REFLECTIVELY STUDYING STUDENT WORK TOGETHER: COLLABORATE TO DIFFERENTIATE INSTRUCTION FOR ALL STUDENTS

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REFLECTIVELY STUDYING STUDENT WORK TOGETHER: COLLABORATE TO DIFFERENTIATE INSTRUCTION FOR ALL STUDENTS

by

Carla Curtis Dearman

Abstract of a Dissertation Submitted to the Graduate Studies Office of The University of Southern Mississippi in Partial Fulfillment of the Requirements for the Degree of Doctor of Education

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This study, a systematic replication of Dearman, Alber, and Atwood (2005), examines the effects of reflective conferencing on the frequency and type of differentiated instruction exhibited by six second- and third-grade teachers. This ABAB reversal design study extends previous research by including a special education teacher in reflective conferencing and by assessing maintenance phases. After training and baseline data were collected, teachers met for one hour weekly to examine student work and engage in conversations about their teaching. The meetings were discontinued during the second baseline phase and then re-established in the second intervention phase. Data were collected during independent practice sessions after classroom instruction. The established interobserver agreement levels were high in regard to frequency (95%, 94%, and 89%) and acceptable in regard to type (82%, 93%, and 83%) of differentiated instructional responses. Data were analyzed both visually and statistically due to specific limitations in the study. The frequency of differentiated instruction increased in each case in the intervention and maintenance phases at varying degrees. Throughout all sessions of the baseline phases, the mean frequencies of differentiated instructional events observed were 4.0 and 3.2.
while the mean frequencies of intervention phases were 5.4 and 6.7, respectively. This defined a more cautious functional relationship than in the previous study (Dearman et al., 2005) with significant differences noted in three of the six teachers ($p = 0.0379$, $p = 0.0069$, and $p = 0.0071$). However, no significant relationship was noted between the addition of a special educator to the reflective process and the type of differentiated instructional behaviors exhibited. Furthermore, during the maintenance phase the mean frequencies established a clear and robust functional relationship, as the data appeared to stabilize at a higher number of events than at the intervention phases of the experiment.
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CHAPTER I
INTRODUCTION

According to the National Education Association [NEA] (2005), the jury is still out as to whether the No Child Left Behind Act (NCLB) of 2001 U.S.C. Public Law 107-110 (NCLB, 2002) will improve scores on high-stakes testing of accountability or, in fact, improve student achievement. Regardless, the urgency of meeting the individual needs of students is never more prevalent than in the times of legislative mandates and accountability, especially considering that only thirty-one percent (31%) of the fourth graders scored at or above proficient in reading on the 2003 National Assessment of Educational Progress (NAEP).

Equally disturbing are the NAEP fourth-grade performance reports across various subgroups. For example, of the students scoring at or above proficient in reading, fourteen percent (14%) were economically disadvantaged and nine percent (9%) had disabilities (NAEP, 2003). In other words, educators need to address better the needs of these special groups of children. Consequently, public outcries for accountability have besieged the American educational system.

Under close examination, the guiding principles of NCLB (2002) have presented a challenge for educators to focus on what works based on empirical or scientific research, to be accountable for student performance, to employ highly qualified staff, and to empower parents regarding school choice. Prior to NCLB (2002), school reform efforts over the last ten years have emphasized the use of evidence-based programs and instructional practices by teachers,
administrators, and staff; assessments to drive instruction for every child; and collaboration to build learning communities with parents and other community stakeholders (The Collaborative for Academic, Social, and Emotional Learning, 2002). As a matter of fact, the purposes of prior education reform efforts and NCLB are essentially the same—narrow the achievement gap between high- and low-performing students. The distinguishing factors in NCLB legislation are the timeline mandate for demonstrating adequate yearly progress (AYP) and consequences for noncompliance. Consequently, educators (i.e., teachers, administrators) are not only responsible for the measured growth of their students in reading and mathematics but also are accountable for the various or diverse student needs in the following subgroups: 1) economically disadvantaged students, 2) students from racial and ethnic groups, 3) students with disabilities, and 4) students with limited English proficiency (NCLB, 2002).

Even though over time the law may change, the general consensus is that a system of accountability—a procedure for holding administrators, teachers, and students responsible for academic achievement—is here to stay (Fullan, 2003; King & Newmann, 2000; National Institute of Child Health and Human Development [NICHD], 2005; Snow, Burns, & Griffin, 1998; The National Reading Panel, 2000). Debating the issue will neither change the mandates for accountability nor improve student achievement. Rather than suffer the consequences, teachers and administrators must now choose a plan of action that changes the way schools conduct business.
Developing an action plan to improve student achievement presents educators with a two-fold problem: How do schools comply with meeting mandated standards of proficiency on high-stakes testing while also accommodating the needs of the diverse student populations? Teachers and administrators must take into consideration the diverse populations served, which means educators must address the needs of students with a variety of abilities, interests, background knowledge, and learning styles (Wehrmann, 2000). According to Tomlinson (2001), the answer is to differentiate instruction in the regular classroom, which means to modify or adjust curriculum, instruction, and assessments. In accordance with the NCLB (2002) mandates, differentiation must incorporate evidence-based practices (Snow et al., 1998; The National Reading Panel, 2000) for the diverse populations addressed in legislation. Additionally, there is a body of research that indicates differentiation in the classroom translates to effective instruction (Hedric, 2004; McKinley, 2004; Snow et al., 1998; Tomlinson, 2001; Wehrmann, 2000). Furthermore, the findings demonstrate a connection between effective instruction and student achievement. If indeed this differentiation produces effective instruction and improved student achievement, the literature should focus on techniques that impact the frequency and type of differentiated instruction. Findings of this sort are nearly absent.

With onset of high-stakes testing for accountability, teachers and administrators are focusing on effective teaching and learning. NCLB (2002), however, does not dictate precisely how schools achieve success. States,
schools, and teachers still have some control over the processes to be used to meet the legislative mandates. Neither does NCLB (2002) determine the curricula, methods, nor the materials to be used for classroom instruction—only that instruction must encompass research-based programs and practices. The districts and schools are allowed to consider the school’s particular culture and needs to make the programmatic decisions to improve student performance. Consequently, choosing a school's plan of action remains the key to implementing the necessary changes to meet students’ needs and the mandated standards.

These changes in student performance that must occur do not naturally flow from a legislative mandate. On the contrary, Fullan (2000) suggests that the change forces must begin with teachers themselves striving to make a difference in the lives of children and engaging in the adjustment of classroom practice. Educational mandates often result in panic and quick reactions that do little to improve student achievement, such as purchasing a new program or adding an innovation to the reform efforts already in place. To avoid reacting inappropriately to the new mandates, schools must carefully examine the change process and develop a plan to meet the demands of high-stakes testing for accountability. According to Fullan (1998, 2000, & 2003), any effective change requires planning, inquiry, and time to facilitate. In other words, to invest in the process of change, time must be set aside for educators to collaborate and study together in teams (Showers & Joyce, 1996) both the mandates and the diverse needs of students. Since teachers historically have worked in isolation, this study team
process of collaborative inquiry may be foreign (Greenwood & Maheady, 2001; Joyce & Showers, 2002). Therefore, professional development becomes imperative. The research findings at Harvard Project Zero (Blythe, Allen, & Powell, 1999) suggest a need for a structured process or protocol to elicit teacher collaboration and inquiry about individual students' work and the teaching that produced the work. Consequently, educators should employ an action plan of collaborative inquiry to study students' products and reflect upon the practices under which the student's work is constructed (Fullan, 2000; Showers & Joyce, 1996; Blythe et al., 1999). There is a need for further research, but these collaborative and reflective conversations may guide teachers in the process of planning differentiated classroom instruction.

The purpose of this study is to systematically replicate the research findings (Dearman, Alber, & Atwood, 2005) regarding the functional relationship established between four second- and third-grade regular education teachers' reflectively reviewing student work using the Collaborative Assessment Protocol (Seidel, 1991) and the frequency of differentiated instruction in classrooms. This previous research was limited to investigating the change in regular classroom teachers' behaviors with on-going support from the researcher team. Even though these findings indicated an increase in the use of differentiated instruction, there was little variation in the type of differentiation. Perhaps this school's use of a scripted, whole group reading/language arts program (e.g. Direct Instruction - Engelmann & Hanner, 1995 and Distar - Engelmann & Osborn, 1973) actually limited the use of various types of differentiated
instruction. Therefore, the current study extended the research to include a school with a literacy model that focuses on meeting the individual needs of ALL students, as well as the participation of the special education teacher in the reflective process. Since special educators' expertise includes meeting individual needs by adjusting or modifying instruction, the special educator's participation in the study team has the potential to impact both the frequency and the type of differentiated instruction. The following research questions are addressed:

- What impact will holding regular reflective conversations have on the frequency of differentiated instructions in second- and third-grade classrooms that focus on meeting the needs of ALL students?
- What impact will special educators' participation in reflective conversations have on not only the frequency but also the type of differentiated instruction?
- Do teachers continue to have reflective conversations about student work when on-going researcher's support is removed?

The significance of this study pertains to the importance of teachers' understanding not only what should be taught according to scientifically-based research but also how to make adjustments in instructional methods and tools to accommodate the diverse needs of students. Since there is historically a discrepancy between what science deems effective methodology and actual classroom instruction—research-to-practice gap, this study may provide a bridge for narrowing the gap as educators cope with the demands of preparing students for high-stakes testing for accountability. Furthermore, this study is designed to
enhance the research on facilitating the change process via study teams by the
addition of a structured process or protocol to elicit teachers' reflective
communications about student work.

Definition of Terms

For clarity in the scientific process, terms associated with the independent
and dependent variables are defined as follows:

- Study teams consist of grade level groups of regular and special
  education teachers working together two hours weekly to improve
  classroom instruction by using on-going assessment of individual students
  to drive instruction and incorporate new research-based instructional
  materials/strategies;

- Expert coaches have developed expertise in research-based strategies
  and programs used in curriculum, assessment, and instruction; they
  instruct the team of regular and special educators;

- Reflective conservation is a session conducted using a conference
  protocol during the first thirty to forty minutes of each study team meeting
  to review student work in the context of the instruction under which the
  work was produced;

- Conference protocol provides a written structure or procedure for
  conducting the reflective conversations during study team meetings;

- Differentiated instruction involves adjusting or modifying curriculum,
  instruction, and assessments to meet the specific needs of students.
Assumptions

This study presents three assumptions for consideration: the classrooms studied are heterogeneously grouped; the literacy model used in each classroom focuses on meeting the needs of ALL students; and each study team member has professional instruction and experience in the following:

- Working collaboratively with peers;
- Using on-going classroom assessment to determine students’ needs;
- Using assessment data to drive classroom decisions and differentiate instruction; and
- Incorporating research-based strategies and materials.
CHAPTER II
THE REVIEW OF THE LITERATURE

If legislative mandates have resulted in raising the bar in academic achievement for \textit{ALL} students, legislation has mandated change for perhaps every school across the nation (National Education Association, 2004). The complexity of mandated changes increases the need for inquiry, engagement, and new skills (McLaughlin, 1990; Fullan, 2000). In making the changes necessary to comply with the mandates, educators confront the challenges of meeting higher standards while addressing the needs of a diverse student population. Therefore, this review of research explores: a) meeting diverse needs of all students through differentiated instruction; b) employing change as a process; c) engaging teachers in study teams; and d) reviewing student work together to reflect upon and adjust the practices. To establish a theoretical framework, a literature review was conducted using various search engines such as the ERIC Educational Research Information Center database and also employing references included in those articles.

