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# Introduction

# Making the Case for Lesson Study

Teaching is a cultural activity. We learn how to teach indirectly, through years of participation in classroom life, and we are largely unaware of some of the most widespread attributes of teaching in our own culture. The fact that teaching is a cultural activity explains why teaching has been so resistant to change. But recognizing the cultural nature of teaching gives us new insights into what we need to do if we wish to improve it.

~Stigler & Hiebert (1999, p. 11)

lassroom life is full of habits and routines that pass unnoticed. They will often remain invisible until they are viewed from a different angle or in a new context.

The teacher welcomes students and begins going over a previous assignment. The class enacts the well-known call-and-response routine, with the teacher asking questions and the students answering. The teacher reads aloud from the text. There is a short quiz. Students work quietly at their desks, getting a head start on their homework.

Not every classroom looks exactly like this, and yet this scene will be familiar to most people. The young child playing school follows a similar script. The adult recalls this ritual, thinking back with fondness or with dread.

In the late 1990s, a video study of eighth-grade classrooms in Germany, Japan, and the United States was conducted as one component of the Trends in International Mathematics and Science Study (TIMSS) (Stigler, Gonzales, Kawanaka, Knoll, & Serrano, 1999). The researchers analyzed transcripts of videotaped lessons in which all distinguishing cultural details had been removed. Although the purpose of the study was to make cross-cultural comparisons of mathematics teaching, an

unintended outcome was the observed commonalities among teachers from the same country that might have gone unnoticed when looking only at U.S. classrooms.

In *The Teaching Gap*, James Stigler and James Hiebert (1999) theorize that the reason teaching is so consistent—and therefore so difficult to change—is because it is a cultural activity. In other words, we are steeped in ideas about what it means to teach from the time we first enter school, if not before. As a result, teachers tend to follow cultural scripts that are consistent with what they experienced as students.

In their book, Stigler and Hiebert (1999) describe **lesson study**—a model for intensive, school-based professional development used in Japan—as a strategy for change and improvement that is appropriate for a cultural activity such as teaching. Developing new approaches requires deep thought, inquiry, and collaboration with a collective focus on teaching rather than teachers.

When habit swathes everything, one day follows another identical day and predictability swallows any hint of an opening possibility.... Once we can see our givens as contingencies, then we may have an opportunity to posit alternative ways of living and valuing and to make choices.

~Greene (1995, p. 23)

# AN OVERVIEW OF LESSON STUDY

Lesson study is a professional development practice in which teachers collaborate to develop a lesson plan, teach and observe the lesson to collect data on student learning, and use their observations to refine their lesson. It is a process that teachers engage in to learn more about effective practices that result in improved learning outcomes for students. The **lesson study process** is illustrated in Figure 1.1.

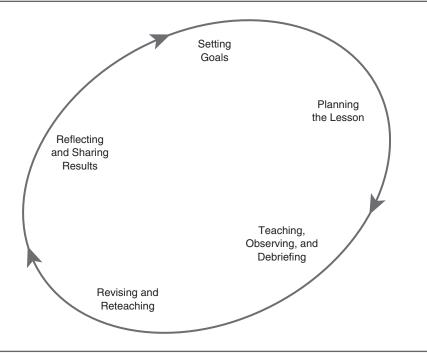
In her autobiography, Virginia Woolf (1976) noted her desire to break through the "cotton wool" of daily life—the routines and habits that prevented her from seeing and living deeply. When teachers participate in lesson study, they have an opportunity to focus their attention on the deeper substance of their work. There is little time for such concentration when teachers are caught up in the flow of teaching.

The time devoted to investigating students as they think and learn is the part of lesson study that teachers find most appealing and exciting. Lesson study teams examine how students learn and what they bring to the learning experience. Their inquiries lead them to knowledge about what stimulates students' interest and inspires them to persist through a challenging task.

When they observe, the teachers are often assigned to follow one group of children throughout the lesson. They pay close attention to the conversations students have with each other as well as the teacher's interactions with the small groups. They are also intent on capturing students' reactions to the lesson: How eager are they to investigate the topic? Japanese teachers mention watching the students to see if their eyes are shining and listening for the exclamations that students make to themselves (Lewis, 2000).

