

'Lesson Study' Technique: What Teachers Can Learn From One Another

By Emily Hanford, American RadioWorks

Jasmine Bankhead needed to figure out a way to improve teaching at her school.

It was 2013. She was the new principal of the O'Keeffe School of Excellence, an elementary school on Chicago's South Side that had been struggling for years. Finally, the school district had taken dramatic action by firing the principal, the staff and all the teachers.

That's when Bankhead was hired. Her job was to turn a failing school into a successful one, with all the same kids, but an entirely new teaching staff that she got to choose.

Bankhead had a very clear idea about what kind of teaching she wanted to see at her school. She calls it "inquiry-based" teaching. It's an approach, [supported by research](#), that begins by posing questions to students rather than presenting them with facts or knowledge. It's the opposite of the way she was taught.

"My teachers stood in the front and talked," she says. "And that was it."

To help the teachers at O'Keeffe learn how to do inquiry-based teaching, she gave them training. Lots of training. She set up workshops and sent them to professional development days.

But, it wasn't working. She and her administrative team would visit classrooms, hoping to see all this great inquiry-based teaching. What they saw instead were a lot of teachers standing at the front of the room, talking. The teachers were learning about inquiry-based teaching at the workshops, but they didn't know how to actually *do* it when they got back to their classrooms. So they fell back on what they remembered about how their teachers taught, says Bankhead.

This is a common complaint about the traditional approach to teacher professional development in the United States. Teachers go to workshops and professional development days where they might get great new ideas about teaching. But when they get back to their classrooms and try to put those ideas into practice, all kinds of questions come up. And the expert who led the workshop isn't there to help. Often, there's no one to turn to for help.

Teachers in the United States have been expected to go into their classrooms, shut their doors, and figure things out on their own.

Bankhead and her administrative team realized the typical American approach wasn't going to work if they wanted to dramatically change teaching at their school. One of the O'Keeffe assistant principals had recently learned about an approach to professional development called "lesson study" in a class taught by a Japanese professor. They decided to get in touch with the professor, see if he could help them.

Bringing Lesson Study to Chicago

Akihiko Takahashi is a professor of math education at DePaul University. Before that, he was an elementary school teacher in Japan. He first came to the United States in the early 1990s looking for all the great approaches to teaching math that he and his colleagues in Japan had learned about from American researchers. When he couldn't find these approaches being used in classrooms, he soon realized why: There was no lesson study in the United States.

Lesson study is a form of professional development Japanese teachers use to help them improve and to incorporate new ideas and methods into their teaching.

“If there’s no lesson study,” Takahashi says, “how can teachers learn how to improve instruction?”



Akihiko Takahashi. (*Emily Hanford*)



Research lesson at a public school in Tokyo, Japan. June 2014. (*Akihiko Takahashi*)

Here’s how lesson study works.

A group of teachers comes together and identifies a teaching problem they want to solve. Maybe their students are struggling with adding fractions.

Next, the teachers do some research on *why* students struggle with adding fractions. They read the latest education literature and look at lessons other teachers have tried. Typically they have an “outside adviser.” This person is usually an expert or researcher who does not work at the school but who’s invited to advise the group and help them with things like identifying articles and studies to read.

After they’ve done the research, the teachers design a lesson plan together. The lesson plan is like their hypothesis: If we teach this lesson in this way, we think students will understand fractions better.

Then, one of the teachers teaches the lesson to students, and the other teachers in the group observe. Often other teachers in the school will come watch, and sometimes educators from other schools too. It’s called a public

research lesson.

During the public research lesson, the observers don't focus on the teacher; they focus on the students. How are the students reacting to the lesson? What are they understanding or misunderstanding? The purpose is to improve the lesson, not to critique the teacher.

In the United States, we tend to think that improving education is about improving teachers – recruiting better ones, firing bad ones.

But the Japanese think about improving teaching. It's a very different idea, says James Hiebert, an education researcher at the University of Delaware who has written about lesson study.

“Everything we do in the U.S. is focused on the effectiveness of the individual,” Hiebert says. “Is this teacher effective? Not, are the methods they're using effective, and could they use other methods?”

Hiebert says to improve education in the United States, we need to shift from thinking about how to improve *teachers* to thinking about how to improve *teaching*. Lesson study is one way to do that, he says.



Teachers observe children working on a math problem during a public research lesson at the O'Keeffe School of Excellence in Chicago, January 2015.
(Photo: Stephen Smith)

Lesson Study at O'Keeffe

Akihiko Takahashi now helps run an organization called [Lesson Study Alliance](#) that helps American teachers, mostly in Chicago, learn lesson study. One of the schools is O'Keeffe.

I visited O'Keeffe in January 2015 to talk with teachers about their experience with lesson study and to see a public research lesson.

One of the first things to understand about lesson study is that it's a long process, kind of the opposite of the one-day workshop American teachers are used to. Teachers come together to identify a problem they want to solve. Then

they spend months doing research and planning a lesson.

I spent most of my time at O’Keeffe with a group of three teachers who had been working together as part of a lesson study group since the previous summer. Angela Flores and Melissa Warner teach third grade. Wanna Allen teaches fourth grade math and science.

