

Lesson Study: Teacher-Led Professional Development in Literacy Instruction

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Lesson Study

Lesson study is a cycle of professional development focused on teachers planning, observing, and revising “research lessons.”

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Lesson study has impacted me more as a teacher than I ever could have imagined. It took me a couple of years of doing lesson study before I realized that it isn't about designing the “perfect lesson” or learning the right teacher moves. I began doing lesson study because I wanted to become a better teacher. I thought I just needed to find answers to questions that were puzzling me—How can I organize my writer's workshop so that students are less dependent on me? How can I design a spelling program that is challenging and yet accessible to all students? How should I teach subtraction so that students stop making silly mistakes? But in teaching, as some questions are answered, new ones crop up, and the list goes on and on, seemingly infinitely. Although lesson study has provided a structure for finding the answers to these questions based in

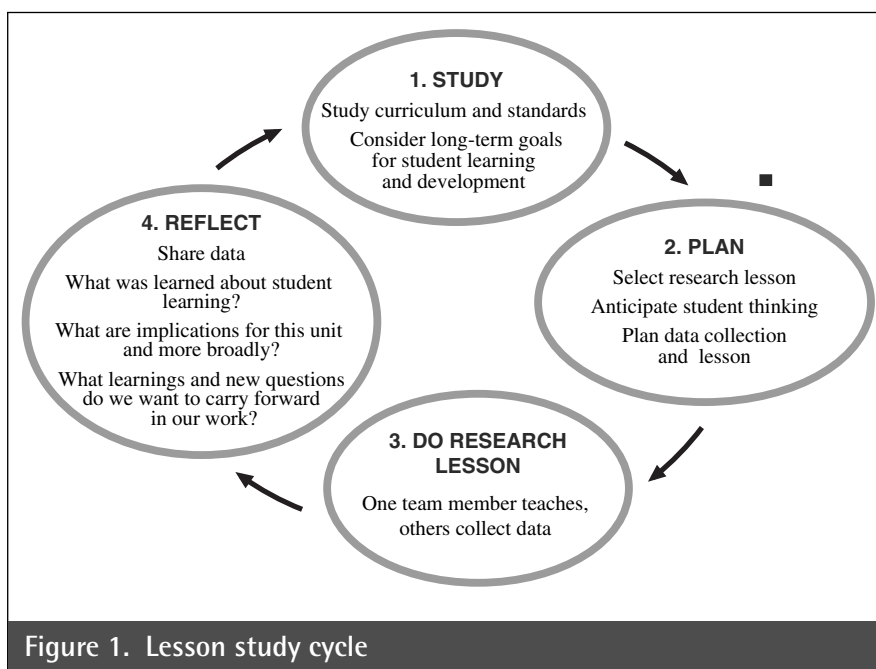
research and collaborative practice, it is not the answers to these questions that have impacted me most as a teacher. It is developing the habit to view a lesson from the lens of a student, analyzing student thinking and misconceptions, anticipating student outcomes, reflecting on the data of student work samples, and having those things guide your teaching—and that's what lesson study is. I have learned some important things about improving my teaching through lesson study, but it is these habits of observing students and reflecting on practice that have made me a more effective teacher—and they're the most important tools I have to keep finding answers to my long list of questions. (Lesson study participant, 2004)

Lesson study is a form of professional development long favored by teachers in Japan that has recently gained attention in many parts of the United States. Teachers participating in lesson study immerse themselves in a cycle of instructional improvement focused on planning, observing, and revising “research lessons” (Lewis & Tshuchida, 1998). (See Figure 1.) The research lessons at the heart of the lesson study process are actual classroom lessons that provide opportunities for teachers to bring their ideas about effective teaching to life as they learn how to carefully record student learning in order to evaluate the research lesson, the

students, and their own understandings about teaching and learning (Lewis, 2002). In lesson study, teachers work together to:

- Form a lesson study group and establish norms and procedures.
- Identify professional development goals.
- Form goals for student learning and long-term development. These goals are informed by studying existing curricula and standards and by teachers' discussions of the qualities they would like students to have 5–10 years in the future.
- Collaboratively plan a “research lesson” based on immediate and long-term goals.
- Teach the research lesson, with one team member teaching while other teachers observe and gather evidence on student learning and development.
- Debrief the notes gathered during the lesson observation and use this evidence to revise the lesson, the unit, and the teachers' overall approach to instruction.
- Draw conclusions about instructional strategies and student learning that can drive future practice.
- If desired, teach the revised lesson in another classroom in order to study and improve on it again.

