the video, and simply *do that*.

Fidelity of the implementation required teachers to remind the students of the previous day's lesson without re-teaching their roles. The teacher mentioned here, strictly adhered to the lesson plan and maintained fidelity to the lesson guidelines. However, student responses suggest that established rapport impacted the extent to which they valued the approach their teacher was using.

In contrast to the enthusiasm of the focus group participants, fieldnotes from the observation at School 3 tell a different story. Several disenchanted male students in a 6th period class made unprompted comments to the observer and the teacher during the observation suggesting that the video was useless. Follow-up questions from the teacher revealed that their general apathy in this specific class (in which the teacher seemed to have limited rapport with these students) extended to the video presentation. Students commented that they did not remember seeing a video on the previous day and didn't know what they were supposed to do. Potentially relevant to this group's comments was the very negative climate in this class. Students in the class were not necessarily in a remedial social studies class, but school district policy requiring students with low standardized test scores to participate in an intensive reading class created a tracked

subculture of low achievement in which clusters of struggling students passed from class to class as a group, apparently reinforcing each other's negativity about their school experiences.

<div align="center">Summary of Data Analysis</div>

Using a variety of analytic procedures, including Multivariate Analysis of Variance (MANOVA), tests of inter-rater reliability, independent samples t-tests, and an Interpretivist analysis of qualitative data, students' experience of learning and implementing Literature Circles from a video model or traditional instruction were analyzed. Information yielded from this comprehensive data analysis indicated that students with learning disabilities demonstrated higher scores on all measures including higher scores for learning and implementation of Literature Circles when viewing a video model. Focus group data revealed that students generally valued the video model as an aid to learning Literature Circles despite concerns about certain weaknesses in the video.

Although the statistical analysis did not demonstrate evidence to suggest endorsement of the video treatment (F= .98, p>.05), effect sizes were at least moderate (partial eta squared = .101) and indicative of practical significance of the video treatment. Due to concerns about limited sample size diminishing the potential for statistical significance in the initial sample (n=43), the larger sample of students was analyzed in a comparable manner. The larger sample (n=196) showed clear statistical significance and moderate to large effect sizes (F=4.49, p=.002; partial eta squared = .107) indicating that the video model significantly impacted student implementation of the strategy. Feedback from

focus groups raises questions about the potential for improvement of the video model and ultimately improved implementation of the strategy by students viewing a more explicit video model.

CHAPTER FIVE: DISCUSSION

Purpose and Procedures of the Study

This study examined the effectiveness of video models for improving application of research-validated instructional practices (i.e. cooperative learning—Literature Circles) by students with learning disabilities in general education settings. In a broader sense, the intent of this study was to investigate an innovative method for preparing students with learning disabilities to participate in strategies for learning that would help them to be successful in inclusive academic settings. As reviewed in Chapter Two, a substantial research base exists to suggest that cooperative learning is beneficial to students who struggle to succeed independently; typically students experience increased academic achievement when emphasis is placed on individual accountability and group reward for student performance as an interdependent unit. Literature Circles is an excellent example of *best practice* (Daniels, 2005) in English language arts instruction characterized by the critical elements of cooperative learning and beneficial to students who traditionally struggle with academics (Daniels, 2002b).

Whether we speak of *best practice* or NCLB's focus on research-based practices, the problem remains that strategies meant to support diversity of ability are rarely implemented in actual classrooms (Deshler, 2003; Gersten & Dimino, 2001; Gersten & Smith-Jones, 2001; Greenwood & Abbott, 2001). The purpose of this study was to find a method for addressing the diversity presented to middle school classrooms when students with learning disabilities are included. Specifically, the investigation focused on the

direct impact of video modeling of Literature Circles on students' knowledge of
Literature Circles, implementation of Literature Circles, and subsequent content
knowledge development as a result of using Literature Circles.

As noted in Chapter 2, the conception of learning disability remains disputed and the
subsequent decision to remove students identified as SLD from their peers is more
significantly disputed. Numerous researchers and practitioners assert the value of
inclusive learning environments for students with learning disabilities such that they can
fully participate in the general curriculum (Brantlinger, 1997; Fitch 2003; Skrtic, 2005).
Specifically, students with learning disabilities are typically included in social studies
despite challenges with accessing content (Passe & Beattie, 1994). Yet, the challenge
remains as to what to do with low achieving students in the general education classroom.

To determine if video-based modeling impacted knowledge of Literature Circles,
implementation of Literature Circles, and subsequent content knowledge, a randomly
assigned group of students shown a video model of Literature Circles was compared on
these same variables to a randomly assigned group of students who did not receive
preparation with video-based modeling. Students in the two treatment groups, one video-
based and one traditional, were compared on numerous dependent variables resulting in
interval-ratio data including: a score for *basic knowledge of the strategy*, two scores for
implementation, *Role Total* and *Cooperation Total*, and a score for *assessment of content
knowledge* gain. Although these variables were the focus of the comparison, additional
data were collected for the purposes of triangulation. Scores were compared for students'
self-perception/self-efficacy related to improvement in knowledge of the strategy and

perception of improvement in content knowledge. Finally, students with learning

disabilities in the video group were interviewed in a focus group setting in order to gain

additional insight into the experience of learning Literature Circles from a video model.

Data for the four primary variables *basic knowledge of the strategy*, *Role Total*,

Cooperation Total, and *assessment of content knowledge* gain were analyzed as a

combined dependent variable using Multivariate Analysis of Variance (MANOVA).

After completing the primary analysis, further comparison was possible using descriptive

statistics for students' self-rating of improvement in strategy knowledge, and an

Independent-Samples t-test for students' self-rating of their content knowledge. Using

data from students with learning disabilities in both treatment groups, an analysis was

completed on the larger, extended sample of students who participated in the study in

order to further investigate the impact of video modeling on students' ability to

implement evidence-based inclusive practices. Finally, qualitative data from interview

transcripts were scrutinized using the approach to Interpretivism developed by Erickson

(1986) resulting in empirical assertions or themes related to the experiences of the

students in the video group.

Consistent throughout this analysis was an effort to determine effective future trends

for impacting inclusive practice for students with learning disabilities by using two

effective strategies: video-based anchored instruction and cooperative learning. Fitch

(2003) states that an inclusive classroom requires a classroom community based in

positive social interdependence. The use of a cooperative learning strategy like Literature

Circles has tremendous potential for establishing these classroom communities (Daniels,

2002b; Sapon-Shevin, Ayres, & Duncan, 1994). The key is helping students to implement the strategy effectively such that they are more successful. Visual images demonstrated through video models may be the next step.

<p style="text-align:center"><u>Summary and Implications of Findings</u></p>

This section provides summaries and implications regarding the overarching research question, which asked if students with learning disabilities in inclusive settings who view a video model of a cooperative learning strategy demonstrate significantly more effective implementation of that strategy than students with learning disabilities who do not view a video model. The results presented in Chapter Four based on the sample of 43 students with learning disabilities indicate no statistically significant impact of the independent variable—the video model of Literature Circles—on scores for the combined dependent variables analyzed using Multivariate Analysis of Variance (MANOVA). Despite limited results for the students with learning disabilities related to the video model, the overall implementations of Literature Circles in this study reflected the key elements of effective cooperative learning—*individual accountability* and *group reward* (McMaster & Fuchs, 2002).

Further inspection of the data reveals no statistical significance for strategy knowledge, implementation, or content knowledge. These dependent variable scores align with the research subquestions: A) Do students with learning disabilities in inclusive settings who view a video model of Literature Circles demonstrate more effective recognition of the names of the five roles in the structure and the purpose of

each of these roles? B) Do students with learning disabilities in inclusive settings who view a video model of Literature Circles exhibit more effective application of the specific responsibilities of their role and the multiple elements of cooperative learning? and C) Do students with learning disabilities in inclusive settings who view a video model of Literature Circles improve content learning outcomes by effectively applying the strategy?

Important to note in considering the effectiveness of Literature Circles, however, is the foundation of effective cooperative learning included in well-implemented Literature Circles. Johnson and Johnson (1994) identify five features of cooperative learning that promote greater productivity than other instructional approaches including 1) an explicit focus on positive interdependence, 2) extensive group member interaction, 3) a clear focus on individual work to contribute to the achievement of the whole group, 4) established use of interpersonal and small-group skills, and 5) open reflective discourse regarding group functioning. All of these features were observed components of the Literature Circles implementations in this study.

As mentioned in Chapter Four, while there exists a lack of statistical significance in response to the research question, there may be practical significance of the data. In effect, mean scores for students with learning disabilities in the video group were greater than students with learning disabilities in the nonvideo group for every possible score including *basic knowledge of the strategy*, *Role Total*, *Cooperation Total*, and *assessment of content knowledge*. Additionally, the video group included a greater number of students reporting improved knowledge of the strategy and higher scores for self-rating of

content knowledge. A clear trend is present in favor of students in the video treatment group. Further, the MANOVA *F*, although not statistically significant, included an effect size suggesting that the treatment group variable accounted for 10% of the variance in dependent variable scores. As mentioned in Chapter Four, the clear practical significance of the results calls into question the sample size used for the MANOVA.

Sample size for the students with learning disabilities and their group partners, however, was preferable for a multivariate analysis. As would be expected based on an assumption that the first analysis lacked a sufficient sample size, the results from the analysis of the extended sample, including students without learning disabilities, resulted in comparable *practical significance* (effect sizes and data trends) but greater statistical significance. Again, when analyzing the larger, extended sample of 196 students with and without learning disabilities, the mean scores were greater on every recorded measure for students in the video treatment group. The effect size (partial eta squared) for MANOVA *F* suggests that approximately 11% of the variance in the dependent variable could be accounted for by the treatment variable (video vs. nonvideo). Further, in this second analysis, scores for students in the video group achieved statistical significance for the combined dependent variable *F* at the .05 level. Inspection of the data isolating each dependent variable shows that statistical significance was achieved for the implementation variables: *Role Total* and *Cooperation Total* while *basic knowledge of the strategy* and *assessment of content knowledge* failed to reach statistical significance (despite higher scores). Again, a greater number of students in the video group reported

169

increase in their knowledge of the strategy and self-ratings of content knowledge were significantly higher for students in the video group.

Although the emphasis of this study was the impact of the video model, it is important to note the underlying effectiveness of cooperative learning. The basis for trying to implement the video models is the idea that students with learning disabilities would benefit from exposure to strategies like Literature Circles. Numerous studies have compared the effectiveness of cooperative learning for students with learning disabilities to traditional instruction suggesting that cooperative learning positively impacts the academic achievement of students with learning disabilities (Slavin, Madden, & Leavey, 1984a; Slavin, Madden, & Leavey, 1984b; Slavin, Madden, & Leavey, 1985; Stevens, Madden, Slavin, & Famish, 1987). Results from this study cannot confirm the comparative effectiveness of cooperative learning, but students with learning disabilities using cooperative learning (in this case, Literature Circles) did not reduce learning and overall appeared to make gains in content knowledge. The video model appeared to enhance the learning experience even further by aiding the students in properly using Literature Circles. This aligns with the research on anchored instruction suggesting that students with learning disabilities will learn from a shared visual experience in a video format (Gersten, 1998; Glaser, Rieth, Kinzer, Prestidge, & Peter, 1999; Rieth et al., 2003; Xin & Glaser, 1996).

The video model also seems to improve the practicality of implementing cooperative learning strategies like Literature Circles as a way of assisting teachers. McMaster and Fuchs (2005) note that many teachers struggle to translate the complex theory and design

of effective cooperative learning into practice. In this study, teachers reported that the video model substantially eased the process of integrating a new strategy into their classroom by demonstrating the strategy directly to their students. Teacher 8 shared that she implemented the strategy approximately a month later following the formal study for a second trial and students were able "to jump right into their groups and use their roles." Rather than spending weeks and months teaching students to use a strategy, the video model eased integration of the strategy to the point that students were relatively well-versed by their second attempt.

<center>Indications/Limitations</center>

Several limitations exist related to the credibility of the findings in this study that should be considered as implications are discussed. One concern regarding the isolation of the effect of the video treatment variable on implementation of Literature Circles is the impact that teachers have on student implementation of inclusive practices as a result of established classroom structures. Teachers who have never used cooperative or flexible grouping structures may have students who are more resistant to these types of learning. Although no teachers in the study were currently using Literature Circles, it was difficult to completely control for the effect of pre-established classroom learning environments.

As mentioned throughout Chapter 4, the most substantial limitation to this study was the challenge of limited sample size for the initial analysis. Although the technical requirement for completion of a MANOVA is a sample size greater than the number of dependent variables, the differences between the two groups would have to be quite

<center>171</center>

substantial to see statistical significance, even when comparing groups of approximately 20.

With regard to the observed implementation scores—Role Total and Cooperation Total—a strategy like Literature Circles includes features of fidelity that can be fairly subjective. Although the observation instrument appeared to be a reliable means of assessing implementation based on those features that are clearly observable, a critical barrier to assessment of differences between groups could be the sensitivity of the observation instrument. Instruments of this nature present a challenge when it is necessary to detect subtle, often subjective or intangible, differences between groups.

Finally, the assessment of content knowledge presented a substantial challenge. The assessment, meant to offer students a chance to express what they learned, resulted in very low scores across all classrooms, as students apparently struggled with this kind of free response. Fortunately the addition of the content knowledge self-rating adds to the analysis of the content knowledge variable.

Despite certain limitations, an overall picture of the data is obtained when considering the numerous data points available at all levels of the research question. The following section will discuss the implications of what seem to be consistently positive trends in favor of the video-based treatment.

Implications of the Quantitative Analyses

In light of the results from both analyses of the students with learning disabilities and the extended sample including their peers, there looks to be a trend in favor of the use of

video modeling to impact students' use of a new cooperative learning strategy. When compared to a traditional method of preparation in which teachers typically explain new strategies through discussion, lecture, use of notes and overhead transparencies or PowerPoint, there does not appear to be a substantial difference in students' ability to learn the basics of this strategy—the names of roles and descriptions of these roles. Additionally, there does not appear to be a clear advantage to the students' learning outcomes, although scores on this measure were consistently low for all classes.

In contrast, actual implementation of strategy roles seemed to be strongly influenced by the use of a video model. Students were not only able to implement the specific aspects of the role (e.g., Questioner, Vocabulary Enricher, Passage Master, Connector, Illustrator) at a higher level, but they also incorporated the critical elements of cooperative learning, which are foundational to Literature Circles, at a consistently higher level. Students who viewed the video model appeared to grasp, to a greater degree than their counterparts in the traditional group, what the strategy was supposed to look like *in action*. These students internalized the strategy to a greater degree and appeared able to more easily make the transition into a way of learning that was totally new for them. Rather than rigidly employing a list of tasks presented by the teacher (i.e., make questions, make connections, make an illustration, etc.), students who viewed the video model understood that the strategy was meant to be highly conversational and collaborative. Focus group interviews provide some useful insights as to why this might be the case.

173

Qualitative Analysis

As noted in the summary of focus group data in Chapter Four, several students suggested that this cooperative learning strategy, which required them to express their opinions and conclusions articulately and confidently, was substantially outside of their comfort zone. It was very different from the typical class period in their social studies class in which they often sat quietly taking notes. Literature Circles, for most students, was a unique experience, and the self-confidence required to transition into a new way of learning appeared to be greater in the students who viewed the video model.

Numerous students in the focus group reported basing their implementation on what they saw in the video. When they were unsure of the next steps, they tried to think back to the video. For example, when asking questions, students reported thinking about the kinds of questions the students in the video asked which were high level, conversational, and open-ended rather than factual in nature. Students saw the video as a guiding model for their implementation. Students in the focus group primarily emphasized the importance of explicit peer models enabling students to watch another student in the video, presumed to be an expert at this strategy, implement the role they would soon implement. Students sought clear understanding of what students in the video were doing well in an attempt to emulate those features and further suggested the inclusion of students (in the video) who struggled with the strategy and received help to improve. The students seemed to realize that their own early efforts would be limited and in need of facilitation anticipating the typical pitfalls involved in this strategy so they could avoid them.

Preparing Students to Use Cooperative Learning

The students' suggestion of explicit or structured preparation to teach students to use Literature Circles aligns well with the previous findings of Gillies and Ashman (2000) who suggested that students with learning difficulties who use cooperative learning benefit from structured preparation in the steps and expectations for their performance in a true cooperative learning experience. Notable in this concept is the use of intensive-explicit instruction to teach students to use constructivist strategies such as Literature Circles—ironic in light of the ongoing dissention between opposing camps of practitioners and researchers who view these two approaches to instruction as entirely at odds with each other (Knight, 2002). In fact, they are not really at odds with each other. Students with learning disabilities in the focus group indicated both a genuine desire to use strategies like Literature Circles which gave them active voice in their learning *and* an explicit mode of preparation to learn those strategies.

Although Gillies and Ashman (2000) note the importance of explicit preparation in cooperative learning, if students cannot actually visualize the exemplar of their own performance it would seem challenging and time-intensive for students to develop proficiency with a complicated, constructivist strategy like Literature Circles. Providing students with a video model might be the most logical and efficient means to address this need. This certainly does not negate the role of the teacher as a facilitator in Literature Circles, but considering the challenges in helping students to develop proficiency in this strategy, peer modeling in the video might at least accelerate this process. Results from

175

the extended sample of students provide strong evidence that students could more quickly, effectively implement Literature Circles when they were exposed to the video model of their role and students with learning disabilities showed a clear trend towards improved implementation although, notably, they indicated a need for more explicit preparation.

Overall, students with learning disabilities who viewed the video model reported confidence and a general appreciation for Literature Circles (see Appendix J) suggesting that it was one of the only times they felt their voice was heard in class. Recalling the concerns of O'Connor and Jenkins (1996) that students with learning disabilities were often left behind the rest of the group, in a truly cooperative strategy like Literature Circles, individuals are not left behind because they have a valuable role and piece of the total work to be contributed (Daniels, 2002b; Johnson & Johnson, 1999). Additionally, O'Connor and Jenkins (1996) offered concerns related to students with learning disabilities simply "going along for the ride." This is reflective of group work but not true cooperative learning. A well-implemented cooperative learning task like the Literature Circles observed among students in the video group includes a specific effort to guarantee *individual accountability* by assigning a specific role (e.g., Questioner, Passage Master, etc.) that the students already know. Also, because students know what is expected of the different roles, they can make informed decisions (potentially prompted by the teacher) regarding a role choice that aligns well with their personal strengths.

In contrast to traditional group work, a cooperative learning strategy that allows for emphasis on the strengths of individual students with learning disabilities, whether they

are strong leadership skills, artistic ability, or heightened verbal agility, while limiting expectations for performance in areas of weakness, would be truly inclusive. This purposive emphasis on complementary skills and heterogeneity of talents seen in Literature Circles is particularly important to consider in secondary schools where students must master vast amounts of content knowledge in subjects like science and social studies despite increasing shortfalls in the requisite levels of literacy. Deshler et al., (2004) note the significant need for students with learning disabilities to compensate for deficits in skills while pursuing higher-level content at the secondary level. A strategy like Literature Circles not only develops the necessary during-reading strategies for reading comprehension, but also provides an improved manner for processing high level content such that basic skill deficits no longer impede the progress of struggling students.

There remains in schools considerable challenges to meeting the individual needs of students with learning disabilities and establishing a classroom culture that promotes positive interactions of diverse student populations. A sufficient history of success exists in order to describe cooperative learning as an *inclusive instructional practice*. Further, despite the controversy related to the impact of cooperative learning on academic achievement of students with learning disabilities, a more optimistic view of cooperative learning can be taken—a perspective which views cooperative learning as a foundation for more complex and intensive interventions in inclusive environments such as co-teaching, content enhancements, and embedded strategy instruction (Lenz & Harris, 2005). Foundational cooperative learning may provide one more piece in the puzzle of establishing highly inclusive learning environments.

177

When cooperative learning is implemented with the key elements of individual accountability and group reward, students with learning disabilities consistently improve their academic achievement (McMaster & Fuchs, 2005) and the implementation of Literature Circles in this study included these features. However, improved academic achievement is not the only valuable asset of teaching students with strategies like Literature Circles. Truly inclusive ideology includes an emphasis on cooperation, collaboration, and interdependence; true cooperative learning strategies like Literature Circles closely reflect this ideology (Fitch, 2003). Further, Literature Circles allows students to draw on their strengths, as the complementary talents of the entire group will lead to achieving their goal.

