

An Interview with Catherine Lewis
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Dr. Catherine Lewis is currently senior research scientist at Mills College in Oakland, California. Fluent in Japanese, she has conducted research in Japanese and U.S. schools for 25 years. Her writings and videotapes, including '[Lesson Study: A Handbook of Teacher-Led Instructional Change](#)' and '[Can You Lift 100 Kilograms?](#)' have introduced many U.S. educators to lesson study.

Yours is an interesting story because you were doing research in Japanese schools and inadvertently "discovered" lesson study. Please give us an overview of how and why you became interested in lesson study and where it has led you.

I first learned about lesson studies as I sat in Japanese elementary classrooms for months in 1993 writing classroom ethnography that focused on how Japanese students become motivated, responsible class members. Suddenly, though my work was not focused on science instruction, I was seeing levers and pendulums everywhere. Because of the way science is taught in Japanese elementary schools, I was noticing the science in my own daily life. For example, I noticed that where I attached my heavy computer to my rollaboard suitcase was a problem in levers. Although that suitcase situation had been in my life for many years, something about the way the Japanese students were studying science led me to notice it as a lever problem (and to think about pendulums when an umbrella I was dangling from one arm made it difficult for me to swing my arms at the same pace).

When I asked Japanese teachers where they learned to teach science through intensive, student-led hand-on investigation and discussion of core problems, to my surprise they said "These teaching techniques come from the US." (Subsequent research suggests that many of their teaching techniques are in fact based on model NSF-funded programs from the US). So I shifted my question and I asked Japanese teachers "How did you personally learn to teach this way?" The answer I heard again and again was "kenkyuu jugyuu" -- research lessons -- which are the heart of the lesson study process. So I asked to see research lessons, and have seen about 100 over the past 13 years.

Lesson study now has a sizable following in the United States, especially in K-12 education, thanks a great deal to your work. What have been some of the challenges you have seen in adapting Japanese approaches for American contexts?

I think there are several challenges.

The first is *premature expertise*. Lesson study is a simple idea. What could be more obvious, if you want to improve instruction, than careful study of instruction and student responses? But it is a complex process, since you need to build the *collegial processes* to learn from one another, the *observational skills* to learn from students, and, often, knowledge of *content and pedagogy resources* beyond those in your group. Many of us in the US have learned to think of new programs as blueprints or recipes: you follow the recipe and instructional improvement results automatically. Sometimes people consider themselves experts on lesson study if they have done a few cycles. But knowing how to do lesson study well doesn't mean knowing just the surface features like how to conduct, observe, and discuss a research lesson. It means doing these things in a way that builds the collegial processes, observation skills, and knowledge of all participants, and doing it in such a way that everyone will want to continue to learn together from practice. This is a tall order. You might think of it as knowing how to create cultural change. If you watch veteran Japanese lesson study practitioners assist US sites, they listen far more than they talk. They look at the whole picture of a lesson study site, noticing, for example, how teachers work together, what are the strengths of the instruction, and what's missing. They think strategically about the experiences needed to help a group of people work together more effectively. They think strategically about the

new knowledge about content and pedagogy that would help teachers make the next step to improve instruction. They don't unload a dumptruck of knowledge. As lesson study has become known and even commercialized in the US, there is a danger of superficial, recipe-like visions of it. In fact, it requires participants to continuously ask what can be improved, not to assume we've arrived.

A second challenge is *simplistic research models*. I am a believer in rigorous research, but worry about immature or formulaic versions of lesson study being tested and "proven" ineffective, so that we move on to the next fad.

A third challenge is the *need to learn across sites*. Both lesson study models and instructional models will advance if we have the opportunity to learn across sites. This happens in Japan. People conduct lesson study in their schools, in cross-school district groups, and in national groups. For example, when you go to national science teacher association meetings, you go to schools and see research lessons that may be attended by hundreds of people (who view with the aid of video and sound projection). So people see and discuss what is meant by "problem-solving" or "inquiry." Cross-site activity is important to advances in instruction.