Lesson study provides a context for examining content. Teachers deepen their own understanding, gaining a sense of how different topics fit together and build on each other. They take time to examine and reflect on curricula and other teaching materials. They also work together on how to translate their own content knowledge into experiences for students.

**Figure 1.1** The Lesson Study Process



When lesson study is conducted on a schoolwide basis, improvement is continuous and happens in more than one classroom. All of the teachers in the school benefit from building on each other's knowledge and ideas. The process of learning through inquiry and discussion about classroom teaching helps teachers to build their sense of professional authority (Linn, Lewis, Tsuchida, & Songer, 2000).

School improvement efforts in the United States often fail to engage teachers as knowledgeable practitioners, instead providing mandates, incentives, or "teacher-proof" strategies and materials. Lesson study approaches teaching as intellectually demanding work rather than a set of skills to be implemented. The attention paid to each lesson honors the importance of teaching as a profoundly complex and interesting endeavor.

# **Lesson Study in Japan**

Lesson study has a long history in Japan, where it began as a grassroots effort initiated by teachers (Fernandez, 2002). There are several different types of lesson study. It is conducted as part of teachers' preservice training, and first-year teachers continue to participate as they begin their careers (Fernandez & Yoshida, 2004; Shimizu, 2002). Research organizations conduct lesson study at the national level to explore new ideas about teaching or curriculum (Murata & Takahashi, 2002). These groups often present public research lessons at national conferences, where many educators are invited to observe and discuss the lesson. Teachers who have common professional interests—such as subject matter or career stage—form regional or cross-district lesson study groups (Murata & Takahashi, 2002; Shimizu, 2002).

Finally, individual schools conduct lesson study as one part of their school-based professional development, which is called *konaikenshu* in Japanese (Yoshida, 1999). Lesson study is used primarily in elementary schools and middle schools, and it is conducted in all subject areas—including art, physical education, and extracurricular activities (Murata & Takahashi, 2002).

It is not unusual for teachers and administrators in the United States to dismiss lesson study because of its origins in Japan. They cite the many differences between the educational systems of the two countries. Many—especially mathematics and science teachers—are weary of being unfavorably compared to Japanese teachers. Others have expressed doubts about the ability of U.S. teachers to engage in the process.

The differences between Japanese and U.S. schools cannot be denied. U.S. teachers face challenges that Japanese teachers do not. Many of the structural features that support lesson study—for example, a national curriculum—are not present in the United States. Yet lesson study can be used as a means of developing schools that are more conducive to teacher learning.

This does not require that schools emulate Japan in order to support lesson study or that the purpose of lesson study is for teachers to assume Japanese teaching styles. Schools in the United States cannot simply adopt the Japanese lesson study process without modifications. The challenge is to strike a balance between keeping the essential elements of lesson study intact—for example, collaboration and peer observation—while changing the model to fit the reality of schools in the United States.

# **CORE ELEMENTS OF LESSON STUDY**

Understanding the lesson study process is the first step in learning about lesson study. The process is often the easiest element to grasp because it is the most concrete. Yet there are other elements that are equally important in understanding its substance. The process is the framework for developing the habits of mind and exploring the big ideas that drive the pursuit of professional knowledge. Figure 1.2 illustrates how the habits of mind and the big ideas are embedded within the framework of the lesson study process.

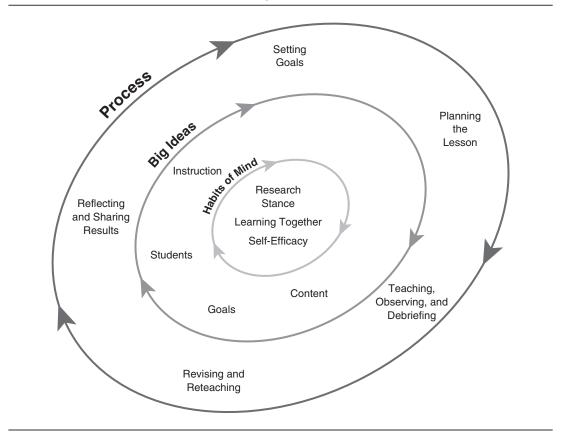
# The Lesson Study Process

The following is a brief overview of the lesson study process. It is intended to be an initial introduction to the work of lesson study teams. The later chapters of this book portray each phase with more detail and depth.