<p style="text-align:center">Video-based Anchored Instruction</p>

Using video-based anchored instruction to directly prepare students to use an instructional strategy represents a break from the existing literature on video in education. Although several researchers (e.g., Glaser, Rieth, Kinzer, Colburn et al., 1999; Rieth et al., 2003; Xin & Rieth, 2001) have investigated the use of video-based anchors on students' content learning, they have not taken the next step into preparing students to use learning or instructional strategies. Similar work conducted by Langone and colleagues (i.e., Langone, 1998; Langone et al., 1998; Langone et al., 1999) attempted to impact the instructional repertoire of preservice teachers in their teacher education program using video anchors. In this case, however, Langone and colleagues examined the impact of the video anchors on preservice teachers' perceptions of learning and primarily their factual

knowledge of the strategies. No attempt was made to determine whether this factual

understanding of certain approaches to teaching was ever extended to implementation, or

if it was, whether it was implemented with any degree of fidelity or skill. Findings in this

study suggest that the use of video-based anchors will only marginally impact the ability

of students to learn a new strategy, but will significantly impact their ability to implement

the strategy with fidelity and intensity.

Persisting Issues and Future Trends in Cooperative Learning for

Students with Learning Disabilities

A common theme in the special education literature regarding cooperative learning

for students with disabilities is the concern that this alternative approach to teaching will

not "solve the inclusion problem," that it is not the cure-all to liberate teachers from the

burden of having students with learning disabilities in their classrooms. Rather, there

remains in the field considerable challenges to meeting the individual needs of students

with disabilities, to establishing a classroom culture that promotes positive interactions of

diverse student populations, and to facilitating learning through well thought-out lessons

and keen attention to student progress (McMaster & Fuchs, 2002; 2005; O'Connor &

Jenkins, 1996; Tateyama-Sniezek, 1990). Certainly, no specific instructional practice can

be expected to relieve professional educators of their roles. Additionally, the task of the

special educator is to teach diagnostically, with a constant vigilance to the specific and

individualized needs of their students. Despite a substantial body of evidence to support

the use of cooperative learning as a means of improving academic achievement, many

179

teachers continue to avoid cooperative learning or struggle to implement the strategies with any real strength of fidelity due to concerns that cooperative learning strategies are simply too complicated to implement in their classrooms. Teachers struggle to translate the complexity of explanations of cooperative learning in the literature into their actual classroom practice (McMaster & Fuchs, 2005).

Results from this study indicate a potential means for addressing this concern by enabling teachers to model cooperative learning strategies like Literature Circles directly to their students. Considering the practical limitations of *one teacher* modeling cooperative learning strategies to his or her students, the idea of a video model is particularly valuable. Traditionally, teachers prepare their students to use a new strategy in their class by describing it through discussion in class and giving directions on an overhead projector while students take notes and try to follow along. The missing piece in this scenario is the use of visual images (Gersten, 1998). Some students simply do not learn effectively through traditional means (the basis for learning disabilities research). Some students struggle with issues of auditory processing or attention; regardless, there is clearly a role for visual representation of instructional and learning strategies best fulfilled by providing video-based models.

<u>Recommendations for Future Study</u>

Three major tracks of future study emerged from this project. Research related to this study moves toward 1) a more thorough investigation of how collaborative approaches to learning like Literature Circles work best for students with significant academic

weaknesses (including students identified for special education), 2) continuing attention to the potential of video-based anchored instruction to impact student implementation of best practice for inclusion and 3) the scaling up of video-models to impact teacher education and professional development. The three tracks may diverge in their efforts, but certainly converge upon the desire to improve outcomes for the vast number of students who struggle to find their way within the current model for schooling.

<div align="center">Looking Deeper into Literature Circles</div>

Daniels (2005) describes Literature Circles as *best practice* for inclusion of students with learning and other disabilities because the strategy assumes that each student will bring to the group precisely whatever they do well. There is no assumption that each student will necessarily accomplish everything as an individual; rather students are expected to be interdependent by emphasizing their strengths in their role. Establishing Literature Circles as inclusive practice is primarily based on the foundation of strong cooperative learning research. Daniels (2002b) notes the essential elements of group interdependence and individual responsibility (Johnson & Johnson, 1999; Slavin, 1983; Stevens & Slavin, 1991) are fundamental in the implementation of effective Literature Circles. Preferable in Literature Circles is the range of options in role selection such that students are very likely to have at least one role in which they could be successful.

Although not specifically prompted by the research question, further inspection of the data from quantitative measures and fieldnotes reveals that students with learning disabilities participated in Literature Circles on a level relatively comparable to their

peers. Although students in the focus group expressed a need for more explicit directions in the video, overall there were no substantial differences in implementation of the Literature Circles strategy between students with and without learning disabilities. Future study is required to investigate the extent to which students benefit academically and socially from this strategy including the long-term impact of the multiple roles on independent literacy skills (i.e., metacognition, self-monitoring, visualizing, etc.).

Also, if students with learning disabilities experience success with Literature Circles, researchers and teachers need to determine in what circumstances this strategy is most successful (i.e., using what roles, with what materials, etc.). Daniels (2002b) suggests that students alternate roles to experience a range of positions in the group, but it is difficult to say whether this changing of roles will be effective for students with learning disabilities who may struggle with some of the more academically oriented roles (e.g., Questioner, Passage Master) especially if they require higher level reading skills.

It is significant to consider what impact the actual text selection has on student implementation. Numerous students in the focus group added as an aside from the research question that their Literature Circles would have been greatly improved by selection of more engaging texts. They wanted to pick their own texts within a larger picture of their teacher's desired standards suggesting that if they could pick what they wanted to read (even from a short list), they would be more motivated and work much harder. This idea is perfectly in line with the assertions of Daniels (2002b) but may not resonate with the daily experiences of classroom teachers who often feel overwhelmed with a need to "cover" vast amounts of curricula.

Anchored Instruction, Video-modeling, and Students with Learning Disabilities

Numerous implementations of anchored instruction have capitalized on the perceived advantage of visual images for students with learning disabilities (Gersten, 1998). Typically, though, video-based anchored instruction has emphasized the use of visual images as a means of teaching content (Bottge et al., 2003; Glaser, Rieth, Kinzer, Colburn et al., 1999; Kinzer et al., 1994; Okolo et al., 2002; Rieth et al., 2003; Xin & Glaser, 1996). However, prior to this study, video-based anchored instruction has not been used to directly model strategies that could benefit students with learning disabilities.

Further, certain strategies that exist more substantially outside the traditional instructional repertoire may require more extensive modeling. A student at School 1 stated with reference to using Literature Circles:

I don't think we're doing it right, because we don't look like the kids on the video. They seemed really smart and I really liked the way they talked to each other. We don't really get to do stuff like that. We're not usually allowed to talk in class so we don't really know what to say (Fieldnote data).

The quote is notable considering how unique the experience was and how much support the students felt they needed. Student 1 explained that they "got more into the movie and that's how [they] got it." Teachers who attempt to use unique instructional strategies in their class in line with their philosophy of teaching, such as inquiry-based learning, often give up when students fail to meet their expectation. Subsequently, they settle back into

weaker strategies they perceive to be easier even if they simultaneously feel they have compromised their beliefs. It is likely, based on the focus group comments, that students experience similar challenges in making the leap into higher level learning experiences like Literature Circles tending like their teachers to cling to a learning atmosphere that is comfortable and familiar.

Teachers and students will need resources to transition from the traditional model of school that dominates the American public educational system. Well-intentioned attempts to change schools, whether in philosophy or structure, can only progress if the students are prepared for the transition and teachers feel confident in making the necessary paradigm shift.

Based on the results of this investigation, video modeling, appears to have potential for impacting students' ability to incorporate new learning strategies into their own learning repertoire. Previous work (Dieker, et al, 2004) suggests that this process is also effective in preparing teachers. However, the research on how this process should be implemented within classrooms (e.g., one-to-one computer interface vs. whole group presentation) or nationally (via a large, integrated streaming web-based video library) is preliminary. Considerable work remains to examine the role of the teacher in this process, the precise ways in which video models serve as an aid to teachers and students, whether the approach to video modeling should differ according to the strategy selected, and the overall feasibility of video models to serve teachers and students across the United States as a free, readily accessible resource.

184

Teacher Preparation: Research and Practice

As mentioned in Chapter Two, considerable challenges remain associated with overcoming the gap between research-based instructional practices and existing instructional practices. The advance of video-based anchored instruction into modeling of instructional practices has potential as a means for addressing the research-to-practice gap. This study focused on modeling strategies directly to students, but certainly has potential for modeling strategies to educators as well.

Greenwood and Abbott (2001) call for a paradigm shift in thinking about educational research away from the desire to replace old, presumably inferior instructional practice with "shiny, new, miracle cures" and instead emphasize the integration of new practices into current instructional practices as a means of building upon existing strengths. Skrtic (2005) suggests that teachers engage in collaborative, school-based efforts regarding the needs of their students and improvements required envisioning adhocratic work structures across the country seeking school-based solutions and resources to accelerate those conclusions. Video modeling could serve as a significant resource if presented in a fashion that is easily accessible and efficient for students and teachers.

Potentially the most efficient and accessible approach to offering video models as a resource to students and teachers across the country is by way of a streaming video website (Dieker, et al, 2004). There are multiple pre-existing websites available to teachers across the country supported by state and federal grant funding. Sites like *The Learning Stream* (see http://ferdig.coe.ufl.edu/video/) sponsored by the Florida State

University Multi-University Reading, Math, and Science Initiative and developed by the University Central Florida, University of Florida, and University of South Florida, *Project IRIS* (see http://iris.peabody.vanderbilt.edu/resources.html) developed at Vanderbilt University, and *Project MAINSTEP* (see www.mainstep.org) sponsored by funding from the Office of Special Education Programs and developed by the University of Texas at Austin offer various resources to preservice and practicing teachers. The missing piece is the marketing of these sites and their logical integration so that teachers could readily access these valuable resources.

Rather than a top-down structure in which teachers are told what will work for their students, teachers could determine their own needs at the school site, and access the website as needed for information on strategies and instructional methods that could be employed. A powerful vision for an integrated web-site to serve educators seeking resources and attempting to address the needs of their diverse classrooms would include an interface in which teachers log into the website and answer questions directing them to the most appropriate resources. For example, teachers could develop a profile by reporting what content they teach, at what level, the diverse needs of their students, and their major areas of concern. Extensive modules would provide a foundation through overviews and textual information while multiple streaming videos would be edited into versions directed at a specific audience. Versions of a video explicitly presenting a specific instructional strategy would be edited for teachers (both novice and experienced) and a final version would be edited specifically to be shown to students offering teachers the opportunity to develop their practice by including students in the experience.

Different versions would highlight what would be most critical to different audiences. As the students in the focus group noted, the best video for them would highlight peer models and deemphasize the teacher, while a video of the teacher giving instructions for Literature Circles would have been more helpful to other teachers.

Seeking to address the use of best practice strategies by both students and teachers, a streaming video website including exemplary models of practice represents a promising attempt to address the research-to-practice dilemma. Results of this project support the potential of video modeling. The remaining challenge is to scale up these findings to a larger audience.

<u>Conclusions</u>

The review of the literature and rationale for this study explored the controversy surrounding learning disability, but in a larger sense the way American schools perceive difference and the subsequent policies based on this rigid view of uniqueness of ability. The learning disability construct may or may not be a fallacy. Regardless, there is sufficient skepticism to counter the demand to remove students with learning disabilities from the general curriculum experience. Logically, this study emphasizes the value of inclusion—as an ideology and a practice. However, inclusion will fail to be realized in actual schools as long as students and teachers struggle to alter their perception of school by incorporating more inclusive instructional approaches. Important to consider is the need for labeling and special class assignment based on the failure of traditional instructional practices in schools. If schools across the country implemented effective teaching, students would not require labels and separate settings. What students with

learning disabilities need, like all other struggling learners is not a more effective system of *managing difference*. What they need is good teaching (Hehir, 2002; Skrtic, 2005).

In this study, Literature Circles is advanced as an example of best practice in the general curriculum in line with inclusive ideology. Notably, inclusive teaching practices do not differ markedly in philosophy from the idea of student-centered teaching so common among constructivist educators. Although special education generally offers the concept of intervention typically lacking in the general curricular philosophy, most attempts at making instruction more inclusive are in line with the philosophy of student-centered progressive education. This project presented Literature Circles, a student-centered instructional strategy, as a means for supporting diverse learners and suggested that this way of learning may be so challenging and distant from their prior experiences that technology, specifically video-modeling, may enhance the experience for students or at least accelerate the implementation of innovative instructional practices by students who typically struggle with academics.

Research in video-based anchored instruction suggests a promising foundation for teaching content to students with learning disabilities and instructional strategies to teachers. This study made a connection between these two lines of research with relatively positive implications. The continued proliferation of visual images in the form of video-based models represents a positive step in increasing available resources to students and teachers in need of assistance to alter or enhance their current practice ultimately improving outcomes for students with learning disabilities.

APPENDICES

Note: In the following Appendices, the term *Reading Circles* is used interchangeably with the term *Literature Circles*. This term was often preferred by participants and was used to clarify that students were reading nonfiction, rather than fictional literature.

APPENDIX A:

TEACHER PREPARATION MATERIALS: LESSON PLANS FOR THE

TRADITIONAL AND VIDEO-BASED TREATMENT GROUPS

Middle School Social Studies: Current Events Lesson
Activity: Literature/Reading Circles, Traditional Instruction Group

The following timeline should be adhered to as strictly as possible. Please do not plan additional activities for these instructional days. Teacher should have previously established multiple-ability groups and (if possible) arrange desks in groups prior to the start of the lesson. Groups should be 4 to 5 students. At least one group should include at least one student with an identified learning disability (when appropriate). This group will be identified to the observing researcher by discreet communication (e.g., "Mr. O'Brien you should watch John's group in this period. I'm sure they'll do a great job with this strategy."). In this scenario, John's group is the group including a student identified SLD. John would be that student. If there are multiple students identified as SLD, the teacher can say: "Mr. O'Brien, you should watch this group. I'm sure John and Mary's group will do well. This whole group is really great." Confidentiality of students' ESE status should be maintained in front of other students.

Day One: Agenda	Timeline	Teacher Action
Students learn that they will be starting to learn collaboratively and using a new learning strategy called Reading Circles (or Literature Circles—teacher preference).	5 minutes	Teachers provide introduction to the lesson—explain that students will be using a new strategy to help each other read difficult texts. **SEE SCRIPT FOR DETAILS**
Students complete pre-test of *knowledge of the strategy*	5 minutes	Teacher explains that students will complete a brief questionnaire to show if they already know the strategy. Teacher should read the instructions and briefly read the ten items aloud. If students indicate no previous exposure to the strategy, they should just leave it blank.
Students listen to teacher presentation on using Literature/Reading Circles.	10-11 minutes	Teacher explains that they will explain how to use the strategy on the following day using overhead projection transparencies. **SEE SCRIPT FOR DETAILS**
Students ask follow-up questions for clarification.	3-5 minutes	Teacher allows brief period for clarifying questions from students. **No additional information will be provided. Students can ask the teacher to reread descriptions or ask questions about parts of the strategy they did not understand. Answers cannot include any modeling of the strategy or elaborate explanation (e.g., role playing)—simply a rereading of explanations from the transparencies.**
Students prepare for current event reading.	2-3 minutes	Teacher explains that students will be reading an article in the magazine <u>Teen Newsweek</u>: *Poverty in America.* Teacher explains rationale for article and distributes copies of the article for students in the class.
Students will complete pre-test of content knowledge	5-10 minutes	Teacher explains that students will quickly make a bulleted list of prior knowledge about the article they will be reading today.

Students move into groups based on teacher instructions.	2-3 minutes	Teacher assigns groups according to student needs—students with special academic needs are assigned to multiple groups with academically stronger students. Each class must have at least one group with at least one student with a learning disability. **THIS COULD BE PREDETERMINED IF TIME IS SHORT.**
Students analyze options for roles.	2-3 minutes	Teacher distributes role sheets to students and explains that each role is different and contributes to the whole group. Each role sheet will serve as a reminder of that role.
Students choose role from one of five choices.	2-3 minutes	Teacher circulates through room and encourages students to reflect on their strengths, discuss strengths of the group members, encourage creative and artistic students lacking in basic academic skills to select the role of *Connector* or *Illustrator.*
Students read along with teacher.	5-10 minutes	Teacher reads the article to students in class to ensure that all students have been exposed to the article content. This reading should be animated and interesting but should not be guided or strategic reading.
Students prepare for the next day's implementation of Literature/Reading Circles.	2-3 minutes	Teacher provides advance organizer for next day's lesson—explains that independent role completion will be part of the next day's lesson.
Full lesson: approximately 50 minutes		

Students will complete the actual reading circles discussion on day two. The researcher will evaluate the extent to which the students identified as SLD are able to accurately implement the strategy. As such, teachers should refrain from providing explicit instruction to the students on how to implement his/her role. No re-teaching of the strategy should be provided, as it would invalidate the results.

Day Two: Agenda	Timeline	Teacher Action
Lesson Introduction/ Advance organizer	Approximately 5 minutes	Teacher reminds students of the previous day's lesson, the plan to implement the strategy they learned the previous day. Explain the agenda for the day's lesson: 1) post-test of knowledge of the strategy, 2) review of the article (role completion), 3) reading circle discussion, 4) current event post-test, and 5) peer/self evaluations. Teacher explains that at the end of their discussion, students will complete a post-test to show what they learned in the article (this could be a grade if necessary as a motivator—teacher discretion).
Students move into groups of 5 students	Approximately 3-5 minutes	Teacher provides brief instructions for groups to move into 5 person groups from the previous day's lesson. **FOR EASE OF IMPLEMENTATION, GROUPS COULD REMAIN FROM PREVIOUS DAY.**
Students complete *Literature Circle post-test of strategy knowledge*	Approximately 5 minutes	Teacher instructs students to complete the post-test of basic knowledge of the Literature Circles strategy. Teacher reads the instructions and items on the post-test.

Students review the article from the previous day and begin independently conducting the duties of their role (i.e., drawing a picture, listing questions, listing connections, listing vocabulary words, copying/highlighting passages from article)	Approximately 10 minutes	Teacher explains that students should look back at the article they read the previous day for no more than 10 minutes. During this time, they should either silently "scan" the text or quietly review with a partner to remind them of the article content. Each student should independently conduct their role marking the text, making notes, making lists of information, etc. This is a preparation for their literature circle discussion.
Students conduct role through group discussion.	Approximately 15 minutes	Teacher directs students to conduct the literature circle discussion they learned the previous day. Each student should share their role with the other members of their group—each member of the group is responsible for making sure that everyone understands the article.
Students complete post-test of content knowledge	Approximately 10 minutes	Teacher explains that students will take the *post-test of content knowledge* as a follow-up to yesterday's pre-test so they can show what they learned from the day's literature circle discussion—students should complete the list of up to 10 facts related to their article.
Students complete *peer evaluation form*	Approximately 3-5 minutes	Teacher explains that students should quickly complete the evaluation form to assess the other members of their group. Students will rate their peers based on their performance in the literature circle.
Students complete *Literature Circle self-reflection*	Approximately 3-5 minutes	Teacher explains that students should quickly complete the self evaluation form to assess how well they performed their own role and how well the strategy helped them to understand the article.

Full lesson: Approximately 45-55 minutes total

193

Middle School Social Studies: Current Events Lesson
Activity: Literature/Reading Circles, Video Instruction Group

The following timeline should be adhered to as strictly as possible. Please do not plan additional activities for these instructional days. Teacher should have previously established multiple-ability groups and (if possible) arrange desks in groups prior to the start of the lesson. Groups should be 4 to 5 students. At least one group should include at least one student with an identified learning disability (when appropriate). This group will be identified to the observing researcher by discreet communication (e.g., "Mr. O'Brien you should watch John's group in this period. I'm sure they'll do a great job with this strategy."). In this scenario, John's group is the group including a student identified SLD. John would be that student. If there are multiple students identified SLD, the teacher can say: "Mr. O'Brien, you should watch this group. I'm sure John and Mary's group will do well. This whole group is really great." Confidentiality of students' ESE status should be maintained in front of other students.