The literature findings indicate that there is no shortage in the literature detailing stakeholders’ perceptions at the federal, the state, and even the district levels outlining steps teachers must employ to improve student achievement. In fact the literature findings resound with action words suggesting how teachers should best implement mandated changes: \textit{support, require, employ, adjust, transform, modify, replace, substitute, tweak, and reshape} teaching and learning (Dearman & Falconer, 2004). Teachers, however, tend to form beliefs and
consequent instruction from past personal experiences, rather than from research or legislation (Belden Russonello & Stewart, 2003). According to Trent (1998), a missing link in the research-to-practice gap becomes teachers' communication. In fact, Trent (1998) stresses the need for further research to document collaborative efforts allowing teachers to "...modify, integrate, and extend components of reform agendas presented..."p. 514). Fullan (2000) stresses that teacher input is an element of change, without which change will be merely superficial and fleeting. Teachers need to be engaged in a process of inquiry to implement change (Fullan, 2000 & 2003). Somehow teachers need to direct this inquiry to what research deems effective in improving student achievement: specifically, differentiated instruction.

Research on Differentiated Instruction

Classrooms are composed of a mixture of students with a variety of needs and abilities. Although this reality presents a challenge to educators, classroom diversity does not necessarily equate to poor student achievement. If all students are to be proficient and meet the standards set by high-stakes testing for accountability and legislative mandates, educators must not only concentrate on standards-based instruction but also on the needs of individual students (Tomlinson, 2000). Therefore, the diversity in classrooms calls for changes in instructional methods teachers use to ensure that ALL students learn (NICHD, 2000; Snow et al., 1998; National Reading Panel, 2000).

Again, according to Tomlinson (2001) the answer to meeting both the mandated standards and the needs of students is to differentiate instruction in
the regular classroom. To differentiate instruction, educators must consider individual differences, such as background knowledge, interest, learning styles and "plan accordingly to allow for different learning rates and to structure tasks of varying complexity" (Scherer, 2000, p.5). Furthermore, research findings suggest teachers can vary instructional "materials, tasks, degrees of scaffolding, groups, and time" (Tomlinson, 2000, p. 4) to accommodate individual differences and needs. Varying instruction will require both a shift in teachers’ beliefs and a collaborative effort to avoid experiencing the frustrations (Hedrick, 2004) of challenging some learners and remediating others. Tomlinson (2000) recommends that teachers also need to collaborate with other teachers who work or have worked with the special education student to learn which instructional techniques have been successful. Pettig (2000) suggests additional methods for differentiating curriculum and instructional practices in regular classrooms, some of which are used in this research:

- Find a buddy (Peer collaboration is essential);
- Align objectives;
- Find out what students know;
- Plan for flexible grouping;
- Encourage student responsibility; and
- Provide choice (p. 14 – 17).
By employing these suggestions in the research, classrooms become a learning community incorporating both teacher- and student-centered strategies to fine-tune curriculum and instruction according to the background knowledge, interest, abilities, and learning styles of each student (Hedrick, 2004). In other words, the students' needs dictate any modifications to curriculum and instruction. In certain cases, such differentiation may present an extra challenge to teachers in that they may need to bypass instruction (Hess, 1999). For example, if a student demonstrates understanding of concept knowledge, instruction should be discontinued or even bypassed. This idea of bypassing instruction will require a change in many teachers' beliefs. Therefore, educators may need to focus on change as a process itself initially to determine how to cope with the challenges of differentiating instruction to address the diverse academic needs of students.

Research on Change as a Process

The review of the literature indicates the multifaceted nature of change in the classroom. Senge's research (1990) suggests that organizations will not change unless the individuals' beliefs and skills are used to develop a collective vision in a safe environment. Other investigations (Showers & Joyce, 1996; Fullan, 2000) echo Senge's premise (1990) on change in the educational system. Instead of schools randomly grasping for new programs and/or practices, educators should first seriously consider which change forces are employed to interpret the mandates, establish a unified, across-the-board commitment for change, and acquire skills to implement and support those changes (Fullan, 2000). For example, the findings indicate (Fullan, 1992; Fullan, 1998) that
teachers must change in three distinct ways to implement a new program or policy to meet an educational goal. Teachers must learn to: a) use new materials, b) use new teaching strategies, and b) adopt new beliefs (Fullan, 1992; Fullan, 1998).

The literature findings further affirm the idea that there must be a paradigm shift in teachers' beliefs for change to occur (Senge, 1990; Fullan, 2000). Additionally, the change agents must be the teachers that are engaged in the adjustment of classrooms practices, rather than those agents that mandate change. One of the challenges of the guiding principles of NCLB is to ensure that the new methods and materials used in effecting change are proven to work according to science (The National Reading Panel, 2000). This challenge has heretofore limited teachers' use of instructional methods and materials. Until teachers use differentiated instruction to implement researched-based practices, they may feel restricted to a one size fits all approach to teaching and learning (Belden Russonello & Stewart, 2003). According to Yatvin (2002), an educator and dissident voice on the National Reading Panel, teachers should indeed use scientifically-based approaches to inform instructional practices but still realize that science itself cannot teach children, especially if constructed as a one size fits all process or program. Collaborative efforts allow teachers to make changes by modifying and extending these scientific practices to meet the different needs of students.

If change is to occur, a model of professional learning that builds teacher capacity must be adopted (King & Newmann, 2000). According to the research of
King and Newmann (2000), schools striving to improve teachers’ knowledge, skills, and dispositions will be open to innovations. For example, Mississippi, a rural state with high poverty, has had reform efforts underway since 1997. Mississippi’s 149 school districts and three agricultural high schools all receive Title I funding. The strides in achievement gained due to Mississippi’s reform efforts have been noted nationally, even though it will take many more years of hard work to achieve the NCLB mandates. All involved—policy makers, administrators, teachers, university professors, childcare providers, parents, students—became the change agents for this common vision and participated in action planning. These change forces of Mississippi’s reform efforts involved constructing an infrastructure to improve reading instruction and thereby student achievement. The focus included revising the curriculum based on current research, developing criterion-referenced assessment to measure the taught curriculum, seeking funding from the federal, state, and private sources, and establishing an accountability system that is lauded across the country (Mississippi Department of Education [MDE & Barksdale Reading Institute [BRI], 2000).

Although addressing the learning capacity of both teachers and students is at the heart of school improvement and NCLB, there is significant evidence that looking for solutions and “quick fixes” outside of the school wastes time and resources (Fullan & Hargreaves, 1991; King & Newmann, 2000; NICHD, 2000; Snow et al., 1998; The National Reading Panel, 2000). On the other hand, staffs that work together to set clear goals for teaching and learning, monitor student
progress over time, and develop action plans to increase student achievement
establish a learning community (Darling-Hammond, 1999; Showers and Joyce,
1996; Snow et al., 1998). The techniques of collaborative inquiry and problem
solving build the capacity of the organization to improve outcomes (Senge,
1990). Therefore, examining the literature concerning professional development
opportunities that use teacher study teams is appropriate.

Research on Teacher Study Teams

Educators are challenged with finding the vehicle to translate
research-based strategies into classroom practices and, in turn, knowing how to
differentiate the proven practices for diverse populations (NICHD, 1998; Snow et
al., 1998; The National Reading Panel, 2000). Since research indicates that
teachers who work in isolation rarely change instructional practices, the concept
of teacher study teams may be the vehicle that narrows the research-to-practice
gap (Greenwood & Maheady, 2001; Joyce & Showers, 2002). The review of the
literature indicates teachers' classroom practices change through a process of
studying together including (Showers & Joyce, 1996):

- Presenting the rationale or theory of research-based innovative strategy;
- Demonstrating the skills required for implementation;
- Practicing the skills required to fine-tune the processes; and
- Collaborating with peers to develop and support a plan for the
  incorporation of the skills into classroom practices.

The United States Department of Education's Comprehensive Assistance
Center used Joyce and Showers' research (1995) on the effectiveness of study
of study teams to narrow the gap between research and practice. This research overwhelmingly points to the fact that without study teams the percentage of teachers’ application of an innovation presented in traditional professional development session is very low. Additionally, the literature indicates teachers collaboratively studying student data and planning how to use evidence-based practices increase the classroom application of the strategies by clarifying processes in a safe environment (Baker & Smith, 2001; Fuchs & Fuchs, 2001; Greenwood & Maheady, 2001; Strickland, 2002).

As teachers engage in a process of questioning and investigating teaching and learning, any success with these strategies can translate into a positive change in both belief and classroom practice (Fullan, 2003). Therefore, the findings suggest that schools need to develop a plan of action that enables teachers to regularly study together, build a strong commitment to meeting the needs of each student through effective instruction, and support each other as the changes occur (Strickland, 2002). Studying together can be a powerful tool in the change process by unifying a school’s purpose and vision (King & Newmann, 2000).

The concept of improving teaching and learning through teacher study teams has evolved from studies beginning in the 1980s concerning professional development and the application of innovations into classroom practice (Joyce & Showers, 1980). According to Showers and Joyce (1996), successful study teams must begin with agreement among the members to:

- Practice the innovation;
• Support each other in the implementation process; and
• Collect data for instructional decision-making.

Additionally, study teams can provide faculties with opportunities to reflect upon their practices with fellow team members sharing common interests and knowledge base to create an atmosphere of one for all and all for one. For example, high school teachers participating in studying together report that collaboration improves the development of new professional ideas as well as yields positive changes in their teaching practices (Slater & Simmons, 2001). Likewise, elementary faculties express that the reflective process supports changes in beliefs and improves teacher quality (Swafford, 1998). The results of this study will ratify the necessity of reflective conversations in effecting change.

