LESSON STUDY: IMPLICATIONS OF COLLABORATION BETWEEN EDUCATION SPECIALISTS AND GENERAL EDUCATION TEACHERS

by

Lanore Diane Bergenske

A Thesis

Presented to
The Faculty of Humboldt State University

In Partial Fulfillment
of the Requirements for the Degree

Masters of Arts
In Education

June, 2008
LESSON STUDY: IMPLICATIONS OF COLLABORATION BETWEEN EDUCATION SPECIALISTS AND GENERAL EDUCATION TEACHERS

By

Lanore Diane Bergenske

Approved by the Master’s Thesis Committee:

David Ellerd, Committee Chair

Jeffrey White, Committee Member

Eric Van Duzer, Graduate Coordinator

Chris Hopper, Interim Dean, Research & Graduate Studies
ABSTRACT

LESSON STUDY: IMPLICATIONS FOR COLLABORATIVELY UNITING EDUCATION SPECIALISTS AND GENERAL EDUCATION TEACHERS

Lanore Diane Bergenske

The standards-based movement and the movement toward inclusion for students with learning disabilities have created a need for teachers to reform their teaching practices. Lesson Study, inspired from the Japanese Lesson Study model, is a professional development process that enables general education teachers to systematically examine their practice in order to become more effective teachers.

The lack of research exploring the inclusion of an education specialist collaboratively participating on Lesson Study teams forms the basis of this study.

First, a pilot study was conducted to test the language and substance of the research questions. The pilot study consisted of interviews and observations. Data from the pilot study determined the need for additional questions. Thus, follow up questions were drafted.

Following approval for additional research, four Lesson Study teams were contacted. A multi-case study was conducted using qualitative research methods. Three education specialists and three general education teachers were selected among the four Lesson Study cohorts located in three different counties in northern California.
Survey questions and subsequent follow up questions suggest a positive change in collegiality and teaching practice among general education teachers and education specialists, which may have a significant impact on current No Child Left Behind laws.

Not with standing, long term effects of this professional development model and its impact on colleagues and student learning within the individual school sites and districts have yet to be studied.
ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to the Lesson Study team participants that so graciously allowed me to conduct my research. Without your support and willingness to participate, this study would have never transpired. Thank you for your time and honesty.

I would like to thank the Humboldt State University Graduate Education faculty for allowing me the opportunity to discover and explore the field of qualitative research.

I would like to recognize and thank the following two individuals for their assistance in the creation of this thesis: David Ellerd, committee chair, for providing guidance and support and Jeffrey White, committee member, for introducing and sharing his passion for Lesson Study with me.

I would like to express thankfulness to my loving family: Ron Bergenske, my husband and best friend, for recognizing and acknowledging the potential that has always been in me; my loving daughters, Amy and Lisa, for being truly inspirational. I want to say how proud I am of all you have accomplished and how truly inspiring you both have always been to me.
DEDICATION

I dedicate this thesis to my beloved grandchildren: Braiden, Malia, Jace, and Jack. 

May you always find the strength and courage to pursue your dreams.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSTRACT</td>
<td>iii</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>v</td>
</tr>
<tr>
<td>DEDICATION</td>
<td>vi</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
<td>vii</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>ix</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>ix</td>
</tr>
<tr>
<td>CHAPTER ONE  INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>CHAPTER TWO  LITERATURE REVIEW</td>
<td>4</td>
</tr>
<tr>
<td>Introduction</td>
<td>4</td>
</tr>
<tr>
<td>A Comparative Analysis of Teaching Practices</td>
<td>5</td>
</tr>
<tr>
<td>New Ideas about Teaching</td>
<td>6</td>
</tr>
<tr>
<td>Overview of Special Education In America</td>
<td>12</td>
</tr>
<tr>
<td>Summary and Research Questions</td>
<td>22</td>
</tr>
<tr>
<td>CHAPTER THREE  METHODS</td>
<td>24</td>
</tr>
<tr>
<td>Setting and Participants</td>
<td>24</td>
</tr>
<tr>
<td>Procedures</td>
<td>27</td>
</tr>
<tr>
<td>CHAPTER FOUR  RESULTS</td>
<td>36</td>
</tr>
<tr>
<td>CHAPTER FIVE  DISCUSSION</td>
<td>47</td>
</tr>
<tr>
<td>CHAPTER SIX  CONCLUSION</td>
<td>55</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>57</td>
</tr>
<tr>
<td>APPENDIX A  LETTER OF INTRODUCTION</td>
<td>66</td>
</tr>
<tr>
<td>APPENDIX B  VOLUNTARY PARTICIPATION STATEMENT</td>
<td>67</td>
</tr>
</tbody>
</table>
LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Demographic Characteristics of Research Participants</td>
</tr>
<tr>
<td>2</td>
<td>Major Themes and Sub-Themes and their Codes</td>
</tr>
<tr>
<td>3</td>
<td>Themes – Survey &amp; Follow Up Questions</td>
</tr>
<tr>
<td>4</td>
<td>Collaboration Responses</td>
</tr>
</tbody>
</table>

LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Teachers’ Activities to Improve Instruction</td>
</tr>
</tbody>
</table>
CHAPTER ONE

INTRODUCTION

With the authorization of the Individuals With Disabilities Education Act (IDEA; Public Law 105-17), school districts now have the responsibility of ensuring that all students with disabilities have access to the general education curriculum (USDE, 2002). The authors of IDEA established major goals that emphasized that students with disabilities in public schools should reach higher levels of academic achievement. While students with disabilities are now welcomed into general education classrooms with open arms, it can be hard to find teachers who feel that they are adequately prepared to work with these students (McCabe, 2004; Ansell, 2004). Likewise, many education specialists, most commonly referred to as special education teachers, feel that general education teachers do not want to hear what they have to say (McCabe, 2004; Ansell, 2004).

The purpose of this qualitative research study was to determine how the inclusion of an education specialist in Lesson Study, a professional development approach, which originated in Japan and a group of general education teachers, affects individual group members’ perceptions, attitudes, and behaviors in the areas of teacher collaboration and classroom practices.

Chapter Two offers a synopsis of relevant literature comparing the teaching practices in the United States and Japan. The chapter includes an overview of the
professional development model, Lesson Study, and the implications for addressing the
standards-based reform movement and the movement toward inclusion for students with
learning disabilities, an overview of special education in America, current laws, federal
definition of learning disabled, educational settings, teaching practices, and the need for
collaboration among education specialists and general education teachers.

Chapter Three describes the qualitative research methods. First, a pilot study was
conducted at an elementary school site located in northern California. One education
specialist and one general education participated in this study. Participants were
interviewed and qualitative data were collected to test the language and substance of the
survey questions. It was determined, from the pilot study, that additional questions were
needed to fully address the research question. Consequently, follow up questions were
drafted and approved.

Next, additional Lesson Study teams were located and contacted via email.
Participants were electronically sent a letter of introduction, permission forms, and initial
survey questions. All participants responded electronically. Upon completion of each
team’s Lesson Study cycle, participants were electronically sent follow up questions and
permission forms. Once again, all participants responded electronically.

The setting for the study consisted of four different Lesson Study teams located at
four different school sites in three different northern California counties. Participants
included three education specialists and three general education teachers. Using a multi-
case studies research design, qualitative data were collected, via email. The data were
collected over a period of approximately sixteen months. Once all the data were collected, they were organized into themes.

Chapter Four attempts to answer the original research question: What is the implication of the inclusion of an education specialist on a Lesson Study team? Could Lesson Study be the bridge that collaboratively unites general education and education specialists into a community of practice? Findings from the semi-structured survey questions suggest that a positive collaborative teaching experience was gained as a result of subjects’ participation on Lesson Study teams. Data from the follow up questions also substantiated these findings. Limitations involving the study are addressed. These limitations include internal and external threats of generality across subjects and settings.

Chapter Five presents discussions and implications of the research study. The data from the major themes and sub-themes are discussed. Likewise, the implication of Lesson Study method to fulfill legislative mandates of IDEA and No Child Left Behind is explored.
CHAPTER TWO
LITERATURE REVIEW

Introduction

The history of education reform in the United States is filled with once promising approaches that were poorly thought out, superficially implemented, and consequently pronounced ineffective (Evers, 1998; Neel, 2006). Most reform efforts to improve education fail because “they leave out the one ingredient most likely to make a difference in student’s learning: the quality of teaching” (Stigler & Hiebert, 1999, p.2). No matter how educated or how experienced they are, teachers will only be as effective as the methods they are using (Stigler & Hiebert, 1999). Therefore, recruiting highly qualified teachers will not result in improved classroom practices (Feiler, Heritage, & Gallimore, 2000; Jacob & Lefgren, 2004; Stigler & Hiebert, 1999) nor will one day workshops or in-service trainings (Jacob & Lefgren, 2004). If we are to achieve lasting improvements in classroom teaching and learning, we must focus on methods to help teachers improve instruction from the inside out (Tyack & Cuban, 1995). Research suggests that the gap in methods for improving teaching lies, not in imposing higher standards, but in changing the cultural nature of teaching (Stigler & Hiebert, 1999).
A Comparative Analysis of Teaching Practices

The role of any teaching practice is to bring about learning (Stigler & Hiebert, 1999). However, past teaching practices, in the United States, have not improved because educators have not provided a way for teachers to improve the methods they use (Stigler & Hiebert, 1999). As a result, teachers have continued to teach in traditional ways despite many educational reform movements (Stigler & Hiebert, 1999). Data collected from the Third International Mathematics and Science Study (TIMSS) video revealed the following:

American mathematics teaching is extremely limited, focused for the most part on a very narrow band of procedural skills. Whether students are in rows working individually or sitting in groups, whether they have access to the latest technology or are working only with paper and pencil, they spend most of their time acquiring isolated skills through repeated practice. Japanese teaching is distinguished not so much by the competence of the teachers as by the images it provides of what it can look like to teach mathematics in a deeper way, teaching for conceptual understanding. Students in Japanese classrooms spend as much time solving challenging problems and discussing mathematical concepts as they do practicing skills. (Stigler & Hiebert, 1999, p. 11)

In light of this study, researchers were able to observe and analyze the educational factors that lead to different levels of academic performance in Japan and the United States. The video data helped researchers discover new ideas about teaching and student learning.