Lesson study focuses on the heart of the educational process—on what



actually happens between teachers and students in classrooms. Although it makes sense that the observation of actual classroom instruction should be the foundation for instructional improvement, many teachers have few opportunities to observe classroom instruction or to be observed by others, resulting in an inconsistent basis for changing instruction. During lesson study, teachers collect information on the supports and barriers to student learning in classroom lessons, share these data to form a picture of the learning of the whole class, and use the resulting information to improve their instruction—not only for the single lesson under study, but for instruction more broadly. Lesson study places teachers in the role of researchers in their classrooms through a teacher-led process of professional development (Lewis, 2000).

In this article, we hope to bring lesson study to life by detailing a case study of one lesson study group at Highlands Elementary School, in San Mateo, California.

Beginning in 2000, a team of four second- and third-grade teachers formed a lesson study group after reading about this professional development model in *The Teaching Gap* (Stigler & Hiebert, 1999). We quickly saw the benefits of this collaborative, reflective practice, and interest in lesson study spread throughout the school. In 2001, 90% of the staff voluntarily formed themselves into lesson study teams as a way to address a district mandate to implement standards-based instruction. In 2002, when San Mateo Foster City School District set an expectation that all schools would also begin implementing differentiated instruction, teachers unanimously agreed to implement lesson study schoolwide as the professional development model that would help us achieve this goal. Our principal, understanding the power of site-based, collaborative practice (Darling-Hammond & McLaughlin, 1996), quickly moved to support our teacher-led professional development and helped facilitate the work by allocating one

staff meeting a month for lesson study teams.

For the past three years, the staff has elected to continue our school-wide lesson study model. We organize ourselves into groups and select the content area we would like to focus on; some groups may work in language arts while others focus on math or science. The principal supports our work by helping us find time to meet, locating resources such as related research and background reading materials, and making connections with content experts who can contribute advice or guidance to the group. This is the story of one team's work in language arts during the 2003–2004 school year.

THE BUILDING BLOCKS OF LESSON STUDY

Form a Lesson Study Group

The typical size of a lesson study team is four to six members. Our team, however, consisted of ten members—three third-grade teachers, four second-grade teachers, two first-grade teachers, and the county language arts coordinator, whom we invited to join our team to provide additional expertise and deepen our understandings of literacy. Although this is atypical in size for a lesson study team, we had a strong interest in a common topic and a high level of dedication to the work.

Our team met approximately once a month for two hours after school in lieu of staff meetings. We rotated the responsibilities of facilitating the meetings, taking notes, and distributing meeting minutes. We established a timeline at the beginning of the year to guide our work and used an agreed-upon agenda at each meeting to keep us focused (see Figure 2). We also spent some time at our initial meeting

**Timeline for Investigating Differentiated Instruction through Lesson Study
Highlands School, 2003–2004**

September 23

- Begin a discussion on differentiated instruction
- Plan for our next meeting
- Review the yearly timeline
- Receive updated information on lesson study practices

October 7

- Participate in a jigsaw discussion on differentiated instruction
- Create a group-generated working definition of differentiated instruction
- Select a content and topic focus for the group research lesson
- Review the grade-level standards related to the focus for own grade level and the grade level above and below

November 4

- Plan a preliminary lesson to teach in November to examine existing differentiation practices

Before December 2

(using a half-day sub)

- Teach, observe, collect data, and debrief the research lesson
- Refine working definition of differentiated instruction and design the goals for next lesson

December 2

- Collaboratively plan second research lesson

January 6

- Read and discuss further background materials to help develop lesson

January 27

- Continue collaborative planning of the second research lesson

February

- Teach the second research lesson (using a full-day sub)
- Observe, collect data, debrief and prepare a report of findings of research lesson