To effect change, meaningful professional development is more important than ever. Since professional development is very expensive, activities should be connected to improving both teaching and learning (Darling-Hammond, 1999). Perhaps too often the school or district leadership assumes the responsibility for planning professional development opportunities for the teachers, rather than building a community of teachers who learn from one another (Dunne, Nave, & Lewis, 2000; Fullan, 2003; Joyce & Showers, 2002; Sparks, 2001). This research investigates using reflective conversations in study teams to build teacher capacity. Research findings suggest effective educational leaders also elicit teacher input to construct professional development that reviews the research- and evidence-based programs, models new skills, practices the skills, and supports study teams (Blase & Blase, 1998; Joyce & Showers, 2002).
Involving teachers in these decisions fosters the commitment necessary to achieve and sustain change in the classroom (Fullan, 2000 & 2003). As administrators designate time during the school day for faculty members to study together, teachers can make a positive change (Fullan, 2000; Murphy, 1997). Allowing time for change to occur is of the utmost importance (Fullan, 2003). Again, Mississippi has a program in place worthy of study. Due to the private investment of Jim and Sally Barksdale in Mississippi’s educational infrastructure, the Barksdale Reading Institute (BRI) was created to further implement the reform in the lowest performing kindergarten through third grade schools (Mississippi Department of Education & Barksdale Reading Institute, 2000). All seventy-one schools receiving grant funds from the Institute schedule time weekly for teachers to study together. Many of the schools report that study teams add more value to the reform effort than other components of the BRI model; whereas, some schools indicate that time would be better spent in the classrooms. After reviewing the way other schools allocate time for teachers to work together, the Mississippi schools designated approximately two hours weekly for teachers to study both teaching and learning together. The provisions that proved successful are (Dearman et al., 2005):

- Grouping teachers whose students attend art, music, physical education, and other special areas at the same time;
- Grouping teachers by free periods;
- Starting the school day thirty minutes later, having teachers arrive thirty minutes early one day a week to have one hour weekly for collaborative
study (These teachers are provided release time as compensation for the extended day.);

- Using assistant teachers and tutors in classrooms during study team times to implement whole-group strategies for fluency and comprehension;
- Scheduling reading camps weekly to prepare a core of substitutes to conduct one-on-one reading tutorials until study teams begin meeting (During study teams the substitutes conduct whole group strategies for fluency and comprehension.);
- Amending school board policy to allow the early release of students one day a week; and
- Using Title, state, local, or grant funds to buy time for faculties to study together.

According to Kelleher (2003), “Research has shown unequivocally that professional development is most effective when it is embedded in teachers’ work” (p.3). In other words, teacher learning is most effective in the context of teaching. Once teachers know the method, they will be equipped to embed new professional techniques. Then teams may collaboratively engage in devising curricula and assessments, looking at student work to reflect upon practices, and planning together to meet the needs of students (Kelleher, 2003).

Learning to participate in study groups and engage in conversations that affect teaching and learning may be foreign to some. Typically, staff, grade level, or subject area meetings are conducted to plan events, learn of new trends or mandates, and review assessment data. Rarely, however, do teachers engage in
dialogue about student work and on-going assessments to examine the teaching practice that produced the student work. Therefore, a comprehensive review of the procedures required to hold reflective conversations about student work in study teams becomes important.

Research on Reviewing Student Work Together

The literature findings stress the importance of reviewing student data to enlighten instruction (Baker & Smith, 2001; Blythe et al., 1999; Guskey, 2003; Little, Gearhart, Curry, and Kafka, 2003; Snow et al., 1998; Sparks, 2001; The National Reading Panel, 2000). Additionally, there is an abundance of literature exploring the use of authentic assessments in classroom decision making, conversations to improve student achievement, and collaboration in study teams to evaluate and plan instruction (Clay, 1997; Fuchs & Fuchs, 2001; Greenwood & Maheady, 2001; Little et al., 2003; Shower & Joyce, 1996; Strickland, 2002). Little research, however, exists to give specific direction for examining student work and structuring conversations to identify, reflect upon, and adjust teacher behaviors or practices to influence student outcomes (Blythe et al., 1999; Dunne et al., 2000; Guskey, 2003; Little et al., 2003). Additionally, Darling-Hammond (1995) notes schools see swift results when engaged in examining how students are affected by instruction. Therefore, if schools choose study teams as the vehicle for effective professional development and school improvement, it is imperative that teachers be taught how to structure conversations and thereby judge and adjust their own practices (Blythe et al., 1999). Without establishing a structure or process for reflection, teachers may find this step not only
nonproductive but also intimidating at best. Surprisingly, there is a deficit in the literature findings regarding the use of structured conversations during well-established study team meeting. Limitations of previous research do not allow generalization. Therefore, this proposed study replicates the previous research and incorporates additional components to further contribute to the findings of the research community.

Most of the literature concerning the use of protocols to structure reflective conversations arises from the work at the following (Blythe et al., 1999):

- Coalition of Essential Schools in California;
- Annenberg Institute for School Reform at Brown University;
- Project Zero at Harvard Graduate School; and
- Teachers College at Columbia University.

Each has contributed to the literature by stressing the need for a structured protocol to elicit teacher conversations about individual student’s work and the teaching that produced the work (Blythe et al., 1999). For example (Dunne et al., 2000), the National School Reform Faculty guides schools in the use of a protocol to hold reflective conversations about the work produced by both teachers and students to collaboratively identify and meet objectives. Further investigation produces the findings that effective procedures or protocols often depend on the ability of the facilitator or designee to understand “the learning of the group, the logistics of meetings, and the longevity of the work within the school or district” (Allen & Blythe, 2004, para. 1 - 2). Accordingly, trust and a common vision are established by reviewing and analyzing student work in the
context of teaching and learning. The structure of one such protocol, the Collaborative Assessment Conference (Seidel, 1991), requires teachers to use analytical questioning of the context in which student work is produced (Blythe et al., 1999). Again, however, the literature lacks evidence in well-established study teams of this protocol's use to enhance teachers' conversations. Perhaps schools with regularly scheduled study team meetings should designate a portion of the time to look at student work reflectively.

Reflective conversations involve two primary inquiries (Blythe et al., 1999): 1) assessing the quality of the student's work and 2) assessing the context of work production, which includes elements of background information about the student, the teacher's instructional process, and the assignment itself. Both steps are critical, but the order in which they are conducted may vary from team to team. As example, some may prefer to assess the quality of the student's work first. Assessing the quality of students' work has been labeled by Blythe et al., (1999) as "...describing, interpreting and evaluating..." (p. 21) a work sample to determine the student's understanding and growth over time using several work samples. Others may choose to examine the context in which the work is produced prior to assessing its quality (Blythe et al., 1999). The study teams choose the conference protocol that meets the specific needs of the school culture by following the steps below (Blythe et al., 1999):

- Taking stock of current ways of looking at student work;
- Establishing goals and framing questions;
• Choosing, adapting, or developing a process for looking collaboratively at student work;
• Implementing the process; and
• Reflecting on and revising the process (p. 6).

Considering the repercussions of failure to meet the mandates of NCLB, school study teams should investigate different structures or protocols to begin reflective conversations about student work to improve teaching and learning to meet the needs of their particular population (Blythe et al., 1999).

Again, among the literature exploring the dynamics of change in schools and the validity of study teams (Senge, 1990; Fullan & Hargreaves, 1991; Joyce & Showers, 1995), few in the field elaborate on the worth of enhancing well-established study team meetings by using reflective conversation to educe differentiated instruction of effective research-based practices. Therefore, the study (Dearman et al., 2005) conducted in one of the BRI schools dedicated thirty minutes of weekly study team time to hold reflective conversations using the Collaborative Assessment Conference (Seidel, 1991). The research findings indicated a functional relationship among four second- and third-grade regular education teachers' reflective reviewing of student work using the Collaborative Assessment Protocol (Seidel, 1991) and the frequency of differentiated instruction in classroom. Even though the frequency of differentiated instruction increased, these regular education teachers varied little in the type of differentiated instruction provided. Typically, the only types of differentiated instruction were limited to (Dearman et al., 2005):
• Targets instruction to meet student’s needs (i.e. varies time frame, materials, complexity of tasks);
• Simplifies, clarifies, and chunks instructions; and
• Develops responsibility in the student.

Limitations in the previous study involved the school setting and the participants (Dearman et al., 2005). The school’s reading/language arts programs (e.g. *Direct Instruction* - Engelmann & Hanner, 1995 and *Distar* - Engelmann & Osborn, 1973) were scripted with few, if any, adjustments for individual student’s needs and thereby limiting the experiences of the teachers. Additionally, special educators were not participants in the regular study team meetings. The absence of expertise in differentiated instruction, which can be provided by a special education teacher, may limit not only the frequency of instructional modification but also the type of differentiated instruction. Furthermore, the previous research investigated changes in regular classroom teachers’ behaviors with on-going support from the research team. Consequently, elements of the findings bring to the forefront a need for further investigation and point to the following unanswered questions:

• What impact will holding regular reflective conversations have on the frequency of differentiated instructions in second- and third-grade classrooms that focus on meeting the needs of ALL students?
• What impact will special educators’ participation in reflective conversations have on not only the frequency but also the type of differentiated instruction?
• Do teachers in the classroom setting continue maintain reflective review of student work when on-going researcher's support is removed?

In summary, the findings of the literature review point educators to a significant choice. The choice becomes whether to allow policy makers to determine the instructional process for **ALL** or to empower teachers in the planning process. The right choice for children is evident. Educators must engage in the following: 1) differentiating instruction to meet the diverse needs of **ALL** students; 2) understanding that change is a process of building a collective mission; 3) restructuring professional development to provide time for faculties to study and make classroom decisions based on the educational mandates, research-based programs/practices, and student data; and 4) developing and implementing a plan of reflective conversations, all of which will lead to improved teaching (Blythe et al., 1999; Dearman et al., 2005; Fullan, 2003; Joyce & Showers, 1995; Tomlinson, 2001).
CHAPTER III

METHODOLOGY

Setting

This study took place in one of the Mississippi’s BRI kindergarten through fifth-grade schools. The school was chosen for its proximity to the researcher and in recognition of the fact that the kindergarten through third-grade regular and special education teachers had experience with expert coaches and the study team process; they also had a working knowledge of scientifically-based research findings of the National Research Council (Snow, Burns, & Griffin, 1998) and The National Reading Panel (2000). In addition to materials and tutors funded with BRI grant monies, the Institute placed a regional reading coordinator (expert coach) in each school to facilitate the implementation of the research-based practices through study teams and in-classroom coaching weekly (MDE & BRI, 2000).

The school population was African-American (100%) with 87.6% of the students receiving free or reduced lunch. The school divided the kindergarten through third grade teachers into two study teams: Team 1 – kindergarten and first-grade teachers; and Team 2 – second- and third-grade teachers. The Team 2 teachers were selected to participate in this research project since Mississippi’s testing of accountability begins in second grade.

At the time of the study, the school used a Four Block Literacy Model (Cunningham, Hall & Defee, 1991) to teach reading and writing, which included guided reading, self-selected reading, writing, and working with words. This
framework was designed to meet the various needs of all students. The differentiated instructional data was collected during in-class observations during the writing block.