# Setting Goals

Teachers identify a **research theme**—a broad, **long-term goal**—to guide the **lesson study cycle** and focus their work (Lewis, 2000). It is usually focused on students—for example, "Students will become confident and creative thinkers and innovators." Lesson study teams often focus on the same research theme through multiple cycles of lesson study over the course of several years (Yoshida, 1999). Ideally, the goal will serve as a focus for the whole professional development program, not just lesson study. The research theme helps to ensure that lesson study addresses important issues that will have an impact on student learning.

Figure 1.2 Core Elements of Lesson Study



# Planning the Lesson

Using the research theme to guide their work, the lesson study team collaboratively develops a classroom lesson, which is called a **research lesson**. The lesson study team identifies specific lesson goals that often come from examining assessment data or identifying a common problem. The teachers spend time investigating teaching materials and draw on their own experiences, ideas they have read about, and strategies they have seen other teachers use (Lewis, 2000). The plan for the research lesson is very detailed, with descriptions of anticipated responses from students. It is a guide for teaching the lesson, but it also serves as a communication tool for the lesson study team by clarifying the goals and ideas being tested.

# Teaching, Observing, and Debriefing

When the plan is complete, one person teaches the lesson to his or her students. The other team members serve as data collectors, and sometimes they are joined by invited guests, including **knowledgeable others**—educators with expertise in content or pedagogy relevant to the research lesson. The observers take notes on what the teacher and the students are doing and saying and collect evidence of student thinking. The purpose of the observation is to gather data about the effectiveness of the lesson, not to evaluate the teacher. After a break, the teachers and

guests conduct a **debriefing** to discuss the lesson and their observations. The members of the lesson study team—and other observers if they are present—share the evidence of student learning that they have collected.

# Revising and Reteaching

Based on the evidence collected and discussed during the observation and debriefing, the lesson study team makes changes to the lesson. The teachers will use the data to craft revisions that will address problems and student misunderstandings identified in the first presentation. The team may meet several times to revise the lesson, which is taught to a new group of students. The same processes for observing and debriefing are used for the second teaching. The team sometimes uses the data collected and the notes from the discussion to develop the final version of the lesson.

# Reflecting and Sharing Results

The lesson study team will record and share the research lesson they developed. The teachers publish a **report** about their work and include their reflections and a summary of group discussions (Yoshida, 1999). Lesson study reports are an important part of the process because they facilitate and capture the teachers' reflections about the lesson and about broader issues of teaching and learning. The teachers use the knowledge that they gain to plan and improve other lessons and their instructional practice. The results from one research lesson will inform future lesson study cycles and other professional development efforts.

# **Habits of Mind**

The habits of mind are the qualities that teachers build and use in order to grow professionally through lesson study. These qualities may be unfamiliar to many teachers and therefore inspire a significant shift in the way they think about their work.

# Research Stance

Lesson study involves posing questions and problems, researching possible solutions, trying out ideas, collecting data, and analyzing findings. Teachers engage in inquiry, reflection, and critical examination of their practice. They look at the classroom as a place in which to investigate teaching and learning.

# Learning Together

It is important for all team members to establish and sustain a safe environment for collaboration. Communication within the team is clear and respectful. Team members are open to new ideas and approaches.

# Self-Efficacy

Teachers are motivated and persistent in improving their craft. They take responsibility and believe that they can make a difference in student learning.

# **Big Ideas**

The big ideas are the topics that teachers explore as they engage in lesson study. Focusing on important issues in teaching and learning helps to ensure that the teachers' work will have broad impact. The big ideas guide the teachers toward building knowledge that will endure beyond the research lesson.

# Instruction

Engaging in the process of lesson study without considering the other core elements is a problem that teams can overcome by continually reflecting on their lesson study practice. If teachers do not ground their work in important ideas and adopt the necessary habits of mind, lesson study is not likely to bring about significant improvements in teaching and learning.

# Students

Teachers consider students' prior knowledge and think about how children learn. They also identify anticipated responses and misconceptions, discussing and planning how a teacher might address students' reactions and build on their ideas and actions.