The TIMSS video tapes revealed that American teachers routinely gave students a list of concepts, definitions and strategies to use. In comparison, Japanese teachers encouraged students to use prior knowledge to solve problems (Hiebert, 2001). Likewise,
less than 1% percent of U.S students’ seatwork required them to invent and think to solve problems, whereas 44% of Japanese students’ time was spent on reflection (Hiebert, 2001).

In addition, teachers in the United States spend a great deal of time writing standards and goals and relatively little time studying and defining classroom lessons designed to bring about student improvement (Lewis, 2002a). In Japanese schools, teachers devote a great amount of time studying and defining classroom lessons which bring their national goals and standards into the classroom (Hiebert, 2001).

Furthermore, American teachers are required to be in front of their classes, teaching, for a much greater proportion of the time each week than are Japanese teachers. For example, eighth-grade mathematics teachers in the United States reported teaching twenty-six periods a week whereas Japanese teachers taught only sixteen periods per week (Stigler & Hiebert, 1999).

Lastly, teachers in the United States are not only required to teach more classes but also are assigned other duties more often than teachers in Japan (Stigler & Hiebert, 1999). As a result, American teachers have little time to talk with one another, to share lesson plans, to observe one another teach, or to work with individual children—all opportunities that occur frequently in Japanese schools (Stigler & Hiebert, 1999).

New Ideas about Teaching

Learning to teach is an ongoing process, a cultural activity, which is “learned through informal participation over long periods of time. It is something one learns to do
more by growing up in a culture than by studying it formally” (Stigler & Hiebert, 1999, p. 86). Most teachers learn to teach by growing up as members of a culture, by watching their own teachers teach, and then by adapting these methods to their own practice (Stigler & Hiebert, 1999).

Following the published results of TIMSS, researchers found that school reform in Japan operates by giving more support and responsibility to teachers, who help each other learn how to improve teaching, gradually and incrementally over many years (Stigler & Hiebert, 1999; Brahier & Schaffner, 2004). One of the most important components of school improvement in Japan is teachers’ involvement in Lesson Study. Japanese Lesson Study is described as a “professional development process that enables teachers to systematically examine their practice in order to become more effective teachers” (Fernandez & Chokshi, 2002, p. 128). It has been used for decades in Japan with great success (Wang & Watanabe, 2003; Brahier & Schaffner, 2004, Stigler & Hiebert, 1999). Lesson study is defined as follows:

Kenkyuu jugyou means research lesson (or study lesson), and refers to the lessons that teachers jointly plan, observe and discuss. Jugyou kenkyuu—using the same two words in the reverse order—means lesson research (or lesson study), and refers to the process of instructional improvement of which the research lesson is the core piece. (Lewis, 2000a, p.4)

The principle behind Lesson Study is straightforward: “If you want to improve teaching, the most effective place to do so is in the context of a classroom lesson” (Stigler & Hiebert, 1999, p. 111). Despite its name, Lesson Study is not about studying a lesson in order to make it perfect. Rather, it is a chance for teachers to carefully observe
students’ learning, engagement, and development (Fernandez & Chokshi, 2002). Lesson Study usually follows eight steps:

1. Defining the problem, which can be general: for example how to arouse students’ interest in fractions, or specific, such as how to improve students’ understanding of factorials.

2. Planning the lesson, starting by considering how other teachers handle the same or similar problems and aiming to understand why and how a lesson can promote student learning. The teachers meet regularly to draft and redraft lesson plans and to present these plans to all staff at the school for feedback.

3. Teaching the lesson, by one teacher from the group while observed by the others. In some cases the lesson is videotaped for further analysis and discussion.

4. Evaluating the lesson and reflecting on its effects, including sharing the group’s views and suggestions with other teachers.

5. Revising the lesson and making changes, including changes to resolve specific misunderstanding shown by students during the lesson.

6. Teaching the revised lesson to another class, by the first teacher or another teacher from the group, with all teachers at the school invited to observe.

7. Further evaluation and reflection, at a meeting with all teachers at the school invited to suggest improvements.
8. Sharing the results, using a report form distributed to teachers at the same school or other schools and possible inviting teachers from other schools to observe the teaching of the final version. (Stigler & Hiebert, 1999).

Lesson Study provides a good way for teachers to deepen their knowledge of subject matter—particularly for topics newly added to the curriculum (Watanabe, 2002). Lesson Study provides an opportunity to learn how other teachers teach particular subject matter, and it helps connect standards with assessments and curriculum (Wilms, 2003). Japanese teachers see Lesson Study as a way to bring into the classroom the country’s universal educational vision (Lewis, 2002a). First, they begin the Lesson Study process with the question, “What qualities do we want students to have when they graduate from our school?” (Lewis, 2002a, p.4) Then, they focus Lesson Study on their long-term goal, such as “friendship, enjoyment of learning, and development of their own perspectives, as well as core subject goals, such as to think like a scientist, and goals specific to the lesson and unit, such as to learn about the relationship between weight and distance from the fulcrum when a lever balances” (Lewis, 2002a, p. 4).

Following visits to Japan, and in response to the need for teachers to work together toward implementation of reform, a handful of American researchers introduced the Japanese Lesson Study model to educators in this country in the 1990s (Lewis, 2002a). The teaching method drew added attention as Lesson Study was identified as a leading factor behind the superiority of Japanese students in mathematics in international comparisons (Geist, 2000; Stigler & Hiebert, 1999).
Japanese teachers say that the most powerful aspect of Lesson Study is “that you develop the vision to see children. So you’re really watching how children are learning, and learning to see things that you didn’t see before: their thinking and their reactions” (Lewis, 2002a, p.5). Furthermore, Lesson Study presents teachers with opportunities to study student misconceptions so that they can make modifications to a lesson (Buckwalter, 2002). When teachers gather to observe a Research Lesson, they are able to collect data that cannot be collected from standardized tests. During the Research Lesson, teachers are able to observe much more than the lesson itself. They observe the students’ whole demeanor toward learning and toward one another (Lewis, 2002a).

Current teaching methods used in classrooms in the United States to improve instruction lack effectiveness as they “over-emphasize definitions, rules, and procedures at the expense of deep understanding of the subject” (Hiebert, 2001, p.26). Figure 1 schematically represents current use of instructional improvement time in the United States and Japan (Lewis, 2002a).

However, Lesson Study provides teachers with a clear structure for organizing instruction (Fernandez & Chokshi, 2002; Wang-Iverson & Watanabe, 2003). Through collaborative planning and testing, teachers are able to produce better lessons which greatly increase students’ opportunities to learn (Stigler & Hiebert, 1999). Since the most effective way to increase student learning is through the context of a classroom lesson, Lesson Study has the potential to radically alter the structure and culture of public schools in the United States (Hiebert & Stigler, 2000).
Figure 1

Teachers’ Activities to Improve Instruction

Recent reports of American educators engaged in Lesson Study have identified seven key areas of instructional improvement:

- Increased knowledge of subject matter, increased knowledge of instruction, increased ability to observe students, stronger connection of daily practice to long-term goals, stronger motivation and sense of efficacy, and improved quality of available lesson plans (Lewis et al., 2004, p. 19).

To be sure, Lesson Study method presents many challenges to American educators, such as the lack of a centralized educational system and a national curriculum, the lack of good lesson examples on core curriculum topics, and the lack of a collaborate planning and observation time during the paid workday (Fernandez & Chokshi, 2002; Lewis et al., 2004, Stigler & Hiebert, 1999). Nevertheless, some schools in the United States have integrated Lesson Study methods into the school day or provided a modest stipend for after-school professional development (Lewis et al., 2004).

Most teachers, who have participated on Lesson Study teams, believe that the teaching method helps student learning, including students who have learning disabilities (Wilms, 2003). However there is a lack of solid empirical data to support the efficacy of Lesson Study method on the learning disabled student in the general education classroom and the inclusion of education specialists on Lesson Study teams.

Overview of Special Education In America

In 1970, only 20% of children with learning disabilities in the United States were educated, and many states had laws excluding certain students, including children who were deaf, blind, emotionally disturbed, or mentally retarded (U.S. Department of
Education [USDE, n.d.). With the advent of the civil rights movement, Congress enacted the Education for All Handicapped Children Act (PL 94-142) in 1975 to “support states and localities in protecting the right of, meeting the individual needs of, and improving the results for infants, toddlers, children, and youth with disabilities and their families” (USDE, n.d.). Later, renamed the Individuals with Disabilities Act (IDEA) in 1997, it provides the foundation upon which students with disabilities are now protected from discrimination. Today, nearly six million children and youth receive special education and related services to meet their individual need (USDE, n.d.).

IDEA defines the term ‘special education’ as:

…specially designed instruction, at no cost to parents, to meet the unique needs of a child with a disability, including instruction conducted in the classroom, in the home, in hospitals and institutions, and in other settings; and instruction in physical education (USDE, n.d.).

To qualify for special education and related services under the 1997 amendments to the IDEA, a student must be within the specified age range and must satisfy both parts of a two-part test. First, the student must meet the definition of one or more of the disability categories. Second, the student must be shown to be in need of special education and related services as a result of his or her disability(s). According to Section 1401 of Title 20 of the United States Code [20 USC 1401 (3)], the term child with a disability is defined as follows:

(i) with mental retardation, hearing impairments (including deafness), speech or language impairments, visual impairments (including blindness), serious emotional disturbance (hereinafter referred to as ‘emotional disturbance’), orthopedic impairments, autism, traumatic brain injury, other health impairments, or specific learning disabilities; and
who, by reason thereof, needs special education and related services (USDE, n.d.).