When they first came together to identify the teaching problem they wanted to solve, they had several things on their mind. One, they knew the overall goal for the school was for teachers to work on inquiry-based teaching. Two, they were thinking about the Common Core. That’s a set of new education standards that lay out what kids should know and be able to do in each grade. Teachers at O’Keeffe – and across the country – are still figuring out how to teach the standards. Lesson study, they thought, would be a good way to do that.

“I’d rather struggle together than struggle by myself,” says Flores. She liked the idea of lesson study right away.

Flores, Warner and Allen decided to plan a math lesson that would focus on the third grade Common Core math standards for geometry. They noticed that kids often struggled with understanding how to find the area of a shape. Memorizing the formula “length times width” wasn’t a problem for many of them, but they didn’t seem to understand what the formula meant. If they were asked to find the area of an odd shape – a parallelogram or a few rectangles put together – kids often had no idea where to begin.

It took months of planning and consultation to come up with a lesson plan.

“It’s a lot of meeting after school,” says Warner.

That gets a laugh from her colleagues. They don’t get paid for this extra time. Their principal, Bankhead, does arrange for subs to come in occasionally to free them up for planning. But for the most part, doing lesson study requires teachers to be willing to work at night and on weekends.

“The pay is in the results,” says Allen. “You’re getting better as a teacher.”

Warner says lesson study has helped her think about teaching in a new way.

“It was about me before,” she says. “It was like, these are the things I’m going to teach you, and this is my end result.”

She was more focused on whether kids could demonstrate what they’d learned on an assignment or a test. She was less aware of how kids were actually learning.

Lesson study helps you “get into new habits as a thinker, and as an instructor,” Warner says. “And I see such a difference in my kids because of it. I feel like in the past, if my kids got an unfamiliar problem, they would just shut down, not know what to do. Now everyone’s creating a solution, and then we’re ready to talk about it.”

Lesson study is a welcome change from the old way of doing professional development, Warner says. It’s no longer “you going back to your classroom and stumbling around with an idea.”

Now, she says, there’s someone to give you feedback and say, try it this way.

“It’s turned my practice around.”



A student at O’Keeffe trying to figure out the area of the L. (Stephen Smith)

Results

Teachers at O’Keeffe haven’t been doing lesson study long enough to know what kind of impact it’s having on student learning. Other schools in Chicago that have been doing lesson study have seen test score growth, but there’s no way to know for sure whether that’s because of lesson study.

There is some evidence that lesson study improves teaching. A recent review of research on professional development in the United States looked at 643 studies on approaches to [improving math teaching](#). Only two of the approaches were found to have positive effects on students’ math proficiency. One of them was lesson study.

Jasmine Bankhead, the principal at O’Keeffe, believes lesson study is working at her school.

“I’m seeing much better teaching, and there’s an attitude in the building that we’re all in this together,” she says. “That’s what we needed here. I know that as I plan and budget that I have to make room for this type of collaboration in my school, so that my teachers can continue to grow.”

Catherine Lewis, an American researcher who has been helping teachers in the United States learn lesson study for 15 years, says she recently asked one of the teachers she’d been working with, what’s the biggest change with lesson study?

She says the teacher told her, “The talk around the water cooler has really changed. We used to hide it when we had a failure. And everybody has failures in teaching. But we used to hide them. And now, we’re perfectly comfortable saying, ‘You know, I don’t have a good way of teaching division with remainders. What do you do? Can I come see it in your classroom?’”

It's hard to know how many teachers in the United States are doing lesson study. There's no official count. Lewis estimates thousands of teachers are doing it.

There's even a whole state that's trying it: Florida, which got a [federal grant](#) in 2010 to encourage its schools to adopt lesson study.

But lesson study can be challenging in American schools. There are practical challenges, like finding time for teachers to plan together and watch each other teach. Japanese teachers have this kind of time built into their work schedule.

And there are cultural challenges. The organizing principle behind Japanese lesson study is that the best ideas for improving education come from teachers. It's a bottom up kind of approach.

In the United States, education improvement tends to be top-down.

"The American approach has been to write and distribute reform documents and ask teachers to implement those recommendations," says Hiebert.

Lesson study flips the script. It's one of the reasons so many American teachers who try lesson study like it. But it's also why lesson study can be a fragile enterprise in the United States. There are plenty of stories about educators who start lesson study, then a new principal comes in with a different idea about how to do things, and lesson study falls apart.

Another challenge for lesson study in American schools is the fact that it's a long and intensive process.

"We are so addicted to quick fixes," says Hiebert. "If it doesn't fix things in two years, it's not worth it."

We have this attitude about teachers too, he says. Research shows that teachers in the United States improve the most early in their careers, but after about three to five years in the classroom, they're about [as good as they're going to get](#). If you're not a great teacher after a few years, you might as well quit or be fired. That's the thinking in the United States anyway.

But in Japan, you're not considered an expert teacher until you've been in the classroom for at least 10 years. The Japanese take teacher learning seriously, Hiebert says. They believe teachers will improve if they work in a system that values improvement.

The United States needs that kind of system, he says.

"We have an education system that is always reforming, but not always improving."

Emily Hanford is an education correspondent for [American RadioWorks](#), the national documentary unit of American Public Media. Check out the American RadioWorks website for a more in-depth version of [this article](#). You can also read other articles about teacher learning and listen to the accompanying [radio documentary](#) program. American RadioWorks hosts a weekly education [podcast available here](#).

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