Day One: Agenda	Timeline	Teacher Action
Students learn that they will be starting to learn collaboratively and using a new learning strategy called Reading Circles (or Literature Circles—teacher preference).	5 minutes	Teachers provide introduction to the lesson—explain that students will be using a new strategy to help each other read difficult texts. **SEE SCRIPT FOR DETAILS**
Students complete pre-test of *knowledge of the strategy*	5 minutes	Teacher explains that students will complete a brief questionnaire to show if they already know the strategy. Teacher should read the instructions and briefly read the ten items aloud. If students indicate no previous exposure to the strategy, they should just leave it blank.
Students view video presentation on using Literature/Reading Circles.	10-11 minutes	Teacher explains that video will explain how to use the strategy on the following day.
Students ask follow-up questions for clarification.	3-5 minutes	Teacher allows brief period for clarifying questions from students. **No additional information will be provided. Students can ask the teacher to quickly replay clips from the video, ask to reread descriptions, or ask questions about parts of the strategy they did not understand. Answers cannot include any modeling of the strategy or elaborate explanation (e.g., role playing)—simply a rereading of explanations from the video.**
Students prepare for current event reading.	2-3 minutes	Teacher explains that students will be reading an article in the magazine Teen Newsweek: *Poverty in America*. Teacher explains rationale for article and distributes copies of the article for students in the class.
Students will complete pre-test of content knowledge	5-10 minutes	Teacher explains that students will quickly make a bulleted list of prior knowledge about the article they will be reading today.

Students move into groups based on teacher instructions.	2-3 minutes	Teacher assigns groups according to student needs—students with special academic needs are assigned to multiple groups with academically stronger students. Each class must have at least one group with at least one student with a learning disability. **THIS COULD BE PREDETERMINED IF TIME IS SHORT.**
Students analyze options for roles.	2-3 minutes	Teacher distributes role sheets to students and explains that each role is different and contributes to the whole group. Each role sheet will serve as a reminder of that role.
Students choose role from one of five choices.	2-3 minutes	Teacher circulates through room and encourages students to reflect on their strengths, discuss strengths of the group members, encourage creative and artistic students lacking in basic academic skills to select the role of *Connector* or *Illustrator.*
Students read along with teacher.	10 minutes	Teacher reads the article to students in class to ensure that all students have been exposed to the article content. This reading should be animated and interesting but should not be guided or strategic reading.
Students prepare for the next day's implementation of Literature/Reading Circles.	2-3 minutes	Teacher provides advance organizer for next day's lesson—explains that independent role completion will be part of the next day's lesson.
Full lesson: approximately 50 minutes		

Students will complete the actual reading circles discussion on day two. The researcher will evaluate the extent to which the students identified as SLD are able to accurately implement the strategy. As such, teachers should refrain from providing explicit instruction to the students on how to implement his/her role. No re-teaching of the strategy should be provided, as it would invalidate the results.

Day Two: Agenda	Timeline	Teacher Action
Lesson Introduction/ Advance organizer	Approximately 5 minutes	Teacher reminds students of the previous day's lesson, the plan to implement the strategy they learned the previous day. Explain the agenda for the day's lesson: 1) post-test of knowledge of the strategy, 2) review of the article (role completion), 3) reading circle discussion, 4) current event post-test, and 5) peer/self evaluations. Teacher explains that at the end of their discussion, students will complete a post-test to show what they learned in the article (this could be a grade if necessary as a motivator—teacher discretion).
Students move into groups of 5 students	Approximately 3-5 minutes	Teacher provides brief instructions for groups to move into 5 person groups from the previous day's lesson. **FOR EASE OF IMPLEMENTATION, GROUPS COULD REMAIN FROM PREVIOUS DAY.**
Students complete *Literature Circle post-test of strategy knowledge*	Approximately 5 minutes	Teacher instructs students to complete the post-test of basic knowledge of the Literature Circles strategy. Teacher reads the instructions and items on the post-test.

Students review the article from the previous day and begin independently conducting the duties of their role (i.e., drawing a picture, listing questions, listing connections, listing vocabulary words, copying/highlighting passages from article)	Approximately 10 minutes	Teacher explains that students should look back at the article they read the previous day for no more than 10 minutes. During this time, they should either silently "scan" the text or quietly review with a partner to remind them of the article content. Each student should independently conduct their role marking the text, making notes, making lists of information, etc. This is a preparation for their literature circle discussion.
Students conduct role through group discussion.	Approximately 15 minutes	Teacher directs students to conduct the literature circle discussion they learned the previous day. Each student should share their role with the other members of their group—each member of the group is responsible for making sure that everyone understands the article.
Students complete post-test of content knowledge	Approximately 10 minutes	Teacher explains that students will take the *post-test of content knowledge* as a follow-up to yesterday's pre-test so they can show what they learned from the day's literature circle discussion—students should complete the list of up to 10 facts related to their article.
Students complete *peer evaluation form*	Approximately 3-5 minutes	Teacher explains that students should quickly complete the evaluation form to assess the other members of their group. Students will rate their peers based on their performance in the literature circle.
Students complete *Literature Circle self-reflection*	Approximately 3-5 minutes	Teacher explains that students should quickly complete the self evaluation form to assess how well they performed their own role and how well the strategy helped them to understand the article.

Full lesson: Approximately 45-55 minutes total

APPENDIX B:

TEACHER PREPARATION MATERIALS: OVERHEADS/TRANSPARENCIES

FOR TRADITIONAL INSTRUCTION GROUP

Reading Circles

What are Literature Circles and Reading Circles?

- They are like book clubs.

- They give you a chance to help each other with reading.

- It's a chance to talk with kids in class about what you read so you can learn more from the reading.

What's the first thing you do?

- Your teacher will have something important for you to read in your class.
- The first step is to figure out how you want to read it.
- Some teachers will read it aloud.
- Sometimes the members of your group will read without the teacher.

What's the first thing you do?

- If your teacher asks your group to read on your own, the most important thing to decide is whether you will read <u>alone</u>, or with a <u>partner</u>.

- You and one other person can read the text together *quietly* to make it easier to remember what you read.

How does it work?

- **As a group, you should talk about what you read, just like you would when you talk about a your favorite movie or video game.**

- **It should be fun.**

- **Everyone takes a job or *role*.**

  It's like being on a sports team. Everyone does part of the work to be successful.

What are the roles?

- *Questioner*
- *Passage Master*
- *Vocabulary Enricher*
- *Connector*
- *Illustrator*

Questioner

The *Questioner* writes down a few questions about the reading.

- What were you wondering about while you were reading?
- Did you have questions about what was being described?
- …what the whole thing meant?

Passage Master

The *Passage Master* picks a few special sections of the reading to share.

- The idea is to help people notice the most interesting, funny, puzzling, weird or important sections of the text.

Vocabulary Enricher

The *Vocabulary Enricher* looks out for a few especially important words in the reading.

- If you find words that are tough, confusing, or unfamiliar, mark them while you are reading and then later write down their definition, either from a dictionary or from some other source.

Connector

The *Connector* tries to make connections between what the group is reading and the world outside.

There are no right or wrong answers. Whatever the reading connects you with is worth sharing!

What does this make you think about?

Illustrator

The *Illustrator* draws a picture related to the reading.

- a sketch, cartoon, diagram, flow chart, or stick figure scene.
- something that the reading reminded you of
- a picture that shows any idea or feeling you got from the reading.

Roles in the Group

Once everybody has finished reading the article or book section, everyone takes a turn sharing their role with the rest of the group.

For example, the Illustrator might share a drawing with the rest of the group that shows something from the reading.

How do you know which role to pick?

- Sometimes your teacher will pick
- If not, you should think about what you do best. What's your talent?
- In every group there will be some members who are best at reading, some who are best at explaining things (talking), and some who are the most creative.

How do you know which role to pick?

- If you are a good reader, you like to be a leader, and you can handle a tough job…

  you might want to be **the Questioner**

How do you know which role to pick?

- If you are a good reader and you have a good eye for detail…

  you might want to be

  the Passage Master

How do you know which role to pick?

- If reading is not your favorite thing to do and you are a very creative person who likes to come up with weird or unique ideas…

  you might want to be

  the CONNECTOR

How do you know which role to pick?

- If you are a good reader and you like to learn new words or find words that your friends don't know…

  you might want to be

  the Vocabulary Enricher

How do you know which role to pick?

- If reading and writing are not your best talents, but you're creative and artistic…

  you might want to be **the Illustrator**

What does your teacher do?

Your teacher can help you with:

- tough words
- challenging reading passages
- keeping your roles
- discussion at the end

APPENDIX C:

FIDELITY CHECKLISTS FOR DAY ONE OBSERVATION:

VIDEO AND NONVIDEO

Fidelity Checklist for Day One Implementation (Video)

Teacher Action	Completed? Yes/No	Anticipated Timeline	Comments/Concerns
Teacher provides introduction to the lesson—explain that students will be using a new strategy to help each other read difficult texts. **Follows script.**		5 minutes	
Teacher explains that students will complete a brief questionnaire to show if students already know the strategy. Teacher reads the instructions and briefly reads the ten items aloud.		5 minutes	
Explains that if students have no previous exposure to the strategy, they should leave it blank (except for name, etc.).			
Teacher demonstrates how to use the strategy on the following day using the DVD/video model.		10-11 minutes	
Teacher allows brief period for clarifying questions from students. **No additional information provided. Students can ask the teacher to reread descriptions or ask questions about parts of the strategy they did not understand. Answers cannot include any modeling of the strategy or elaborate explanation (e.g., role playing)—simply a rereading of explanations from the video slides.**		3-5 minutes	
Teacher explains that students will be reading an article in the magazine Teen Newsweek: *Poverty in America*. Teacher explains rationale for article and distributes copies of the article for students in the class.		2-3 minutes	
Teacher explains that students will quickly make a bulleted list of prior knowledge about the article they will be reading today.		5-10 minutes	
Teacher assigns groups. **This could be established prior to class.**		2-3 minutes	
Teacher distributes role sheets to students and explains that each role is different and contributes to the whole group.		2-3 minutes	
Teacher reads the article to students in class to ensure that all students have been exposed to the article content. This reading should be animated and interesting but should not be guided or strategic reading.		5-10 minutes	
Teacher provides advance organizer for next day's lesson—explains that independent role completion will be part of the next day's lesson.		2-3 minutes	

Fidelity Checklist for Day One Implementation (Nonvideo)

Teacher Action	Completed? Yes/No	Anticipated Timeline	Comments/Concerns
Teacher provides introduction to the lesson—explain that students will be using a new strategy to help each other read difficult texts. **Follows script.**		5 minutes	
Teacher explains that students will complete a brief questionnaire to show if students already know the strategy. Teacher reads the instructions and briefly reads the ten items aloud.		5 minutes	
Explains that if students have no previous exposure to the strategy, they should leave it blank (except for name, etc.).			
Teacher explains how to use the strategy on the following day using overhead projection transparencies. **Follows script.**		10-11 minutes	
Teacher allows brief period for clarifying questions from students. **No additional information provided. Students can ask the teacher to reread descriptions or ask questions about parts of the strategy they did not understand. Answers cannot include any modeling of the strategy or elaborate explanation (e.g., role playing)—simply a rereading of explanations from the transparencies.**		3-5 minutes	
Teacher explains that students will be reading an article in the magazine Teen Newsweek: *Poverty in America*. Teacher explains rationale for article and distributes copies of the article for students in the class.		2-3 minutes	
Teacher explains that students will quickly make a bulleted list of prior knowledge about the article they will be reading today.		5-10 minutes	
Teacher assigns groups. **This could be established prior to class.**		2-3 minutes	
Teacher distributes role sheets to students and explains that each role is different and contributes to the whole group.		2-3 minutes	
Teacher reads the article to students in class to ensure that all students have been exposed to the article content. This reading should be animated and interesting but should not be guided or strategic reading.		5-10 minutes	
Teacher provides advance organizer for next day's lesson—explains that independent role completion will be part of the next day's lesson.		2-3 minutes	

APPENDIX D:

BASIC KNOWLEDGE OF LITERATURE CIRCLES:

PRE-TEST, POST-TEST

Please print your first name, school, and class period

_____

Reading Circles

DAY ONE

Please answer the questions below to show if you already know how to use reading circles (you might not know it, and that's just fine).

For the sentences below, please circle the letter in the blank that matches the description:
Q for Questioner, PM for Passage Master, VE for Vocabulary Enricher, C for Connector, or I for Illustrator. Each letter will be used twice.   If you don't know, leave it blank.

1.	Q PM VE C I	Writes down a few sentences to share with group members. Picks the part that is really important—the BIG IDEA.
2.	Q PM VE C I	Connects the reading to the world.
3.	Q PM VE C I	Picks out a few special sections of the reading that the group looks at again. Picks the parts that are the most interesting, funny, weird, or important.
4.	Q PM VE C I	Starts conversation with group members by listing questions from the reading. Tries to guess what other group members might think are the hard parts.
5.	Q PM VE C I	Draws a picture related to the reading—a sketch, cartoon, diagram, flow chart, or stick figure scene.
6.	Q PM VE C I	Writes down a few questions about this selection. Asks: What was I wondering about while I was reading?
7.	Q PM VE C I	Picks out words that are hard or new and shares the list of words with the rest of the group until they find their meanings (with a dictionary if necessary).
8.	Q PM VE C I	Thinks of anything seen or heard that reminds them of the reading—could be a TV show, movie, another book, or something from real life.
9.	Q PM VE C I	Looks for a few important words in the reading. Finds words that are puzzling or unfamiliar, marks them while reading.
10.	Q PM VE C I	Creates some kind of visual reminder (drawing, design, etc.) specifically from the reading.

Reading Circles

Please answer the questions below to show what you know about the roles of Reading Circles.

1. Do you know the roles better than yesterday?

_____

2. Have you ever used Literature Circles or Reading Circles before?

_____

3. Have you ever used reading circles with these roles before?

For the sentences below, please circle a letter in the blank: **Q for Questioner, PM for Passage Master, VE for Vocabulary Enricher, C for Connector, or I for Illustrator.** Each letter will be used twice.

1.	Q PM VE C I	Writes down a few sentences to share with group members. Picks the part that is really important—the BIG IDEA.
2.	Q PM VE C I	Connects the reading to the world.
3.	Q PM VE C I	Picks out a few special sections of the reading that the group looks at again. Picks the parts that are the most interesting, funny, weird, or important.
4.	Q PM VE C I	Starts conversation with group members by listing questions from the reading. Tries to guess what other group members might think are the hard parts.
5.	Q PM VE C I	Draws a picture related to the reading—a sketch, cartoon, diagram, flow chart, or stick figure scene.
6.	Q PM VE C I	Writes down a few questions about this selection. Asks: What was I wondering about while I was reading?
7.	Q PM VE C I	Picks out words that are hard or new and shares the list of words with the rest of the group until they find their meanings (with a dictionary if necessary).
8.	Q PM VE C I	Thinks of anything seen or heard that reminds them of the reading—could be a TV show, movie, another book, or something from real life.
9.	Q PM VE C I	Looks for a few important words in the reading. Finds words that are puzzling or unfamiliar, marks them while reading.
10.	Q PM VE C I	Creates some kind of visual reminder (drawing, design, etc.) specifically from the reading.

APPENDIX E:

FIDELITY OF PRESENTATION SCRIPTS:

VIDEO AND NOVIDEO

Scripted Instructions: Nonvideo Group

DAY ONE

Lesson Introduction:

Teacher: "Today we are going to begin a two day project. In this project we will begin using a new strategy for learning and reading in class called Literature or Reading Circles. This is also sometimes called Literature Circles and you may have used in this in your reading class or Language Arts class. We are going to use this group work strategy to read important articles in social studies. The idea is that you will be more successful when you work together and help each other than you would if you all work by yourself.

Today we are going to read an article called <u>Poverty in America</u>. Most of you will remember all of the news coverage of Hurricane Katrina and specifically, the large number of very poor people who were unable to leave New Orleans during the hurricane and ended up stranded in the city. The article we read today will help us discuss why some Americans would be so poor while others in the country do far better.

Using Reading Circles means that you will have a conversation in a group about the article we read. It's a group project. We will read an article and each of you will pick a job to do after we read the article. Some of you will be in charge of making up questions from the article to ask your group members. Some of you will try and pick out all of the hardest words or the most important part of the article. Some of you will come up with a drawing to represent something from the article. In the end, the idea is for you to work as a group to help you learn the information in the article. The different thing about this strategy is that instead of having me talk to you the whole time, you will have a chance to talk to each other and help each other with your learning.

Today, we will start out by seeing what you know about the topic of this article and whether you already know how to do Reading Circles. Mr. O'Brien, a researcher from UCF will be observing our class to see if how well you can use this strategy and whether or not you like using it better than what we normally do in class. Mr. O'Brien is doing a scientific experiment. He is studying how students use this group reading strategy.

The first thing we will do in this experiment is to take a quick pre-test to see if you already know Reading Circles. If you think you have used this reading strategy before you should let me know and you will have a chance to show me what you already know. I will

give you the pre-test and if you have never heard of this strategy, you should just write your name and then leave the rest blank. There is no reason to guess if you don't know the strategy.

Tomorrow we will do the reading circle. You will have a conversation with your group about the article. After your conversation, you will take a short quiz (post-test) to show what you learned. Also, you will be responsible for helping all of the other members of your group. The last thing you will do is evaluate how you did in your group and how well your group members did in the group."

Transparency Presentation:

"For the next ten minutes I'm going to tell you what Reading Circles are and how they work in class. Like I told you before, Reading Circles are a way for you all to work together to read articles. You will help each other understand what you read. We will read an important article and then you will have a chance to talk to members of your group to understand everything you read. Instead of having me give you notes or tell you what is important, you will work together to learn the information. In a way, Reading Circles are like book clubs—they give you a chance to help each other with your reading and talk about it in a more fun way.

The first thing we will do is read an article. Today's article is called 'Poverty in America.' Sometimes when we do Reading Circles, you will read an article by yourself. If it's a tough article to read you might want to read with a partner—helping each other to read the hardest parts. Today we will all read together to make sure everyone understands the article.

The idea of Reading Circles is to let you all work in a group and talk about what you read. You will talk about your reading the way you would talk about a movie you've seen or a video game—something fun. It shouldn't feel like work. Instead it should be a fun chance to have a conversation with your group members. In order to have the conversation, everyone takes a job or a role. It's kind of like being on a sports team. In order to be successful, everyone has to do a job on the team.

There are five roles you can pick from when you do your reading circle. You can pick to be the Questioner, the Passage Master, the Vocabulary Enricher, the Connector, or the Illustrator.

If you pick to be the Questioner, your job will be to write down questions from the article to ask the other members of your group. This role is sometimes pretty challenging because your job is to think of really interesting questions to ask the rest of your group. Sometimes the questioner acts like the leader of the group and makes sure everyone else was able to complete their jobs.

225

The Passage Master has the job of picking out important parts of the article. If you choose to be the Passage Master, you will pick out the part of the article you thought was the most important part, the most interesting, funny, or weird part.

The Vocabulary Enricher looks out for a few especially important words in the reading. If you find words that are tough, confusing, or unfamiliar, mark them while you are reading and then later write down their definition, either from a dictionary or from some other source.

The Connector tries to make connections between what the group is reading and the world outside. There are no right or wrong answers. Whatever the reading connects you with is worth sharing! As you are reading, you should think about what the article made you think about. Did it remind you of a movie you saw or something that happened to you?

The Illustrator draws a picture related to the reading. It could be a sketch, cartoon, diagram, flow chart, or stick figure scene. It should be something that the reading reminded you of—could be a picture that shows any idea or feeling you got from the reading.

Once everybody has finished reading the article or book section, everyone takes a turn sharing their role with the rest of the group. This happens like a conversation. It should be interesting or fun—not just each person reporting their list of questions, connections, etc.

How do you know which role to pick? Sometimes your teacher will pick for you. If not, you should think about what you do best. What's your talent? In every group there will be some members who are best at reading, some who are best at explaining things (talking), and some who are the most creative.

If you are a good reader, you like to be a leader, and you can handle a tough job, you might want to be the Questioner.

If you are a good reader and you have a good eye for detail, you might want to be the Passage Master.

If reading is not your favorite thing to do and you are a very creative person who likes to come up with weird or unique ideas, you might want to be the Connector.

If you are a good reader and you like to learn new words or find words that your friends don't know, you might want to be the Vocabulary Enricher.

If reading and writing are not your best talents, but you're creative and artistic, you might want to be the Illustrator.

What does your teacher do? In this strategy, the idea is for the members of the group to help each other without help from the teacher. Everyone's talents should support the group's goal of understand the reading and learning the information in the article. Your teacher will help you if your group gets stuck. Your teacher can help you with: tough words, challenging reading passages, keeping your roles, discussion at the end."

Any questions?

DAY TWO

During Reading Circles:

Teacher: "Remember that your are supposed to be discussing the article that we read yesterday. Your job is to have a discussion to prepare for the test you will take about this article. You should all be helping each other to understand all of the information in the article. Make sure you are staying on task. At the end you will all be evaluating how well you did in the discussion and how well your partners did in the discussion."