## Goals

Teachers establish long-term goals for their students by considering what they want their students to become and where they are now. In addition, teachers establish short-term goals for their students, which typically focus on content and process.

## Content

Teachers explore the topic of the unit and the research lesson. They consider the key concepts underlying the topic as well as connections to other concepts. Teachers sometimes identify gaps in their own knowledge as they develop the lesson.

Linking the key concepts underlying the content and students' current understanding, team members consider instructional approaches that will help students reach the goals. Some of the issues that the team considers include how to begin the lesson, what questions to pose, and how to summarize the key concepts. The team members collect and examine existing lessons, research best practices, and identify effective tools.

# **ALL THIS WORK FOR ONE LESSON?**

The extended time devoted to planning the research lesson is a concern for many teachers and administrators when they first hear about lesson study. Putting so much time and effort into a lesson that occupies a few hours of one school day does not seem like a good investment. Others mistakenly believe that lesson study teams are charged with developing exemplary lessons that other teachers can take up and use.

It is quite natural to assume that the purpose of an activity that is named "lesson study" would be to develop lessons. Although the research lesson is an important aspect of the process, it is not the only—or even the primary—product. The lesson serves as an organizer that the teachers use as they engage in the real work of lesson study: studying teaching materials, discussing content and instruction, reflecting on their practice, investigating student learning, and applying all that they learn to their practice. The purpose of lesson study is to improve instruction by generating professional knowledge, not by developing a bank of exemplary lessons. Lesson study teams do share their research lessons with each other, but they do so in order to communicate what they have learned.

Although lesson study shares a number of features with other forms of professional development, there are details that set it apart. Figure 1.3 is intended to identify key aspects of lesson study that make it unique. All of these approaches to professional learning are valuable; however, they have different strengths and serve different purposes.

Figure 1.3 Comparing Professional Development Approaches

#### **Action Research**

Examining teachers' own teaching and their students' learning by engaging in a research project in their classroom

# Study Groups

Engaging in regular, structured, and collaborative interactions regarding topics identified by the group, with opportunities to examine new information, reflect on their practice, or assess and analyze outcome data

#### **Curriculum Development**

Creating new instructional materials and strategies or tailoring existing ones to meet the learning needs of students

# **Peer Coaching and Mentoring**

Working one-on-one with an equally or more experienced teacher to improve teaching and learning through a variety of activities, including classroom observation and feedback, problem solving and troubleshooting, and co-planning

# **Examining Student Work**

Carefully examining students' work and products to understand their thinking and learning strategies and identify their learning needs and appropriate teaching strategies and materials

## **Lesson Study**

Emphasis on collaboration Common focus

#### **Lesson Study**

Direct link to planning and classroom practice Focus on a specific topic or problem related to goals for student learning

#### **Lesson Study**

Research lessons are learning tools rather than products Teachers often use existing curriculum and learning activities

# **Lesson Study**

Focus on the lesson rather than the teacher All team members contribute equally

## **Lesson Study**

Live observation of students

Common understanding of the context of student work

SOURCE: Loucks-Horsley, S., Hewson, P. S., Love, N., & Stiles, K. E. (1998). *Designing professional development for teachers of science and mathematics*. Thousand Oaks, CA: Corwin Press.

# BUILDING A RESEARCH BASE FOR LESSON STUDY

Lesson study is gaining momentum in the United States as a practice that can inspire profound changes in teaching and school organization, leading to improvements in

student learning and achievement. Much of what is known about the impact of lesson study comes from Japan, where it is an established practice. According to Japanese teachers, the results of lesson study include improved instruction, improved understanding of subject matter, tighter connection between their daily work and long-term goals for students, and improved ability to "see children" (Lewis, 2000; Lewis & Tsuchida, 1997).

In the United States, knowledge about the impact of lesson study is slowly beginning to accumulate. What is known so far is quite limited because although lesson study—and in particular, interest in lesson study—has grown very quickly, it is still a new practice. The educational community is in the midst of finding out what lesson study looks like in a U.S. setting and investigating how teachers engage in lesson study. Rather than looking only at impact, Catherine Lewis and her colleagues call attention to the need for research that describes lesson study as it is practiced in Japan and the United States, as well as investigations of how lesson study results in improved instruction (Lewis, Perry, & Murata, 2006).