In addition, IDEA-97 give further definition of the term ‘specific learning disorder,’ which is the basis for state and local district definitions and many learning disabilities programs. It is defined as follows:

A disorder in basic psychological processes involved in understanding or using language, spoken or written, that may manifest itself in an imperfect ability to listen, think, speak, read, write, spell or use mathematical calculations. The term includes conditions such as perceptual disability, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia (U.S. Department of Health & Human Service, 2001, p. 1).

With the passage of IDEA-1997, Congress declared that every child that passed the two part test has the right to be educated in the educational setting most appropriate for that child (USDE, n.d.). The act specifies that the most appropriate setting is one that can be described as the least restrictive environment (LRE). The law states,

To the maximum extent appropriate, children with disabilities… are educated with children who are not disabled; and . . . removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability of a child is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily (34 C.F.R. §300.550).

Students with disabilities receive services in a variety of settings. Students with more intensive educational needs are served in special day classrooms for either all or part of the school day. Some students are served in separate classrooms or facilities that serve only students with learning disabilities referred to as resource rooms; others spend most of the school day in general education classrooms with students who do not have learning disabilities referred to as inclusion programs (Bateman & Bateman, 2002). Inclusion programs are defined as…
Those in which students, regardless of the severity of their disability, receive appropriate specialized instruction and related services within an age appropriate general education classroom in the school that they would attend if they did not have a disability (National Association of School Psychologists [NASP], 2002).

There is growing support for students who have learning disabilities (specific learning disabilities) to be served in inclusion programs. Today, 75% of students with learning disabilities spend at least 40% of their day in a general education classroom (American Youth Policy Forum and the Center on Education Policy, 2002).

Proponents of inclusive classrooms argue that they bring educational benefits to both students with learning disabilities and the non-disabled students (National Council on Disability [NCD], 2004; Bateman & Bateman, 2002). Children who are placed in inclusive classrooms benefit from a richer academic curriculum, are held to higher expectations, and have more opportunities to improve their communication skills and develop friendships (NCD, 2004). Many non-disabled students learn better when teachers use instructional methods employed in special education such as: models of reasonable ways to solve problems, small-group work, and demonstration of step-by-step procedures (Clark & Starr, 1996).

Although inclusion practices continue to expand, there is ongoing debate about the effectiveness of inclusion. Two perspectives concerning inclusion exist:

The first view is that children with disabilities, including those with learning disabilities, have a right to participate in environments as close to normal as possible and to benefit socially and academically from being in the mainstream of school and society.

The second view maintains that since students with learning disabilities have the right to learn the skills they will need in the competitive world they will be entering, they should receive systematic and explicit instruction from teachers who are trained and highly skill in delivering such instruction (USDE, n.d.).
Critics of inclusion programs argue that they do not address individual needs (Marston, 1996; Bateman & Bateman, 2002). They claim that some students are significantly behind and need more intense instruction. There may be too many distractions in the classrooms (e.g., noise, visual stimuli) (Marston, 1996; Bateman & Bateman, 2002).

Researchers found that student achievement in reading increased among students who received services in both an inclusive classroom and a resource room, compared to students served exclusively in one setting or the other (Marston, 1996). This leads to another highly popular approach for establishing inclusive classrooms, which is referred to as co-teaching.

Co-teaching is defined as “two or more professionals jointly [delivering] substantive instruction to a diverse, or blended, group of students in a single physical space (Wischowski, Salmon, & Eaton, 2004, p. 4). Co-teaching provides the opportunity for an education specialist (most commonly referred to as a special education teacher) to teach side by side with a general education teacher. They share the responsibilities within the classroom. Teachers engage in co-planning, making decisions together on the content that will be presented and the accommodations that will allow students with disabilities to access the knowledge and skills to be successful (Wischowski et al., 2004).

Conversely, data on student achievement suggest that the majority of the students with disabilities who received instruction in co-teaching classrooms were not any less successful (NCD, 2004). Likewise, some predictable sources of conflict have been identified among co-teachers, including “different positions regarding instructional
beliefs, use of planning time, parity between teachers, agreement on classroom routines, and rules about confidentiality, noise, and discipline” (Wischowski et al., 2004, p.8).

There exists a chronic shortage of education specialists throughout our nation (NCD, 2004; Olivarez & Arnold, 2006). In 2004, there were an estimated 39,000 education specialists responsible for the education of over 600,000 students with learning disabilities (NCD, 2004). Each year the number of children identified as requiring special education services increases. However, the number of well-prepared, highly qualified teachers needed to serve these children is not increasing at the same rate (NCD, 2004; Olivarez & Arnold, 2006). As a result, many children with learning disabilities are being taught by teachers who are not fully certified in special education (NCD, 2004). The attrition rates for education specialists are greater than those of general education teachers (Olivarez & Arnold, 2006).

The burden of helping students with disabilities reach higher academic standards falls on all teachers. However, most general education teachers do not feel adequately prepared to work with students with learning disabilities (De Simone & Parmar, 2006; McCabe, 2004). In 2003, a survey revealed that only 45% of the general education teachers reported feeling very prepared to teach their students (McCabe, 2004). Conversely, 95% of the education specialists surveyed reported feeling very prepared to teach their students (McCabe, 2004). While 82% of public school teachers teach at least one special education student, fewer than 20% agree that they are given the support they need to teach students with special needs (Ansell, 2004).
Previously, states have not required that education specialists be prepared in core subjects. In 2003-04, there was not one state that “required special education teachers [education specialists] at the secondary level to earn degrees, compete a minimum amount of coursework, or pass tests in the core academic subjects they intended to teach” (Ansell, 2004, p.76). However, the reauthorization of IDEA (2004) requires that education specialists meet the same standards as general education teachers set by The No Child Left Behind (NCLB) Act, which requires…

public school teachers instructing core academic subject areas to hold a minimum of a bachelor's degree; demonstrate subject matter competency in each of the academic subjects in which the teacher teaches; and obtain full state certification or pass the state teacher licensing examination (US Department of Education, 2007).

Currently, there are 14 states and the District of Columbia that requires general education teachers to complete one or more courses related to special education to earn their licenses. There are only nine states that require general education teachers to complete preservice training related to special education. However, five states (California, Iowa, Missouri, Vermont, and Virginia) require that general education teachers complete both courses and inservice training related to special education to earn their licenses (Ansell, 2004).

Forty-five percent of the teachers surveyed in the TIMSS sample reported that meeting individual differences is an obstacle to effective teaching (Stigler & Hiebert, 1999). However, Japanese teachers view individual differences as “a natural characteristic of a group” (Stigler & Hiebert, 1999). They believe that all students should have the opportunity to learn the same material. Individual differences are seen as
beneficial for the class as they help to produce a range of ideas and thoughts that provide valuable insight into student learning (Hiebert & Stigler, 1999). Currently, general education teachers play a primary role in the education of students with learning disabilities, and often they report feeling unprepared to undertake this role (Brownell et al., 2006, Marston, 1996).

With the standards-based reform movement and the movement toward inclusion for students with learning disabilities into the general education classroom, the need for collaboration between education specialists and general education teachers is paramount. Education specialists need support from other practitioners in areas such as “teaching a standards-based curriculum, integrating advanced technologies into their instruction, and addressing the needs of an ethnically and linguistically diverse population” (NCD, 2004, p. 14). Likewise, general education teachers need support from education specialists in areas such as effectively meeting the individual differences of students who have learning disabilities and helping students with learning disabilities access technology-based learning tools (NCD, 2004).

Over sixty percent of American teachers who participated in the TIMSS reported that they never had the opportunity to observe another colleague or to be observed (Gonzales, 2000). In addition, education specialists report spending less than one hour a week collaborating with other teachers—compared to 12 hours a week devoted to paper work and lesson planning (NCD, 2004).

Educational research has shown that “isolation is the enemy of improvement” (Elmore, 2000). However, this is changing as more and more educators are sharing ideas,
developing plans together, and implementing and evaluating outcomes with their colleagues through collaboration (Friend & Bursuck, 1996). Collaboration is one of the components of Lesson Study that teachers value the most (Lewis et al., 2004). Carolyn Donnelly a sixth grade teacher who participated in Lesson Study contends, “Being able to talk together as a whole group is such a big part of Lesson Study. It widens your perspective because you are getting ideas from other people and you’re not just going down this narrow little road of your own” (Lewis, 2002b, p.12). Through the process of collaborating and thinking more carefully about student responses, many teachers see tangible results in students’ learning (Buckwalter, 2002). However, the success of the collaborative team depends on each team member’s understanding of mutually shared goals and their collaborative effort for the goals (Friend & Bursuck, 1996).

Collaboration is considered the cornerstone of Lesson Study (Stigler & Hiebert, 1999). It alleviates the isolation of teaching and allows teachers to share their experiences and knowledge (Stigler & Hiebert, 1999). Because each lesson is developed with joint participation and input, all team members care about its success. The lesson belongs to everyone. Consequently, teachers feel less anxious about having their peers come into their classrooms and more comfortable with observers there to watch students (Itzel, 2002).

Having education specialists on Lesson Study teams would benefit the learning disabled students as they would become more aware of how their students function in the general education classrooms. It would create a team approach to teaching and learning. It would give all the teachers a chance to observe, dwell on, and talk about how children
learn and do not learn (Buckwalter, 2002). Education specialists can provide knowledge of instructional diversity and specific procedures for teaching children who learn in different ways (Neel, 2006). Likewise, general education teachers can provide content knowledge in areas covered within the general education curriculum (Neel, 2006).