Teacher: "Remember when you learned the strategy that this should be a real conversation. You should talk about the article the way you would talk about a movie—like you would with your friends. Everyone is responsible for a role, but you don't have to stop after you complete that role. Keep talking about the article so you can understand it better."

Scripted Instructions: Video Group

DAY ONE

Lesson Introduction:

Teacher: "Today we are going to begin a two day project. In this project we will begin using a new strategy for learning and reading in class called Literature or Reading Circles. This is also sometimes called Literature Circles and you may have used in this in your reading class or Language Arts class. We are going to use this group work strategy to read important articles in social studies. The idea is that you will be more successful when you work together and help each other than you would if you all work by yourself.

Today we are going to read an article called <u>Poverty in America</u>. Most of you will remember all of the news coverage of Hurricane Katrina and specifically, the large number of very poor people who were unable to leave New Orleans during the hurricane and ended up stranded in the city. The article we read today will help us discuss why some Americans would be so poor while others in the country do far better.

Using Reading Circles means that you will have a conversation in a group about the article we read. It's a group project. We will read an article and each of you will pick a job to do after we read the article. Some of you will be in charge of making up questions from the article to ask your group members. Some of you will try and pick out all of the hardest words or the most important part of the article. Some of you will come up with a drawing to represent something from the article. In the end, the idea is for you to work as a group to help you learn the information in the article. The different thing about this strategy is that instead of having me talk to you the whole time, you will have a chance to talk to each other and help each other with your learning.

Today, we will start out by seeing what you know about the topic of this article and whether you already know how to do Reading Circles. Mr. O'Brien, a researcher from UCF will be observing our class to see if how well you can use this strategy and whether or not you like using it better than what we normally do in class. **Mr. O'Brien made a video about Reading Circles to help you learn how to use them. We will be watching this video in a few minutes.** Mr. O'Brien is doing a scientific experiment. He is studying how students use this group reading strategy.

The first thing we will do in this experiment is to take a quick pre-test to see if you already know Reading Circles. If you think you have used this reading strategy before you should let me know and you will have a chance to show me what you already know. I will

give you the pre-test and if you have never heard of this strategy, you should just write your name and then leave the rest blank. There is no reason to guess if you don't know the strategy.

Tomorrow we will do the reading circle. You will have a conversation with your group about the article. After your conversation, you will take a short quiz (post-test) to show what you learned. Also, you will be responsible for helping all of the other members of your group. The last thing you will do is evaluate how you did in your group and how well your group members did in the group."

DAY TWO

During Reading Circles:

Teacher: "Remember that your are supposed to be discussing the article that we read yesterday. Your job is to have a discussion to prepare for the test you will take about this article. You should all be helping each other to understand all of the information in the article. Make sure you are staying on task. At the end you will all be evaluating how well you did in the discussion and how well your partners did in the discussion."

Teacher: "Remember when you learned the strategy that this should be a real conversation. You should talk about the article they you would talk about a movie—like you would with your friends. Everyone is responsible for a role, but you don't have to stop after you complete that role. Talk about the article so you can understand it better."

APPENDIX F:

ASSESSMENT OF CONTENT KNOWLEDGE:

PRE-TEST, POST-TEST

Day One Demonstration of Content Knowledge for Current Events

For today's reading circle in your social studies class, you will be reading an article on a current event that affects the world in which you live.

Before you begin reading the article with your reading circle, please rate on a scale from 1 to 10 how well you know this current event topic:

 Poverty in America: Why the number of poor people living in the United States is growing.

1	2	3	4	5	6	7	8	9	10

If this event sounds familiar to you, please make a list of up to 10 facts you know about this event below: Your list does not have to be complete sentences—just short pieces of information that you know. List as many as you can think of—you don't have to do 10.

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

Day Two Demonstration of Content Knowledge for Current Events

Now that you have read the article with your reading circle, please rate on a scale from 1 to 10 how well you know this current event:

Poverty in America: Why the number of poor people living in the United States is growing.

1	2	3	4	5	6	7	8	9	10

Please make a list of up to 10 facts you know about this current event below:
Your list does not have to be complete sentences—just short pieces of information that you remember from the article. List as many as you can think of—you don't have to do 10.

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

APPENDIX G:

LITERATURE CIRCLES OBSERVATION INSTRUMENT

Literature/Reading Circles Classroom Observation Protocol*

Observation Information

Teacher:_____ School:_____ Observer:_____

Lesson Content:_____ Date:_____ Grade Level:_____ Class Period:_____

Time of Observation: Start_____ End_____

Contextual Background and Activities

| 1. What is the total number of students in the class at the time of the observation?

_____

3. What is the teacher's gender?

 Male _____ Female _____

5. Co-teacher, volunteer, or aide present?

_____ | 2. What is the apparent racial makeup of the classroom?

 White (anglo/European-American) _____ Hispanic _____

 Black (Caribbean, African-American) _____

 Asian _____ Other _____

 4. What is the teacher's apparent ethnic background?
 A. African-American (not Hispanic origin)
 B. American Indian or Alaskan Native
 C. Asian or Pacific Islander
 D. Hispanic
 E. White (not Hispanic origin)
 F. Other

 6. Additional Relevant Comments: _____

 _____ |

Classroom Context

7. Classroom resources (check one box):

1 Sparsely equipped	2	3	4	5 Rich in resources

8. Classroom space (check one box):

1 Crowded	2	3	4	5 Spacious

9. Room arrangement—prior to assignment (check one box):

1 Inhibited interactions among students (desks in rows)	2	3	4	5 Facilitated interactions among students (groups of 3-4 or in circle)

10. Room arrangement—during assignment (check one box):

1 Inhibited interactions among students (desks in rows)	2	3	4	5 Facilitated interactions among students (groups of 3-4 or in circle)

* Above Classroom Description Protocol Adapted from the *Local Systemic Change Observation Protocol* developed by Horizon Research, Inc. (2000).

Field Notes from Observation:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Student 1: Questioner   First Name or Initials of Student: _____

Criteria	Low Level Implementation		Moderate Implementation		High Level Implementation
1. During reading, lists questions on paper for later review with group members; seeks questions from the text—reflecting on what he or she does not understand.	1	2	3	4	5
2. Leads group discussion by sharing and seeking group discussion of questions, drawing questions from others and seeking answers to questions through collaboration.	1	2	3	4	5
3. Shares questions with group in a manner that promotes natural conversation.	1	2	3	4	5
4. Explicit Focus on Positive Interdependence Learns the material and ensures that all group members learn the assigned material.	1	2	3	4	5
5. Extensive Group Member Interaction	1	2	3	4	5
6. Clear Focus on Individual Work to Contribute to the Achievement of the Whole Group Student is accountable for his/her portion of the group work. He/she contributes his/her fair share.	1	2	3	4	5
7. Established use of Interpersonal and Small-group Skills Enacts a Win/Win attitude encouraging others to complete their tasks to achieve the overall goal. Problem solving and cooperative attitudes are critical.	1	2	3	4	5
Synthesis score for role (items 1-3):					
Synthesis score for cooperative behaviors (items 4-7):					
Synthesis score for overall role performance. (items 1-7):					

Items 1-4 adapted from Daniels (2002). *Literature circles: Voice and choice in book clubs and reading groups.* Items 5-8 adapted from Johnson & Johnson (1994). *An overview of cooperative learning.*

Student 2: Passage Master   First Name or Initials of Student: _____

Criteria	Low Level Implementation		Moderate Implementation		High Level Implementation
1. While reading, circles, marks, highlights, and/or records text seeking interesting sections or important passages with a purpose—they were funny, interesting, gross, exciting, weird, or important to comprehension of the article.	1	2	3	4	5
2. During conversation, summarizes or quotes his/her selected passages including the most interesting or important parts.	1	2	3	4	5
3. Shares passages with group members as natural conversation attempting to develop enthusiasm about the reading or highlight what was critical to know in the article.	1	2	3	4	5
4. Explicit Focus on Positive Interdependence Learns the material and ensures that all group members learn the assigned material.	1	2	3	4	5
5. Extensive Group Member Interaction	1	2	3	4	5
6. Clear Focus on Individual Work to Contribute to the Achievement of the Whole Group Student is accountable for his/her portion of the group work. He/she contributes his/her fair share.	1	2	3	4	5
7. Established use of Interpersonal and Small-group Skills Enacts a Win/Win attitude encouraging others to complete their tasks to achieve the overall goal. Problem solving and cooperative attitudes are critical.	1	2	3	4	5
Synthesis score for role (items 1-3):					
Synthesis score for cooperative behaviors (items 4-7):					
Synthesis score for overall role performance. (items 1-7):					

Items 1-4 adapted from Daniels (2002). *Literature circles. Voice and choice in book clubs and reading groups.* Items 5-8 adapted from Johnson & Johnson (1994). *An overview of cooperative learning.*

Student 3: Vocabulary Enricher   First Name or Initials of Student: _____

Criteria	Low Level Implementation		Moderate Implementation		High Level Implementation
1. While reading, circles, marks, or highlights important or challenging vocabulary with a purpose—words that are challenging or important to comprehension of the article; selection of words reflects reasonable estimate of class vocabulary level.	1	2	3	4	5
2. Directs conversation regarding vocabulary toward a collaborative effort to determine meanings via discussion, rereading for context, use of references, or request for help when appropriate.	1	2	3	4	5
3. Shares selected words with group members as natural conversation explaining why the words were chosen and engaging others regarding the selections and additional words in need of clarification.	1	2	3	4	5
4. Explicit Focus on Positive Interdependence Learns the material and ensures that all group members learn the assigned material.	1	2	3	4	5
5. Extensive Group Member Interaction	1	2	3	4	5
6. Clear Focus on Individual Work to Contribute to the Achievement of the Whole Group Student is accountable for his/her portion of the group work. He/she contributes his/her fair share.	1	2	3	4	5
7. Established use of Interpersonal and Small-group Skills Enacts a Win/Win attitude encouraging others to complete their tasks to achieve the overall goal. Problem solving and cooperative attitudes are critical.	1	2	3	4	5
Synthesis score for role (items 1-3):					
Synthesis score for cooperative behaviors (items 4-7):					
Synthesis score for overall role performance. (items 1-7):					

Items 1-4 adapted from Daniels (2002). *Literature circles. Voice and choice in book clubs and reading groups.* Items 5-8 adapted from Johnson & Johnson (1994). *An overview of cooperative learning.*

Student 4: Connector   First Name or Initials of Student: _____

Criteria	Low Level Implementation		Moderate Implementation		High Level Implementation
1. While reading, creates some kind of bulleted list or written reminder of connections that related specifically to the reading and relate to life experiences or background knowledge while reading (for later recall of connections that arose while reading).	1	2	3	4	5
2. Clearly articulates how the reading reminded them of other events, prior learning, or life experiences and how they connect to the reading.	1	2	3	4	5
3. Shares selected connections with group members as natural conversation with an emphasis on connections that are interesting to group members and encourages others to share their connections.	1	2	3	4	5
4. Explicit Focus on Positive Interdependence Learns the material and ensures that all group members learn the assigned material.	1	2	3	4	5
5. Extensive Group Member Interaction	1	2	3	4	5
6. Clear Focus on Individual Work to Contribute to the Achievement of the Whole Group Student is accountable for his/her portion of the group work. He/she contributes his/her fair share.	1	2	3	4	5
7. Established use of Interpersonal and Small-group Skills Enacts a Win/Win attitude encouraging others to complete their tasks to achieve the overall goal. Problem solving and cooperative attitudes are critical.	1	2	3	4	5
Synthesis score for role (items 1-3):					
Synthesis score for cooperative behaviors (items 4-7):					
Synthesis score for overall role performance (items 1-7):					

Items 1-4 adapted from Daniels (2002). *Literature circles: Voice and choice in book clubs and reading groups.* Items 5-8 adapted from Johnson & Johnson (1994). *An overview of cooperative learning.*

Student 5: Illustrator   First Name or Initials of Student: _____

Criteria	Low Level Implementation		Moderate Implementation		High Level Implementation
1. Creates some kind of picture related to the reading—cartoon, stick figure scene, diagram, sketch, flowchart, etc. on his/her paper that logically relates to the events or main idea of the reading—something that helps group members to remember details or improve comprehension.	1	2	3	4	5
2. Clearly articulates how the graphic representation relates to the reading, why they chose this visualization, and describes the details of the graphic.	1	2	3	4	5
3. Shares the visual representation with group members in a conversational manner seeking feedback and additions to the graphic from group members.	1	2	3	4	5
4. Explicit Focus on Positive Interdependence Learns the material and ensures that all group members learn the assigned material.	1	2	3	4	5
5. Extensive Group Member Interaction	1	2	3	4	5
6. Clear Focus on Individual Work to Contribute to the Achievement of the Whole Group Student is accountable for his/her portion of the group work. He/she contributes his/her fair share.	1	2	3	4	5
7. Established use of Interpersonal and Small-group Skills Enacts a Win/Win attitude encouraging others to complete their tasks to achieve the overall goal. Problem solving and cooperative attitudes are critical.	1	2	3	4	5
Synthesis score for role (items 1-3):					
Synthesis score for cooperative behaviors (items 4-7):					
Synthesis score for overall role performance (items 1-7):					

Items 1-4 adapted from Daniels (2002). *Literature circles: Voice and choice in book clubs and reading groups.* Items 5-8 adapted from Johnson & Johnson (1994). *An overview of cooperative learning.*

Additional Notes:

Items 1-4 adapted from Daniels (2002). *Literature circles: Voice and choice in book clubs and reading groups.*
Items 5-8 adapted from Johnson & Johnson (1994). *An overview of cooperative learning.*

Whole Group Observation Rubric for Implementation of Literature/Reading Circles **

Criteria		Novice 1	2	Intermediate 3	4	Advanced 5
		Members of the group…		*Members of the group…*		*Members of the group consistently…*
Content	1.	Share prepared work.		Share prepared work as well as new ideas.		Share prepared work as well as insightful new ideas.
	2.	Build on each other's ideas.		Build on each other's comments while staying on topic.		Build thoughtfully on each other's comments while staying on topic.
	3.	Inconsistently support ideas with examples and evidence from the text.		Support ideas with examples and evidence from the text.		Support ideas with rich examples and detailed evidence from the text.
	4.	Demonstrate literal comprehension of the text.		Demonstrate inferential comprehension of the text—low level.		Demonstrate inferential comprehension of the text—high level.
	5.	Stray off topic.		Maintain obligatory focus on topic.		Maintain engaged focus on topic.

		1	2	3	4	5
		Members of the group…		*Members of the group…*		*Members of the group consistently…*
Behavior	6.	Contribute to the discussion when prompted.		Contribute to the discussion.		Contribute insightful comments to the discussion.
	7.	Demonstrate limited respect for peers during interactions.		Speak respectfully to each other.		Speak respectfully to each other.
	8.	Listen more to see if other people "get them" than to focus on others' points of view.		Listen carefully.		Listen in order to understand.
	9.	Ask questions.		Ask appropriate questions.		Ask appropriate clarifying and elaborative questions.
Synthesis score for group skills (items 1-9):						

Synthesis score for whole group implementation of literature circles:

APPENDIX H:

CONTENT MEASURE RUBRIC

Content Measure Rubric

Scores for the content responses by students will be scored by comparing student responses to the list of potential accurate responses. Further, they will be given scores of 0, 1, or 2—0 reflecting an incorrect or unrelated response suggesting the student made incorrect conclusions or made comments unrelated to the topic, 1 reflecting an adequate response in some way related to the content of the lesson, 3 reflecting a high-level response reflecting keen insight and elaboration based on the content information provided in the selected article.

Potential Accurate Responses for the 10-item List

1. There is Poverty in America
2. The number of poor people in American is growing
3. School janitors may make a low wage—approximately $6.50 and hour and do not receive benefits like health insurance or retirement
4. There may be a relationship between teen pregnancy and school completion, welfare, and wages
5. Many people who work still cannot afford to live well.
6. Hurricane did not solely cause the poverty in New Orleans; it exposed the preexisting poverty.
7. Certainly, storm victims fared worse after the storm losing homes, possessions, and jobs.
8. Poverty in America is an enduring problem—not something to be conveniently distanced from our lives in history books.
9. The number of people living in poverty has increased over the last 3 years despite economic recovery.
10. In a nation of 300 million, 37 million live below the poverty line.
11. The poverty rate is expected to continue to worsen due to issues related to Katrina (both from direct damage and indirect impact on relatives supporting victims).
12. The U.S. poverty rate is currently 12.7%.
13. The U.S. poverty rate is the highest in the industrialized/developed world.
14. The number of poor people in America is equal to the entire population of Canada.
15. 40 years of research have left experts without clear conclusions related to the causes of poverty.
16. Liberals blame poverty on a tilted economic system that favors wealthy people.
17. Conservatives blame poverty on the welfare state and a culture of poverty.
18. Multiple factors impact poverty beyond limitations in resources and training.
19. Unemployment is not a primary cause—rather low wages.
20. Federal minimum wage is only $5.15 set by congress.
21. A person working 40-hour week makes only $10,712 a year before taxes.
22. Minimum wage has not improved for many years although the cost of living has increased.
23. Since 2001, the U.S. has lost numerous manufacturing jobs (i.e., 2.7 million) leaving people with low paying service jobs with limited benefits.
24. Medicaid pays for poor children to have health insurance rarely covers adults.
25. Working people often live in poverty due to inability to pay for basic living expenses.
26. American attitudes tend to blame poor people for their problems.
27. Poverty has ceased being a major political issue in America.
28. Politicians have ignored people living in poverty because of their limited political power.
29. Over the last four decades, social programs like Social Security and Medicare have helped elderly people living in poverty.
30. Food stamps have mostly eliminated severe hunger.
31. In 1996 welfare reform cut the welfare rolls by over 9 million people.
32. In the 1990s 4.1 million working poor people improved their situation related to government initiatives and economic prosperity.
33. The 9/11 2001 tragedy hurt the economy and stalled progress in the fight against poverty.
34. President Bush's policy agenda did not include issue related to poverty (instead terrorism and tax cuts were the focus).
35. The cost of rebuilding the Gulf Coast states could result in cuts to programs designed to help poor people.
36. Senator Barack Obama suggested that American policy has been very neglectful of poor people in the U.S.
37. White people make the largest raw number of people living in poverty—16.1 million.
38. Percentage-wise, the poorest ethnic groups are blacks (24%), American natives (24%), and Hispanics (22%).
39. Hispanics and American natives are significantly lacking in health care.
40. Poverty has decreased markedly since the 1960s but has begun a trend toward increase in poverty.
41. Poverty impacts children—1 in 5 children are born poor.
42. 1 in 146 children die before age 1, 1 in 9 born to teenage mother, 1 in 7 never graduate from high school, 1 in 13 arrested before age 17.
43. Individuals under the age of 18 are largest group of people living in poverty and foreign-born people are poor in greater numbers.
44. Programs that helped decrease poverty include Head Start, Food Stamps, Medicare and Medicaid.
45. Johnson suggested the Great Society and sought to address links between racial issues and poverty.

APPENDIX I:

FOCUS GROUP QUESTIONS FOR

STUDENTS WITH LEARNING DISABILITIES

Questions for Student Focus Groups:

Students who viewed video models:

1) "When you used the literature/reading circles strategy in your class, how well did you understand your role and what the teacher expected you to do?"

2) "What did your teacher do to help you learn the literature/reading circles strategy?"

3) "Was the video on literature/reading circles helpful for you when trying to learn and use your role in the literature/reading circle?"

4) "What part(s) of the video were the most helpful to you in trying to perform your role in the literature/reading circles?"

5) "What did you think about seeing other students using the literature/reading circles strategy on the video?"

6) "What could have helped you to understand the strategy better?"

7) "Did using the strategy help you to understand the article you read in your social studies class?"

8) "What was your feeling about working in a literature/reading circle? Did you feel confident about completing your role?"

9) "What was your feeling about working in a literature/reading circle compared to what you would normally do in your social studies class?"

APPENDIX J:

FOCUS GROUP TRANSCRIPTS

Focus Group Transcripts

Interviewer: All right. Ready? First question when you used the reading circle strategy. You guys remember doing that? How well did you understand your role in what the teacher expected you to do? Take a second and think about that. Before you started to use it, think about how well you really understood what your role was. You had picked a role and your teacher had prepared you to do that. *Student 6*?

Response: *(Student 6) At first I really didn't understand it at first. But then I started – some started asking the students and teachers and I went step by step and I came up with an answer for what I had to do.*

Interviewer: What was your role?

Response: *Questioner.*

Interviewer: You were the questioner? So by the end of the first time you did it, you felt like you knew what you were supposed to do?

Response: *Yeah.*

Interviewer: *Student 2*?