To build a strong rationale for lesson study, it is necessary to draw on multiple sources of evidence. The following sections are organized around themes from research on effective professional development. Each theme is linked to the features of lesson study and the related outcomes. Evidence comes from descriptive studies about lesson study practice as well as emerging research and evaluation conducted on U.S. lesson study projects.

# Collaborative, Comprehensive, and Ongoing

Professional development has a stronger impact when it involves groups of teachers organized around common subject areas or grade levels rather than individual teachers (Garet, Porter, Desimone, Birman, & Yoon, 2001). Short-term experiences that change topics are less effective that professional development that is continual and maintains a constant focus over time (Clarke, 1994; Office of Educational Research and Improvement, 1999).

# Reducing Isolation

Increased collaboration among teachers is often a direct and immediate outcome of lesson study (Byrum, Jarrell, & Munoz, 2002). Lesson study teams often find outcomes related to collaboration the most valuable—decreased isolation, increased trust, and collective effort toward common goals (Wilms, 2003). Rather than simply increasing the amount of collaboration, lesson study also increases the teachers' capacity to learn together. The teachers develop common understandings of content knowledge and the means to improve instruction. The process of planning a lesson together and discussing evidence of student learning helps teachers develop a common language and a shared vision of effective teaching (Liptak, 2005).

# Exploring Different Perspectives

One potential problem in collaborative work is that teachers will feel pressure to minimize disagreements or to avoid talking about areas of potential contention. Lesson study provides teachers with a forum to discuss disagreements and perhaps to test different approaches and gather evidence about the impact on student

learning (Lewis 2002a). Lesson study also has the potential to help teachers try out new ideas. It can help to gently nudge teachers out of their comfort zone while also providing essential emotional support.

Research lessons ensure that teachers with differing beliefs will continue to see and give feedback on one another's practice—rather than talking only with likeminded colleagues. We suspect that such shared discussion of real classroom lessons helps teachers keep in mind education's many goals, recognize the benefits of approaches different from their own, and avoid extreme pendulum swings as innovations are put into practice.

~Lewis & Tsuchida (1997, p. 325)

# Continual Improvement

Schools are not designed to be places where teachers can engage in continual learning and improvement (Elmore, 2002). The lesson study process has the potential to transform classrooms into places where teachers can investigate student learning and use what they discover to guide their instructional decisions on a continual basis. Instead of thinking of professional development as something that has a beginning and an end, teachers will begin to see their work as a means of conducting research and learning more about their students and how to meet their needs.

When lesson study is conducted schoolwide, its potential impact grows because it is a vehicle for teachers to share what they learn. Lesson study can transform teachers' informal knowledge into professional knowledge that is public, sharable, accurate, and verifiable (Hiebert, Gallimore, & Stigler, 2002).

# Focused on Subject Matter

Professional development focused on curriculum, content knowledge, and on how students learn specific content is more likely to impact teacher practice and student learning (Cohen & Hill, 1998; Kennedy, 1998). This category can include pedagogical content knowledge—learning focused on how to teach specific subject matter—as well as the understanding of the content that teachers need to effectively guide student learning.

# Increasing Knowledge of Subject Matter

As they develop their research lessons, teachers delve deeply into the subject matter and increase their content knowledge (Turner, 2004). Lesson study is a means for teachers to identify gaps in their own understanding, and it provides motivation for them to learn more (Fernandez, Cannon, & Chokshi, 2003). With the help of knowledgeable others, teachers develop new insights about content and how to explore it with students. Their improved understandings of how concepts are related to each other enable teachers to help students make connections. Teachers may also gain a broader scope in their understanding of content by examining how specific topics are addressed in other grade levels. Catherine Lewis and her colleagues have been investigating lesson study's impact on teachers' knowledge, and they have found that engaging in lesson study was a means for teachers to develop new understandings about mathematics (Perry, Lewis, & Akiba, 2002).

# **Teacher Driven and Classroom Based**

Teachers need to design their own professional development experiences to address questions and issues that they identify as important (Clarke, 1994; Wilson & Berne, 1999). Professional development is effective when it is explicitly connected to teachers' work with their students (Corcoran, 1995; Darling-Hammond & McLaughlin, 1995). Professional conversations about teaching and learning must be centered in the classroom and in artifacts of practice (Ball & Cohen, 1999).