Participants

The six teacher-participants were experienced in both expert and study team coaching processes. These educators, one European-American and five African-American, had one hundred thirty-four cumulative years of teaching experience. Five of the seven teacher-participants held a Master of Education degree. The special education teacher worked collaboratively as a consultant with the regular education teachers during study teams. The district and school administrators, BRI regional reading coach (RRC), school's reading coach, and teacher participants (Appendix A) had agreed to use a structured process to discuss students' work rather than the ad hoc manner used previously.

Research Team

The research team consisted of the school's two expert coaches (RRC and literacy coach), a university professor, and a doctoral student. The doctoral student, under the advisement of the university professor, was the primary researcher and delivered training to all participants in the reflective conversation process. The researcher initially facilitated the regular reflective conversations during study team meetings and then became a member of the team to ensure the adherence to the written procedures throughout the intervention phases of the study. Since the participants were accustomed to the expert coaches observing in classrooms, facilitating the exploration of research-based practices,
and discussing intervention students in study team meetings, the RRC and the school's reading coach served on the research team to collect data as observers. Therefore, the impact of researchers in the classroom had a limited effect on the behavior of the teacher-participants. Both expert coaches observed and recorded differentiated instructional data in each participating classroom on different days weekly. The university professor maintained a role of advisor to the other researchers throughout the project.

**Dependent Variables**

The dependent variables measured in this investigation are the frequency and type of differentiated instruction by teachers for their students. Incidences of differentiated instruction were observed and recorded for fifteen minutes per participant two to three days weekly during independent work sessions during the writing block. An incidence of differentiated instruction was recorded each time the teacher emitted one of the following behaviors when interacting individually with each student:

- Targeting instruction to meet student's needs (i.e. varies time frame, materials, complexity of tasks);
- Simplifying, clarifying, or chunking instruction;
- Relating the content to background knowledge or experience;
- Thinking aloud or modeling;
- Accommodating different learning modalities by alternative activities and varied learning tools;
- Asking and answering higher order questions (i.e. why, what if, how);
• Adjusting environment (i.e. limiting distracters, position, movement);
• Grouping students based on needs (i.e. small group, individual, pairs);
• Providing the student(s) choices, and
• Developing responsibility in the students.

Each time an expert coach observed an incidence of differentiated instruction, the researcher marked a tally next to the type of instruction emitted (see Appendix B). According to the research timeline (Appendix E), data were collected for approximately ten weeks beginning in January, excluding the Spring Holidays and specific school-sponsored events. To establish a systematic process for data collection, data were collected primarily during independent work in the writing block. However, if the specific events of a school day changed the daily routine, data were collected according to the revised schedule.

Procedures to Enhance and Assess Believability of Data

Interobserver Agreement (IOA)

Prior to collecting baseline data, the primary researcher and expert coaches practiced using the data collection instrument (see Appendix B) in teachers' classrooms that were not participating in the study. For three sessions, the primary researcher and expert coaches independently and simultaneously observed and recorded incidences of teacher-differentiated instruction using the Differentiated Instruction Data Collection Form (see Appendix A). Additionally, for the purpose of assessing interobserver agreement (IOA) and procedural reliability, both expert coaches observed and recorded data independently and
simultaneously during twenty-four percent (24%) of the sessions throughout the study.

Procedural Reliability

As previously stated, these teachers had had extensive instruction and practice in expert coaching and in the study team process. They regularly discussed students' performance on implemented interventions and other assessment data. However, they had no known formal experience with structured, reflective conferencing about student work. In addition, the study team had access to the book *Looking Together at Student Work: A Companion Guide to Assessing Student Learning* (Blythe, Allen, & Powell, 1999) throughout the study. Also, on the recommendation of T. Blythe (personal communication, November 10, 2003), facilitator (Appendix C) and teacher (Appendix D) informational packets were constructed and used from the *Looking at Student Work* web site. Consequently, after baseline was established, the teachers were taught and coached by the researcher in the use of the *Collaborative Assessment Conference*. Training was on-going, following the steps outlined by Showers and Joyce (1996):

- Presentation of the rationale for reflectively reviewing student work together using the Teachers' Informational Packet (Appendix D) containing a description of the process and purposes; terms common to student work protocols; steps in the *Collaborative Assessment Conference*; sample questions to be used for focusing conversations;
reflecting on work samples and instruction; research resources; as well as questions to probe and clarify (Appendix D);

- Demonstration of the steps to Collaborative Assessment Conference found in the informational packet; and
- Practice of the process using a web-based virtual conference.

To ensure procedural reliability, the primary researcher participated in the reflective conversations during the intervention-withdrawal-intervention phases, as well as provided each participant with a checklist of eight steps to follow, supplied a list of sample questions to be asked during each step, and designated one member of the study team to be the facilitator and presenter weekly. The facilitators and presenters were expected to follow the steps in the sequence with ninety-five percent (95%) accuracy. The researcher or the expert coaches noted each step followed during each reflective conversation to determine the percent of accuracy.

Teacher Knowledge

The teacher participants were not informed as to the purpose of this study at the beginning of the project because of two factors:

- The teachers' behavior is the dependent variable in the study, and their knowledge of the purpose of this study might have influenced their behavior; and
- The presence of expert coaches as observers in the classroom was routine for these teachers.
However, at the completion of this study the participants were informed of the purpose of the study during a regular study team meeting. Additionally, each participant was shown on an individual basis the data collection forms depicting the noted incidences of differentiated instruction in each phase of the project.

Experimental Design and Procedures

An ABAB reversal design was used to examine the effects of reflective conversations on the frequency and the type of differentiated instruction. Additionally, a maintenance phase was incorporated during two weeks in April to measure the results of reflective conversations without the support of the primary researcher using a maintenance probe.

Baseline

Due to the structure of this school's Four Block framework (Cunningham, et al., 1991) for reading and writing, the instructional schedule was very specific and limited somewhat the time for intervention. Each teacher was engaged in a process of diagnosing, prescribing, and implementing one-on-one interventions. Unfortunately, the implementation of the prescribed interventions was restricted to a specific time daily rather than integrated into regular classroom instruction. Consequently, the interventions infringed on the daily schedule and added to teacher planning loads. Therefore, the baseline data were collected during the writing block, a period when students usually have a specific time for independent written work. Data were collected (Appendix B) through in-class observations to establish a frequency baseline as to the number and types of
differentiated instruction to meet the needs of the student(s) (*dependent variable*).

**Reflective Conferencing Training**

The teachers in these well-established weekly study team meetings were instructed on the use of the *Collaborative Assessment Protocol* (*independent variable*) to engage in reflective conversations by examining student work samples and the teaching that produced the work. This training was via a virtual conference (Appendix F) in the school's computer laboratory, followed by ongoing support during the intervention phases. Additionally, each teacher was given a facilitator and teacher information packet that included:

- Step-by-step procedure for facilitators, presenters, and participants to follow during each reflective conference; and
- A list of questions to encourage the process of inquiry.

**Intervention Phase I**

Each week a different teacher presented his or her students' work samples without sharing the context of the instruction that produced the work, allowing the other teachers an opportunity to question the instructional process in which the work was produced. During the first week of intervention, the primary researcher facilitated the reflective conference. Each subsequent week a different teacher assumed the role of the facilitator or presenter. The researcher became a participant to support the team in the reflective process and to ensure the fidelity of the process. Data were collected (Appendix B) through in-class
observations to record the frequency and type of teachers' differentiated instruction by the observers.

Return to Baseline Phase

In the second baseline phase, the teachers were directed to discontinue the use of the Collaborative Assessment Conference protocol for reflective conferencing about student work. Furthermore, they were instructed to conduct the study group meetings as previously done, prior to the introduction of the independent variable, for the next two weeks (Appendix E). The researcher did not attend these study team meetings. Data were collected again (Appendix B) through in-class observations to return to the frequency baseline of teachers' differentiated instruction.

Intervention Phase II

The Collaborative Assessment Conference protocol was re-introduced in this phase. Once again for three weeks, the independent variable of reflective conferencing was used in study team meetings. The primary researcher's role became that of an observer only to ensure fidelity of treatment. Data were collected and recorded (Appendix B) through in-class observations of the frequency and type of teachers' differentiated instruction.

Maintenance Phase

During the final phase of this research project, the teachers were instructed to continue allocating the first thirty minutes of their study team meeting for reflective conferencing about student work. Data were collected in
each teacher's classroom four or five more sessions to determine maintenance
of the dependent variable.

Social Validity

On the last day of the project, the primary researcher interviewed the
teachers individually to determine their opinions of the addition of reflective
conferences about student work during study group meetings. Their responses to
the following questions were recorded and transcribed:

- What did you think about reflectively reviewing student work
together to examine the practice that produced the work? Explain
your answer.

- Was the addition of reflective conferencing to study group meetings
valuable or a waste of time? Explain your answer.

- Was reflective conferencing an asset in meeting the needs of
students? Explain your answer.

- Should reflectively examining student work be a regular part of the
study group meeting?

Both the design used and the procedures followed in this study lend
themselves to yield credible results. The withdrawal phase of a single-subject
reversal design, however, brings to point several ethical threats to its use, such
as social and educational concerns (Cooper, Heron, & Heward, 1987; Tawney &
Gast, 1984). Therefore, it should be noted that during all phases of this study,
students continued to receive interventions prescribed during study group
meetings at the designated intervention block, as well as their regular classroom

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instruction, thereby minimizing any potential disadvantage for the student(s) once the independent variable was withdrawn. Another concern of the research community may be the difficulty of reversing the effect of the independent variable upon its removal (Cooper, Heron, & Heward, 1987; Tawney & Gast, 1984). However, in this study the concern that the data are skewed by teachers continuing to differentiate instruction is minimal. Teachers in this study spent a relatively short period of time conducting reflective conferences without the knowledge that the reflections should promote differentiated instruction; in comparison, those same teachers had had two years in diagnosing and prescribing interventions implemented at a specific scheduled time period. Theoretically, the design used and procedures followed in this study yield credible results.
CHAPTER IV
RESULTS

The results represent the frequency and type of differentiated instructional events observed in six teachers' classrooms over a series of fifteen-minute observations. Typically the analysis of single subject research involves a visual examination of graphically depicted data to make decisions (Tawney & Gast, 1984). The presentation of data for this study illustrates the number of times by date each teacher exhibited the use of the defined differentiated instructional strategies across each phase of the research design, including the addition of the maintenance phase. Additionally, the findings indicate the mean frequency of target behaviors across conditions to portray the changes during each of the baseline and intervention phases. Finally, the types of differentiated instructional strategies teachers exhibit yield results both in the number of events and in percentage form to document the portion each strategy holds in the total number of differentiated events observed.