Response: (*Student 2*) *I understood my role really good because I saw the movie and I saw what they were doing. And that just pointed me to do whatever I had to do.*

Interviewer: Okay. You were the vocabulary Enricher?

Response: *Yeah.*

Interviewer: So would you say you kind of modeled what you did after that, off the video?

Response: *Yeah, kind of.*

Interviewer: All right. Anybody else?

Response: (*Student 3*) *I got it like at first I had trouble trying to find the words that people would have difficulty on because to me it was easy. But to them it might be a different perspective. So it took me a while to understand they needed help on some certain words.*

Interviewer: Good point. So you realized after awhile that it wasn't just about what you knew, but what about everybody else in your group knew.

Response: (*Student 6*) *What did he do? Passage Master?*

Interviewer: He was the Vocabulary Enricher, too. I remember, *Student 3*, you said you thought the words weren't that hard?

Response: (*Student 3*) (Shakes head).

Interviewer: But when I reminded you, that most of those words were not 7th grade level. You were able to find them after that, right?

Response: (*Student 3*) *Yeah.*

Interviewer: Did anybody have no idea what they were supposed to do… they were just feeling clueless?

Response: (*Student 6*) *At first.*

Interviewer: *Student 1*, what about you?

Response: (*Student 1*) *After I started talking to my teacher about it, she started helping me with it and then I started getting it.*

Interviewer: Okay. Tell me a little bit about what your teacher did, what Ms. Katner did to help you learn the reading circles strategy. How did she help you?
Student 7?

Response: (*Student 7*) *She explained each role to me and what I was supposed to do in that role. I was two roles at once. I was questioner and passage master. And I was doing two things at once, and I didn't understand what the passage master was. So she explained it to me. After that I was able to* (inaudible).

Interviewer: Okay. *Student 6*?

Response: (*Student 6*) *She was going step by step and making it clear for mostly all the students…*

Interviewer: On the first day?

Response: (*Student 6*) *Well, I got a little bit from the movie.*

244

Interviewer: A little bit from the movie, but you still needed help from your teacher though?

Response: (*Student 6*) Yeah. In case I couldn't get the question.

Interviewer: So if you had just seen the movie, you would have still needed some extra help?

Response: (*Student 6*) *Yeah*.

Interviewer: Do you think you paid attention really good when you were watching the movie?

Response: (*Student 6*) *I looked at it but I couldn't really hear it*.

Interviewer: Because you were like in the back of the room, weren't you?

Response: (*Student 6*) (Nods head.)

Interviewer: That's one thing I noticed in some classes, people who were right in front of the TV understood it, and people on the other side of the room didn't really pay attention. *Student 1*?

Response: (*Student 1*) *I was paying attention to the movie, too, to see if it could help me, but after the movie was over, when we started doing the circle thing, I didn't really get what I was supposed to be looking for. And then Ms. Katner had started telling me step by step how I'm supposed to find the words that me and other classmates couldn't understand, too. And I don't know what else I was going to say.*

Interviewer: Do you remember what I specifically remember you said, *Student 1*, when I was there that day, remember when I was watching your group. You said?

Response: (*Student 1*) *Yeah. That I wished we were having the same conversation in the movie.*

Interviewer: Tell me more about that. You said something about you wished -- I thought you said you wanted to be more like that group, right? (Reference to fieldnotes)

Response: (*Student 1*) *Yeah. More like that group, because when my group started doing it, we didn't know what to do, just clueless and we didn't really help on anything. And then you told us -- then you started talking to us, and then I told you a complement saying that I wish we had the same conversation that we had over there and doing the same thing. And then we started talking more and then we got it.*

Interviewer: Do you know what a model is? Like if you're using something as a model, something to kind of base something on. *Student 6*?

Response: (*Student 6*) *like to guide you.*

Interviewer: Yeah. Do you think the video could be like that, like a model for how you do your own conversation?

Response: (*Student 1*) *Uh-huh*. (Students 1 and 6 nod in enthusiastically)

Response: (*Student 6*) *Kind of, yeah.*

Interviewer: I remember you said you wanted to make the conversation more like that. Do you think you were successful in that?

Response: (*Student 1*) *Kind of.*

Interviewer: What did you do to be more successful like that?

Response: (*Student 1*) *We started working with each other, like one of us didn't get what we were doing, we'd help each other. And that like, when we were doing the --telling them the questions and stuff, we were helping each other saying this is how you're supposed to say -- these are some of the words like you put in that we don't get. And for the drawer, the illustrator, we added some more pictures saying like how we could understand it and we got more into the movie and that's how we got it.*

Interviewer: Cool. *Student 7*, do you want to add something?

Response: (*Student 7*) *Yeah. I forgot what I was going to say.*

Interviewer: Just generally, I'm trying to find out how helpful the video might have been. If you were going to rate on a scale of one to ten, how would you rate the video in helping you do what you were supposed to do. *Student 6*?

Response: (*Student 6*) *five.*

Interviewer: A five out of ten?

Response: (*Student 6*) *yeah.*

Interviewer: *Student 1*?

Response: (*Student 1*) *Five.*

Interviewer: *Student 3*?

Response: (*Student 3*) *Ten.*

Interviewer: So you based completely what you did on the video?

Response: (*Student 3*) *Yeah. I just saw -- I just got a couple ideas.*

Interviewer: Student 4?

Response: (Student 4) *Five.*

Interviewer: *Student 5*?

Response: (*Student 5*) *Six.*

Interviewer: Do you want to elaborate on that at all? Do you want to add anything, why you would have rated it that way? Okay. *Student 7*?

Response: (*Student 7*) *I had an eight.*

Interviewer: You would rate it pretty high then?

Response: (*Student 5*) *Yes, very helpful.*

Interviewer: *Student 2*?

Response: (*Student 2*) *Probably like an eight.*

Interviewer: An eight. Okay. We had a range. Some people thought it was kind of helpful and some people thought they did just exactly what they saw in the video. Okay. In thinking back on the video, what parts do you think helped you the most. Take a second and think about that. *Student 3*?

Response: (*Student 3*) *When the teacher got out of the picture and you only saw the students.*

Interviewer: Just watching the students do it. Okay. *Student 5*?

Response: (*Student 5*) Watching the students talk about the story.

Interviewer: Okay. *Student 6?*

Response: (*Student 6*) *seeing everyone's point of view.*

Interviewer: Seeing what the role looked like from their point of view?

Response: (*Student 6*) *how they explained their role.*

Interviewer: The part where they said why they picked what they picked. Do you think there should have been more like that, more of them?

Response: (*Student 6) yeah.* (Students nod).

Interviewer: If you were going to take a certain part of the video and make it longer and a certain part and make it shorter, what would you do?

Response: (*Student 6*) *add more stuff.*

Interviewer: One person at a time. *Student 3*

Response: (*Student 3*) *The teacher part, because I don't think the teacher needs to help really.*

Interviewer: Okay. So you didn't think it was important to see a teacher in there at all?

Response: (*Student 3) No.*

Interviewer: What about parts where I'm talking? Is that too boring.

Response: (*Student 1*) *That's helpful.* (Students talk over each other).

Response: (*Student 3*) *You had information. The teacher just says be quiet, be quiet, be quiet.*

Interviewer: *Student 3?*

Response: (*Student 3*) *The teacher part, because I don't think the teacher did stuff really.*

Interviewer: So you didn't think it was important to see a teacher in there at all?

Response: *No.*

Interviewer: What about the parts where I'm talking. Is that boring?

248

Response: (*Student 1*) *You had information.*

Response: (*Student 3*) *The teacher just says be quiet, be quiet, be can we it.*

Interviewer: Which part are you talking about there?

Response: (*Student 3*) *The teacher really -- he didn't say much of -- he's like –not saying be quiet, but not...*

Interviewer: Like giving them directions on what to do next. So you felt like that wasn't something that you needed to see?

Response: (*Student 3*) *No.*

Interviewer: Maybe teachers needed to see that, but students wouldn't want to see that?

Response: (*Student 3) Giving them too much* (inaudible*).*

Interviewer: That's interesting. *Student 1*?

Response: (*Student 1*) *What he would say, how the teachers really wouldn't start their other roles, that we should have the teachers there, the students should already know what they should do. From their point of view. Instead of having the teacher there, it's just them in the classroom and just doing the group and then just seeing like -- then a teacher would come back and see how they're doing and then leave them again and leave them to do the stuff.*

Interviewer: It seems like you guys would want mostly to see students most likely the entire time. *Student 7*?

Response: (*Student 7) I would like to see students most of the time but also like the teacher to come in more often and check on the kids, make sure they're doing all right and leave again.*

Interviewer: Okay. Because this is a strategy -- not very many people use this strategy because students have a hard time getting used to it. Like a lot of you guys said, well, we got in a group and we didn't really know what we were supposed to do, that's pretty much what most people say. Like when they try and do it – can you see, it's a pretty -- you have to be pretty on top of things to be able to do it well. You have to be able to think for yourself, you have to be able to work together. It's kind of harder than what you normally do in class when you just sit there at a desk and most of the time you're not even really paying attention, you're just kind of flaking out.

249

Response: (*Student 7*) *Not focusing*.

Interviewer: So it takes a lot of work and it takes a lot of understanding. You guys did a really good job. All the periods that I saw here at Howard actually did the best that I've ever seen. This was your first time. So even *Student 2*'s group that was goofing around the whole time, they still did a really good job. (Interviewer joking with Student 2).

Response: (*Student 6*) *my group got deep –with poverty*

Interviewer: Your group did get really deep. I was really impressed.

Response: (*Student 6*) *all about the government*

Interviewer: There was a lot of people all day long that did a really nice job. What was it, you and Student 4 and *T* and *D*. You were making jokes the whole time. I remember that?

Response: (*Student 7*) *Who me, no? That was D.*

Interviewer: You guys had a good debate, though, and I thought that was really good.

Response: (*Student 7*) *No. Because he was talking about something and* (inaudible).

Interviewer: That's okay.

Response: (*Student 6*) I think my group did all right, did a pretty good job.

Interviewer: The fun think thing -- your group had a more animated and lively conversation than some of the other groups. So even though you were being goofy sometimes, you guys had a great conversation. *Student 6* and his group looked like they were about to throw their desk over they were so angry. That was like a really good conversation. I mean they were intense. Let's see. Looking beyond the video, what could have helped you more to understand the strategy? You guys said that you liked to have me saying just the basic things and the roles, you liked seeing the kids using the strategies. What could have helped you more that you could have used it right away? *Student 3*?

Response: (*Student 3*) *Like a student, like every minutes, you go to another table and you do all of the roles. One student says, I don't know what to do. And then your voice comes in and you explain it. And go to next table and you get another person and it's the same question.*

250

Interviewer: Sort of like anticipating that somebody is going to have a hard time.

Response: (*Student 3*) *And you do all the roles.*

Interviewer: That's a good idea. *Student 1*?

Response: (*Student 1*) *You can do at each table, like the illustrator, how they do their stuff and see how they do it and explain how they did their (inaudible) on all the sections and then go to another table and do the same thing and compare them and say -- and tell it like how things are different from them, like that. And do it with every table.*

Interviewer: That's a good idea. Okay. This is all like in process. I can make it better than it was. *Student 6*?

Response: (*Student 6*) *we were like, you know, see if everybody know what they're doing. If they don't, you help this person out right here. And then you'll go to the other table and see if the other person that didn't know is paying attention. But if the other person is going to the other table, so that person got the same job like this person. To see if they understand. That mean the other person didn't really get it* (inaudible).

Interviewer: It's almost like example, nonexample. Somebody doing it really well and somebody who didn't get it. So you can see what not getting it would look like?

Response: (*Student 6*) *or ask that student that gets it to help the other student.*

Interviewer: Yeah, yeah. Okay. A lot of you guys are kind of being similar about the idea of showing what a -- kind of like a bad example would look like, sort of. So people would go, oh, I don't want to do that. And then showing what the good example would be. Okay.
Student 5?

Response: (*Student 5*) *I want them to actually show the video of the kids reading the story and talking about it and telling what they think about it so they'd know what they would say about each thing and show a picture of what they're doing. You did that a little bit, but you didn't do it all the way.*

Interviewer: A little bit more of the actual article.

Response: (*Student 5*) *Yeah.*

Interviewer: You felt like once you were there, you weren't really quite sure what you were supposed to talk about? Sometimes it depends on whether or not you think the article was interesting. If you don't like the article -- at discovery middle school they did

an article on Germany and nobody thought it was interesting, and the conversations were really boring. But then somebody else did a conversation about north and South Korea and they're at war with each other and it was a really interesting conversation. *Student 3* was first.

Response: (*Student 3*) *Ask them, like, what do they like to read about, take a vote and find something that might correspond.*

Interviewer: Right. So maybe you think the conversations would be better if you were reading what the group picked for themselves what they wanted to read.

Response: (*Student 3*) *Yeah.*

Interviewer: What if I give you a stack of Teen News Week or and Junior Scholastic and all the different articles and your group picked which article it wanted to read?

Response: (*Student 3*) *You would probably be able to work harder if you liked it better.*

Interviewer: You'd feel more invested.

Response: (*Student 3*) *Yeah. We'd probably be ability to understand it better.*

Interviewer: That's a really good point. There's a whole bunch of reports that supports exactly what you just said. *Student 2*, what were you going to say?

Response: (*Student 2*) *Because it would keep you more focused and not like bored.*

Interviewer: Sometimes you'd feel like you would be more interested in what you were doing if you had more say in what you were learning?

Response: (*Student 2*) *Yeah. Because if you like reading something and you'll like it -- most of the time you don't want to read it, so you're not going to pay any attention to it. But if you're reading something that you do like you'll be more focused and into it.*

Interviewer: You think that's really true. Honestly, you think if Ms. Katner said, we have to learn about current events and I'm going to give you ten choices of an article you could read, you would be more into it because you got to pick?

Response: (*Student 2*) *Yeah, because I had a say on it and it would be a better choice for the students.*

Interviewer: All right. Maybe we'll try that. I'll talk to Ms. Cadner. Would you guys want to try it again doing it that way? Student 4?

252

Response: (Student 4) (Nods head.)

Interviewer: Maybe? You don't have to go along with the heard. You can say something different if you want.

Response: (*Student 2*) *I hate like some books, but I love sharks, so I'd like to pick sharks*

Interviewer: You like nonfiction books, right, you don't like stories, but you like informational books.

Response: (*Student 2*) Yeah.

Interviewer: *Student 1.*

Response: (*Student 1*) *It would be better like if people would pick because like you could help people – at Discovery it had to be about Germany and they didn't want to read about that and they had to do the thing. They'll read it and get really bored and they wouldn't be focused into it. But you were saying, if they got choices to pick, they would get the ones that they like and they'll more interested and more focused into the book and maybe do the process better than what they did before.*

Interviewer: That's a great point. You realized it's a balance though. When your teachers have you read things it's usually because there's something you're supposed to learn. Teachers have a list of things by the end of the year that you guys are supposed to have learned. It's kind of like a balance. We could give you more choices but still make sure you learned all the right things.

Response: (*Student 2*) *Yeah, but if we don't like it, we're probably not going to know it by the end of the year.*

Interviewer: So there wouldn't be any point. It's almost like a waste of time trying to teach you something you don't want to learn because you're kind of going to put up a wall and not try anyway?

Response: (*Student 2*) *Yeah. Because we don't like it and we don't really want to learn it.*

Interviewer: I saw *Student 5*'s hand up.

Response: (*Student 5*) *I would like to read about something that happened in the past, like Egyptians and stuff.*

Interviewer: You're more interested in history than current events?

253

Response: (*Student 5*) *Yeah.*

Interviewer: That's interesting. *Student 7?*

Response: (*Student 7*) *You could give us different versions of the same kind of thing. Like you give us like three different versions of World War I so we can choose, but we all still learn the same thing.*

Interviewer: So like three different topics but all have to do with World War I?

Response: (*Student 5*) *Yeah.*

Interviewer: That's a really interesting idea. *Student 6*. You had your hand up?

Response: (*Student 6*) *You can give stuff that you think you like or what you think will be very interesting. Back to the point where you said we supposed to know what our teacher be saying, everything she teach us. You don't understand something she says, but then she goes to something else and then you get lost in the other thing she was just teaching and then that comes up, an it's a quiz and it comes up.*

Interviewer: It's like information overload, like too much coming at you.

Response: (*Student 6*) *yeah. And you can't get it all.*

Interviewer: That makes a lot of sense. You guys don't realize everything you're saying is all kind of stuff that people write about all the time. Go ahead.

Response: (*Student 3*) *Well, if they -- if they have a list of what they have to teach every year, maybe give the students like a little bit of the list, give them, own what they want to learn, like beginning, ending, on what they wanted to learn first so they can get into it and then you get the stuff that they don't like so they still get into it -- they know how to do it better than they do --*

Interviewer: Maybe at the beginning of the nine weeks the teacher says here's what we're supposed to learn during this nine weeks. We can do this and this or this and this.

Response: (*Student 3*) *Yeah, make it more exciting in the beginning and then slowly make it boring.*

Interviewer: Okay. Three quick questions and we're going to wrap up. Real fast. In thinking about understanding the article, if our goal was for you to have read that article

on poverty and really understand what happened in it, did this strategy help you to understand the article? Yes or no?

Response: (*Student 1*) *Yes.*

Interviewer: *Student 7?*

Response: (*Student 7*) Yes, it did very much. I understood more about poverty and actually on what poverty was.

Interviewer: *Student 1?*

Response: (*Student 1*) *Yeah, like what he said. If I didn't use that, I wouldn't know what some of the words were. I would have difficulty -- learning what the words were. And I learned like more about poverty and how it's affecting people's lives and stuff.*

Interviewer: Good. *Student 6?*

Response: (*Student 6) I really didn't know what poverty was at first. Then I started on when they said all of that stuff and I started adding more stuff to it to where you get to understand. Student 2?*

Response: (*Student 2) I said yeah.*

Interviewer: The real point though is thinking about, that's not normally how you learn something in social studies. Usually your teacher would read something to you and then you would take a test on it at later time. Do you think you learned better working together? Or would you have learned better working by yourselves? *Student 2?*

Response: (*Student 2) I'd say by doing the reading strategy because you would talk with like people, and if the teacher is just saying it, you probably won't understand it. You'll be sitting at your desk and then most of the time you're more focused, like with a friend or something.* (inaudible).

Interviewer: I see what you're saying. *Student 1?*

Response: (*Student 1) I think it would be better if we're working in a group. If you were working by yourself and you didn't get a question or a word that you wouldn't understand, you would have someone with you there to tell you oh, this is how the word is pronounced, this is what it means. The question is telling you about this or that. If you were alone, you wouldn't get it. You would have a hard time trying to figure it out.*

Interviewer: Five word summaries real quick. *Student 6.*

255

Response: (*Student 6*) *I think it's better working with yourself because maybe someone don't want to do what the teacher told them or you might get caught up with them and what they're doing. Then when your work is due you don't have nothing at all. You're in a group and playing and not working when you should be focused.*
Did you feel like your group was just playing?

Response: (*Student 6*) *no.*

Interviewer: I thought you guys did a real good job. *Student 3?*

Response: (*Student 3*) *I think we should do both. Like in the beginning you do it by yourself, so if you don't understand something, like the other half you bead in a group so you can understand it better. Then you go back going solo and then do it again just to make sure you know it.*

Interviewer: That's interesting. Not everybody can read things by themselves though in middle school.

Response: (*Student 3*) *That's why you get in a group.*

Interviewer: *Student 7?*

Response: (*Student 7*) *I agree with what he said, doing by yourself notes and everything. I took two different kind of notes on the same thing. I took Cornell notes and line notes.*

Interviewer: Are you in Avid?

Response: (*Student 7*) *Yeah.*

Interviewer: Good. Last question. Real fast. Comparing this -- comparing this strategy we did that day when you guys got to work in the reading circles, compare that to what you would normally do in your social studies class. Better, same or worse?

Response: (*Student 3*) *Same.*

Response: (*Student 6*) *better.*

Response: (*Student 7*) *Better.*

Response: (*Student 1*) *Better.*

Interviewer: Student 4?

Response: (*Student 4) Better.*

Interviewer: *Student 5?*

Response: (*Student 5*) *Same.*

Interviewer: Real quick. Why? Two words. All right. Five words.

Response: (*Student 2*) *It, like, helps you out more.*

Interviewer: It helps you out more. Okay. *Student 6?*

Response: (*Student 6) it might be the same understanding.*

Interviewer: Okay. You would understand it the same. Okay. *Student 3?*

Response: (*Student 3*) *To me it's easy.*

Interviewer: It's easy. Okay. It makes it easier than what it would normally be. *Student 5?*

Response: (*Student 5*) *You can be heard and say what you think.*

Interviewer: So your voice and your opinion is heard for a change. Okay. *Student 7?*

Response: (*Student 7*) *Exactly what Student 5 said.*

Interviewer: *Student 1?*

Response: (*Student 1*) *What she said.*

Interviewer: So it's really about the idea of finally feeling like your point of view matters.