# Focusing on Concrete Tasks and Experiences

Lesson study provides both a well-defined task—planning the lesson—and a common episode of teaching that teachers can analyze and discuss (Hiebert, 2000; Yoshida, 1999). Another benefit of the focus on lesson planning is that it is a familiar activity in which to ground reflective practice (Fernandez & Yoshida, 2000). Lesson study makes the process of reflection more concrete by providing goals and questions that teachers can use to examine and think about their experiences.

# Improving Instructional Knowledge

Lesson study provides a means for teachers to gain instructional knowledge and direct evidence of the effectiveness of specific strategies (Stewart & Brendefur, 2005). The Northern Michigan Lesson Study Initiative involved four lesson study groups from a variety of grade levels. The teachers reported that lesson study helped them to improve their instruction and planning. Two of the specific areas of instruction that they identified were more effective questioning strategies and a more effective approach to gauging student understanding (Turner, 2004). In another lesson study project, evaluators used classroom observation data to document improvements in interactions between teachers and students (Petrescu, 2005). The knowledge that teachers gain is not isolated to the research lesson but can be applied to other lessons, other subject areas, and instruction in general. Paterson School No. 2 in New Jersey is one of the first lesson study sites in the United States. Paterson teachers report that they have noted changes in the nature of students' learning activities—they have more opportunities to share and discuss their thinking (Jackson, 2005).

# **Active and Hands On**

Effective professional development provides opportunities for active learning—teachers become inquirers and problems solvers (Garet et al., 2001; Wilson & Berne, 1999). Professional development involves teachers in identifying problems and questions, thinking about and discussing their work, gathering data, and using what they learn to inform their practice (Borasi & Fonzi, 2002; Thompson & Zeuli, 1999).

Teachers develop understanding of their own knowledge as well as acquiring new knowledge of content and students (Wilson & Berne, 1999). Opportunities should be designed to enable teachers to share their knowledge and develop communities of practice (Darling-Hammond & McLaughlin, 1995).

# Generating and Sharing Knowledge

In the push for research-based strategies and practices, teachers are rarely portrayed as sources of knowledge about teaching. Lesson study can counteract this tendency

because it enables teachers to enter into this role. Through their lesson study work, teachers have a means of articulating and organizing their knowledge (Saul, 2001).

Lesson study provides a process that teachers can use to learn from their practice, verifying the effectiveness of their methods and identifying less-effective routines. Rather than relying on researchers to verify what works, lesson study is a means for teachers to develop and employ professional judgment, honing their abilities to gather, analyze, and interpret evidence.

# Developing a Researcher Stance

Lesson study helps teachers gain a better understanding of how their decisions and actions contribute to student learning. They create research questions about instruction and student learning and develop a lesson plan that enables them to collect evidence about their questions. As teachers take on an inquiry stance, they learn how to investigate and gain knowledge from their daily practice and from observing students. Other characteristics that teachers develop include being eager to try new strategies, engaging regularly in reflection, and focusing on the details of instructional practice (Byrum et al., 2002). Teachers also report feeling more like professionals as a result of their lesson study work (Wilms, 2003).

# **Focused on Student Outcomes**

Positive changes in student outcomes are the ultimate measure of professional development's success. Gaps between goals for student learning and actual student performance should drive teacher learning (Hawley & Valli, 1999).

# Attending to Student Learning

Lesson study focuses professional development on student learning (Takahashi & Yoshida, 2004). The process begins with identifying goals for students. During the planning phase, the team spends time researching and thinking about how students learn. The teachers anticipate how the students will respond to the lesson, altering their plan to address students' likely reactions. When they observe and discuss the lesson, the teachers maintain their focus on students, gathering evidence that they will use to refine the lesson plan.

Rather than focusing only on what to teach and how to teach, the lesson planning process inspires teachers to adopt a student perspective on instruction and to anticipate how students will respond to questions and tasks (Byrum et al., 2002; Stewart & Brendefur, 2005). Teachers explore student thinking and how to facilitate it (Fernandez et al., 2003). Engaging in lesson study also helps teachers gain a better understanding of students and their learning needs (Lewis, Perry, & Murata, 2003; Petrescu, 2005).