In Figures 1 and 2, the frequency of differentiated instructional events per fifteen-minute observation are shown for each second- and third-grade teacher, respectively, throughout each phase of the study. The abscissa (Y) axis in each chart in Figures 1 and 2 presents the number of differentiated instructional events observed per teacher, while the ordinate (X) axis in each indicates the dates of each fifteen-minute observation per phase of the research design. Limited access to some teachers yielded fewer data points for third-grade teachers than for second-grade teachers. Three data points were collected during the initial
Figure 1. The frequency of observed differentiated instructional events exhibited by second-grade teachers during 15-minute sessions across conditions.
Figure 2. The frequency of observed differentiated instructional events exhibited by third-grade teachers during 15-minute sessions across conditions.
baseline phase in both second and third grades. For the duration of both intervention phases, between four and nine data points were obtained. Four to five data points per teacher were collected for the maintenance period.

Some researchers question the reliability of visual analysis when baselines are unstable and to assist in the detection small treatment effects (Nourbakhsh & Ottenbacher, 1994). Upon visual examination of this study, the lack of a stable baseline and some evidence of data overlap point to a need for statistical analysis. Consequently, a technology-assisted statistical software package, StatsDirect (2007), was used to determine the reliability of the findings. The significance of the effect of reflective conferencing on the implementation of differentiated instruction was assessed using a non-parametric test, Mann-Whitney U. Baseline and intervention data were input and analyzed within subject and across phases. The Mann-Whitney U values ranged from 33.5 (Otto) to 88 (Helen) with all specific significance levels being greater than .05, except Rose (p = 0.0379), Helen (p = 0.0069), and Gloria (p = 0.0071).

In Table 1 the mean frequency of differentiated instructional events are shown for each teacher at the different phases of the reversal design. In the initial baseline, the mean frequency of the differentiated instructional responses ranges from 1.0 (Gloria) to 6.3 (Otto and Susan) while the mean during the initial intervention phase ranges from 3.2 (Gloria) to 7.4 (Missy). In the return to baseline phase of the study, the mean frequency of the differentiated instructional responses ranges from 1.3 (Rose) to 5.6 (Missy) while the second
intervention phase ranges from 3.3 (Gloria) to 9.8 (Helen). During the
maintenance phase, data indicate a mean frequency range of 3.7 (Gloria) to 14.6

Table 1. Mean Frequency of Differentiated Instructional Events

<table>
<thead>
<tr>
<th>Teachers</th>
<th>Baseline</th>
<th>Intervention Phase #1</th>
<th>Return to Intervention Baseline</th>
<th>Intervention Phase #2</th>
<th>Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helen</td>
<td>4.3</td>
<td>6.6</td>
<td>2.5</td>
<td>9.8</td>
<td>14.6</td>
</tr>
<tr>
<td>Rose</td>
<td>2.3</td>
<td>3.9</td>
<td>1.3</td>
<td>4.2</td>
<td>5.4</td>
</tr>
<tr>
<td>Missy</td>
<td>4.0</td>
<td>7.4</td>
<td>5.6</td>
<td>9.3</td>
<td>12.6</td>
</tr>
<tr>
<td>Gloria</td>
<td>1.0</td>
<td>3.2</td>
<td>1.8</td>
<td>3.3</td>
<td>3.7</td>
</tr>
<tr>
<td>Otto</td>
<td>6.3</td>
<td>5.8</td>
<td>5.5</td>
<td>7.5</td>
<td>13.8</td>
</tr>
<tr>
<td>Susan</td>
<td>6.3</td>
<td>5.2</td>
<td>2.3</td>
<td>5.8</td>
<td>9.8</td>
</tr>
</tbody>
</table>

(Helen). Additionally, during the second intervention and maintenance phases,
all participants increased in frequency of differentiated instructional responses
over the initial phase of intervention.

In Table 2 displays the total and percent of the total of the various types of
differentiated instructional events used by second- and third-grade teachers. The
range of usage was from 0.1 percent (Targets instruction to meet the student's
needs [e.g., varies time frame, materials, complexity of tasks]) to 66.7 percent
(Simplifies, clarifies, and chunks instructions). Results for four of the ten
differentiated instructional strategies were less than one percent of the total
events observed.
Table 2. Total Types of Differentiated Instructional Events with Percentages of Total Events Observed

<table>
<thead>
<tr>
<th>Types of Differentiated Instructional Events</th>
<th>Total</th>
<th>Percentage of Total Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Targets instruction to meet student’s needs (e.g., varies time frame, materials, complexity of tasks)</td>
<td>1</td>
<td>0.1%</td>
</tr>
<tr>
<td>Simplifies, clarifies, and chunks instructions</td>
<td>564</td>
<td>66.7%</td>
</tr>
<tr>
<td>Relates background knowledge or experience</td>
<td>19</td>
<td>2.2%</td>
</tr>
<tr>
<td>Thinks aloud and models</td>
<td>80</td>
<td>9.4%</td>
</tr>
<tr>
<td>Accommodates learning modalities by alternative activities and varies learning tools</td>
<td>4</td>
<td>0.5%</td>
</tr>
<tr>
<td>Asks and answers higher order questions (i.e., why, what if, how)</td>
<td>112</td>
<td>13.2%</td>
</tr>
<tr>
<td>Adjusts environment (e.g., limits distracters, position, movement)</td>
<td>7</td>
<td>0.8%</td>
</tr>
<tr>
<td>Groups students based on needs (e.g., small group, individual, pairs)</td>
<td>4</td>
<td>0.5%</td>
</tr>
<tr>
<td>Provides students with choices</td>
<td>4</td>
<td>0.5%</td>
</tr>
<tr>
<td>Develops responsibility</td>
<td>51</td>
<td>6%</td>
</tr>
<tr>
<td>Cumulative events observed</td>
<td>846</td>
<td>99.9%</td>
</tr>
</tbody>
</table>

Social Validity

The primary researcher interviewed Helen, Rose, Missy, Gloria, Otto, and Susan on the last day of the project. All six of the teachers stated the reflective conferencing was a positive part of the regular study group meetings and expressed the value of continuing to reflectively review student work together. Furthermore, each stated that teachers' questioning the instructional process as the student work samples were reviewed allowed them to reflect on the practice
that produced the work and to determine how to adjust their practice to meet the needs of each student in the future. As previously stated, the participants did not know the type of data being collected. At the conclusion of each interview, however, the participant was shown the differentiated instructional event data collected. The outcome of revealing the type of data collection promoted further discussion, and another common theme emerged from the data. Each participant recognized the worth of looking at student work not only in the context of student performance but also in the context of changes required for effective instruction.

Assessment of Interobserver Agreement

Interobserver agreement is another indicator of reliability in single-subject research design. Two observers were present for 33 (24%) of the study’s 139 sessions. Prior to collecting baseline data, the primary and secondary observers simultaneously observed and recorded teacher-differentiated instructional events using the Differentiated Instruction Data Collection Form in Appendix B for 3 sessions with 100% IOA.

Schedules allowed the two observers to conduct IOA observations in second-grade classrooms only. The primary and secondary observers independently and simultaneously recorded the number of appropriate and inappropriate responses. Interobserver agreement (IOA) was calculated on a point-by-point basis using the sum of agreements divided by the total of agreements plus disagreements multiplied by 100 (Tawney & Gast, 1984). According to Kennedy (2005), an acceptable level of agreement must be at least 80%. IOA data indicate a moderate to high agreement between the observers.
according to frequency (Rose – 95%, Missy – 94%, and Helen 89%) and type (Rose – 82%, Missy – 93%, and 83%).

To assess the reliability of the findings regarding the degree of interobserver agreement, a Cohen’s kappa test was run using StatsDirect (2007). Landis and Koch (1977) indicate the strength of agreement using kappa values as slight (0.00 – 0.20), fair (0.21 – 0.40), moderate (0.41 – 0.60), substantial (0.61 – 0.80), or almost perfect (0.81 – 1.00). The kappa coefficients for agreement by subject yield almost perfect agreements of 0.84, 0.88, and 0.86. This statistical analysis confirms the previously calculated interobserver agreement.
The results of this study affirm the research pointing to the value of educator dialogue and problem solving to build the capacity of the teachers over time (Blythe et al., 1999; Fullan, 2003; King & Newman, 2000; Showers & Joyce, 1996; Snow, Burns, & Griffin, 1998; The National Reading Panel, 2000; Dearman et al., 2005). Additionally, the results extend the research concerning the value of teachers using a portion of their study group meetings to examine students' work, reflect upon classroom practices in which the work was produced, and adjust those practices to meet diverse needs in the classroom (Dearman et al., 2005). As these teachers engaged in a process of questioning and investigating teaching and learning with their peers as described in Figure 3,

*Figure 3: Illustrates a summary of the action steps the teachers used to differentiate instruction.*
(Dearman & Alber, 2005) they gradually revised their beliefs to incorporate those new practices in their classrooms in terms of increased frequency of differentiated instructional events (Fullan, 2000).

Moreover, as the teachers in this study followed a step-by-step process of reviewing student work and adjusting classroom practices, the frequency of differentiated instruction increased in each case in the intervention and maintenance phases at varying degrees. Throughout all sessions of the baseline phases, the mean frequencies of differentiated instructional events observed were 4.0 and 3.2, while the mean frequencies of intervention phases were 5.4 and 6.7, respectively. This established a more cautious functional relationship than previous study (Dearman et al., 2005) with significant differences noted in three of the six teachers. However, during the maintenance phase the mean frequency of the sessions was 10.0, which established a more robust functional relationship. Furthermore, the maintenance data appeared to stabilize at a higher number of events than at the intervention phases of the experiment. Without knowing the purpose of data collection, the teachers discussed the fact that the more time spent looking at student work in the context of their own teaching, the easier it was to make adjustments in the classroom. Therefore, the changes noted across conditions can be attributed to the introduction and use of reflective conferencing (independent variable) about student work rather than to other interventions or confounding variables that may discredit the internal validity of the study.
At last, the results indicate very little variety in the type of differentiated instructional events observed. To enhance the variety of events observed and to extend the previous research of Dearman, Alber, & Atwood (2005), a special educator was included in weekly reflective conferences. However, the lack of event variance continued despite this addition, adding another critical finding to the literature.

**Limitations and Future Research**

The major limitation in this study was the lack of time for in-class data collection (see Appendix G) due to the school's schedule variations and curriculum changes. Adjustments were made to the district's instructional pacing guide due to lost days after Hurricane Katrina and in the anticipation of high-stakes testing scheduled for the first week of May. Those changes necessitated an increase in both the rate of skill instruction and the advent of test preparation, especially for third-grade teachers. Additionally, these accommodations delayed the onset of baseline data collection and reflective conferencing training. More time, specifically in baseline data collection, may have stabilized the data. However, the analysis of the Mann-Whitney U tests indicates significance differences even with time restraints for some of the participants. Since the significance of this study varied by subject, future research is needed to define how and why some teachers responded differently to reflective conferencing to review student work.