Why and how might lesson study be a worthwhile activity at the college and university level? What benefits and what barriers would you expect to be experienced in higher education?

I see the basic ideas of lesson study as similar across the age span—knowing what learners are actually taking away from lessons, examining the connections between this and our long-term goals for students, and sharpening our ideas about the kinds of instruction that will support student learning, based on a better understanding of students and their learning process. The diversity and idiosyncrasy of university courses could be a difficulty – we may not agree on what are the important areas of knowledge in an intro psych course to nearly the extent that we agree on the important knowledge of fifth grade mathematics. Another especially difficult issue at the higher education level could be the greater investment of faculty in teaching techniques they have used for years and their strong identities as masters of the content knowledge.

Despite the potential difficulties at the university level, you should know (if you don't already) that Japanese (and other Asian) scholars are extremely interested in the work you are doing in university lesson study. They see it as something for "reverse importation" into Japan, where university teaching has not received the same careful attention as elementary and secondary teaching. Several Japanese educators have told me how impressed they are with your website.

Some faculty have been interested in doing lesson study in different ways. For example, teachers have discussed creating entirely web-based lessons, accelerating the process (doing most of it in a single day), and assembling different kinds of teams (interdisciplinary, cross-campus, etc.). Given the possible variations, what do you feel are essential features of lesson study?

Some important questions for each participant to ask might be:

1. What did I learn about teaching, the subject matter, instructional resources, student learning?
2. Did the lesson study work affect my sense of efficacy as a teacher – i.e., my sense that instruction can be improved in ways that make a difference for students?
3. Did my lesson study work affect my relationships with colleagues – for example, my interest in informal or formal collaboration with them in the future?
4. Did the lesson study work leave a residue in my course materials—in syllabus, course content, activities, etc.?

Some faculty have also expressed concern about the time and energy required to do lesson study given their other commitments. How do you respond to this concern? What advice would you give to teachers who would like to get more from the lesson study process in less time?

After one or more cycles, group members may be able to identify elements of their work that feel more or less useful, and hone their processes accordingly.

Can lesson study be designed so that it helps take some other requirement off the plate of busy faculty? For example, can lesson study reports fulfill the "service to university" requirement or be published to support academic advancement? Can study of student work be fed into assessment/grading? Can lesson study work be combined with faculty mentoring programs or other existing commitments?

Please share any thoughts you may have about the College Lesson Study Project. What pointers or suggestions would you give to us to help us, over time, realize the full potential of lesson study?

Creating a learning community across higher education sites seems important to cross-fertilization and broad progress. Faculty at different universities may have different approaches that could profitably be shared.

Another important question raised by your work is how we can build it into the professional advancement and publication system more seamlessly, so faculty don't feel it's taking away from these important endeavors.

Live opportunities to try lesson study could be another important area. In K-12 education, hands-on opportunities for educators to try lesson study (for example, at a public research lesson taught as part of an academic conference or workshop) have been important mechanisms for building and improving lesson study. Your website does this in great part, but there still may be a role for live opportunities beyond those available to the (very lucky) faculty at your institution. I appreciate your link to KEEP and also the video cases at your site. It would be great to think as a field about how to get more of these, and build an active culture of comment, and use them as a routine part of professional advancement so we are not placing an extra burden on faculty. I think there are still some technical problems to be ironed out in sharing and viewing video and cases. I often give up when I encounter a screen that is time consuming or asks for information I don't quite understand – I'm guessing there are other computer amateurs like me.

More about Catherine Lewis. A graduate of Harvard University (B.A.) and Stanford University (Ph.D.), Catherine Lewis directs the NSF-funded project, 'Lesson Study: Case Studies of an Emerging Reform', and is author of more than 40 publications on elementary education and child development, including the award-winning book [Educating Hearts and Minds: Reflections on Japanese Preschool and Elementary Education](#) (Cambridge University Press, 1995).

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