# Improving Lesson Planning

Lesson study helps teachers develop more effective approaches to planning their work (Stewart & Brendefur, 2005). Teachers gain a better understanding of long-term goals and standards (Lewis et al., 2003). Teachers report that they become more focused on goals in their daily planning and that their instruction becomes more purposeful (Byrum et al., 2002; Petrescu, 2005).

Like all efforts to bring about meaningful change and significant learning, lesson study requires a long-term view. It may not have an immediate and measurable impact on teachers and students, especially if teachers' first steps are to learn how to engage in lesson study. Stigler and Hiebert (1999) speculated that one of the obstacles that lesson study would face in the United States was the lack of this long-term perspective. There is a danger that the educational community may abandon lesson study before its impact can be established.

Catherine Lewis also suggests the need for a careful and steady pace in conducting research on lesson study (Lewis et al., 2006). Rather than rushing into randomized controlled trials, U.S. researchers need a much deeper understanding of the processes through which teachers' lesson study practice leads to improvements in teaching and learning.

Form 1.1 is a short overview of lesson study. It includes a description of the phases of the lesson study cycle. It also highlights the fit between lesson study and research-based characteristics of high-quality professional development. The purpose of this tool is to provide a overview that can be shared with people who are unfamiliar with lesson study. There are more ideas about how to share information about lesson study in Chapter 2.

# FROM THE FIELD

The sixth-grade lesson study team from North Marion Middle School in Aurora, Oregon—Bill Brown, Carolyn Donnelly, Heidi Friesen, Christie Jackson, and Angela Turner—have experienced many of the research findings for themselves. They identify several areas in which lesson study has had an impact on their professional knowledge and growth.

# Collaboration

Being able to talk together as a whole group is such a big part of lesson study. It just widens your whole perspective because you are getting ideas from other people and you're not just going down this narrow little road of your own.

~Carolyn Donnelly

# **Focus on Students**

One of the changes I've made as a result of lesson study is anticipating how students are going to respond to my questions and to my style of teaching.

~Bill Brown

# **Improved Planning**

It's really helpful just to take the time to think about things that might be a problem in my lessons. It's much better to be able to do that than to always be dealing with things right on the spot.

~Angela Turner

# **KEY IDEAS**

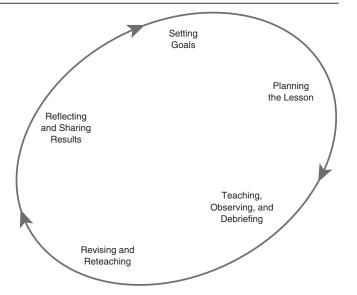
- Lesson study addresses teaching as a cultural activity—one that is improved through deep thought, inquiry, and a collective focus on teaching rather than individual teachers.
- There is not a single model of Japanese lesson study. In Japan, lesson study takes many different forms and is used for a variety of purposes.
- The process of lesson study is only one part of its substance. Equally important are the habits of mind that teachers develop and the big ideas they explore.
- The purpose of lesson study is to improve instruction by generating professional knowledge, *not* by developing a bank of exemplary lessons.
- Lesson study provides learning experiences for teachers that are congruent with effective professional development. Lesson study is collaborative, comprehensive, and ongoing; focused on subject matter; teacher driven and classroom based; active and hands on; and focused on student outcomes.

# Form 1.1 Overview of Lesson Study

Lesson study is a professional development practice in which teachers collaborate to develop a lesson plan, teach and observe the lesson to collect data on student learning, and use their observations to refine their lesson. It is a process that teachers engage in to learn more about effective practices that result in improved learning outcomes for students.

# Phases of the Lesson Study Cycle

- Setting Goals
- Planning the Lesson
- Teaching, Observing, and Debriefing
- Revising and Reteaching
- Reflecting and Sharing Results



# Lesson Study: High-Quality Professional Development

Collaborative, Comprehensive, and Ongoing

Lesson study involves groups of teachers organized around common subject areas or grade levels. It is designed to be an ongoing effort that is most effective as one element of a schoolwide program for continual improvement.