Another limitation appeared during the return to baseline observational sessions. Instead of facilitating independent work, the teachers were reviewing
for district pacing guide tests. All observations yielded zero (0) events across all sessions. Additionally, Helen was reviewing during another observational session resulting in zero (0) events. Those data points were included because they were observed, but they should be discounted in the overall analysis. For the most part, data were collected during independent work periods after various skill instructions. Perhaps future research should be conducted in a setting that assures more reliable conditions for data collection.

Still another limitation and an issue for further investigation was the lack of observed interaction between the special and regular educators during reflective conferencing. Further study may reveal the lack of interaction impacted the type of differentiated instructional events. Under different circumstances, such as previously established relationships, greater knowledge of the regular education curriculum, or a deeper understanding of researched-based differentiated instructional strategies, the special educator may have encouraged more variation in the type of events.

The study can be readily replicated and thereby generalized to other settings since the training materials, an eight-step procedure checklist, and easily accessible web sites are listed in the Appendix. In fact, the replication of the positive results of reflective conferencing on the frequency and maintenance of differentiated instructional events may inform the educational community that meeting students’ needs during regular instruction saves valuable teacher and student remediation time. That is, an educational implication for teachers may be differentiating instruction during independent work periods could possibly
eliminate the need for pullout remedial programs. Another direction the research may take is to investigate student achievement as it relates to reflective conferencing and differentiated instruction.

Single subject research is considered reliable when there is confidence that two observers agree on the data recorded, that the findings are accurate, and that the study can be replicated (Tawney & Gast, 1984). This experiment satisfies each of the requirements for establishing reliability. Therefore, the differences between the mean frequencies of differentiated instructional events (dependent variable) to reflective conferencing (independent variable) are considered reliable. The researcher effectively controlled the targeted behaviors by introducing and withdrawing phases. Consequently, the reversal design does define a functional relationship between the independent and dependent variables in this project.

Finally, as change agents (Fullan, 2003) in these times of high-stakes testing for accountability, teachers and administrators are recognizing the necessity of adjusting instructional practices to meet the needs of ALL students (Fullan, 2003; King & Newmann, 2000; National Institute of Child Health and Human Development [NICHD], 2005; Snow, Burns, & Griffin, 1998; The National Reading Panel, 2000). The findings of this experiment and previous research (Dearman & Alber, 2005; Dearman et al., 2005) indicate when teachers engage in reflectively conferencing to review student work and examine instructional practices, the frequency of differentiated instruction responses are impacted. Perhaps these agents of change (Fullan, 2003) will develop action plans that not
only meet mandated standards (NCLB, 2002) but also accommodate the needs of the diverse student populations that can result from the use of reflective conferences about student work.
APPENDIX A

PARTICIPANT'S CONSENT FORM

Reflective Study of Student Work

The following information is provided to help you decide whether you wish to participate in the present study. You should be aware that you are free to decide not to participate; furthermore, you may withdraw at any time without affecting your relationship with this department, the instructor, or the University.

The purpose of this study is to determine the efficacy of reflective conferencing about student work in meeting the demands of high-stakes testing of accountability.

Data collection will involve the following:
• Teacher interviews
• Second- and third-grade study teams
• In-classroom observations by expert coaches

Do not hesitate to ask questions about the study before electing to participate or even once the study has begun. I will be happy to share the findings with you after the research is completed. Your name will not be associated with the research findings in any way, and only my instructor and I will know your identity.

There are no known risks and/or discomforts associated with this study. The expected benefits associated with your participation will include information about the use of reflective conferencing about student work to develop a plan of action to meet the demands of high-stakes testing. If this study is later submitted for publication, a by-line will indicate that students participating in this study are from a Mississippi school collaborating with the Barksdale Reading Institute to implement the Mississippi Reading Reform Model.

Please sign this consent form. You are signing it with full knowledge of the nature and purpose of the procedures. A copy of this form will be given to you to keep.

Participant's Signature Date

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APPENDIX B

DATA COLLECTION FORM

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<tr>
<th>Teacher’s Name:</th>
<th>Observer’s Name:</th>
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<table>
<thead>
<tr>
<th>Data for Reflective Conferencing about Student Work</th>
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<tbody>
<tr>
<td>Date:</td>
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<table>
<thead>
<tr>
<th>1. Targets instruction to meet student's needs (i.e. varies time frame, materials, complexity of tasks)</th>
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<table>
<thead>
<tr>
<th>2. Simplifies, clarifies, and chunks instructions</th>
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<table>
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<th>3. Relates background knowledge or experience</th>
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<th>4. Thinks aloud and models</th>
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<table>
<thead>
<tr>
<th>5. Accommodates learning modalities by alternative activities and varies learning tools</th>
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<table>
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<tr>
<th>6. Ask and answers higher order questions (i.e. why, what if, how)</th>
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<tr>
<th>7. Adjusts environment (i.e. limits distracters, position, movement)</th>
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<tr>
<th>8. Groups students based on needs (i.e. small group, individual, pairs)</th>
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<th>9. Provides students with choices</th>
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<th>10. Develops responsibility</th>
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Getting Ready, Facilitation Tips, and Collecting Student Work

Looking at Student Work
http://www.lasw.org/vp_step1.html

Getting Ready
Developed for use by the National School Reform Faculty

1. Select a project, task, or assessment that addresses one of the school-wide goals for student performance (e.g., forming and supporting an opinion). This may be a long term project (culminating in a presentation) or a short-term task, but in either case it should call for significant student work products or performances. (Typically, worksheets, quizzes, or tests don't provide much of a basis for giving feedback!)

2. Gather relevant contextual documents that will help participants understand the project or task, for example, assignment, scoring/grading criteria (or rubrics), models, timelines, checklists, etc. Think about how other key information participants will need to understand the project or task can be presented succinctly.

3. Select samples of student work that demonstrate authentic student responses to the project or task. You might choose two or three samples to provide contrast. Teachers often find that a sample of work that shows promise but is not a stellar response to the assignment provides the best basis for feedback. Work selected may include final products, drafts, reflections, etc. (See Tips on Selecting Student Work Samples.)

4. Frame a focusing question for participants that addresses a real interest or concern of yours. Questions typically focus on either inputs (the assignment, teacher's support of student performance) or outputs (quality of student work, teacher's assessment of the work).

   - A broader question may elicit a wide range of feedback - and this may be desirable. For example: How can I support higher quality presentations? (input) What are the strengths and weaknesses you see in the student presentations? (output)

   - A narrower question might provide the kinds of feedback the teacher(s) finds most useful. For example: How can my prompt bring out more creativity in the students' work? (input) What evidence is there in the students' work of mathematical problem solving? (output)

   - Remember, even with a narrower focus question, participants will offer a range of feedback - on and off the question.
Facilitation Tips
Developed for use by the National School Reform Faculty

1. **Take some time to clarify terminology.** For example, what is a clarifying question? How is it different from a probing question (both in terms of structure and purpose)?

Clarifying questions **are for the person asking them.** They ask the presenter "who, what, where, when, and how." These are NOT "why" questions. They can be answered quickly and succinctly, often with a phrase or two.

Probing questions **are for the person answering them.** They ask the presenter "why" (among other things), and are open-ended. They take longer to answer, and often require deep thought on the part of the presenter before she speaks. The person asking the probing question doesn't know (or even assume) an answer to the question being asked, and doesn't have an investment in how the question is answered.

2. **Alert people to the likely places/points in the protocol which will feel awkward** like when the group gives warm and cool feedback and speaks as if the presenters aren't in the room. This protocol requires the group to talk about the presenters in the third person, almost as if they are not there. As awkward as this may feel at first, it often opens up a rich conversation. Remind the group that it is their job to give feedback, and to offer an analysis of the issue or questions presented. It is not necessary to solve a problem or to offer a definitive answer.

3. **Suggest that the presenters physically sit back** from the group so as not to have any eye contact when the group gives their warm and cool feedback. Remind the presenters to listen in a non-defensive manner. They might listen for: new ideas, perspectives, and approaches; the group's analysis of their question and related issues; and/or the assumptions implicit in the conversation. Remind the presenters that this is not supposed to be about the presenters themselves, but about a question they have raised.

4. **Remind the group that the point of the last step is for the presenters to talk about what were, for them, the most significant feedback, comments, ideas and questions they heard.** It is NOT for the presenters to give a "blow by blow" response to the group's conversation, nor is it to defend or further explain themselves. They can also share any new thoughts or questions they had while listening to the group.

5. **Remind people that they can never know everything, but that they can know enough to be helpful.** There will be much that the group says that won't be useful because they don't know enough about the context, but that there will be things they say and questions they raise that ONLY outsiders who don't know every nuance of the context can say or ask.

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6. **Be explicit about your role as a facilitator.** Will you ever join in on the conversation? etc.

7. **Remember to debrief each feedback session as a whole group.** Debriefing the process is key. Don't short-change this step.

**Collecting Student Work**

Below are some examples of student work you might bring to a session. Whatever you choose to bring should be accompanied by the assignment/directions/prompt that you provided for the students and, if appropriate, by specific reference to relevant portions of whatever student outcomes, learning goals, standards, and/or curriculum frameworks you use.

**Possible Samples:**

Developed by AISR for the Math/Science Project and revised for NSRF.

- written work (or artwork) from several students in response to the same assignment
- several pieces of work from one student in response to different assignments
- one piece of work from a student who completed the assignment successfully and one piece from a student who was not able to complete the assignment successfully (same assignment for both)
- work done by students working in groups (include work of at least two groups that were given the same assignment)
- videotape, audio tape, and/or photographs of students working, performing, or presenting their work (this might be particularly useful for very young children who haven't yet acquired adequate written communication skills)
- whatever you choose to bring, keep in mind that it should be something about which you have a real question or concern, that you are curious about, or would benefit from several pairs of eyes looking at it. Remember, this is an opportunity to have others help you examine the work.

**Tips for Teachers on Collecting Student Work**

Originally developed for users of the Tuning Protocol.

- Collect **multiple samples** from students at different levels (2-4 samples).
- Remove **student names** from samples (if possible).
- **Context documents** (description of objectives, rubric, assignment, etc.) should be provided along with student work samples.

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• **Enough copies for everyone.** If original work (e.g., piece of artwork, complete portfolio) is the focus, let facilitator know in advance so s/he may think about format for presentation.

• Video of presentation (if applicable) should be **brief** (a 5 minute clip is usually enough)

• Teacher(s) should be prepared to give brief (15 min.) **description of the context** for the student work, including objectives, assignment, time and organization of task/project, scoring criteria.