February 17

- Prepare a presentation to outline the research and findings of group

March 9

- Whole staff meeting to share the results of lesson study work

April 13

- Whole-staff meeting to discuss the implications for instruction at the school
- What agreements can we make about effective differentiated instruction strategies?
- Celebration of our work

Figure 2. Timeline for investigating differentiated instruction through lesson study

establishing group norms and selecting a norm to monitor and reflect on at each meeting. These norms included:

Respect and Value

- People's time
- People's ideas
- Equal participation from all group members

Maintain Our Focus

- Stay on task

- Stick to the process

Roles and Responsibilities

- Have explicit roles, such as facilitator and recorder
- Take responsibility for the group's success
- Listen and ask questions
- Be open to feedback
- Have fun, be flexible
- Be willing to challenge yourself and leave your comfort zone

Set Professional Development Goals

Our team began our lesson study work by reading about and discussing differentiated instruction (Tomlinson, 1999). Through these discussions, we created a shared definition of differentiated instruction and clarified the goals for our work. Eventually, we came to an agreement that we would define differentiated instruction as designing organized, yet flexible, activities that allow all children to grow and achieve essential concepts and skills based on grade-level standards by taking into account their readiness levels and learning styles. We felt comfortable differentiating by interests so that students could make choices based on Gardner's (1983) multiple intelligences, but wanted to become more familiar with differentiation based on children's current abilities and needs. We wanted to learn how to reach all of the students in our classrooms so that every child would be challenged appropriately. We saw the lesson study model as an opportunity to look closely at each child and gather data to examine whether we were meeting individual needs.

Set Goals for Student Development

Our team decided to focus on exploring the effectiveness of various differentiation strategies. In previous years, our staff had read *On Solid Ground* (Taberski, 2000) and *Guiding Readers and Writers* (Fountas & Pinnell, 2001) in our book groups. Readers' and writers' workshops and guided reading groups comprised a central part of our balanced literacy program, but we felt frustrated with how to help all students become successful with some of the state content standards. We wanted to become confident that we

could enable students to achieve these standards while maintaining a rich and meaningful curriculum in our classrooms. We focused on a concept from our state standards that we saw as challenging and significant for third graders: be able to identify main ideas and supporting details in expository texts (California State Content Standards, Language Arts, 1999).

We decided to further examine several differentiation strategies that we had explored in a research lesson earlier in the year. In particular, we wanted to explore differentiation by partnering students of similar abilities (previously we had used partners of differing abilities), and asking these pairs to read passages that we had modified for length and complexity. We also wanted to give students the option of two graphic organizers, one linear and one web, to use in recording their findings. We wanted to see how each of these strategies would impact student access and success in thinking about the main ideas and supporting details in their reading. We worked together over several meetings to design a lesson that would allow us to research our hypotheses about these differentiation strategies.

Catherine Lewis's *Lesson Study: A Handbook of Teacher-Led Instructional Change* (2002) has guided our work with lesson study. From it, we have incorporated the practice of considering the core personal qualities we would like students to develop and sustain beyond just one lesson or unit. Because our school implements the ITI (Integrated Thematic Instruction) model (Kovalik, 1993), which includes the teaching of life skills to students, we chose problem solving and cooperation as most relevant for integration into this lesson.

Plan the Lesson

We began our planning by brainstorming a list of lessons we had taught in the past that addressed main idea and supporting details. Over the years, we have realized that building upon existing curriculum rather than starting from scratch has been the best use of our time when designing a research lesson. We selected one of these lessons to refine for our research and gathered additional professional resources on teaching comprehension strategies with expository text. We reviewed various research articles and jigsawed the first five chapters of *Strategies That Work* (Harvey & Goudvis, 2000) at our next meeting. As we discussed these ideas and began to develop the lesson, we recorded our thinking on a template for planning a research lesson (see Figure 3).