Response: (*Student 1*) *Yeah.*

Interviewer: Thank you, guys. Excellent. Appreciate it.

APPENDIX K:

INSITUTIONAL REVIEW BOARD APPROVAL DOCUMENTATION

Office of Research

February 25, 2004

Lisa Dieker, Ph.D.
Department of Child, Family & Community Sciences
College of Education
University of Central Florida
4000 Central Florida Boulevard
Orlando, Florida 32816

Dear Dr. Dieker:

With reference to your protocol entitled, "The Learning Stream: A Web-based Video Library to Promote Teacher and Student Learning," I am enclosing for your records the approved, executed document of the UCFIRB Form you had submitted to our office.

Please be advised that this approval is given for one year. Should there be any addendums or administrative changes to the already approved protocol, they must also be submitted to the Board. Changes should not be initiated until written IRB approval is received. Adverse events should be reported to the IRB as they occur. Further, should there be a need to extend this protocol, a renewal form must be submitted for approval at least one month prior to the anniversary date of the most recent approval and is the responsibility of the investigator (UCF).

Should you have any questions, please do not hesitate to call me at 823-2901.

Please accept our best wishes for the success of your endeavors.

Cordially,

Chris Grayson
Institutional Review Board (IRB)

Copies: Dr. Wilfred Wienke
IRB File

12443 Research Parkway • Suite 207 • Orlando, FL 32826-3252 • 407-823-3778 • Fax 407-823-3299
An Equal Opportunity and Affirmative Action Institution

259

THE UNIVERSITY OF CENTRAL FLORIDA
INSTITUTIONAL REVIEW BOARD (IRB)

IRB Committee Approval Form

PRINCIPAL INVESTIGATOR(S): Lisa Dieker

PROJECT TITLE: The Learning Stream: A Web-based Video Library to Promote Teacher and Student Learning.

Committee Members:

Dr. Theodore Angelopoulos: _____
Ms. Sandra Browdy: _____
Dr. Jacqui Byers: _____
Dr. Ratna Chakrabarti: _____
Dr. Karen Dennis: _____
Dr. Barbara Fritzsche: _____
Dr. Robert Kennedy: _____
Dr. Gene Lee: _____
Ms. Gail McKinney: _____
Dr. Debra Reinhart: _____
Dr. Valerie Sims: _____

[ ] Contingent Approval
     Dated: _____

[ ] Final Approval
     Dated: _____

[x] Expedited
     Dated: 2/20/2004

[ ] Exempt
     Dated: _____

Chair, IRB
Signed: _____
Dr. Sophia Dziegielewski

NOTES FROM IRB CHAIR (IF APPLICABLE): _____

UCF IRB Addendum/Modification Request Form

This addendum form does NOT extend the IRB approval period or replace the Continuing Review form for renewal of the study.

INSTRUCTIONS: Please complete the upper portion of this form and attach all revised/new consent forms, altered data collection instruments, and/or any other documents that have been updated. **The proposed changes on the revised documents must be clearly indicated by using bold print, highlighting, or any other method of visible indication.** Attach a highlighted and a clean copy of each revised form. This Addendum/Modification Request Form may be emailed to IRB@mail.ucf.edu or mailed to the IRB Office: ATTN: IRB Coordinator, 12443 Research Parkway, Suite 302, Orlando, FL 32826-3252 or campus mail 32816-0150. Phone: 407-823-2901 or 407-882-1139, Fax: 407-823-3299.

- **DATE OF ADDENDUM:** September 29, 2005 to IRB# 2268 _____ IRB Addendum # _05 – 2945_

- **PROJECT TITLE:** "The Learning Stream: A Web-based Video Library to Promote Teacher and Student Learning"

- **PRINCIPAL INVESTIGATOR:** Lisa A. Dieker, Ph.D. and **Christopher P. O'Brien, M.A., Doctoral Candidate**

- **MAILING ADDRESS:** Department of Child, Family, Community Sciences, College of Education, University of Central Florida, 4000 Central Florida Blvd. Orlando, Florida 32816

- **PHONE NUMBER & EMAIL ADDRESS:** 407-823-3885, or 2598, Lisa Dieker ldieker@mail.ucf.edu, Christopher O'Brien cobrien@mail.ucf.edu

- **REASON FOR ADDENDUM/MODIFICATION:** Addition of Principal Investigator, Minor changes to Informed-Consent letter.

- **DESCRIPTION OF WHAT YOU WANT TO ADD OR MODIFY:**

  - Add Christopher O'Brien as an additional investigator on this project.
  - Amend Adult Informed Consent letter to focus on in-service (currently practicing) rather than pre-service teachers.
  - Amend Adult Informed Consent letter to allow for $150 stipend to be provided based on completion of all research activities—viewing of video, collection of work samples (anonymous), and scheduling of observation.

SECTION BELOW - FOR UCF IRB USE ONLY

⩕ Approved _____ Disapproved

_____ Full Board ⩕ Chair Expedited

IRB Chair Signature   Oct 14 2005 Date

IRB Member/Designated Reviewer   Date

1

UCF IRB Addendum/Modification Request Form

This addendum form does NOT extend the IRB approval period or replace the Continuing Review form for renewal of the study.

INSTRUCTIONS: Please complete the upper portion of this form and attach all revised/new consent forms, altered data collection instruments, and/or any other documents that have been updated. **The proposed changes on the revised documents must be clearly indicated by using bold print, highlighting, or any other method of visible indication. Attach a highlighted and a clean copy of each revised form.** This Addendum/Modification Request Form may be emailed to IRB@mail.ucf.edu or mailed to the IRB Office: ATTN: IRB Coordinator, 12443 Research Parkway, Suite 302, Orlando, FL 32826-3252 or campus mail 32816-0150. Phone: 407-823-2901 or 407-882-1139, Fax: 407-823-3299.

- **DATE OF ADDENDUM:** February 3, 2006 to IRB# ~~2268~~ #3124   IRB Addendum # 06-3224

- **PROJECT TITLE:** "The Learning Stream: A Web-based Video Library to Promote Teacher and Student Learning"

- **PRINCIPAL INVESTIGATOR:** Lisa A. Dieker, Ph.D. and **Christopher P. O'Brien, M.A., Doctoral Candidate**

- **MAILING ADDRESS:** Department of Child, Family, Community Sciences, College of Education, University of Central Florida, 4000 Central Florida Blvd. Orlando, Florida 32816

- **PHONE NUMBER & EMAIL ADDRESS:** 407-823-3885, or 2598, Lisa Dieker ldieker@mail.ucf.edu, Christopher O'Brien cobrien@mail.ucf.edu

- **REASON FOR ADDENDUM/MODIFICATION:** Original proposal included follow-up focus groups with students regarding use of video models to learn new strategies in class. The addendum relates to the addition of a Parent Informed-Consent letter for students in focus groups including list of focus group questions.

- **DESCRIPTION OF WHAT YOU WANT TO ADD OR MODIFY:**

  o Add Parent Informed-Consent letter to request parental permission for students to participate in basic follow-up focus group including a specific list of focus group questions.

  o Adds doctoral student Christopher O'Brien.

SECTION BELOW - FOR UCF IRB USE ONLY

___✗___ Approved   _____ Disapproved

_____ Full Board   __✗__ Chair Expedited

IRB Chair Signature _____

Tracy Rich

IRB Member/Designated Reviewer

Date 2/7/06

Date

1

262

APPENDIX L:

DISTRICT PERMISSION DOCUMENTATION

Orange County Public Schools

RESEARCH REQUEST FORM

Your research proposal should
include: Project Title; Purpose
and Research Problem;
Instruments; Procedures and
Proposed Data Analysis

Requester's Name Christopher Paul O'Brien   Date September 21, 2005

Address: Home 1112 Palmer Street Orlando, FL 32801   Phone 407-897-5183

Business 4000 Central FL BLVD Orlando, FL 32816   Phone 407-823-2598

Project Director or Advisor Lisa A. Dieker, Ph.D., Jennifer Platt, Ed.D. Phone 407-823-3885

Address 4000 Central Florida Blvd. College of Education UCF Orlando, Florida 32816

Degree Sought:
(check one)

☐ Associate
☑ Doctorate

☐ Bachelor's
☐ None

☐ Master's

☐ Specialist

Project Title Promoting Inclusive Practice for Content-Area Reading Through Evidence-based
Video Models. Grant funded by the Multi-University Reading, Math, and Science
Initiative of the Florida State University Learning Systems Institute

ESTIMATED INVOLVEMENT

PERSONNEL/CENTERS	NUMBER	AMOUNT OF TIME (DAYS, HOURS, ETC.)	SPECIFY/DESCRIBE GRADES, SCHOOLS, SPECIAL NEEDS, ETC.
Students approx. 700	700 approx	7 days	Middle School, 6-8, Students with LD
Teachers	7	7 days (1 day per)	Middle School, 6-8
Administrators			
Schools/Centers	4	7 days	Howard Middle, Odyssey, Discovery, Corner Lake Middle
Others (specify)			

Specify possible benefits to
students/school system: Study is meant to provide general education teachers in grades 6-8

with effective strategies for teaching low achieving students and non-readers

ASSURANCE

Using the proposed procedures and instrument, I hereby agree to conduct research in accordance with the policies of
the Orange County Public Schools. Deviations from the approved procedures shall be cleared through the Senior
Director of Accountability, Research, and Assessment. Reports and materials shall be supplied as specified.

Requester's Signature

Approval Granted: ☑ Yes   ☐ No   Date: 12-15-05

Signature of the Senior Director
for Accountability, Research, and Assessment   Lee Baker

NOTE TO REQUESTER: When seeking approval at the school level, a copy of this form, signed by the Senior Director,
Accountability, Research, and Assessment, should be shown to the school principal.

Reference School Board Policy GCS, p. 249

FORM ID #GB0103/23-1/1FY   REV 1/04

264

APPENDIX M:

INFORMED CONSENT LETTERS FOR TEACHERS AND STUDENTS

University of Central Florida

Information for People Who Take Part in Research Studies

The following information is being presented to help you decide whether or not you want to be a part of a minimal risk research study. Please read carefully. If you do not understand anything, ask the Person in Charge of the Study.

Title of Study:	**The Learning Stream**
Principal Investigator (PI):	Lisa A. Dieker, Christopher O'Brien
Study Location(s):	University of Central Florida

You are being asked to participate in this study because you are an in-service teacher working with students in grades 4 through 8. Also you are responsible for teaching content and reading skills underlying that content to a diverse population of students.

General Information about the Research Study

- The purpose of this research study is to determine the extent to which having access to online digital video examples of effective instructional practices as part of preservice and in-service teachers' typical methods related course instruction enhances their ability to understand and implement those effective instructional practices.

Plan of Study

- We are asking for your voluntary participation in this study. You would be randomly assigned to one of two groups. Both groups will receive the same instruction except that one group will also be provided a digital video model of an exemplary teacher implementing the instructional practice in a real classroom. The group who does not view the video will participate in a separate learning activity focusing on the same instructional practice. Your knowledge/understanding of the instructional practice will be evaluated after you have participated in the learning experience. A trained observer will observe you and your students on the day you implement the instructional practice and evaluate the extent to which you are implementing important components/features of the instructional practice. A short assessment that evaluates your students' learning will be developed and will be given to students after you complete your instruction. These evaluation methods are a natural part of your daily classroom routine and therefore do not represent any change in evaluation methods typically used for this course. Any data that is collected through your participation in this study will be viewed only by research staff. Your name will not be recorded or connected to any data that is collected. All data will be compiled for reporting to ensure that data collected from your participation is anonymous. Also, anonymity of students will be maintained throughout the process. While your identity may be known to the research staff, your responses will be collapsed with the responses of other respondents and compiled for final report and, thus, will remain anonymous. Findings from this study will be used to evaluate the effects of using online digital video as a professional development tool for preservice and in-service teachers. These findings will inform teacher educators about the use digital video in teacher preparation programs and will inform continued research efforts in determining how digital video can best be used to

266

assist teachers develop their instructional skills.

Payment for Participation

- No payment will be provided for participation. Your participation will occur within the framework of typical teaching responsibilities. A stipend of $150 will be offered for your time in 1) viewing the video of the selected instructional strategy ($50), 2) providing explanation of the instructional strategy to students and allowing primary researcher to observe implementation of the strategy ($50), and collecting work samples from students ensuring that students' anonymity has been preserved ($50). Failure to complete all research activities will result in lesser payment.

Benefits of Being a Part of this Research Study

- There will be no direct benefits to you for your participation aside from receiving a $150 stipend for your participation. Whether you agree to participate in the study (i.e., data collection) or not, you will able to participate in the same learning experience as those who do agree to participate. The only difference is that your evaluation data will not be included in the study's data collection efforts.

Risks of Being a Part of this Research Study

- There are no known risks to you for your participation in the study. Your participation or nonparticipation will have no effect on your final evaluation/grade for the course/practicum/internship.

Confidentiality of Your Records

- Your privacy and research records will be kept confidential to the extent of the law. Authorized research personnel, employees of the Department of Health and Human Services and the UCF Institutional Review Board may inspect the records from this research study. The results of this study may be published. However, in the publication the data obtained from you will be combined with data from other people. The published results will not include your name or any other information that would in any way personally identify you. Only the PI and research study staff will have access to the data. Data will be kept in a locked file in the PI's office.

continued on back

Volunteering to Be Part of this Research Study

- Your decision to participate in this research study is completely voluntary. You are free to participate in this research study or to withdraw at any time. If you choose not to participate, or if you withdraw, there will be no penalty or loss of benefits that you are entitled to receive.

Questions and Contacts

- If you have any questions about this research study, contact the co-PIs, Dr. Lisa Dieker, at 407/823-3885, ldieker@mail.ucf.edu or Christopher O'Brien, at 407-823-2598, cobrien@mail.ucf.edu

- If you have questions about your rights as a person who is taking part in a research study, you may contact a member of the Division of Research Compliance of the University of Central Florida at 407-823-2901.

Your Consent—*By participating in the Learning Stream study, I agree that*:

- I have fully read or, upon request, have had read and explained to me this informed consent form describing a research study.
- I understand that I have the opportunity to question one of the persons in charge of this research and to receive satisfactory answers.
- I understand that I am being asked to participate in research. I understand the risks and benefits, and I

freely give my consent to participate in the research study outlined in this form, under the conditions indicated in it.

- I have been given a signed copy of this informed consent form, which is mine to keep.

Institutional Approval of Study and Informed Consent

This research project/study and informed consent form were reviewed and approved by the University of Central Florida Institutional Review Board for the protection of human subjects. This approval is valid until the date provided below. The board may be contacted at 407/823-2901.
Approval Consent Form Expiration Date:

Revision Date:_____

I certify that participants have been provided with an informed consent form that has been approved by the University of Central Florida's Institutional Review Board. That contains the nature, demands, risks and benefits involved in participating in this study. I further certify that a phone number has been provided in the event of additional questions.

	Lisa Dieker	
Signature of Investigator	Printed Name of Investigator	Date

	Christopher O'Brien	
Signature of Investigator	Printed Name of Investigator	Date

I have read the procedure described above. I voluntarily agree to participate in the procedure, and I have received a copy of this description.

Signature of Participant	Printed Name of Participant	Date

February 3, 2006

Dear Parent/Guardian:

Your child has been nominated by his/her teacher to participate in a study that is being conducted for dissertation research in conjunction with the University of Central Florida, College of Education. Your child's identifying information has not been shared in any way with the researcher at this time. Your child was chosen because he/she meets the criteria for this study and you, as a parent/guardian, are being offered the opportunity to have your child participate.

The research project involves the use of a new reading strategy for middle school students. Many students have difficulty reading the challenging texts in middle school classes like social studies and science. Some local teachers have been working with researchers at the University of Central Florida to incorporate this strategy into their classes. The researchers want to find out more about how much the students understood about the strategy and whether or not the strategy helped them to understand challenging content. The results of this study may someday help educators develop instructional practices to help students improve content knowledge in middle school. Your child should feel good about assisting with this important research and sharing their perspective.

With your consent, your child will join a focus group lead by the primary researcher, a doctoral candidate at the University of Central Florida. The interview will be held in the school office during non-instructional time and should take less than 30 minutes. The interview will be tape recorded for transcription purposes only. Tapes will be stored in a locked cabinet at the university office and will be destroyed soon after the research process is complete. Questions will be limited to simple reflections on the experience of using the reading strategy in class.

Your child's name, the names of his/her teachers, and the name of your child's school will be kept confidential and will not be used in any report, analysis, or publication. All identifying information will be replaced with codes (e.g., Student 1, Student 2). Your child will be allowed the right to refuse to answer any questions that make him/her uncomfortable, and he/she may stop participating in this research at any time. Your child will be reminded of this prior to the focus group. I have attached a copy of the focus group questions for your information.

You may contact me at 407-897-5183 or email at cobrien@mail.ucf.edu or the primary investigator on this project, Dr. Lisa A. Dieker at 407-823-3885 or by email at ldieker@mail.ucf.edu, for any questions you have regarding the research procedures. Research at the University of Central Florida involving human participants is carried out under the oversight of the Institutional Review Board (IRB). Questions or concerns about research participants' rights may be directed to the UCF IRB office, University of Central Florida, Office of Research & Commercialization, Orlando Tech Center, 12443 Research Parkway, Suite 302, Orlando, FL 32826-3252, or by campus mail 32816-0150. The hours of operation are 8:00 am until 5:00 pm, Monday through Friday except on University of Central Florida official holidays. The telephone number is (407) 823-2901.

Sincerely,

Chris O'Brien
College of Education
University of Central Florida

____ I have read the procedure described on the previous page.

____ I have received a copy of this form to keep for my records.

____ I have received a copy of the interview questions for my records.

I voluntarily give my consent for my child, _____, to participate the focus group and answer questions related to his/her experiences in class in the school's office during his/her non-instructional time.

_____ / _____
Parent/Guardian   Date

_____ / _____
2nd Parent/Guardian   Date

(or Witness if no 2nd Parent/Guardian)

Please sign and return one copy of this page to your child's teacher.

LIST OF REFERENCES

Affleck, J., Madge, S., Adams, A., & Lowenbraun, S. (1988). Integrated classrooms versus resource model: Academic viability and effectiveness. *Exceptional Children, 54*, 339-348.

Algozzine, B. (1985). Low achiever differentiation: Where's the beef? *Exceptional Children, 52,* 72-25.

Anderegg, M. L., & Vergason, G. A. (1996). Preserving the least restrictive environment: Revisited. In W. Stainback & S. Stainback (Eds.), *Controversial issues confronting special education: Divergent perspectives.* (pp. 44-54). Boston: Allyn and Bacon.

Antil, L. R., Jenkins, J. R., Wayne, S. K., & Vadasy, P. F. (1998). Cooperative learning: Prevalence, conceptualizations, and the relation between research and practice. *American Educational Research Journal, 35*, 419-454.

Armstrong, B., Johnson, D. W., & Balow, B. (1981). Effects of cooperative vs. individualistic learning experiences on interpersonal attraction between learning disabled and normal-progress elementary school students. *Contemporary Educational Psychology, 6*, 102-109.

Baker, E., Wang, M., & Walberg, H. (1995). The effects of inclusion in learning. *Educational Leadership, 52*(4), 33-34.

Bauwens, J., & Hourcade, J. J. (1991). Making co-teaching a mainstreaming strategy. *Preventing School Failure, 35*(4), 19-24.

Betts, F. (1992). How systems thinking applies to education. *Educational Leadership, 50*(3), 38-41.

Blackhurst, A. E., & Morse, T. E. (1996). Using anchored instruction to teach about assistive technology. *Focus on Autism and Other Developmental Disabilities, 11*(3), 131-141.

Blum, H. T., Lipsett, L. R., & Yocom, D. J. (2002). Literature circles: A tool for self-determination in one middle school inclusive classroom. *Remedial & Special Education, 23*(2), 99-108.

Bosco, J. (1986). An analysis of evaluations of interactive video. *Educational Technology, 26*(5), 7-17.

Bottge, B. A., Heinrichs, M., Chan, S.-Y., Mehta, Z. D., & Watson, E. (2003). Effects of video-based and applied problems on the procedural math skills of average- and low-achieving adolescents. *Journal of Special Education Technology, 18*(2), 5-22.