• Teachers presenting work should prepare a "**focusing question**" about the work, e.g., Do the samples provide evidence of analytical writing?
APPENDIX D
TEACHERS' INFORMATIONAL PACKET
Description, Terms, Steps, Questions, and Research

Looking at Student Work
http://www.lasw.org/CAC_description.html

Description

A piece of student work has the potential to reveal not only the student's mastery of the curriculum's goals, but also a wealth of information about the student him/herself: his/her intellectual interests, his/her strengths, and his/her struggles. The Collaborative Assessment Conference was designed to give teachers a systematic way to mine this richness. It provides a structure by which teachers come together to look at a piece of work, first to determine what it reveals about the student and the issues s/he cares about, and then to consider how the student's issues and concerns relate to the teacher's goals for the student. The last part of the conversation – the discussion of classroom practice – grows out of these initial considerations.

The structure for the conference evolved from three key ideas:

- First, students use school assignments, especially open-ended ones, to tackle important problems in which they are personally interested. Sometimes these problems are the same ones that the teacher has assigned them to work on, sometimes not.

- Second, we can only begin to see and understand the serious work that students undertake if we suspend judgment long enough to look carefully and closely at what is actually in the work rather than what we hope to see in it.

- Third, we need the perspective of others—especially those who are not intimate with our goals for our students—to help us to see aspects of the student and the work that would otherwise escape us, and we need others to help us generate ideas about how to use this information to shape our daily practice.
Since 1988, when Steve Seidel and his colleagues at Project Zero developed this process, the Collaborative Assessment Conference has been used in a variety of ways: to give teachers the opportunity to hone their ability to look closely at and interpret students' work; to explore the strengths and needs of a particular child; to reflect on the work collected in student portfolios; to foster conversations among faculty about the kind of work students are doing and how faculty can best support that work.

In the Collaborative Assessment Conference, the presenting teacher brings a piece of student work to share with a group of five to ten colleagues (usually other teachers and administrators). The process begins with the presenting teacher showing (or distributing copies of) the piece to the group. Throughout the first part of the conference, the presenting teacher says nothing, giving no information about the student, the assignment, or the context in which the student worked.

Through a series of questions asked by the facilitator, the group works to understand the piece by describing it in detail and looking for clues that would suggest the problems or issues or aspects of the work with which the student was most engaged. They do this without judgments about the quality of work or how it suits their personal tastes. The facilitator helps this process by asking participants to point out the evidence on which they based the judgments that inevitably slip out. For example, if someone comments that the work seems very creative, the facilitator might ask him or her to describe the aspect of the work that led him or her to say that.

In the second part of the conference, the focus broadens. Having concentrated intensively on the piece itself, the group, in conversation with the presenting teacher, now considers the conditions under which the work was created as well as broader issues of teaching and learning. First, the presenting teacher provides any information that s/he thinks is relevant about the context of the work. This might include describing the assignment, responding to the discussion, answering questions (though s/he does not have to respond to all the questions raised in the first part of the conference), describing other work by the child, and/or commenting on how his/her own reading or observation of the work compares to that of the group.

Next, the facilitator asks the whole group (presenting teacher included) to reflect on the ideas generated by the discussion of the piece. These might be reflections about specific next steps for the child in question, ideas about what the participants might do in their own classes or thoughts about the teaching and learning process in general. Finally, the whole group reflects on the conference itself.
Terms Common to Student Work Protocols

Adaptive Practice
Teachers know their students - their learning styles, their current level of knowledge and skills - and adjust their teaching practice accordingly, without lowering their standards.

Classroom Culture
Classroom culture is the bedrock upon which all teaching and learning rests. It includes the norms established by the teacher (or teacher and students collaboratively, or by default by the students if the teacher fails to actively do the work) for classroom interactions, for expectations of engagement and work output, for use of time, and for specific responsibilities of teacher and students. The culture includes the assumptions (stated or implicit) about the nature of teaching and learning.

Collegiality
Teachers share responsibility among themselves for improved practice and for improved student achievement. They demonstrate this by developing together shared student goals, standards for students and themselves, and classroom culture expectations. They also demonstrate this by providing mutual feedback (in the manner of critical friends) on each others' teaching practice and the nature of the work of each others' students.

Critical Friends
Teachers whose relationship is such that they can sit down with either's work (lesson plans, classroom observation notes) on the table between them and talk about the work - its strengths, weaknesses, what can be improved, suggestions for how that might be done. This discussion of the work is clearly separated from the "me" of both. The atmosphere is one of mutual trust, freedom from fear.

Press for Achievement
Evidence of a press for achievement includes the following: a teacher's high expectations for learning are explicitly stated, a lesson's stated goals are nontrivial, teacher questioning elicits higher order thinking, coherence exists among the components of a lesson, the classroom culture supports (rather than hinders) learning.

Reflective Practice
Teachers are able to talk about what they do and why they do it. The "why" is something more than feeling, opinion, preference, it's based on evidence, research, theory, and the teachers can talk about where the "why" came from (something they read, learned at a
conference/workshop, heard from another teacher, learned during their training, learned in the CFG...). Reflection is ongoing, not a one-time revelation that "sets" a teacher's pedagogy for life.

School Culture
School culture includes the organization, structure, and practices deliberately carried out to create a school climate. It also includes the norms established by the principal (or principal and teachers collaboratively) for professional interactions, for expectations for student learning (standards, stated or implicit).

Student Engagement
Student engagement has two dimensions, one in the context of the classroom and any given lesson, and a second in terms of a student's individual personal commitment to his/her own learning. Engagement in the classroom is manifested by student(s) attending to the task at hand during the lesson. Individual engagement is manifested by students asking (more than routine) questions during the lesson, by their doing individual project work or homework more than perfunctorially.

Student Work
Student work is one or more of these three components (in any combination): artifacts (writing or tangible products of projects), classroom behavior, performances, records of classroom behavior or performances.

Whole School Change
Whole school change can occur when a critical mass of personnel in the school are engaged in reflective practice intended to improve teacher practice and student learning. The school community is engaged in modifying the organization, structure, and culture of the school in order to support these improvements.

Steps in the Collaborative Assessment Conference
Developed by Steve Seidel and Harvard Project Zero colleagues.

The following steps are a working agenda for a Collaborative Assessment Conference. The time allotted for each step of the conference is not fixed, since the time needed for each step will vary in accordance with the work being considered. At each stage, the facilitator should use his or her judgment in deciding when to move the group on to the next step. Typically, Collaborative Assessment Conferences take from forty-five minutes to an hour and fifteen minutes.

I. Getting started
• The group chooses a facilitator who will make sure the group stays focused on the particular issue addressed in each step.
• The presenting teacher puts the selected work in a place where everyone can see it or provides copies for the other participants. S/he says nothing about the work, the context in which it was created, or the student until Step V.
• The participants observe or read the work in silence, perhaps making brief notes about aspects of it that they particularly notice.

II. Describing the work

• The facilitator asks the group, "What do you see?"
• Group members provide answers without making judgments about the quality of the work or their personal preferences.
• If a judgment emerges, the facilitator asks for the evidence on which the judgment is based.

III. Asking questions about the work

• The facilitator asks the group, "What questions does this work raise for you?"
• Group members state any question they have about the work, the child, the assignment, the circumstances under which the work was carried out, and so on.
• The presenting teacher may choose to make notes about these questions, but s/he is does not respond to them now—nor is s/he obligated to respond to them in Step 5 during the time when the presenting teacher speaks.

IV. Speculating about what the student is working on

• The facilitator asks the group, "What do you think the child is working on?"
• Participants, based on their reading or observation of the work, make suggestions about the problems or issues that the student might have been focused on in carrying out the assignment.

V. Hearing from the presenting teacher

• The facilitator invites the presenting teacher to speak.
• The presenting teacher provides his or her perspective on the student's work, describing what s/he sees in it, responding (if s/he chooses) to one or more of the questions raised, and adding any other information that s/he feels is important to share with the group.
• The presenting teacher also comments on anything surprising or unexpected that s/he heard during the describing, questioning and
speculating phases.

VI. Discussing implications for teaching and learning

- The facilitator invites everyone (the participants and the presenting teacher) to share any thoughts they have about their own teaching, children's learning, or ways to support this particular child in future instruction.

VII. Reflecting on the CAC

- The group reflects on the experiences of or reactions to the conference as a whole or to particular parts of it.

VIII. Thank the presenting teacher

The session concludes with acknowledgment of and thanks to the presenting teacher.

Varieties of Questions in Protocols: An Overview

All of the protocols and processes for looking collaboratively at student work involve questions. These questions function on a number of levels, often simultaneously.

1. Protocols are employed to help answer large questions about teaching and learning; these are sometimes called "research questions" or "inquiry questions." A group might go through several -- even a year's worth of -- protocols addressing the same question. Examples: How can we support students to become reflective problem solvers? What are the learning benefits of writing in math?

2. Teachers often have more specific, though still large, "focusing questions" that guide individual protocols, especially in the Tuning Protocol and Consultancy. Participants strive to address the focusing question with their own questions and feedback. Examples: How is the rubric for this assignment reflected in the student work? What evidence do you see of students' research skills here?

3. Within protocols, participants ask a wide range of questions, from "clarifying questions" to "probing questions." Clarifying questions typically seek "nuts-and-bolts" information about the project. Example: How much time does the project take? How were the children grouped? Probing questions typically ask for deeper, more reflective responses from the presenter. Example: How does your belief about writing influence your students' work on this project?
4. **Feedback** to the presenting teacher often comes in the form of questions. Example: "I wonder what would happen if students were involved in developing the rubric"

5. Usually at the end of a protocol, the participants use **reflection questions** to consider what they have learned about the process of LSW itself. Examples: "What worked well?" "Did the conversation move us closer to our goals? If so, how?"

6. There are also the **facilitator's questions**—sometimes asked by other participants—that help keep protocols focused and push for greater depth. Example: "What do you see in this child's work that makes you say it's more creative?"

**Focusing Questions**

Here are some kinds of questions that a presenter might use to help focus the attention of the other participants on aspects of the student work that s/he is most interested in.


1. **About the quality of student work:**
   - Is the work good enough?
   - What is "good enough"?
   - In what ways does this work meet or fail to meet a particular set of standards?

2. **About teaching practice:**
   - What do the students' responses indicate about the effectiveness of the prompt or assignment? How might the assignment be improved?
   - What kinds of instruction support high quality student performances?

3. **About students' understanding:**
   - What does this work tell us about how well the student understands the topic of the assignment?
   - What initial understandings do we see beginning to emerge in this work?
4. About students' growth:

- How does this range of work from a single student demonstrate growth over time?
- How can I support student growth more effectively?

5. About students' intent:

- What issues or questions is this student focused on?
- What aspects of the assignment intrigued this student?
- Into which parts of the assignment did the student put the most effort?
- To what extent is the student challenging herself? In what ways?