The theme of our research lesson was "To crayfish or not to crayfish." We found a well-written expository text on crayfish to use with students. As we set out to write the lesson, we were concerned that the activity of finding the main idea and supporting details might not be meaningful to students. One of the tenets of differentiated instruction is that students are motivated to learn and involved in meaningful work, so we asked students to consider whether or not crayfish would make good class pets and whether we could keep one in our empty class tanks.

We spent our next two meetings clarifying our understandings of what it would look like for third graders to be successful in identifying the main idea; then we discussed possible student struggles, ways to respond to these struggles, and the skills and understandings they would bring to the task that we could build upon. We decided to

have students generate a list of questions about crayfish that they believed they would need to answer before they could address our pressing issue. Then, after the teacher modeled how to identify the main idea and supporting details using graphic organizers with the first two paragraphs of the text, students would continue this process in pairs as a means to answer their questions. We integrated the differentiation we wanted to examine into the lesson and made sure that the lesson reflected a commitment to our long-term goals for students. We designed the lesson so that students would use the life skills of problem solving and cooperation as they worked with partners to discover the most important information on providing a classroom habitat for crayfish.

Our discussions in designing the lesson led us to explore how this concept articulated across the other grade levels. The second-grade teachers saw how their work with the second-grade standards on restating facts and details in the text to clarify and organize ideas contributed to third graders' foundation in understanding main idea. We felt it was important for teachers to consider how to challenge students with new strategies and not just repeat those taught in previous grades. Additionally, the third-grade teachers viewed the concept of main idea and supporting detail as the foundation for many fourth-grade standards. Having a cross-grade-level team insured that we were building a common practice across the grade levels for our students.

The team also realized the need to increase our understanding and use of expository text. In our discussions, we shared ideas, resources, and materials that would increase the amount of time our students were spending with expository text and that would broaden our

Research Lesson Plan		
Date:		
Site:		
Planning Team:		
Instructor:		
1. Title of Lesson:		
2. Goals of the Lesson:		
3. Relationship of the Lesson in the California Standards		
4. Rationale: What do students already understand about this topic? What more do we want them to understand? What thinking have we done that guided our decisions?		
5. Lesson Description		
Student Activities	Anticipated Student Responses	Points of Evaluation
1. Introduction:		
2. Discussion:		
3. Summing Up:		
6. Evaluation:		
7. What do we want to look for during the lesson observation:		
8. Conclusions (to be included after debriefing the lesson):		
Figure 3. Planning the research lesson		

practical experience. This was a far less daunting task in a collaborative environment where we could share what we were learning along the way. Outside of our structured lesson study meeting time, teachers began to talk during lunch and at the copy machine about their experiences using expository text in their classrooms.

Another insight teachers gained in the planning discussions was that we needed to clarify our use of common terminology, in particular, *main idea* and *topic sentence*. We realized that teachers held different views about whether main idea and topic sentence were interchangeable. We had to come up with a common understanding prior to writing the lesson.

Over time, we also examined our personal beliefs about students' willingness to work within our lessons. We looked closely at why students "acted out" instead of doing their work during our previous research lesson. We came to believe that their behavior was actually a way to cover up a lack of success with the task. We realized that in other situations where we were able to differentiate instruction so that all students could be successful, the behavior issues were almost nonexistent.

The sharing of personal beliefs about teaching helped build strong collegial bonds within our lesson study team. In order to feel comfortable sharing beliefs, however, there needs to be a safe working environment. This is why we continued to review, monitor, and respect the working norms that we established at our first meeting. We often hear comments like, "I value the opportunity to get together with my colleagues for a common goal. I feel valued by my group and I deeply value each of them. The reciprocal teaching and

learning experience has made a powerful difference in the way I have looked at our lessons” (Lesson study participant, 2004).

Teach the Research Lesson

Once a lesson is developed, the next step is to select a member of the lesson study group to teach the lesson. Because the lesson plan is planned collaboratively, the success of the lesson rests with all of the planning team, not just the volunteer teacher. The additional focus on student thinking and performance also alleviates a focus on the classroom teacher. Teachers seldom have the opportunity to be in a classroom to simply focus on student learning, so there is a great feeling of gratitude towards the volunteer teacher.