Brandt, F. J., & Ellsworth, N. J. (1996). Effects of cooperative learning on the academic achievement and self-esteem of urban adolescents with learning disabilities. *Learning Disabilities, 7*, 9-13.

Brantlinger, E. (1997). Using ideology: Cases of non-recognition of the politics of research and practice in special education. *Review of Educational Research, 67*(4), 424-459.

Brantlinger, E. (2004). Using ideology: Cases of nonrecognition of the politics of

    research and practice in special education. In S. Danforth & S. D. Taff (Eds.),

    Crucial readings in special education (pp. 56-80). Upper Saddle River, New

    Jersey: Pearson.

Brantlinger, E., Jimenez, R., Klingner, J., Pugach, M., & Richardson, V. (2005).

    Qualitative studies in special education. *Exceptional Children, 71*(2), 195-207.

Brantlinger, E. A. (2001). Poverty, class, and disability: A historical, social, and political

    perspective. *Focus on Exceptional Children, 33*(7), 1-24.

Brigham, F. J., & Scruggs, T. E. (1995). Elaborative maps for enhanced learning of

    historical information: Uniting spatial, verbal, and imaginal information. *Journal

    of Special Education, 28*(4), 440-460.

Brigham, R., & Brigham, M. (2001). *A focus on mnemonic instruction.* (No. 5): Division

    of Learning Disabilities and Division of Research of the Council for Exceptional

    Children.

Brown, J. S., Collins, A., & Duguid, S. (1989). Situated cognition and the culture of

    learning. *Educational Researcher, 18*(1), 32-42.

Carlberg, C., & Kavale, K. (1980). The efficacy of special versus regular class placement

    for exceptional children: A meta-analysis. *The Journal of Special Education, 14*,

    459-462.

Carnine, D. (1997). Bridging the research-to-practice gap. *Exceptional Children, 63*(4),

    513-521.

Carnine, D. (1999). Perspective: Campaigns for moving research into practice. *Remedial and Special Education, 20*(1), 2-6.

Carrier, J. G. (2004). Sociology and special education: Differentiation and allocation in mass education. In S. Danforth & S. D. Taff (Eds.), *Crucial readings in special education* (pp. 37-54). Upper Saddle River, New Jersey: Pearson.

Choate, J. S. (2004). *Successful inclusive teaching: Proven ways to detect and correct special needs* (4th ed.). MA: Allyn & Bacon.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Earlbaum Associates.

The Cognition and Technology Group at Vanderbilt (1990). Anchored instruction and its relationship to situated cognition. *Educational Researcher*, *19*(6), 2-11.

The Cognition and Technology Group at Vanderbilt. (1996). Anchored instruction and situated cognition revisited. In H. McLellan (Ed.), *Situated learning perspectives*. Englewood Cliffs, New Jersey: Educational Technology Publications.

Cook, L., & Friend, M. (1995). Co-teaching: Guidelines for creating effective practices. *Focus on Exceptional Children, 28*(3), 1-16.

Cosden, M., Pearl, R., & Bryan, T. H. (1985). The effects of cooperative and individual goal structures on learning disabled and nondisabled students. *Exceptional Children, 52*, 103-114.

Daniels, H. (2002a). Expository text in literature circles. *Voices from the Middle, 9*(4), 7-14.

Daniels, H. (2002b). *Literature circles: Voice and choice in book clubs and reading groups.* (3rd ed.). Portland, ME: Stenhouse.

Daniels, H. (2005). Are literature circles on your IEP? *Voices from the Middle, 12*(4), 54-55.

Daniels, H., & Zemelman, S. (2003). Out with textbooks in with learning. *Educational Leadership, 61*(4), 36-40.

Deno, S., Maruyama, G., Espin, C., & Cohen, C. (1990). Educating students with mild disabilities in general education classrooms: Minnesota alternatives. *Exceptional Children, 57*, 150-161.

Deshler, D. D. (2003). Intervention research and bridging the gap between research and practice. *Learning Disabilities -- A Contemporary Journal, 1*(1), 1-7.

Deshler, D. D., Grossen, B., Marquis, J., Schumaker, J. B., Bulgren, J. A., Lenz, B. K., et al. (2002). The educational context and outcomes for high school students with disabilities: The characteristics and perceptions of students with disabilities. Research report. U.S.: Kansas.

Deshler, D. D., & Lenz, B. K. (1989). The strategies instructional approach. *International Journal of Disability, Development, and Education, 36*(3), 203-224.

Deshler, D. D., Lenz, B. K., Bulgren, J., Schumaker, J. B., Davis, B., Grossen, B., et al. (2004). Adolescents with disabilities in high school setting: Student characteristics and setting dynamics. *Learning Disabilities -- A Contemporary Journal, 2*(2), 30-48.

Dieker, L., Lane, H., Allsopp, D., & O'Brien, C. (2004). *The learning stream: Bridging the research-to-practice gap in the age of the NCLB, high-stakes testing and the highly qualified teacher.* Paper presented at the Teacher Education Division of the Council for Exceptional Children, Albuquerque, New Mexico.

Dieker, L. A. (1998). Rationale for co-teaching. *Social Studies Review, 37*(2), 62-65.

Dieker, L. A. (2001a). Collaboration as a tool to resolve the issue of disjointed service delivery. *Journal of Educational & Psychological Consultation, 12*(3), 263-269.

Dieker, L. A. (2001b). What are the characteristics of 'effective' middle and high school co-taught teams for students with disabilities? *Preventing School Failure, 46*(1), 14-23.

Dieker, L. A., & Barnett, C. A. (1996). Effective co-teaching. *Teaching Exceptional Children, 29*(1), 5-7.

Dudley-Marling, C. (2004). The social construction of learning disabilities. *Journal of Learning Disabilities, 37*(6), 482-489.

Education for All Handicapped Children Act of 1975, P.L. 94-142, 94th Congress (1975).

Ehren, B. J., Lenz, B. K., & Deshler, D. (2005). The content literacy continuum: A school reform framework for improving adolescent literacy for all students. *TEACHING Exceptional Children, 37*(6), 60-63.

Ellis, E. S. (1989). A metacognitive intervention for increasing class participation. *Learning Disabilities Focus, 5*(1), 36-46.

Ellis, E. S. (1997). Watering up the curriculum for adolescents with learning disabilities: Goals of the knowledge dimension. *Remedial and Special Education, 18*(6), 326-346.

Ellis, E. S., Deshler, D., Lenz, B. K., Schumaker, J. B., & Clark, F. L. (1991). An instructional model for teaching learning strategies. *Focus on Exceptional Children, 23*(6), 1-24.

Ellis, E. S., Deshler, D. D., & Schumaker, J. B. (1989). Teaching adolescents with learning disabilities to generate and use task-specific strategies. *Journal of Learning Disabilities, 22*(2) 108-119.

Erickson, F. (1986). Qualitative methods in research on teaching. In M. C. Wittrock (Ed.), *Handbook of research on teaching*. New York: MacMillan.

Ferguson, P. M., & Ferguson, D. L. (1995). The interpretivist view of special education and disability: The value of telling stories. In T. M. Skrtic (Ed.), *Disability and democracy: Reconstructing (special) education for postmodernity* (pp. 104-121). New York: Teachers College Press.

Ferretti, R. P., & Okolo, C. M. (1996). Authenticity in learning: Multimedia design projects in the social studies for students with disabilities. *Journal of Learning Disabilities, 29*(5), 450-460.

Fitch, F. (2003). Inclusion, exclusion, and ideology: Special education students' changing sense of self. *The Urban Review, 35*(3), 233-252.

Flavell, J. H. (1982). On cognitive development. *Child Development, 5*(3), 1-10.

277

Fletcher, J. D. (1989). The effectiveness and cost of interactive videodisc instruction. *Machine-Mediated Learning, 3*(4), 361-385.

Fletcher, J. D. (1990). *Effectiveness and cost of interactive videodisc instruction in defense training and education. IDA Report R2372.* U.S.: Virginia.

Fletcher, J. M., Morris, R. D., & Lyon, G. R. (2003). Classification and definition of learning disabilities: An integrative perspective. In H. L. Swanson, K. R. Harris & S. Graham (Eds.), *Handbook of learning disabilities* (pp. 31-56). New York: Guilford Press.

Florida Department of Education: Special programs, Chapter 6A-6.03018 (2005).

Forness, S. R., Kavale, K. A., Blum, I. M., & Lloyd, J. W. (1997). Mega-analysis of meta-analysis: What works in special education and related services. *Teaching Exceptional Children, 29*(6), 4-9.

Frank, A. (1995). *Anne frank: The diary of a young girl.* New York: Doubleday.

Friel, S. N., & Carboni, L. W. (2000). Using video-based pedagogy in an elementary mathematics methods course. *School Science & Mathematics, 100*(3), 118-127.

Friend, M., & Reising, M. (1993). Co-teaching: An overview of the past, a glimpse at the present, and considerations for the future. *Preventing School Failure, 37*(4), 6-10.

Fuchs, D., & Fuchs, L. S. (1994). Inclusive schools movement and the radicalization of special education reform. *Exceptional Children, 60,* 294-309.

Fuchs, D., & Fuchs, L. S. (1995). What's 'special' about special education? *Phi Delta Kappan, 76*(7), 522-530.

Fuchs, D., Fuchs, L. S., Mathes, P., & Simmons, D. C. (1997). Peer-assisted learning strategies: Making classrooms more responsive to diversity. *American Educational Research Journal, 34*(1), 174-206.

Fuchs, D., Mock, D., Morgan, P. L., & Young, C. L. (2003). Responsiveness-to-intervention: Definitions, evidence, and implications for the learning disabilities construct. *Learning Disabilities Research & Practice, 18*(3), 157-171.

Gable, R. A., & Hendrickson, J. M. (2000). Teaching all the students: A mandate for educators. In J. S. Choate (Ed.), *Successful inclusive teaching: Proven ways to detect and correct special needs.* (pp. 2-17). Boston: Allyn and Bacon.

Gardner, H. (1999). *Intelligence reframed: Multiple intelligences for the 21st century.* New York: Basic Books.

Gartner, A., & Lipsky, D. K. (2004). Beyond special education: Toward a quality system for all students. In S. Danforth & S. D. Taff (Eds.), *Crucial readings in special education* (pp. 190-210). Upper Saddle River, NJ: Pearson.

Gersten, R. (1998). Recent advances in instructional research for students with learning disabilities: An overview. *Learning Disabilities Research and Practice, 13*(3), 162-170.

Gersten, R. (2001). Sorting out the roles of research in the improvement of practice. *Learning Disabilities Research & Practice, 16*(1), 45-50.

Gersten, R., & Dimino, J. (2001). The realities of translating research into classroom practice. *Learning Disabilities Research & Practice, 16*(2), 120-130.

Gersten, R., Fuchs, L. S., Williams, J. P., & Baker, S. (2001). Teaching reading comprehension strategies to students with learning disabilities: A review of research. *Review of Educational Research, 71*, 279-320.

Gersten, R., & Smith-Jones, J. (2001). Reflections on the research to practice gap. *Teacher Education and Special Education, 24*(4), 356-361.

Gillies, R. M., & Ashman, A. F. (2000). The effects of cooperative learning on students with learning difficulties in the lower elementary school. *Journal of Special Education, 34*(1), 19-27.

Glaser, C. W., Rieth, H. J., Kinzer, C. K., Colburn, L. K., & Peter, J. (1999). A description of the impact of multimedia anchored instruction on classroom interactions. *Journal of Special Education Technology, 14*(2), 27-43.

Glaser, C. W., Rieth, H. J., Kinzer, C. K., Prestidge, L. K., & Peter, J. (1999). A description of the impact of multimedia anchored instruction on classroom interactions. *Journal of Special Education Technology, 14*(2), 27-53.

Good, T. L., & Brophy, J. (1987). *Looking in classrooms.* (4th ed.). New York: Harper & Row.

Goor, M. B., & Schwenn, J. O. (1993). Accommodating diversity and disability with cooperative learning. *Intervention in School and Clinic, 29*(1), 6-16.

Gould, S. J. (1996). *The mismeasure of man.* New York: W. W. Norton & Company.

Greenwood, C. R., & Abbott, M. (2001). The research to practice gap in special education. *Teacher Education and Special Education, 24*(4), 276-289.

Greenwood, C. R., & Delquadri, J. (1995). Classwide peer tutoring and the prevention of school failure. *Preventing School Failure, 39*(4), 21-25.

Greenwood, C. R., & Terry, B. Arreaga-Mayer, C, Finney, Rebecca (1992). The classwide peer tutoring program: Implementation factors moderating students' achievement. *Journal of Applied Behavior Analysis, 25*(1), 101-116.

Greenwood, C. R., & Terry, B. (1993). Achievement, placement, and services: Middle school benefits of classwide peer tutoring used at the elementary school. *School Psychology Review, 22*(3), 20-39.

Hallahan, D. P., & Mock, D. (2003). A brief history of the field of learning disabilities. In H. L. Swanson, K. R. Harris & S. Graham (Eds.), *Handbook of learning disabilities* (pp. 16-29). New York: Guilford Press.

Hardman, M. L., & Nagle, K. (2004). Public policy: From access to accountability in special education. In A. M. Sorrells, H. J. Rieth & P. T. Sindelar (Eds.), *Critical issues in special education: Access, diversity, and accountability.* (pp. 277-292). Boston: Pearson.

Harwood, W. S., & McMahon, M. M. (1997). Effects of integrated video media on student achievement and attitudes in high school chemistry. *Journal of Research in Science Teaching, 34*(6), 617-631.

Hehir, T. (2002). Eliminating ableism in education. *Harvard Education Review, 72*(1), 1-32.

Heward, W. L. (2003). Ten faulty notions about teaching and learning that hinder the effectiveness of special education. *The Journal of Special Education, 36*(4), 186-205.

Horizon Research, Inc. (2000). Local systemic change observation protocol.

Horner, R. H., Carr, E. G., Halle, J., McGee, G., Odom, S., & Wolery, M. (2005). The use of single-subject research to identify evidence-based practice in special education. *Exceptional Children, 71*(2), 165-179.

Hughes, J. E., Packard, B. W., & Pearson, P. D. (2000). The role of hypermedia cases on preservice teachers' views of reading instruction. *Action in Teacher Education, 22*(2), 24-38.

Individuals with Disabilities Education Act Amendments of 1997, PL 105-17, 105th Congress, 1st Session. (1997).

Individuals with Disabilities Education Improvement Act of 2004, P.L. 108-446, 108th Congress (2004).

Jenkins, J. R., Antil, L. R., Wayne, S. K., & Vadasy, P. F. (2003). How cooperative learning works for special education and remedial students. *Exceptional Children, 69*(3), 279-292.

Jenkins, J. R., Jewell, M., Leicester, N., Jenkins, L., & Troutner, N. M. (1994). Accommodations for individual differences without classroom ability groups: An experiment in school restructuring. *Exceptional Children, 60*, 344-358.

Jenkins, J. R., & O'Connor, R. E. (2002). Early identification and intervention for young children with reading/learning disabilities. In R. Bradley, L. Danielson & D. P. Hallahan (Eds.), *Identification of learning disabilities: Research to practice.* (pp. 99-149). Mahwah, NJ: Erlbaum.

Jenkins, J. R., & O'Connor, R. E. (2003). Cooperative learning for students with learning disabilities: Evidence from experiments, observations, and intervew. In H. L. Swanson, K. R. Harris & S. Graham (Eds.), *Handbook of learning disabilities* (pp. 417-430). New York: Guildford Press.

Jobe, R., & Dayton-Sakari, M. (2002). *Info-kids: How to use nonfiction to turn reluctant readers into enthusiastic learners*. Markham, Ontario: Pembroke.

Johnson, D. W., & Johnson, R. T. (1975). *Learning together and alone: Cooperation, competition, and individualization.* Englewood Cliffs, NJ: Prentice-Hall.

Johnson, D. W., & Johnson, R. T. (1982). The effects of cooperative and individualistic instruction on handicapped and nonhandicapped students. *Journal of Social Psychology, 118*(2), 257-268.

Johnson, D. W., & Johnson, R. T. (1984). Building acceptance of differences between handicapped and nonhandicapped students: The effects of cooperative and individualistic instruction. *Journal of Social Psychology, 122*, 257-267.

Johnson, D. W., & Johnson, R. T. (1992). Gifted students illustrate what isn't cooperative learning. *Educational Leadership*, *50*(6), 60-61.

Johnson, D. W., & Johnson, R. T. (1999). *Learning together and alone: Cooperative, competitive, and individualistic learning* (5th ed.). Boston: Allyn and Bacon.

Johnson, D. W., Johnson, R. T., & Stanne, M. B. (2000). *Cooperative learning methods: A meta-analysis*. Retrieved August 1, 2005, from http://www.co-operation.org/pages/cl-methods.html

Johnson, R. T., & Johnson, D. W. (1994). An overview of cooperative learning. In J. Thousand, A. Villa & A. Nevin (Eds.), *Creativity and collaborative learning*. Baltimore: Brookes Press.

Johnson, R. T., Johnson, D. W., Scott, L. E., & Ramolae, R. A. (1985). Effects of single-sex and mixed-sex cooperative interaction on science achievement and attitudes and cross-handicap and cross-sex relationships. *Journal of Research in Science Teaching, 22*, 207-220.

Kagan, S. (1992). *Cooperative learning* (7th ed.). San Juan Capistrano, CA: Resources for Teachers.

Katsiyannis, A., Yell, M. L., & Bradley, R. (2001). Reflections on the 25th anniversary of the individuals with disabilities education act. *Remedial & Special Education, 22*, 324-339.

Kauffman, J. M., & Hallahan, D. P. (Eds.). (1995). *The illusion of full inclusion: A comprehensive critique of a current special education bandwagon.* Austin, Texas: Pro-Ed.

Kavale, K., & Forness, S. R. (2003). Learning disability as a discipline. In H. L. Swanson, K. R. Harris & S. Graham (Eds.), *Handbook of learning disabilities* (pp. 76-91). New York: Guilford Press.

Kiel, D. C. (1995). The radical humanist view of special education and disability: Consciousness, freedom, and ideology. In T. M. Skrtic (Ed.), *Disability and democracy: Reconstructing (special) education for postmodernity* (pp. 135-149). New York: Teachers College Press.

Kinder, D., & Carnine, D. (1991). Direct instruction: What it is and what it is becoming. *Journal of Behavioral Education, 1*(2), 193-213.

King-Sears, M. E. (1997). Best academic practices for inclusive classrooms. *Focus on Exceptional Children, 29*(7), 1-22.

Kinzer, C. K., Gabella, M. S., & Rieth, H. J. (1994). An argument for using multimedia and anchored instruction to facilitate mildly disabled students' learning of literacy and social studies. *Technology and Disability, 3*, 117-128.

Kinzer, C. K., & Risko, V. J. (1998). Multimedia and enhanced learning: Transforming preservice education. In D. Reinking, M. C. McKenna, L. D. Labbo & R. D. Kieffer (Eds.), *Handbook of literacy and technology: Transformations in a post-typographic world.* Mahwah, New Jersey: Lawrence Erlbaum Associates.

Klingner, J., & Vaughn, S. (1996a). Reciprocal teaching of reading comprehension strategies for students with learning disabilities who use english as a second language. *The Elementary School Journal, 96*, 275-293.

Klingner, J. K., & Vaughn, S. (1996b). Reciprocal teaching of reading comprehension strategies for students with learning disabilities who use english as a second language. *Elementary School Journal, 96*(3), 275-293.

285

Klingner, J. K., Vaughn, S., & Schumm, J. S. (1998). Collaborative strategic reading during social studies in heterogeneous fourth-grade classrooms. *Elementary School Journal, 99*(1), 3-22.

Knight, J. (2002). Crossing boundaries: What constructivists can teach intensive-explicit instructors and vice versa. *Focus on Exceptional Children, 35*(4), 1-16.

Kuhn, T. S. (1970). *The structure of scientific revolutions.* (2nd ed.). Chicago: University of Chicago Press.

Langone, J. (1998). The effects of technology-enhanced anchored instruction and situated learning on preservice teachers in a special education methods course: An exploratory study. *Journal of Developmental & Physical Disabilities, 10*(1), 35-54.

Langone, J., Malone, D. M., & Clinton, G. N. (1999). The effects of technology-enhanced anchored instruction on the knowledge of preservice special educators. *Teacher Education and Special Education, 22*(2), 85-96.

Langone, J., Malone, D. M., Stecker, P. M., & Greene, E. (1998). A comparison of traditional classroom instruction and anchored instruction with university general education students. *Journal of Special Education Technology, 13*(4), 99-109.