Questions for Reflecting on Protocols

Excerpted from Looking Together at Student Work. (1999).
p.20

The Process of Reflection. Reflection can occur through discussion and/or writing, preferably at the end of each meeting. Some processes (such as the Collaborative Assessment Conference and the Tuning Protocol) have built-in opportunities for reflection on both what was learned and on the process itself. Written reflections and notes from reflective discussion can provide important clues in planning future meetings.

Example: A high school teacher, after participating in a Tuning Protocol with teachers from many schools, reflected, "I didn't feel like we really had time to look at the student work. We need more time to really look through it, read one student's paper twice, maybe, before we can really say anything about it." This feedback was useful to teachers in planning future sessions.

You might want to draw on some of the following reflection questions to get you started:

- What did we learn?
- What worked well?
- Did the conversation move us closer to our goals? How?
- How did the discussion relate to other school issues?
- Did we do what we said we would — in terms of our purposes and our questions?
• Did we actually focus on the students' work or on other issues?
• Did we follow the process as we planned? If not, why?
• How could the process be improved?
• How can we build on this to make examining student work a more frequent and important part of our own work?

A Pocket Guide to Probing Questions

National School Reform Faculty

Probing Questions:

The distinction between clarifying questions and probing questions is very difficult for most people working with protocols. So is the distinction between probing questions and recommendations for action. The basic distinctions are:

Clarifying Questions are simple questions of fact. They clarify the dilemma and provide the nuts and bolts so that the participants can ask good probing questions and provide useful feedback later in the protocol. Clarifying questions are for the participants, and should not go beyond the boundaries of the presenter's dilemma. They have brief, factual answers, and don't provide any new "food for thought" for the presenter. The litmus test for a clarifying question is: Does the presenter have to think before s/he answers? If so, it's almost certainly a probing question.

Some examples of clarifying questions:

• How much time does the project take?
• How were the students grouped?
• What resources did the students have available for this project?

Probing Questions are intended to help the presenter think more deeply about the issue at hand. If a probing question doesn't have that effect, it is either a clarifying question or a recommendation with an upward inflection at the end. If you find yourself saying "Don't you think you should ...?" you've gone beyond probing questions. The presenter often doesn't have a ready answer to a genuine probing question. Since probing questions are the hardest to create productively, we offer the following suggestions:

• Check to see if you have a "right" answer in mind. If so, delete the judgment from the question, or don't ask it.
• Refer to the presenter's original question/focus point. What did s/he ask for your help with? Check your probing questions for
relevance.

- Check to see if you are asserting your own agenda. If so, return to the presenter's agenda.

- Sometimes a simple "why...?" asked as an advocate for the presenter's success can be very effective, as can several why questions asked in a row.


- Think about the concentric circles of comfort, risk and danger. Use these as a barometer. Don't avoid risk, but don't push the presenter into the "danger zone."

- Think of probing questions as being on a continuum, from recommendation to most effective probing question. For example, from an actual Consultancy session in which a teacher was trying to figure out why the strongest math students in the class weren't buying in and doing their best work on what seemed to be interesting math "problems of the week"
  
  1. You could have students use the rubric to assess their own papers. (recommendation re-stated as a question)

  2. What would happen if students used the rubric to assess their own work? (recommendation re-stated as a probing question)

  3. What do the students think is an interesting math problem? (good probing question)

  4. What would have to change for students to work more for themselves and less for you? (better probing question)

*In summary, good probing questions:*

- are general and widely useful
- don't place blame on anyone
- allow for multiple responses
- help create a paradigm shift
- empower the person with the dilemma to solve his or her own problem (rather than deferring to someone with greater or different expertise)
- avoid yes/no responses
- are usually brief
- elicit a slow response
- move thinking from reaction to reflection
- encourage taking another party's perspective
Some final hints for crafting probing questions. Try the following questions and/or question stems. Some of them come from Charlotte Danielson's Pathwise work, in which she refers to them as "mediational questions."

- Why do you think this is the case?
- What would have to change in order for...?
- What do you feel is right in your heart?
- What do you wish...?
- What's another way you might...?
- What would it look like if...?
- What do you think would happen if...?
- How was...different from...?
- What sort of an impact do you think...?
- What criteria did you use to...?
- When have you done/experienced something like this before?
- What might you see happening in your classroom if...?
- How did you decide/determine/conclude...?
- What is your hunch about ....?
- What was your intention when ....?
- What do you assume to be true about ....?
- What is the connection between...and...?
- What if the opposite were true? Then what?
- How might your assumptions about...have influenced how you are thinking about...?
- Why is this such a dilemma for you?

Some Examples of Probing Questions:

- Why is a “stand-and-deliver” format the best way to introduce this concept?
- How do you think your own comfort with the material has influenced your choice of instructional strategies?
- What do the students think is quality work?
- You have observed that this student's work lacks focus – what makes you say that?
- What would the students involved say about this issue?
- How have your perspectives on current events influenced how you have structured this activity?
- Why aren't the science teachers involved in planning this unit?
- Why do you think the team hasn't moved to interdisciplinary curriculum planning?
- What would understanding of this mathematical concept look like? How would you know students have “gotten it”?
- Why did allowing students to create their own study questions cause a problem for you?
• Why do you think the expected outcomes of this unit weren’t communicated to parents?
• What was your intention when you assigned students to oversee the group activity in this assignment?
• What evidence do you have from this student’s work that her ability to reach substantiated conclusions has improved?
• How might your assumptions about the reasons why parents aren’t involved have influenced what you have tried so far?
• How do you think your expectations for students might have influenced their work on this project?
• What do you think would happen if you restated your professional goals as questions?
• What other approaches have you considered for communicating with parents about their children’s progress?

Research on the role of collaboration among teachers:

Protocols for looking at student work depend on collaboration among teachers. Developing a collaborative culture to support practices, such as LASW, is one of the major challenges for schools today. Recent research has focused on how schools have succeeded—and, in some cases, failed to create that culture.

- The Quality of Intellectual Work in Chicago Schools: A Baseline Report*
- Teaching and Teacher Development: A New Synthesis for a New Century
- National School Reform Faculty Evaluation: Summary of Findings
- Professional Learning Communities: Communities of Continuous Inquiry and Improvement
- Teaching in America: The Slow Revolution
- Teachers Teaching Teachers

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APPENDIX E

COLLABORATIVE ASSESSMENT CONFERENCE STEPS DATA FORM
(Date and √ each step as completed during the CAC)

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APPENDIX F

RESOURCES

Web Sites: Examples of Protocols for Reflective Conversation

1. Looking at Student Work http://www.lasw.org/methods.html


4. The Tuning Protocol: A Process for Reflection on Teacher and Student Work
   http://www.essentialschools.org/cs/resources/view/ces_res/54
## APPENDIX G

### TIME LINE

#### Revised Time Line

<table>
<thead>
<tr>
<th>Dates</th>
<th>Activity</th>
</tr>
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<tbody>
<tr>
<td>1/18/06</td>
<td>Meet with expert coaches to train on and practice the use of the Data Collection Form (Appendix B)</td>
</tr>
<tr>
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<td>Meet with participants to obtain written permission for participation</td>
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<td>Calibrate for Inter Observer Agreement</td>
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<tr>
<td>1/1/18/06</td>
<td>Collect baseline data collection</td>
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<tr>
<td>1/31/06</td>
<td>Reflective conferencing training</td>
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<tr>
<td>2/1/06</td>
<td>Intervention Phase I begins</td>
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<tr>
<td>2/28/06</td>
<td>Return to baseline</td>
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<tr>
<td>3/20/06</td>
<td>Intervention Phase II begins</td>
</tr>
<tr>
<td>4/4/06</td>
<td>Maintenance Phase begins</td>
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<tr>
<td>4/18/06</td>
<td>Interview teachers on the process</td>
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</tbody>
</table>
APPENDIX H

INSTITUTIONAL REVIEW BOARD

UNIVERSITY OF SOUTHERN MISSISSIPPI
HUMAN SUBJECTS REVIEW FORM
(SUBMIT TWO COPIES)

Name Carla C. Dearman Phone (601)573-5592

Mailing Address 181 Nutmeg Lane, Canton, MS 39046
(address to receive information regarding this application)

College/Division Education and Psychology Dept Curriculum & Instruction

Department Box # 5056 Phone 601-266-6987

Proposed Project Dates: From January 10, 2005 To April 4, 2005
(specific month, day and year of the beginning and ending dates of full project, not just data collection)

Title Reflectively Studying Student Work Together: Collaborate to Differentiate Instruction For All Students

Funding Agencies or Research Sponsors

Grant Number (when applicable)

New Project

Dissertation or Thesis

Renewal or Continuation: Protocol #

Change in Previously Approved Project: Protocol #

Principal Investigator Date

Advisor Date

Department Chair Date

RECOMMENDATION OF HSPRC MEMBER:

Category I, Exempt under Subpart A, Section 46.101 ( ), 45CFR46.

Category II, Expedited Review, Subpart A, Section 46.110 and Subparagraph .

Category III, Full Committee Review. This applicant has been requested to provide the IRB Office, Box 5147, Hattiesburg MS 36406-5147 Twelve (12) additional copies of the application.

HSPRC College/Division Member DATE

HSPRC Chair DATE

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HUMAN SUBJECTS PROTECTION REVIEW COMMITTEE
NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Human Subjects Protection Review Committee in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
- If approved, the maximum period of approval is limited to twelve months. Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 25121302
PROJECT TITLE: Reflectively Studying Student Work Together: Collaborate to Differentiate Instruction For All Students
PROPOSED PROJECT DATES: 01/10/05 to 04/04/05
PROJECT TYPE: Dissertation or Thesis
PRINCIPAL INVESTIGATORS: Carla Dearman
COLLEGE/DIVISION: Education & Psycholgy
DEPARTMENT: Curriculum, Instruction, & Special Education
FUNDING AGENCY: N/A
HSPRC COMMITTEE ACTION: Expedited Review Approval
PERIOD OF APPROVAL: 12/13/05 to 12/12/06

Lawrence A. Hosman, Ph.D.
HSPRC Chair

Date

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May 11, 2005

Ms. Carta C. Dearman
324 Hawthorne Drive
Madison, MS 39110

Dear Ms. Dearman:

The Jackson Public School District’s Research Review Committee has approved your request to conduct your study: “The Effects of Teachers Reflecting and Studying Together to Meet Classroom Needs”, at Isable Elementary School. Please ensure that information pertaining to individuals identity used in this research remain anonymous.

If you should need further assistance, please do not hesitate to contact our office.

Best wishes with your research.

Sincerely,

Willie C. Johnson
Executive Director

WCJ/el
REFERENCES


Mississippi Department of Education & Barksdale Reading Institute. (2000). *Barksdale Reading Institute - Mississippi State Department of Education's Reading Reform Model*.


The National Reading Panel. (2000). Teaching Children to Read: An Evidence-based Assessment of the Scientific Research Literature on Reading and Its Implications for Reading Instruction. Washington, DC: NICHD.