One of the third-grade teachers volunteered to teach the crayfish lesson to her students. Substitute teachers were hired for the other members of the planning team so that they could observe the research lesson. The planning team identified specific data for the observers to collect and record, much of it focused on the students’ discussions in their pairs to see if students would paraphrase or copy directly from the text, if the pairing led to successful participation for both members, and if the modified reading passages enabled all students to be successful.

As the other planning teachers ringed the room to observe, the third-grade teacher carried out the lesson plan. In our experience, students have always enjoyed the extra attention of visiting teachers in their classroom. They feel special and often seem to forget the observers are there once they are engaged in their task. The observing teachers follow a protocol that includes not interfering in the instruction of the lesson by assisting students, refraining from side talk-

ing to each other, and observing from a place that will not interfere with a student’s view of instruction or a natural flow of the lesson (see Lewis, 2002 and the observation protocol at www.tc.columbia.edu/lessonstudy).

Observing the research lesson is always a highlight for teachers. We seldom have an opportunity to examine the thinking and learning of a small group of children. In our classroom practice, we are often juggling too many things while teaching to allow this type of in-depth observation. Teachers find many unexpected things when given the opportunity to just watch students closely. With many pairs of trained eyes collecting data in the classroom, we are able to gain greater insights into the particular moments when students seem to “grasp” a concept, to listen closely to student discourse for information about student thinking and misconceptions, to know how much time students are spending on and off task, and to examine the factors that enable and hinder student success. As a colleague once commented, “We see unexpected things from unexpected children.”

Debrief the Lesson

Following the lesson, each observer takes time to privately reflect on the data collected during the lesson and organize the information to share in the debriefing discussion. The observing members of the planning team consider their data in reference to the lesson goals and hypotheses, and select significant observations to share in the discussion.

When possible, the lesson debriefing is facilitated by an outside visiting teacher, so that each member of the planning team can focus on the data collected during the lesson and consider its implications. The facili-

tator follows a protocol for the debriefing session (Lewis, 2002). First, the person who taught the lesson reflects on the lesson, commenting on the strengths of the lesson, changes made to the original lesson plan, surprises, and evidence that the lesson met the instructional goals. Next, members from the planning team individually report data that they have collected relevant to the goals. The planning team then generates one or two questions for an ensuing discussion. The questions that we addressed in our lesson and that focused our debriefing discussion were, “How did the choice of graphic organizers impact student success?” and “How did pairing students with like ability impact their success?”

During this debriefing discussion, Linette Griffith, a first-/second-grade teacher, shared data that she had collected from observing a pair of students. “The students said, ‘Is this a new paragraph? It must be because it is a new page!’ They were confused about whether each page should have just one main idea even if there were several paragraphs. I realized that we contribute to their confusion because we often ask for the main idea at the end of a story or at the end of the book.” This observation made us aware of how explicit we need to be in helping children develop understandings about how main idea differs in narrative and expository text.

Draw Conclusions

At the end of the debriefing discussion, the team addresses the implications for instruction from the research lesson. As one colleague commented, “Analyzing student work is probably the most important part of lesson study. It enables me to plan the lessons based on student thinking. I find myself

reflecting more on my lessons and revising them.” For example, from this lesson we saw that the use of expository text was highly motivating and accessible for all students, especially second language learners. The “real life” text accompanied by photographs, glossary, table of contents, graphics, and captions supported access to the content.

Teachers realized that the use of expository text could directly affect students’ abilities to achieve grade-level goals and to develop important reading strategies.

We also saw that giving students a choice in their graphic organizers raised their level of engagement and their ability to process and organize the information in a way that made sense to them. Additionally, we realized the need to be more intentional in the way that we pair students for learning activities and to be aware of which pairing combinations were most appropriate for a specific learning activity. Erica Hironimus, a

right away.” This observation confirmed our belief that students need to be able to choose the graphic organizer that they feel will be most productive for their work.