Lenz, B. K., Bulgren, J. A., Kissam, B. R., & Taymans, J. (2004). Smarter planning for academic diversity. In B. K. Lenz, D. Deshler & B. R. Kissam (Eds.), *Teaching content to all: Evidence-based practices in middle and secondary schools.* Boston: Pearson.

286

Lenz, B. K., & Deshler, D. (2004). Teaching and academic diversity. In B. K. Lenz, D. Deshler & B. R. Kissam (Eds.), *Teaching content to all: Evidence-based inclusive practices in middle and high schools*. Boston: Pearson.

Lenz, B. K., Deshler, D. D., & Kissam, B. R. (2004). *Teaching content to all: Evidence-based inclusive practices in middle and secondary schools*. Boston: Pearson Education.

Lenz, B. K., & Harris, M. (2005). *Teaching content to all: Promoting content mastery in subject area courses*. Paper presented at the Annual Conference of the Council for Exceptional Children, Baltimore, MD.

Lerner, J. (1989). Educational intervention in learning disabilities. *Journal of the American Academy of Child and Adolescent Psychiatry, 28*, 326-331.

Levine, M. D. (2002). *A mind at a time*. New York: Simon and Schuster.

Lieberman, L. (1996). Preserving special education... For those who need it. In W. Stainback & S. Stainback (Eds.), *Controversial issues confronting special education: Divergent perspectives*. (pp. 16-27). Boston: Allyn and Bacon.

Lipsky, D. K., & Gartner, A. (1987). Capable of achievement and worthy of respect: Education for the handicapped as if they were full-fledged human beings. *Exceptional Children, 54*, 69-74.

Lipsky, D. K., & Gartner, A. (1996). Inclusive education and school restructuring. In W. Stainback & S. Stainback (Eds.), *Controversial issues confronting special education: Divergent perspectives*. (pp. 3-15). Boston, MA: Allyn & Bacon.

Lloyd, J. W., Forness, S. R., & Kavale, K. A. (1998). Some methods are more effective than others. *Intervention in School and Clinic, 33*(4), 195-200.

Loewen, J. W. (1995). *Lies my teacher told me: Everything your American history textbook got wrong.* New York: Simon & Schuster.

Losen, D., & Orfield, G. (2002). Introduction: Racial inequity in special education. In D. Losen & G. Orfield (Eds.), *Racial inequity in special education.* Cambridge, MA: Harvard Education Publishing Group.

Madden, N. A., & Slavin, R. E. (1983). Effects of cooperative learning on the social acceptance of mainstreamed academically handicapped students. *Journal of Special Education, 17*, 171-182.

Maheady, L. (1988). Peer-mediated instruction: A promising approach to meeting the diverse needs of LD adolescents. *Learning Disability Quarterly, 11*(2), 108-113.

Maheady, L., Harper, G. F., & Mallette, B. (2001). Peer-mediated instruction and interventions and students with mild disabilities. *Remedial and Special Education, 22*(1), 4-14.

Maheady, L., Mallette, B., Harper, G. F., & Sacca, K. (1991). Heads together: A peer-mediated option for improving the academic achievement of heterogeneous learning groups. *Remedial & Special Education, 12*(2), 25-33.

Malmgren, K. W. (1998). Cooperative learning as an academic intervention for students with mild disabilities. *Focus on Exceptional Children, 31*, 1-8.

Malouf, D. B., Wizer, D. R., Pilato, V. H., & Grogan, M. M. (1990). Computer-assisted instruction with small groups of mildly handicapped children. *Journal of Special Education, 24*(1), 51-68.

Manning, M., & Manning, G. (1995). Literature in the content areas. *Teaching PreK-8, 26*(3), 110-111.

McLellan, H. (1996). Situated learning: Multiple perspectives. In H. McLellan (Ed.), *Situated learning perspectives*. Englewood Cliffs, New Jersey: Educational Technology Publications.

McLeskey, J., Hoppey, D., Williamson, P., & Rentz, T. (2004). Is inclusion an illusion? An examination of national and state trends toward the education of students with learning disabilities in general education classrooms. *Learning Disabilities Research and Practice, 19*(2), 109-115.

McLeskey, J., Tyler, N. C., & Flippin, S. S. (2004). The supply of and demand for special education teachers: A review of research regarding the chronic shortage of special education teachers. *The Journal of Special Education, 38*(1), 5-21.

McMaster, K. N., & Fuchs, D. (2002). Effects of cooperative learning on the academic achievement of students with learning disabilities: An update of tateyama-sniezek's review. *Learning Disabilities Research and Practice, 17*(2), 107-117.

McMaster, K. N., & Fuchs, D. (2005). *A focus on cooperative learning for students with disabilities.* (No. 11): Division of Learning Disabilities and Division of Research of the Council for Exceptional Children.

McNeil, B. J., & Nelson, K. R. (1991). Meta-analysis of interactive video instruction: A 10 year review of achievement effects. *Journal of Computer-Based Instruction, 18*(1), 1-6.

Mellard, D. F., Deshler, D. D., & Barth, A. (2004). LD identification: It's not simply a matter of building a better mousetrap. *Learning Disability Quarterly, 27*(4), 229-242.

Merrell, K. W., & Shinn, M. R. (1990). Critical variables in the learning disabilities identification process. *School Psychology Review, 19*(1), 74-82.

Mock, D., & Kauffman, J. M. (2002). Preparing teachers for full inclusion: Is it possible? *Teacher Educator, 37*(3), 202-215.

Moore, J. L., Lin, X., Schwartz, D., Petrosino, A., Hickey, D. T., Campbell, J. O., et al. (1996). The relationship between situated cognition and anchored instruction: A response to Tripp. In H. McLellan (Ed.), *Situated learning perspectives*. Englewood Cliffs, New Jersey: Educational Technology Publications.

Murawski, W. W., & Swanson, H. L. (2001). A meta-analysis of co-teaching research: Where are the data? *Remedial & Special Education, 22*(5), 258-267.

O'Connor, R. E., & Jenkins, J. R. (1993, April). *Cooperative learning as an inclusion strategy: The experience of children with disabilities*. Paper presented at the 74th Annual Meeting of the American Educational Research Association, Atlanta, Georgia.

O'Connor, R. E., & Jenkins, J. R. (1996). Cooperative learning as an inclusion strategy: A closer look. *Exceptionality, 6*, 29-51.

O'Melia, M. C., & Rosenberg, M. S. (1994). Effects of cooperative homework teams on the acquisition of mathematics skills by secondary students with mild disabilities. *Exceptional Children, 60*(6), 538-548.

Odom, S. L., Brantlinger, E., Gersten, R., Horner, R. H., Thompson, B., & Harris, K. R. (2005). Research in special education: Scientific methods and evidence-based practices. *Exceptional Children, 71*(2), 137-148.

Okolo, C., Ferretti, R. P., & MacArthur, C. D. (2002). Westward expansion and the-year old mind: Teaching for historical understanding in a diverse classroom. In J. E. Brophy (Ed.), *Advances in research on teaching. Social constructivist teaching. Affordance and constraints.* (Vol. 9, pp. 120-136). New York: JAI Press.

Pallant, J. (2004). Multivariate analysis of variance. In J. Pallant (Ed.), *SPSS survival manual* (2nd ed., pp. 247-262): Open University Press.

Passe, J., & Beattie, J. (1994). Social studies instruction for students with mild disabilities: A progress report. *Remedial and Special Education, 15*(4), 227-233.

Patton, J. M. (1998). The disproportionate representation of african-americans in special education: Looking behind the curtain for understanding and solutions. *Journal of Special Education, 32*, 25-31.

Pearl, C. E. (2004). *Implementation of co-teaching model practices and their impact on outcomes for students with learning disabilities in middle school mathematics classrooms.* Unpublished Dissertation, University of Central Florida, Orlando.

Peterson, K. M., & Shinn, M. R. (2002). Severe discrepancy models: Which best explains

    school identification practices for learning disabilities? *School Psychology*

    Review, 31(4), 459-476.

Piaget, J. (1954). *The construction of reality.* New York: Basic Books.

Pisha, B., & Coyne, P. (2001). Smart from the start: The promise of universal design for

    learning. *Remedial and Special Education, 22*(4), 197-203.

Pugh, K. R., Mencl, W. E., Jenner, A. R., Lee, J. R., Katz, L., Frost, S. J., et al. (2001).

    Neuroimaging studies of reading development and reading disability. *Learning*

    Disabilities Research & Practice, 16(4), 240-249.

Rea, P. J., McLaughlin, V. L., & Walther-Thomas, C. (2002). Outcomes for students with

    learning disabilities in inclusive and pullout programs. *Exceptional Children,*

    68(2), 203-223.

Rieth, H. J., Bryant, D. P., Kinzer, C. K., Colburn, L. K., Hur, S.-J., Hartman, P., et al.

    (2003). An analysis of the impact of anchored instruction on teaching and

    learning activities in two ninth-grade language arts classes. *Remedial and Special*

    education, 24(3), 173-184.

Riley, N. J. (1989). Piagetian cognitive functioning in students with learning disabilities.

    Journal of Learning Disabilities, 22(7), 444-451.

Rosenshine, B., & Meister, C. (1992). The use of scaffolds for teaching higher-level

    cognitive strategies. *Educational Leadership, 49*(7), 26-33.

Salinger, T. (2003). Helping older, struggling readers. *Preventing School Failure, 47*(2),

    79-85.

Sapon-Shevin, M., Ayres, B. J., & Duncan, J. (1994). Cooperative learning and inclusion. In J. Thousand, A. Villa & A. Nevin (Eds.), *Creativity and collaborative learning.* Baltimore: Brookes Press.

Schlosser, E. (2001). *Fast food nation: The dark side of the all american meal.* New York: Houghton Mifflin.

Scruggs, T. E., & Mastropieri, M. A. (2002). On babies and bathwater: Addressing the problems of identification of learning disabilities. *Learning Disability Quarterly, 25*(3), 155.

Shavelson, R. J. (1996). *Statistical reasoning for the behavioral sciences.* (3rd ed.). Boston: Allyn and Bacon.

Shaywitz, S. E., & Shaywitz, B. A. (2004). Reading disability and the brain. *Educational Leadership, 61*(6), 6-11.

Sherin, M. G. (2000). Viewing teaching on videotape. *Educational Leadership, 57*(8), 36-38.

Shyu, H.-Y. C. (2000). Using video-based anchored instruction to enhance learning: Taiwan's experience. *British Journal of Educational Technology, 31*(1), 57-69.

Skrtic, T. M. (1995a). Deconstructing/reconstructing public education: Social reconstruction in the postmodern era. In T. M. Skrtic (Ed.), *Disability and democracy: Reconstructing (special) education for postmodernity* (pp. 233-273). New York: Teachers College Press.

Skrtic, T. M. (1995b). The functionalist view of special education and disability:

    Deconstructing the conventional knowledge tradition. In T. M. Skrtic (Ed.),

    Disability and democracy: Reconstructing (special) education for postmodernity

    (pp. 65-103). New York: Teachers College Press.

Skrtic, T. M. (1995c). Power/knowledge and pragmatism: A postmodern view of the

    professions. In T. M. Skrtic (Ed.), *Disability and democracy: Reconstructing*

    (special) education for postmodernity (pp. 25-62). New York: Teachers College

    Press.

Skrtic, T. M. (1995d). Special education and student disability as organizational

    pathologies: Toward a metatheory of school organization and change. In T. M.

    Skrtic (Ed.), *Disability and democracy: Reconstructing (special) education for*

    postmodernity (pp. 190-232). New York: Teachers College Press.

Skrtic, T. M. (1995e). Theory/practice and objectivism: The modern view of the

    professions. In T. M. Skrtic (Ed.), *Disability and democracy: Reconstructing*

    (special) education for postmodernity (pp. 3-24). New York: Teachers College

    Press.

Skrtic, T. M. (1999). Learning disabilities as organizational pathologies. In R. J.

    Sternberg & L. Spear-Swerling (Eds.), *Perspectives on learning disabilities:*

    Biological, cognitive, contextual. (pp. 193-226). Boulder, CO: Westview Press.

Skrtic, T. M. (2004). The crisis in special education knowledge: A perspective on

    perspective. In S. Danforth & S. D. Taff (Eds.), *Crucial readings in special*

    education (pp. 80-95). Upper Saddle River, New Jersey: Pearson.

Skrtic, T. M. (2005). A political economy of learning disabilities. *Learning Disability Quarterly, 28*, 149-155.

Slavin, R. E. (1978). Student teams and achievement divisions. *Journal of Research and Development in Education, 12*, 39-49.

Slavin, R. E. (1983). When does cooperative learning increase student achievement? *Psychological Bulletin, 94*, 429-445.

Slavin, R. E., Leavey, M. B., & Madden, N. A. (1984). Combining cooperative learning and individualized instruction: Effects on student mathematics and achievement, attitudes, and behaviors. *The Elementary School Journal, 84*, 409-422.

Slavin, R. E., Madden, N. A., Dolan, L. J., & Wasik, B. A. (1992). *Success for all: A relentless approach to prevention and early intervention in elementary schools.* Arlington, VA: Educational Research Service.

Slavin, R. E., Madden, N. A., & Leavey, M. B. (1984a). Effects of cooperative learning and individualized instruction on mainstreamed students. *Exceptional Children, 50*, 434-443.

Slavin, R. E., Madden, N. A., & Leavey, M. B. (1984b). Effects of team assisted individualization on the mathematics achievement of academically handicapped and nonhandicapped students. *Journal of Educational Psychology, 76*, 813-819.

Sleeter, C. E. (1995). Radical structuralist perspectives on the creation and use of learning disabilities. In T. M. Skrtic (Ed.), *Disability and democracy: Reconstructing (special) education for postmodernity* (pp. 153-165). New York: Teachers College Press.

Smith, K., Johnson, D. W., & Johnson, R. (1982). Effects of cooperative and individualistic instruction on the achievement of handicapped, regular, and gifted students. *Journal of Social Psychology, 116*(2), 277-283.

Spear-Swerling, L., & Sternberg, R. J. (1996). *Off-track: When poor readers become "learning disabled"*. Boulder, CO: Westview Press.

Spear-Swerling, L., & Sternberg, R. J. (1998). Curing our "epidemic" of learning disabilities. *Phi Delta Kappan, 79*(5), 397-401.

Sprenger, M. (2005). Inside amy's brain. *Educational Leadership*, *62*(7), 28-32.

Sprick, R., & Deshler, D. (2005). *Can secondary schools reform to meet the needs of all students?* Paper presented at the Annual Conference of the Council for Exceptional Children, Baltimore, MD.

Stainback, S., & Stainback, W. (1996). Schools as inclusive communities. In W. Stainback & S. Stainback (Eds.), *Controversial issues confronting special education: Divergent perspectives.* Boston: Allyn & Bacon.

Sternberg, R. J., & Grigorenko, E. L. (2002). Difference scores in the identification of children with learning disabilities: It's time to use a different method. *Journal of School Psychology, 40*(1), 65-83.

Stevens, R. J., Madden, N. A., Slavin, R. E., & Famish, A. (1987). Cooperative integrated reading and composition: Two field experiments. *Reading Research Quarterly, 22*, 433-454.

Stevens, R. J., & Slavin, R. E. (1991). When cooperative learning improves the achievement of students with mild disabilities: A response to Tateyama-Sniezek. *Exceptional Children, 57*(3), 276-280.

Stevens, R. J., & Slavin, R. E. (1995a). The cooperative elementary school: Effects on students' achievement, attitudes, and social relations. *American Educational Research Journal, 32*, 321-351.

Stevens, R. J., & Slavin, R. E. (1995b). Effects of a cooperative learning approach in reading and writing on academically handicapped and nonhandicapped students. *The Elementary School Journal, 95*, 241-262.

Stien, D., & Beed, P. L. (2004). Bridging the gap between fiction and nonfiction in the literature circle setting. *Reading Teacher, 57*(6), 510-518.

Swanson, H. L. (2000). Issues facing the field of learning disabilities. *Learning Disability Quarterly, 23*, 37-50.

Swanson, H. L., & Saez, L. (2003). Memory difficulties in children and adults with learning disabilities. In H. L. Swanson, K. R. Harris & S. Graham (Eds.), *Handbook of learning disabilities* (pp. 182-194). New York: Guilford Press.

Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics.* (4th ed.). New York: HarperCollins.

Tateyama-Sniezek, K. M. (1990). Cooperative learning: Does it improve the academic achievement of students with handicaps? *Exceptional Children, 56*(5), 426-437.

Taub, G., McGrew, K. S., & Keith, T. Z. (2005). *Improvements in interval time tracking and effects on academic achievement.* Unpublished manuscript.

Tomlinson, C. A., & Doubet, K. (2005). Reach them to teach them. *Educational Leadership*, 8-15.

Tripp, S. D. (1996). Theories, traditions, and situated learning. In H. McLellan (Ed.), *Situated learning perspectives.* Englewood Cliffs, New Jersey: Educational Technology Publications.

U.S. Office of Special Education Programs. (2004). *Individuals with disabilities education act (IDEA) data.* retrieved from http://www.ideadata.org/PartBdata.asp

Utay, C., & Utay, J. (1997). Peer-assisted learning: The effects of cooperative learning and cross-age peer tutoring with word processing on writing skills of students with learning disabilities. *Journal of Computing in Childhood Education, 8*(2/3), 165-185.

Walther-Thomas, C. (1997). Co-teaching experiences: The benefits and problems that teachers and principals report over time. *Journal of Learning Disabilities, 30*, 395-407.

Walther-Thomas, C., Korinek, L., McLaughlin, V., & Williams, B. (2000). *Collaboration for inclusive education*. Boston: Allyn & Bacon.

Wang, M., & Baker, E. (1986). Mainstreaming programs: Design features and effects. *Journal of Special Education, 19*, 503-521.

Warner, T. D., Dede, D. E., Garvan, C. W., & Conway, T. W. (2002). One size still does not fit all in specific learning disability assessment across ethnic groups. *Journal of Learning Disabilities, 35*(6), 500-508.

Wetzel, C. D., Radtke, P. H., & Stern, H. W. (1994). *Instructional effectiveness of video media.* Hillsdale, New Jersey: Lawrence Erlbaum Associates.

Wideen, M., Mayer-Smith, J., & Moon, B. (1998). A critical analysis of the research on learning to teach: Making the case for an ecological perspective on inquiry. *Review of Educational Research, 68*(2), 130-178.

Wong, B. Y. L., & Butler, D. L. (1996). Teaching low achievers and students with learning disabilities to plan, write, and revise opinion on essays. *Journal of Learning Disabilities, 29*(2), 197-212.

Wood, K. D., Algozzine, B., & Avett, S. (1993). Promoting cooperative learning experiences for students with reading, writing, and learning disabilities. *Reading & Writing Quarterly, 9*, 369-376.

Xin, F. (1996). *The effects of computer-assisted cooperative learning in mathematics in integrated classrooms for students with and without disabilities*. Glassboro, NJ: Rowan College of New Jersey. (ERIC Document Reproduction Service No. ED 412 696).

Xin, F., & Glaser, C. W. (1996). Multimedia reading using anchored instruction and video technology in vocabulary lessons. *Teaching Exceptional Children, 29*(2), 45-49.

Xin, J. F. (1999). Computer-assisted cooperative learning in integrated classrooms for students with and without disabilities. *Information Technology in Childhood Education, 1*(1), 1-21.

Xin, J. F., & Rieth, H. (2001). Video-assisted vocabulary instruction for elementary school students with learning disabilities. *Information Technology in Childhood Education Annual.* 87-103.

Yell, M. L., Drasgow, E., Bradley, R., & Justesen, T. (2004). Contemporary legal issues in special education. In A. M. Sorrells, H. J. Rieth & P. T. Sindelar (Eds.), *Critical issues in special education: Access, diversity, and accountability.* (pp. 16-37). Boston: Pearson.

Yell, M. L., & Shriner, J. G. (1997). The IDEA amendments of 1997: Implications for special and general education teachers, administrators, and teacher trainors. *Focus on Exceptional Children, 30*(1), 1-19.

Zigmond, N. (2003). Searching for the most effective service delivery model for students with learning disabilities. In H. L. Swanson, K. R. Harris & S. Graham (Eds.), *The handbook of learning disabilities* (pp. 110-122). New York: Guilford Press.

Zigmond, N., & Baker, J. (1990). Mainstream experiences for learning disabled students (Project Meld): Preliminary report. *Exceptional Children, 57*(2), 176-185.

Zigmond, N., & Magiera, K. (2001). *A focus on co-teaching: Use caution.* (No. 6): Division of Learning Disabilities and Division of Research of the Council of Exceptional Children.