Lesson Study can offer a means of helping education specialists and general education teachers reach a common understanding of student thinking, determine a common set of expectations for student work and achievement, and collaboratively develop strategies that move students to higher levels of understanding and accomplishment. When general education teachers and education specialists collaboratively work together there is a change in the philosophy of general education teachers toward serving students with learning disabilities (Brownell et al., 2006; Marston, 1996).

Lesson Study can provide a conduit by which general education teachers and education specialists share the knowledge they gain from their individual professional development experiences and merge them into collaborative research lessons that they develop for the general education classroom (Lewis, 2002a). Paolo Freire (1972, p.109) reminds us that “knowledge is not extended from those who consider that they know to those who consider that they do not know; knowledge is built up in the relations between human beings.”
Summary and Research Questions

Education in America has had many years of reform with little to show from it. Yet improving education continues to be at the top of Americans’ list of priorities (Evers, 1998). With the reauthorization of IDEA, school districts now have the responsibility of ensuring that all students with learning disabilities have access to the general education curriculum (USDE, 2002). The authors of IDEA established major goals that emphasized that students with learning disabilities in public schools should reach higher levels of academic achievement. To accomplish this task, educators must be given the opportunity to work with other teachers to change their teaching methods and the ways in which they learn to teach (Stigler & Hiebert, 1999).

Current research suggests that professional collaborative methods have not achieved their common goal of providing an opportunity for teachers to learn and work together to achieve common goals for improving the inclusion of students with learning disabilities in the general education classroom (Brownell, et al., 2006). Conversely, there are only a few existing studies that offer support for Lesson Study as a viable and promising instructional approach for improving teaching methods in American classrooms. It is clear from the research that there is a need for more empirical investigation exploring the implications of education specialists and general education teachers collaboratively working together on Lesson Study teams.

The purpose of this study is to investigate the implications of the inclusion of an education specialist on a Lesson Study team. Will the professional development model
result in a positive collaborative experience for both education specialists and general education teachers? Does Lesson Study change communication, planning, and awareness of roles and responsibilities between education specialists and general education teachers?
CHAPTER THREE

METHODS

Setting and Participants

Four Lesson Study teams, in Northern California were contacted, via email, and invited to participate in the study. Each Lesson Study team included at least one education specialist. The four selected Lesson Study teams were located at four school sites in three different counties in northern California.

At Drake High School and Center Middle School, Lesson Study participants had been meeting together for a year prior to the study. Each team met for two hours after school every week in a general education team members’ classroom.

At Franklin High School, participants were just beginning the professional development model. However, most of the general education teachers on the team had been meeting collaboratively for several years. They met every other Thursday afternoon, for two hours, in a general education team member’s classroom.

Lastly, at Bridge Elementary School, Lesson Study team members met intensively during the summer. During the school year, they met every other week after school.

All four Lesson Study teams had at least six members: one education specialist and at least five general education teachers. From each of the four Lesson Study teams, either an education specialist and/or a general education teacher participated in the study.
Franklin High School was the only Lesson Study team that had both an education specialist and two general education members participating in the study (see Table 1).

The three participating education specialists were from three different Lesson Study teams. Frank was a beginning middle school education specialist, Katy was an experienced high school education specialist, and Lily was an experienced elementary school education specialist who had a graduate degree.

This was Frank and Katy’s first experience on a Lesson Study team. They had come to learn about Lesson Study from colleagues at their school sites. Lily, however, had been a member of a Lesson Study team for over five years. She first participated on a Lesson Study team through a summer mathematics institute at a local college.

Conversely, three general education teachers from two of the four Lesson Study team sites participated in the study. Jane was a beginning high school teacher; Mary was an experienced middle school teacher; and Ron was an experienced high school teacher. This was Mary, Jane, and Ron’s first experience on a Lesson Study team. Mary and Jane had come to learn about Lesson Study through a colleague at their school site. Ron, however, came to learn about Lesson Study at a conference he attended at a local college. All of the participants, general education teachers and education specialists, received professional development credit and a monetary stipend for their participation on their respective Lesson Study teams.
Table 1.

*Demographic Characteristics of Research Participants*

<table>
<thead>
<tr>
<th>Participant</th>
<th>Years Teaching General Education</th>
<th>Years Teaching Special Education</th>
<th>Lesson Study Team School/Site*</th>
<th>Years on Lesson Study Team(s) at time of study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lily</td>
<td>-</td>
<td>10+</td>
<td>Bridge Elementary</td>
<td>5+</td>
</tr>
<tr>
<td>Frank</td>
<td>-</td>
<td>1-2</td>
<td>Center Middle School</td>
<td>1/2</td>
</tr>
<tr>
<td>Katy</td>
<td>-</td>
<td>10+</td>
<td>Franklin High School</td>
<td>1/2</td>
</tr>
<tr>
<td>Ron</td>
<td>10+</td>
<td>-</td>
<td>Franklin High School</td>
<td>1/2</td>
</tr>
<tr>
<td>Jane</td>
<td>1-2</td>
<td>-</td>
<td>Drake High School</td>
<td>1/2</td>
</tr>
<tr>
<td>Mary</td>
<td>10+</td>
<td>-</td>
<td>Franklin High School</td>
<td>1/2</td>
</tr>
</tbody>
</table>

1. Pseudonyms were given for participants and school/sites.
2. Participant in the survey and follow up questions.
Procedures

The present study used a multi-case studies design (Glesne 2006; Kazdin 1982; Bogdan & Biklen, 2003). Six individual case studies, three education specialists and three general education teachers, were included from four different Lesson Study teams. Criteria for participation in the study were current participation on a Lesson Study team and teaching at a public school.

Selection was based on responses to an emailed Letter of Introduction, which included an explanation of the research study (Appendix A), an attached Voluntary Participant Statement (Appendix B) and Survey Questions (Appendix C). The survey questions were worded in an open-ended format (Best & Kahn, 2003) that allowed the participants to describe what was meaningful or important to him or her using his or her own words. Participants responded to the survey questions via email.

Upon completion of the Lesson Study cycle, participants were sent, via email, a letter (Appendix D) and post Lesson Study Follow Up Questions (Appendix E). The follow up questions were also worded in an open-ended format. Of the six initial subjects, only four participated: Ron and Mary (general education teachers) and Lily and Frank (education specialists).

After collected data were completed, I began the process of coding the information. Coding is defined as a “progressive process of sorting and defining and defining and sorting those scraps of collected data” (Glesne, 2006, p.152). First, I went through the data looking for emerging themes. To qualify as a theme, I determined that
the concept needed to be addressed more than once, by more than one participant. After careful analysis of the data, four major themes developed: Collaboration, Lesson Study, Teaching, and Time. From the four major themes, multiple sub themes and codes emerged (see Table 2).

Next, the four major themes were each assigned a color code: Collaboration – yellow, Lesson Study – green, Teaching – pink, and Time – blue. In addition, I assigned the color code, red, to all perceived negative responses. Then, I reread the data color coding the responses. Once all the responses had been color coded, they were organized under the major themes and sub-themes (see Table 3). Several responses contained more than one color code and, thus, were inserted under more than one theme and or sub-theme. The color coded responses helped to provide a valuable, visual representation of the data.

In order to determine the level of collaboration between teachers before, during, and after Lesson Study participation, I organized the data from the survey and follow up questions, as shown in Table 4.
Table 2

Major Themes and Sub-Themes and their Codes

<table>
<thead>
<tr>
<th>Major Themes</th>
<th>1. Collaboration (COL)</th>
<th>2. Lesson Study (LS)</th>
<th>3. Teaching</th>
<th>4. Time (T)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-themes</td>
<td>Sub-themes</td>
<td>Sub-themes</td>
<td>Sub-themes</td>
<td>Sub-themes</td>
</tr>
<tr>
<td>BLS COL GE (COL) before</td>
<td>LSPG</td>
<td>PTEGE</td>
<td>RBT</td>
<td>Relationship Building time</td>
</tr>
<tr>
<td>LS (gen ed)</td>
<td>LS participant goals</td>
<td>Past teaching experience – gen ed</td>
<td>LST</td>
<td>LS time</td>
</tr>
<tr>
<td>BLS COL ED (COL) before</td>
<td>LSPO</td>
<td>PTESE</td>
<td>LT</td>
<td>Time limitations</td>
</tr>
<tr>
<td>LS (ed spec)</td>
<td>LS participant outcomes</td>
<td>Past teaching experience – spec ed</td>
<td>ÅLS</td>
<td>ALSC After LS</td>
</tr>
<tr>
<td>DLS COL GE (COL) during</td>
<td>LSPE</td>
<td>TSLLS</td>
<td>OLT</td>
<td>(COL) time</td>
</tr>
<tr>
<td>LS (gen ed)</td>
<td>LS positive experiences</td>
<td>Teaching/student learning LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DLS COL ED (COL) during</td>
<td>LSNE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LS (ed spec)</td>
<td>LS negative experiences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALS COL GE (COL) after</td>
<td>LSIC</td>
<td>PGLS</td>
<td>RBT</td>
<td>Relationship Building time</td>
</tr>
<tr>
<td>LS (gen ed)</td>
<td>LS increased</td>
<td>Professional</td>
<td>LST</td>
<td>LS time</td>
</tr>
<tr>
<td>ALS COL ED (COL) after</td>
<td>OM</td>
<td>communication</td>
<td>LT</td>
<td>Time limitations</td>
</tr>
<tr>
<td>LS (ed spec)</td>
<td>ALSR</td>
<td>ALSTP</td>
<td>ALSC</td>
<td>After LS</td>
</tr>
<tr>
<td></td>
<td>R</td>
<td>After LS roles</td>
<td>OLT</td>
<td>(COL) time</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&amp; responsibilities</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