Focused on Subject Matter

As they develop their lesson plan, lesson study teams draw on resources about a specific topic and how students learn. The teachers then collect evidence and apply it in subsequent planning and day-to-day teaching.

Teacher Driven and Classroom Based

Lesson study teams are responsible for identifying the focus of their work, finding and using information, conducting research, sharing results, and identifying areas for further learning. The teachers conduct lesson study in their own classrooms and with their own students.

Active and Hands On

Lesson study provides support for teachers to develop their own knowledge, placing their learning within their work rather than outside of it. Lesson study provides a process that teachers can use to learn from their practice, honing their abilities to gather, analyze, and interpret evidence.

Focused on Student Outcomes

Lesson study begins with teachers identifying student goals to guide their work. Teachers continue their focus on students by anticipating and observing student responses to instruction.

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# From Our Team to Yours

# The Detroit Lesson Study Group

In Detroit, Michigan, lesson study got its start in the summer of 2002. Thanks to the work of the Detroit Lesson Study Group—the original team of five teachers who got it off the ground—the district's program is not only viable but also growing and gaining momentum. Brandon Graham, Byron Timms, Vicki Vorus, Elana Webster, and Jason White teach middle school mathematics; all five were teaching summer school and participated in the lesson study pilot.

It was the district administrators who first brought lesson study to Detroit Public Schools. They were interested in starting lesson study in the district because it seemed like a good fit for their needs. Aleatha Kimbrough, the executive director of student support programs was one of the people who helped introduce it.

Aleatha Kimbrough: "At Detroit Public Schools, we saw lesson study as a powerful strategy that integrates the best of what we know about quality professional development. It incorporates knowledge and skill building through practice and provides the kind of strong collegial support we want for our teachers. Lesson study supports teachers going deep into the study of teaching and learning in the interest of deepening student thinking."

The members of the Detroit Lesson Study Group are now serving as facilitators for new teams in the district as Detroit's lesson study effort expands. Having served both as team members and as facilitators gives the teachers insight into what it takes for teachers to get the most out of lesson study.

**Brandon:** "I think all of us have done lesson study long enough to experience and to notice different levels of success. The one key ingredient for a group that is going to reach the optimal level of success is people who want to improve. We believe that there's always a better method to teach something, and we're always trying to explore new and better ways to impact student learning."

**Vicki:** "I think the majority of people don't mind the commitment if it helps them to become more effective teachers. I think there are more teachers who are committed to teaching and who want to be the best teachers they can be. So I think that lesson study is for the teachers who love teaching."

**Byron:** "Lesson study is not for everybody. I'd like to think that it is, and I don't want to discourage anyone from trying it. Because I would hope that, particularly as teachers, we would be open to gaining new insight and getting better. I think for the most part, the people who participate in lesson study bring something to it and get something out of it. It absolutely has changed my whole professional life."

Aleatha Kimbrough: "At the end of the first lesson study cycle, we asked the lesson study teams for feedback. One of the lesson study participants said lesson study was the first time in her long teaching career that she had the opportunity to visit another teacher's classroom. It was the first time she was able to interact with other teachers about how to structure teaching for student success. Through lesson study, she became totally reenergized about her teaching."

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# Laying the Groundwork for Lesson Study

ow do we make this work in our school?" When educators get excited about lesson study, this is one of the first questions they ask. The transition from hearing about lesson study to forming a team requires some initial planning and organization. The conditions that are necessary to support lesson study are not common in most U.S. schools. But working together, teachers and administrators can create an environment in which lesson study can thrive.

Lesson study is not something you are taught. Through the process of examining classroom lessons, a teacher gains valuable insights as to how students learn best. Through conversations with others who have the same daily challenges you do, the world of educating children becomes a small team effort, and your group is there to help you in every way it can. The actual observations give you "eyes" to really see what your students are thinking, because you don't sit in the back of the classroom, but among the students as they ponder the new concepts.

~Marilyn Carpenter, teacher

# BEGINNING WITH THE NECESSARY INGREDIENTS

Creating readiness is the first step in getting lesson study off the ground. When schools do not take time to ensure that the necessary ingredients are in place, lesson study is more likely to falter. This does not mean that a group of volunteer teachers