As our team pulled together our reflections on this lesson study, we came to the conclusion that our goal is to teach the standards in a meaningful way that carries over into everyday life. We believe that the use of a worksheet would not have accomplished the same level of interest or success as our research lesson. Students continued to research the information on crayfish and to use the strategies for identifying main ideas and supporting details that were focused on during the lesson. Our team also generated a list of questions we want to continue to examine, such as how else might we use flexible grouping, how we can help students distinguish “main idea” and “topic sentence,” and what strategies we could use to teach paraphrasing.

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second-grade teacher, noted the need to consider the different ways in which students approach learning as a means of differentiating the lesson. “Kate was upset when her partner Minda brought back the lined graphic organizer. She said, ‘I work better with the web,’ and seemed not sure what went where, but Minda wouldn’t give in. It would have been interesting to see what she could have accomplished if she had been able to use the graphic organizer she needed. Other students also seemed sure of the graphic organizer that they wanted

At the end of the school year, each of the lesson study teams at our school shared the results of their research on differentiated instruction at a staff meeting. We felt that we had gained a great deal of insight into the experiences of different learners, and an increased sense of power from working together to help students meet high expectations in a meaningful way. Yet we concluded that we still had a long way to go to fully understand differentiated instruction, and so made a staff decision to continue investigating this topic in

our lesson study groups the following year.

Our work in differentiated instruction led Sally Sandell, a third-grade teacher, to comment, “I used to evaluate a lesson by how I ‘felt’ it went or if students completed a worksheet correctly or completed a project accurately. Now, I actually look at students as they work, listen to conversations to collect information about the lesson, and make adjustments about that observation. Our focus this year on differentiation has been a great eye opener on making sure the lesson reaches the most students.” Lesson Study participants find that although they spend a great deal of time focusing on one topic to prepare for the research lesson, their insights about teaching practice are far reaching.

WHY LESSON STUDY?

Our team found lesson study to be unlike any other professional development experience we have participated in. Lesson study values us as professionals and allows us to use our collective talents and experiences to increase student achievement through increasing our knowledge as professionals. It is not another new program, but a tool that helps teachers to be effective learners themselves. One participant noted, “Lesson study creates a safe environment in which colleagues can collaborate. It has the potential for empowering teachers by demonstrating to them their own ability to improve their practice and the learning of their students.” This building of efficacy for teachers is one of the great appeals of the lesson study process.

At the heart of every teacher’s practice is the nagging question of how to reach each and every student in the classroom. Lesson study pro-

vides us with the time and structure to focus on our students and develop appropriate strategies based on their needs as observed by the lesson study team (Ball & Cohen, 1999). Another participant in our school stated that, “Lesson Study has had a definite impact on my teaching—the different components of lesson study help me as a teacher become more aware of my own teaching practices, what I do well and what I can do to help kids access, learn, and understand the content they are studying.”

We have also increased our content knowledge as literacy teachers. Together we have tackled our state language arts standards and developed effective ways to teach the ones that were the most challenging for us within the context of a rich and balanced literacy program. The opportunity to increase our knowledge is directly tied to the lesson study process because we use our collective years of experience and individual areas of strength to analyze and improve teaching and learning. Our team also benefited from the participation of our county language arts coordinator, who brought us research information on best practices and ideas from other schools.

Finally, lesson study supports us in building deep, trusting relationships with each other. We have grown stronger and closer as a staff. We share a common, professional language and a consistent, productive attitude toward our students (Hawley and Valli, 1999). Lesson study has changed the way we talk about teaching and learning. We are in that place where we are comfortable enough to ask and explore the hard questions that come up in our lives as teachers. Lesson study has changed the way we think about, interact with, and teach our students and each other.

Authors' Note:

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Resources for Further Information on Lesson Study

- www.lessonresearch.net
Web site of Lesson Study Group at Mills College. Introductory lesson study videos are viewable and downloadable, along with print materials.
- www.globaledresources.com
Global Education Resources, L.L.C. Includes many downloadable resources for lesson study and ordering information for the CD-ROM and video, *Lesson Study: An Introduction*, which shows all steps of the lesson study cycle.
- www.tc.edu/centers/lessonstudy/
Columbia Lesson Study Research Group at Teachers College, Columbia University. Offers lesson study resources, including tools, articles, and links to discussion forums.

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