_Note._ Bolded responses = Follow up questions.
### Table 3

**Themes – Survey & Follow Up Questions**

1. **Collaboration (COL)**

<table>
<thead>
<tr>
<th>Sub-themes</th>
<th>Jane – new teacher</th>
<th>Mary – no experience with sped ed only BITSA program – general ed</th>
<th>Ron – no experience with sped ed – only with gen ed teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BLSCOLGE before LS (COL) (gen ed)</strong></td>
<td>no experience with spe</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ed only BITSA</td>
<td>program – general ed</td>
<td></td>
</tr>
<tr>
<td><strong>BLSCOLES before LS (COL) (ed spec)</strong></td>
<td>Lily – last two sites –very good – very positive and interested in</td>
<td>working with all students with disabilities – former two sites did</td>
<td></td>
</tr>
<tr>
<td></td>
<td>not relish collaborating with other teachers</td>
<td>not relish collaborating with other teachers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Frank – new teacher – no experience with gen ed – only BITSA program spec ed</td>
<td>Frank – new teacher – no experience with gen ed – only BITSA program spec ed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Katy – no past collaborative experience with gen ed</td>
<td>Katy – no past collaborative experience with gen ed</td>
<td></td>
</tr>
<tr>
<td><strong>DLSCOLGE during LS (COL) (gen ed)</strong></td>
<td>Jane – able to bounce ideas off teachers in different areas – could</td>
<td>get an idea of where students are in their education. Some participants were lazy and immature, a few were difficult to work with.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ron – able to pick fellow teachers’ brains about what works – various perspectives &amp; agreement gave validity.</td>
<td>gained some insight about how to set problems up, how to ask questions that</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>would encourage learning and not shut kids down or hurt them.</td>
<td></td>
</tr>
<tr>
<td><strong>DLSCOLES during LS (COL) (ed spec)</strong></td>
<td>Katy – stronger connection to teachers in different disciplines</td>
<td>Katy – stronger connection to teachers in different disciplines</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Frank – very high level of collaboration from everyone</td>
<td>Frank – very high level of collaboration from everyone</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lily – collaborating with other teaching professionals brings a wealth of knowledge and experience forward.</td>
<td>Lily – collaborating with other teaching professionals brings a wealth of knowledge and experience forward.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Katy – LS does build a sense of professional community, improves teaching and ultimately should have a strong impact in learning if practiced regularly and over a longer period of time.</td>
<td>Katy – LS does build a sense of professional community, improves teaching and ultimately should have a strong impact in learning if practiced regularly and over a longer period of time.</td>
<td></td>
</tr>
<tr>
<td>Follow up questions</td>
<td>Only four teachers responded – Ron, Mary, Lily, and Frank</td>
<td>Only four teachers responded – Ron, Mary, Lily, and Frank</td>
<td></td>
</tr>
<tr>
<td><strong>ALS COLGE After LS (COL) gen ed</strong></td>
<td>Ron – I’m not sure all general educations teachers embraced everything that was shared – but it solicited great dialogue</td>
<td>Ron – I’m not sure all general educations teachers embraced everything that was shared – but it solicited great dialogue</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mary – I had never worked with an education specialist in this manner before. I had a preconceived idea that they would be more intrusive; it was helpful as they were good at watching the whole.</td>
<td>Mary – I had never worked with an education specialist in this manner before. I had a preconceived idea that they would be more intrusive; it was helpful as they were good at watching the whole.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ron – Sometimes I have a tendency to think of sped ed teachers as enablers, but I could see from our discussions in LS that the need for them to make clear how inaccessible some material can be based on the way it is presented</td>
<td>Ron – Sometimes I have a tendency to think of sped ed teachers as enablers, but I could see from our discussions in LS that the need for them to make clear how inaccessible some material can be based on the way it is presented</td>
<td></td>
</tr>
<tr>
<td>After LS (COL) (ed spec)</td>
<td>Lily – All teachers walked away with a different view on Lesson Study and the value behind collaboration with gen ed and ed spec. Lily – by bringing both education specialists and general educations teachers together helped them see each others’ point of view and the different teaching styles. Due to working together for several hours, there was a respect for the teacher. Lily – by working together, gen ed and ed spec developed a bond with each other. Lily – working together was productive and each brought in different experiences, teaching styles, and education in these different areas.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Lesson Study (LS)</th>
<th>Sub-themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSPG LS participant goals</td>
<td>Ron – I was hoping to gain insights about working with students. I wanted to better understand what it is about my teaching that promotes good learning or hinders it. Mary – Intellectual stimulation, peer support in professional growth, and I like people. Jane – Some new teaching strategies. Lily – I was hoping to learn how lesson study was presented and how each team member was to contribute. Lily – All teachers walked away with a different view on Lesson Study and the value behind collaboration with gen ed and ed spec. Frank – I just wanted to see what it was and hear different ways of teaching. Katy – To gain a greater understanding of what LS was about and the Japanese find it so successful.</td>
</tr>
<tr>
<td>LSPO LS participant outcomes</td>
<td>Ron – I gained some insight about how to set problems up, how to ask questions that would encourage learning and not shut down or hurt them. Mary – n/a Jane – n/a Lily – What I got from Lesson Study was it is teacher directed and student led. Frank – Once it is all said and done, I was able to see the different ways that general ed teachers get lessons together. Katy – n/a</td>
</tr>
<tr>
<td>LSPE LS positive experiences</td>
<td>Ron – excellent. Mary – organization – staying focused. I had a terrific time. Jane – LS helps me to know how to look for help. It is a positive experience as long as the teachers on your team are mature and focused on the lesson.</td>
</tr>
</tbody>
</table>
LSNE
LS negative experiences

Lily – Looking at a lesson through students’ eyes, and collaborating with teaching professionals as a team and not by yourself has been the most significant gain.

Lily – All teachers walked away with a different view on Lesson Study and the value behind collaboration with gen ed and ed spec.

Katy – It was very positive.

Jane – some participants were lazy and immature.

Ron – Sometimes weren’t all in agreement with all the decisions – hard to consider everyone’s suggestions with equal weight.

Mary – math knowledge.

Mary – it (LS) should be important to you. You should enter it joyfully.

Lily - Lack of knowledge, time, and support of administrators.

Katy – level of involvement limited.

Frank – lack of teaching experience.

Lily – Until I learned the roles, it was a scary situation. I was to share my experiences, my classroom, my knowledge of what worked and what did not. - lack of knowledge (by gen ed teachers) of special education programs.

Only four teachers responded – Ron, Mary, Lily, and Frank.

Lily – All teachers walked away with a different view on Lesson Study and the value behind collaboration with gen ed and ed spec.

Ron – LS brought about a change in communication – short term.

Mary – n/a.

Lily – Yes, it (LS change the level of communication). It was due to collaborative meetings and working together on lesson planning days.

Frank – LS did not change level of communication – already established.

3. Teaching

Sub-themes

PTEGE
Past teaching experience – gen ed

Ron – I have a tendency to think of spec ed teachers as enablers.

Mary – I had a preconceived idea that they (spec ed) would be more intrusive than inclusive.

PTESE
Past teaching experience – spec ed

Frank – Gen ed teachers are stuck in their way of teaching - not willing to make changes to support SPED students.

Lily – I enjoyed collaborating with other sped and gen ed teachers.

Lily – I have tried to develop a good relationship with the general ed teachers – some teachers did not want to hear that their student was showing some growth with me.
**TSLLS**
**Teacher/Student learning -LS**

Ron – **insights about working with sped students**
Jane – new teacher – **new teaching strategies**
Ron – gained insight about how to set up problems, how to ask questions that encourage learning and not shut kids down or hurt them.
Ron – (Gen ed teacher) became better aware of how “shut down” they (Sped students) can get when they face challenges
Frank- I was able see the different ways that Gen Ed teachers get lessons together
Katy - Ron – rethinking how I present the lesson so it is teacher led and student
Lily – **opened my eyes to teaching**
Frank – it (LS) can bring about a change in planning if the teachers are working together on a lesson.
Lily – They (gen ed and ed spec) were able to show differences and make the adjustment/intervention for low performing students. Both groups were able to modify lessons to adjust to all students and look at learning styles for all students.
Lily – working together was productive and each brought in different experiences, teaching styles, and education in these different areas.
Frank – all LS groups should have at least one SPED teachers so that teachers can get different ideas on how to modify the work for all kid.
Lily – **Looking at a lesson through students’ eyes**

**Follow up question**
**ALSTP**
**After LS planning**

Only four teachers responded – Ron, Mary, Lily, and Frank
Ron – **No** – separated from each – different buildings – time
Mary – richer, deeper lessons. – finding a way to maintain it is difficult
Lily – **Yes** (LS brought about a change in which ED and GE teachers plan – developed bond with each other – able to show differences – make adjustments for low performing students – modify lessons to adjust to all students and look at learning styles for all students
Frank – It (LS) can bring out a change in the planning – if working on a lesson together – ideas given to the plan from ed sped that gen ed said they had not thought of.

