授業研究 LSP

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Dear Lesson Study Participants:

Today's topic is, "Looking Inside the Black Box.

A major challenge in lesson study is to observe student learning as it takes place during the lesson. This involves observing ***how*** students engage and try to make sense of the subject matter. If we know more about ***how students learn,*** we should be better able to improve the lesson.

However, focusing on how students learn is unfamiliar territory for many teachers. We often examine learning after our instruction has taken place, using tests, quizzes, and other assignments. Through pre-tests and background knowledge probes, we sometimes collect information about what students know before instruction. Lesson study sheds light on what happens during the learning process. Lesson study involves gaining access to the thought process—peering inside the black box—to better understand how students construe the subject, where they stumble, what confuses them, how they put ideas together, how misconceptions develop, how their thinking is affected by different parts of the lesson.

For example, student interactions and discussions are opportunities to watch students trying to make sense of new material and ideas. When students try to explain an idea, think through a problem out loud or justify a response, they reveal their thought processes. As a teacher you have a chance to "see and hear" what the topic looks like to students, and think about how to plan instruction to better support student thinking.

Tips for observing students during the research lesson.

- "Gathering Evidence of Student Learning" illustrates ways to observe students in the classroom.
- As you design the lesson, build in episodes, activities, exercises, interactions through which students externalize their thinking and make it open to observation and analysis.
- More evidence is better. Think of lesson study as an exploratory study. You may not know in advance which factors are most important for student performance so it is a good idea to collect a lot of evidence—written work plus observations of students throughout the class period.
- The table below suggests questions and prompts that focus on important aspects of learning, thinking and engagement during the lesson.

Type of Outcome: Academic Learning & Thinking
Characterize the strengths and weaknesses of students' thinking as reflected in their oral or written responses. Did students draw upon relevant course material? Where did students have difficulty, seem confused, get stuck? What comments or writing provide evidence they understood or misunderstood relevant concepts and ideas? What misconceptions about the subject surfaced during the lesson?
Type of Outcome: Motivation and Engagement
Characterize students' motivation and engagement as reflected in their tone of voice, body language, exclamations, persistence, and comments? Did particular students disengage from the lesson (e.g., students who are especially weak or strong) How did students react to complex or especially difficult parts of the material or activity?
Type of Outcome: Social Behavior
Characterize the quality of peer interaction during the class.

Did students challenge and support one another in appropriate ways? How did peer interaction support or interfere with students' understanding or performance?
Type of Outcome: Student Attitudes Toward Learning
Characterize the participation of several students who differ with respect to interest and level of achievement in the subject. Did students appear interested in or excited about the lesson? Do students want to learn more about the topic?

Lesson study quote What's the most important benefit to lesson study? You develop the eyes to see children. Kyouichi Itoh, Elementary Principal, Nagoya, Japan