**ALSRR**
**After LS roles & responsibilities**

Ron – It (LS) **brought to light the roles in a more clearer manner.** Sometimes I have a tendency to think of ed spec as enablers, but I could see from our discussions in LS that the need for them to make clear how inaccessible some material can be based on the way it is presented
Mary – I had never worked with an ed spec in this manner. I had a preconceived idea that they would be more intrusive than inclusive – It was helpful as they were good at watching the whole.
Lily - Yes (LS brought an awareness of roles & responsibilities) working together was productive – each brought in different experiences, teaching styles, and education – all teachers walked away with a different view on LS and the value behind collaboration.
Frank – (LS) not much change (roles & responsibilities)

4. Time (T)

Sub-themes

RBT
Relationship Building time
Ron – lack of time keeps us from spending time together
Lily - It takes time to build a relationship with the teachers, especially if they had been at that site for a while.
Lily - Time and energy went into building trust and a relationship with these teachers.
Katy - Time is always an obstacle – but as much as time itself, is the efficient use of time you have available to collaborate

LST
LS time
Ron – Time was the only preconceived weakness
Lily – many hours in order to create researched based lesson (40 pl hours).
Katy – time limitation

ALSCOLT
After Lesson Study (COL) time
Ron – it was difficult to fit things in reasonable time frame
Ron – The luxury of time, or lack of it, keeps us from spending time together;
Mary – all so busy hard part maintaining - finding a way to maintain it is difficult

Note.
1. Abbreviations: LS = Lesson Study; Ed Spec = Education Specialist; Gen ed = General Education Teacher.
2. Color Codes: Yellow = Collaboration; Pink = Teaching; Aqua = Time; Green = Lesson Study; Red = Negative response.
Table 4

*Collaboration Responses*

<table>
<thead>
<tr>
<th>COLLABORATION</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Before</strong> Lesson Study</td>
<td><strong>During</strong> Lesson Study</td>
<td><strong>Following</strong> Lesson Study</td>
</tr>
<tr>
<td><strong>EDUCATION SPECIALISTS</strong></td>
<td><strong>GENERAL EDUCATION TEACHERS</strong></td>
<td><strong>EDUCATION SPECIALISTS</strong></td>
</tr>
<tr>
<td><strong>Lily</strong> – “Last two sites very supportive– good relationship (with gen ed) – took time to build relationship - former sites did not relish collaborating with other (gen ed)teachers”</td>
<td><strong>Ron</strong> – no prior collaborative experience with spec ed</td>
<td><strong>Lily</strong> – “Collaborating with teaching professionals as a team and not by yourself (sic) …significant gain” “Brings a wealth of knowledge and experiences forward.” <strong>Lily</strong> – “Due to working together for several hours, there was a respect for the teacher and what they (sic) brought to the table by all members…”</td>
</tr>
<tr>
<td><strong>Katy</strong> – no prior collaborative experience with gen ed</td>
<td><strong>Mary</strong> - no prior collaborative experience with spec ed</td>
<td><strong>Katy</strong> – “Stronger connection to (gen ed) teachers”</td>
</tr>
<tr>
<td><strong>Frank</strong> – no prior collaborative experience with gen ed (new teacher)</td>
<td><strong>Jane</strong> – no prior collaborative experience with spec ed (new teacher)</td>
<td><strong>Frank</strong> – “…there was (sic) definitely a lot of ideas being shared from person to person.”</td>
</tr>
</tbody>
</table>
In the following sections, each participant’s perceptions, with respect to his or her involvement with Lesson Study and collaboratively working together are presented.

First, in order to gain a better understanding of the teachers’ prior collaborative teaching experiences (before Lesson Study), participants were presented with the following questions:

*QUESTION #1: Describe your past experience(s) involving teacher collaboration groups.*

Frank, a first year education specialist, stated that he had “not worked with many teachers in a big group before.” Lily and Katy, both seasoned education specialists, stated some degree of dissatisfaction with collaboration groups. Katy felt that “most groups are interested in improving either teaching or student performance, but often lack the nuts and bolts of how to truly collaborate and improve outcomes over a sustained period of time.” Likewise, Lily stated. “Former sites [schools] did not relish collaborating with other teachers.”

Conversely, Mary, an experienced general education teacher stated that she had “enjoyed the past [collaboration] experiences” as “it is fun to share ideas and the product and process is almost always richer, but it is also more time consuming.” Jane, a first year general education teacher was in the beginning teacher program and met with a large group once a month and mentor teacher weekly, which she found “very helpful.” Lastly,
Ron, another experienced general education teacher, stated that he had been involved in various collaborative groups throughout his tenure.

The next question related to past experiences of each teacher working collaboratively together.

QUESTION #2: Describe your past experiences with education specialists (general education teachers) or with general education teachers (education specialists).

All three education specialists stated both positive and negative experiences with general education teachers. Lily stated:

I tried to develop a good relationship with the general educational teachers due to the fact of some of their students were in my resource classes. Some teachers did not want to hear that their student was showing some growth with me. This takes time to build a relationship with the teachers, especially if they had been at that site for a while. In the past 10 years, I did not have any general education teachers who did not ask for help, advice, etc. However, I will tell you, time and energy went into building trust and a relationship with these teachers.

Next, Katy acknowledged that her experiences with general education teachers had been “very positive.” She stated, “Most [general education teachers] want to learn more and try to accommodate, meet student needs and work as a team to the extent possible.”

Lastly, Frank stated that he had “good experiences with general education teachers.” He felt that “some [general education teachers] are very helpful with students in their class and some have a problem with special education students in their class. In addition, he stated that he had found that “general education teachers don’t take responsibility for the learning experience of special education students” in their classes.

All three of the general education teachers stated no past collaborative experiences with education specialists.
QUESTION #3: Initially, what level of collaboration did you have with education specialists (general education teachers) or with general education teachers (education specialists)?

At Franklin High School, most of the Lesson Study team members had previously collaborated together. However, they had never included an education specialist. As a result, Ron stated that he had “very little” collaborative experience with education specialists.

Lily, who had previous Lesson Study experience, stated “None [collaboration with general education teachers] from two sites and some from two former sites.” Katy, an education specialist found that collaboration with general education teachers “takes time to develop trust and respect.” As for Frank, a first year education specialist, his past collaboration experience with general education teachers consisted of “working together to grade and test special education students.”

QUESTION #4: What obstacles do you define as standing between education specialists and general education teachers?

Lily and Katy, both education specialists, stated that time was one of the biggest obstacles. Katy stated, “Time is always the obstacle, but as much as time itself, is the efficient use of the time you have available to collaborate.” In addition, Lily stated that the “lack of knowledge, time, and support of administrators” made it difficult for special education teachers and general educations to collaborate. However, Frank found that “some general education teachers are stuck in their way of teaching and are not willing to
make changes to support special education students.” None of the general education teachers provided responses to this question.

The next set of questions had to do with each educator’s experiences as a member of a Lesson Study team.

**QUESTION #5: How did you come to learn about Lesson Study?**

Data from the survey questions suggest that two of the teachers (Ron and Lily) had learned about Lesson Study by attending a summer conference. The other four teachers (Mary, Katy, Frank, and Jane) were invited by their colleagues at their school sites to form a team.

**QUESTION #6: What was your role as a member of a Lesson Study team and how do (did) you feel about the experience?**

The roles of all six participants had been as a participant/researcher. Most of the experiences expressed by the participants appeared to be positive. Frank stated, “It was a good experience.” While, Mary declared, “I had a terrific time!” Katy stated, “It was very positive but limited in terms of my involvement compared to others.” Lily added, “Until I learned the roles, it was a scary situation. I was to share my experiences, my classroom, and my knowledge of what worked and what did not.” Lastly, Jane expressed her role on a Lesson Study team:

I was very active in designing and evaluating the lessons. I also taught one of the lessons. I spent a lot of time getting info [information] for the lessons and feel I was valuable at critiquing the lessons. It is a positive experience as long as the teachers on your team are mature and focused on the lesson.
QUESTION #7: What level of collaboration was there initially?

Participants expressed a positive level of collaboration. For example, Frank stated, “There was very high level of collaboration from everyone.” Ron stated, “Excellent.” Both Mary and Ron had been meeting in a group, collaboratively, for five years.

QUESTION #8: Did the level of collaboration remain constant or change? If so, describe in what way(s).

Five of the six teachers (three general education teachers and two education specialists) stated that the level of collaboration remained constant. Furthermore, Lily stated her team’s level of collaboration increased because “each of us became excited about what we had discovered in researching, classroom knowledge, and past experiences.” However, Katy, who was not able to attend all the meetings, expressed, “It changed – some meetings provided more input than others.” In addition, Ron stated, “Sometimes weren’t [sic] all in agreement with all the decisions – hard to consider everyone’s suggestions with equal weight.” Jane stated that the level of collaboration remained “constant.” She added, “We had a schedule to meet and we stuck to it. We also e-mailed during the week when we weren’t meeting to keep everyone on the same page as to where we were in the lesson.”

QUESTION #9: What did/do you hope to get out of the Lesson Study team process personally?

Four of the teachers (Lily, Katy, Frank, and Jane) stated that they had wanted to learn more about Lesson Study methods. Two of the teachers (Ron and Jane) wanted to
learn new teaching techniques and strategies. Ron stated, “I was hoping to gain better insights about working with students. I wanted to better understand what it is about my teaching that promotes good learning or hinders it.” Mary stated that she was hoping to get “intellectual stimulation and peer support in professional growth.”

In order to gain a better understanding of the viability of using Lesson Study as a professional development model, the following questions were posed:

*QUESTION #10: What did/do you perceive to be the strengths of being a member of a Lesson Study team?*

The prevailing response, from both education specialists and general education teachers, was the positive collaborative experience of being able to come together as educators. Lily expressed, “When we first got together as a team, it was finding out each of our strengths. After our first lesson was presented, it wasn’t so much our strengths, but the collaborating together as a group.” Likewise, Katy felt that the “shared development of the lesson, observation, and feedback focused on improvement for all.” Another perceived strength of being a member of a Lesson Study team was expressed by Frank, an education specialist, who stated, “I felt that the general ed [education] teacher could learn some ways to think about how they teach all students by hearing what sped (special education] teachers had to say.” Ron found that “being able to pick ‘experts’ and fellow teachers’ brains about what works” was a positive aspect of Lesson Study. He also stated, “The various perspectives and agreement gave validity to what seemed to work or not work.”
QUESTION #11: What did/do you perceive to be the weaknesses of being a member of a Lesson Study team?

Ron stated the following weaknesses: “It was difficult to fit things in a reasonable time frame. Sometimes weren’t all in agreement with all the decisions.” Likewise, Jane noted, “Some of the participants were lazy and immature. A few were difficult to work with.” Katy shared concerns about her level of involvement in the Lesson Study process. She stated that her involvement was “limited compared to others.” Lastly, Frank felt that his “lack of teaching experience” could have been a weakness. However, he expressed, “I did not see any problem with that throughout my time with the group.”

The next question addressed the potential of Lesson Study as an instrument used for improving collegiality and improving student learning.

QUESTION #12: What impact has Lesson Study had on your teaching and collegiality?

Two of the general education teachers, Ron and Jane, expressed a change in which they now teach students with learning disabilities. Ron stated, “[I] became better aware of how ‘shut down’ they [students with learning disabilities] can get when they face challenges.” He also noted that the “strategies work for these [students with learning disabilities] too.” Frank stated, “Lesson Study has opened my eyes to the idea of; teach, reflect, reteach. I already knew about the idea, but I finally had time to sit down and use it.” Likewise, Jane stated, “It [Lesson Study] helps me to know how to look for help. It is nice that there are lessons put together to enhance my lesson.”

All three education specialists expressed a change in collegiality and teaching.

Katy stated:
I felt a stronger connection to teachers in different disciplines and gained some insight into the potential LS (Lesson Study) has to offer. LS [Lesson Study] does build a sense of professional community, improves teaching and ultimately should have a strong impact in learning if practiced regularly and over a longer period of time.

Next, Frank stated:

Lesson Study has opened my eyes to the idea of, teach, reflect, reteach. I already knew about the idea, but I finally had time to sit down and use it. I feel that all Lesson Study groups should have at least one sped [special education] teacher so that gen [general] ed [education] teachers can get different ideas on how to modify the work for all kids weather (sic) it is harder or easier.

Lastly, Lily stated, “Looking at a lesson through students’ eyes, and collaborating with teaching professionals as a team and not by yourself (sic) has been the most significant gain.” In addition, “Looking at the proposed lesson through the students lens and not how the teacher presents the lesson has been the most rewarding benefit from Lesson Study,” stated Lily. In addition, Lily stated, “hiding in your classroom benefits no one and collaborating with other teaching professionals brings a wealth of knowledge and experience forward.”

After completion of the Lesson Study cycle, each participant was invited to participate in subsequent follow up questions. The questions were drafted to determine whether or not participation on a Lesson Study team brought about any significant change between education specialists and general education teachers. Following are the questions and responses of the four participants whom chose to participate:

**FOLLOW UP QUESTION # 1: Did participation in Lesson Study bring about a change in the level of communication between education specialists and general education teachers? Please explain your response.**
Ron and Mary, both general education teachers, expressed a positive, but limited change in the level of communication with education specialists. Ron stated:

Short term, yes. We were able to spend a considerable amount of time discussing the lesson design. It was different and unusual for us to hear someone challenging the design from the perspective of a student needing modification. I’m not sure all the general education teachers embraced everything that was shared, but it solicited great dialogue.

Mary stated that the “hard part is maintaining” the level of communication as “we are all so busy.”

Likewise, the two education specialists, Lily and Frank had differing responses.

Lily stated:

Yes it [Lesson Study] did. This was due to collaborative meetings and working together on lesson planning days. By bringing both education specialists and general education teachers together helped them to see each others point of views and the different teaching styles. Due to working together for several hours, there was a respect for the teacher and what they (sic) brought to the table by all members of the lesson planning group.

However, Frank stated, “In my case, it [Lesson Study] did not change the level of communication between the general education teachers, and I (sic). The reason it did not change was that I talked with them on a regular basis to keep track of my students.”

FOLLOW UP QUESTION #2: Did participation in Lesson Study bring about a change in the ways in which education specialists and general education teachers plan together?

Please explain your response.

Both Ron and Mary found that the lack of time and opportunities to collaborate after Lesson Study were real deterrents to lasting change. Ron stated, “The luxury of time, or lack of it, keeps us from spending time together.” Likewise, Mary stated, “We
know it works. We know its rewards and value, but again finding a way to maintain it is difficult.” Both Lily and Frank expressed positive, lasting changes. For example, Frank stated, “It can bring out a change in the planning if the teachers are working together on a lesson. When we worked in our Lesson Study groups there were some ideas given to the plan from some sped. [special education] staff that the general ed. [education] teachers said they had not thought of.” Likewise, Lily stated:

By working together, general ed [education] and education sp. [specialists] developed a bond with each other. They were able to show the differences and make the adjustments/interventions for low performing students. Both groups were able to modify lessons to adjust to all students and look at learning styles for all students.

FOLLOW UP QUESTION #3: Did participation in Lesson Study bring about an awareness of roles and responsibilities between education specialists and general education teachers that was not there before? Please explain your response.

Both general education teachers, Ron and Mary, stated positive changes in perceptions of education specialists’ roles and responsibilities. For instance, Ron stated:

It [Lesson Study] brought to light the roles in a more clear (sic) manner. Sometimes I have a tendency to think of special ed [education] teachers as enablers, but I could see from our discussions in Lesson Study that the need for them [education specialists] to make clear how inaccessible some material can be based on the way it is presented.

Likewise, Mary had a similar experience. She contended, “I had never worked with an education specialist in this manner before. I had a preconceived idea that they would be more intrusive than inclusive; it was helpful as they were good at watching the whole.”
Frank, an education specialist, did not experience much change. However, he
stated that “there was definitely a lot of ideas being shared from person to person. Lastly,

Lily, an education specialist stated:

Yes it did. Both groups were able to see that working together was productive and
each teacher brought in different experiences, teaching styles and education in
these different areas. This was a huge step for these two groups by working
collaborative, lesson planning, lesson presentations and seeing how their students
responded to the lessons presented. All teachers walked away with a different
view on Lesson Study and the value behind collaboration with the education
specialist and general education teachers.
CHAPTER FIVE

DISCUSSION

The data from the major themes and sub-themes provided insights into the implication of the inclusion of an education specialist on the professional development model, Lesson Study team. For example, data from the first major theme, collaboration, emerged which was consistent with literature suggesting that general education teachers and education specialists lack opportunities to collaboratively work together. For example, all three general education teachers stated that they had had no prior collaborative experience with education specialists. Likewise, two of the three education specialists stated similar responses. Equally revealing was the level of positive collaborative responses reported by the participants as shown in Table 5.

Only two negative phrases were noted: not all group members agreeing and not all group members contributing equally. Friend and Bursuck (1996) contend that true collaboration is demonstrated when all team members feel their contributions are valued, they all share decision making, and where they all sense they are respected.

Under the second major theme, Lesson Study, six sub-themes emerged: Lesson Study - participant goals, Lesson Study - participation outcomes, Lesson Study - positive experiences, Lesson Study - negative experiences, and Lesson Study - increased communication.
Table 5

*Key Positive Collaborative Phrases*

<table>
<thead>
<tr>
<th>General Education Teachers</th>
<th>Education Specialists</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Able to bounce ideas off teachers in different areas</td>
<td>• Stronger connection to teachers in different disciplines</td>
</tr>
<tr>
<td>• Able to pick fellow teachers’ brains</td>
<td>• Very high level of collaboration from everyone</td>
</tr>
<tr>
<td>• Improves teaching</td>
<td>• Wealth of knowledge and experience forward</td>
</tr>
<tr>
<td>• Strong impact on student learning</td>
<td>• Built a sense of professional community</td>
</tr>
<tr>
<td>• Excitement about what discovered in researching, classroom knowledge, and past experiences</td>
<td>• Helped to see each others’ point of view and different teaching styles</td>
</tr>
<tr>
<td>• Gave validity to teaching</td>
<td>• Respect for the teacher (general education)</td>
</tr>
<tr>
<td>• Solicited great dialogue</td>
<td>• Developed a bond with each other</td>
</tr>
<tr>
<td>• Insights about working with special education students</td>
<td>• Productive – each brought in different experiences, teaching styles, and education</td>
</tr>
<tr>
<td>• Better aware of how “shut down” they (special education students) can get when they face challenges</td>
<td></td>
</tr>
</tbody>
</table>
The literature suggests that education specialists feel isolated from other teachers (NCD, 2004). However, from Lesson Study participant goals, the data suggest that none of the education specialists chose Lesson Study for the purpose of meeting with other teachers. Likewise, Brownell et al. (2006) contend that general education teachers are unprepared to teach students with learning disabilities in the general education classroom. Similarly, data from the study suggest that two of the three general education teachers chose to be on a Lesson Study team, with an education specialist, with the goal of gaining insight into teaching their students with learning disabilities.

From Lesson Study participation outcomes – only three responses were noted; one from a general education teacher and the other two from education specialists. The responses from both the general education teacher and education specialists suggest that Lesson Study may be a useful tool for preparing teachers for inclusive classrooms.

Under the sub-theme, Lesson Study – positive experiences, all six participants expressed positive experiences as a result of their Lesson Study participation, which supports the literature. On the other hand, participant’s responses, under the sub-theme, Lesson Study - negative experiences presented a new challenge to Lesson Study as a viable and promising instructional approach for improving teaching methods in America; individual traits and characteristics. All six participants expressed negative experiences due to individual team member’s traits and characteristics, such as level of commitment and involvement, level of maturity, level of experience teaching, and level of curriculum knowledge.
Lastly, under Lesson Study – increased communication, which was based on a follow up question, the data suggest that only one participant, Lily, an education specialist, reported a lasting change in the level of communication between general education teachers and herself as a result of participating on a Lesson Study team. However, Lily had been a member of a Lesson Study team for numerous years and had a great deal of experience working collaboratively with general education teachers.

From the third major theme, Teaching, data was organized and analyzed in order to determine the value of Lesson Study to teaching and student learning. Under the sub/themes past teaching experiences with general education teachers and education specialists two of the general education teachers stated that they had formed preconceived ideas of education specialists, referring to them as “enablers” and “intrusive.” Likewise, two of the three education specialists reported difficulty working with general education teachers stating the following assumptions: general education teachers are “stuck in their way of teaching,” are not “willing to make changes to support special education students,” and “do not want to hear that their student is showing progress with the education specialist.” Also of interest, only one participant, an education specialist, had prior to Lesson Study, attempted to “develop a good relationship” with general education teachers.

Next, from the sub-theme, Teacher/Student learning, the data suggest that Lesson Study had a significant affect on all of the participants’ teaching. As a result of working together collaboratively, all participants reaped invaluable information on teaching and student learning as shown in Table 6.
The next two sub-themes, After Lesson Study planning and After Lesson Study roles and responsibilities were based on two of the three follow up questions. The first, After Lesson Study planning, presented data that support findings of Hiebert and Stigler (2000) that suggest that Lesson Study brings about a change in which teachers plan lessons together. However, the change was not constant as all of the participants were unable to maintain a collaborative relationship after Lesson Study. Second, the data from the sub-theme, After Lesson Study roles and responsibilities suggest that as a result of general education and education specialists collaboratively participating on a Lesson Study team, past assumptions have changed.

The literature suggests that time is one of the major challenges to Lesson Study (Lewis, 2002b). Under the major theme – Time, data were provided that support the literature. After color coding all phrases that referred to time, I was able to visually see that indeed many of the negative responses contained references to time. From the data, three sub-themes emerged: Relationship building time, Lesson Study time, and After Lesson Study collaboration time.
Table 6

*Teacher – Student Learning*

<table>
<thead>
<tr>
<th>General Education Teachers</th>
<th>Education Specialists</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Gained insight about how to set up problems, how to ask questions that encourage learning</td>
<td>• Able to see the different ways that general education teachers get lessons together</td>
</tr>
<tr>
<td>• Insights about working with special education students</td>
<td>• Opened my eyes to teaching</td>
</tr>
<tr>
<td>• New teaching strategies</td>
<td>• Brought in different experiences, teaching styles, and education</td>
</tr>
<tr>
<td>• Better aware of how “shut down” they (special education students) can get when they face challenges</td>
<td>• Looking at a lesson through students’ eyes</td>
</tr>
<tr>
<td></td>
<td>• Able to modify lessons to adjust to all students and look at learning styles for all students.</td>
</tr>
</tbody>
</table>
Under relationship building time, the data suggest that both general education teachers and education specialists view time as a major component in building and maintaining successful relationships. ‘Lack of time” was shown as the major deterrent to relationship building. Lesson Study - time produced similar results as both groups of teachers expressed concern over the amount of time needed to complete their Lesson Study cycle.

Lewis (2002a) contends that time is a measure of commitment. After Lesson Study - time focused on determining whether or not the participants found time, after Lesson Study, to meet and collaborate. The data suggest that none of the teachers maintained a collaborative teaching relationship after Lesson Study. Once again, time, or the lack of it, was noted as the foremost rationale.

To be sure, the present study provides valuable insight into the inclusion of an education specialist on a Lesson Study team. The implications from the study suggest that as a result of education specialists and general education teachers working collaboratively on Lesson Study teams general education teachers are better prepared to teach students with learning disabilities in the inclusive classroom and education specialists are better prepared to teach standards based curriculum to learning disabled students in the special education classroom; thus, fulfilling current legislation requirements of IDEA and No Child Left Behind.

In addition, several limitations to the study exist. Best and Kahn (2003) define limitations as “those conditions beyond the control of the researcher that may place restrictions on the conclusions of the study and their application to other situations” (p.
First, the research was confined to four Lesson Study teams in northern California. Data would have been richer if a larger number of Lesson Study teams, throughout the United States, had been studied. With a sample size of six educators (three education specialists and three general education teachers), the findings cannot be directly generalized to the larger population of education specialists and general education teachers. Therefore, it is important to refrain from drawing any conclusions about the perceptions, beliefs, and attitudes among the target audience. Lastly, the individual characteristics of the participants and the researcher, such as personal beliefs and bias concerning Lesson Study or collaboration, interpersonal skills and communication skills lead to caution when interpreting the study’s results.

To be sure, further research involving education specialists and general education teachers collaboratively working together on Lesson Study teams should be examined to provide long term conclusions about the validity of this study.
CHAPTER SIX

CONCLUSION

The purpose of this study was to investigate the implications of the inclusion of an education specialist on a Lesson Study team. The qualitative data suggest that providing opportunities for education specialists and general education teachers to share their strategies and pool their intellectual resources collaboratively through Lesson Study results in a positive change in the way in which they communicate, plan, and teach. In addition, Lesson Study participation provided positive insights into the roles and responsibilities between education specialists and general education teachers.

However, the study reveals two major challenges for Lesson Study success in the United States; cohesive collaboration teams and time. First, Lesson Study teams need to establish true collaboration teams where all members contribute equally and where all members feel valued and respected. Second, Lesson Study teams need to use their time efficiently and effectively planning lessons, building relationships, and collaborating.

In summary, the history of educational reform in the United States is filled with great ideas promising quick results. Lesson Study is not a quick fix, but may be a conduit by which, over time, educators are provided an opportunity to learn and work together to achieve common goals for improving student learning. As John Wooden, UCLA Basketball Coach Emeritus, so aptly stated:
When you improve a little each day, eventually big things occur... Not tomorrow, not the next day, but eventually a big gain is made. Don’t look for the big, quick improvement. Seek the small improvement one day at a time. That’s the only way it happens—and when it happens, it lasts (Wooden, 1997, p. 143).
REFERENCES


Retrieved February 8, 2007 from


March 29, 2006

Dear __________,

Hi, my name is Lanore Bergenske. I am an Education Specialist at Redway Elementary School, Redway, California. I am currently collecting data involving the inclusion of an Education Specialist in Lesson Study teams as part of my Masters’ Thesis. I was hoping that you would be willing to be a part of my valuable research study.

I have attached the necessary consent form and survey questions to this email/letter. You could either email or fax your responses back to me. If emailing, please indicate in the email that you have given your consent to be part of the study. Please keep a copy of the consent form for your records.

Thank you for willing to be a valuable part of my research. I am looking forward to hearing back from you.

Take great care,
Lanore Bergenske

Home: 726-7920
Redway Elementary School: 932-2526
Fax: 725-5426
Ldb20@humboldt.edu
APPENDIX B

VOLUNTARY PARTICIPATION STATEMENT

You should not sign this form unless you have read it and have been given a copy of it to keep.

**Participation in this study is voluntary.** You may refuse to answer any question or discontinue your involvement at any time. Your decision will not affect your future relationship with Humboldt State University. Your signature below indicates that you have read the information in this consent form and have had a chance to ask any questions that you have about the study.

I agree to participate in the study. I understand that the researcher may terminate my participation in the study at any time

Signature of Research Subject ________________________________ Date ______________
Lesson Study: Implications of Collaboration Between Education Specialists and General Education Teachers

1. Describe your experience with the education system.
   a. How many years have you been an education specialist or general education teacher?
   b. How many years have you been teaching at this school site?
   c. How many years have you been teaching this grade level?

2. Describe your past experience(s) involving teacher collaboration groups

3. Describe your past experience(s) with education specialists (general education teachers)
   a. How did you feel about the experience?
   b. What level of collaboration was there initially?
   c. What obstacles do you define as standing between education specialists and general education teachers?

4. Describe your past experience(s) with general education teachers (education specialists)
   a. How did you feel about the experience?
   b. What level of collaboration was there initially?
   c. What obstacles do you define as standing between education specialists and general education teachers?
5. How did you come to learn about Japanese Lesson Study?
   a. How long have you been a member of a Lesson Study team?

6. Describe your role as a member of a Lesson Study team.
   a. How do you feel about the experience?
   b. What level of collaboration was there initially?
   c. Did the level of collaboration remain constant or change? If so, describe in what ways.

The following three questions (7, 8, and 9) have two parts: before and after Lesson Study

7. What did/do you hope to get out of the Lesson Study team process personally?

8. What did/do you perceive to be the strengths of being a member of a Lesson Study team?

9. What did/do you perceive to be the weaknesses of being a member of a Lesson Study team?

10. What impact has Lesson Study had on your teaching and collegiality?
    a. How has practicing Lesson Study changed the way in which you teach learning disabled students?
    b. How has practicing Lesson Study changed the way in which you teach non-disabled students?
    b. How has practicing Lesson Study changed the way in which you interact with the education specialist or general education teacher at your school site?
11. What other comments/information would you like to add that would be beneficial in understanding the implications of education specialists and general education teachers participating collaboratively in Lesson Study groups?
Dear Lesson Study Research Participants

I am writing to ask you for another big favor. My research committee and I have developed three important Post Follow Up Questions (concerning your participation on a Lesson Study team) that we feel will significantly benefit the research study. Your participation and response to the questions are very important to the study and will be greatly appreciated.

You can email the questions/responses to ldb20@humboldt.edu or fax the questions/responses to 725-5426.

As before, your responses, as well as your identity, will be kept completely confidential.

If you have any questions, please don’t hesitate to email me.

Thank-you,

Lanore Bergenske

Questions are attached to this email
APPENDIX E

POST LESSON STUDY FOLLOW UP QUESTIONS

1. Did participation in Lesson Study bring about a change in the level of communication between education specialists and general education teachers? Please explain your response.

2. Did participation in Lesson Study bring about a change in the ways in which education specialists and general education teachers plan together? Please explain your response.

3. Did participation in Lesson Study bring about an awareness of roles and responsibilities between education specialists and general education teachers that was not there before? Please explain your response.