

From Lesson Study to Lesson Link®: Classroom-Based Professional Development

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Challenges in adapting Japanese Lesson Study for an American context have included teachers' limited prior experience with action research and facilitation as well as a mismatch between American curricula and the time requirements of the traditional Japanese Lesson Study model. Lesson Link® adapts Japanese Lesson Study for American contexts and culture by creating small teacher teams, all of whom teach the lesson, adjusting the curricular pace for teaching the lesson multiple times, and implementing structures to build teachers' capacity for research and facilitation. This paper reports on a two-year mixed methods action research study of Lesson Link's implementation in the Santa Monica-Malibu Unified School District (SMMUSD), where over 120 teachers from 14 schools participated in 38 Lesson Link teams between 2005 and 2007. These teachers taught pre-kindergarten through tenth grade, and the content focus for Lesson Link teams included reading comprehension, mathematics, writing, health, science, and more. Most teams were led by full-time teachers who received training to become Lesson Link facilitators. The development, implementation and coordination of Lesson Link was conducted by Santa Monica-Malibu Unified School District's Educational Services Department, and partially funded by a grant from the RGK Foundation.

Research Design

This study utilized qualitative and quantitative methods of data collection. Participating teachers and facilitators completed confidential reflection sheets following each Lesson Link® cycle, as well as questionnaires at the end of Year 1 (Spring 2006) regarding the impact the process had on their lesson design, instruction, reflection and collaboration. A stratified random sample of ten Year 2 Facilitators (36%) participated in 1-on-1 interviews. Interviews, reflection sheets, and open-ended questions on the surveys were analyzed for trends and themes.

Quantitative data included participant surveys, facilitator surveys, and student achievement data. Descriptive statistics were used to analyze survey data. At the elementary level, 2005-2006 student data from the classrooms of Year 1 Lesson Link participants and data from a comparison group of students of non-Lesson Link teachers at the same grade level and school site were compared using various measures.

Findings

Our findings indicate that Lesson Link is a *transformative form of professional development*. The process not only changed the way teachers interacted with one another and taught the co-constructed lessons, but also transferred to individual teachers' planning and instructional practices in order to impact student achievement. The section below outlines in greater detail how Lesson Link transformed teacher collaboration and instruction, as well as student achievement.

I. Transforming Group Interaction

Teachers and facilitators discussed ways in which existing roles with colleagues were altered or redefined through the Lesson Link process. Three themes that emerged were: *redefining relationships, increased comfort with being observed, and increased comfort dialoguing about instruction.*

Redefining relationships: The formal structure and use of protocols during the planning and debriefing sessions provided a way to give “all voices equal credibility,” and give teachers a “new role that we need to really be honest and pour it all out on the table” (Secondary Facilitator). This was in contrast to prior team work where the ideas of the most experienced person weighted more heavily in the conversation. The honest dialogue allowed previously reticent teachers to “push the conversation” (Elementary Facilitator) by voicing concerns or alternate suggestions, rather than acquiescing to the dominant voice. Teams of teachers who had limited prior experience collaborating reported recognizing the value in co-planning and collaboration, while teams with years of collaborative experience evolved from the comfort of traditional roles to more honest dialogue and deeper reflection about their instruction.

I think it just made it more comfortable because when we did it as our lesson, if it didn't work, it wasn't that I planned it and it failed, it was that we planned it and it didn't work in that context. And it wasn't about what I did that didn't work, it was about, oh, well, that didn't work, move on. So there was less, maybe, fear, that would be some indication of how good or poor a teacher I would be if it didn't work. (Secondary Facilitator)

Increased comfort being observed: Teachers reported feeling more comfortable being observed in their classrooms by their colleagues. Though on the district-wide professional development survey 80% of teachers had reported a desire to observe colleagues, teachers were hesitant about having colleagues observe them in practice. Yet, after participating in Lesson Link, teachers reported an increase in their comfort level with having colleagues observe them teach (see Table I).

Being observed and observing the lesson were really valuable for improving my instructional practices. It allowed me to see and understand the concept in a different way. (Participant)

Table 1: Change in Comfort Level when being observed by colleagues

Comfort when being observed during 1st LL Cycle	Comfort when being observed during most recent LL Cycle
36% Very Comfortable 18% Very Uncomfortable	62% Very Comfortable 5% Very Uncomfortable

Increased comfort dialoguing about instruction: Teachers indicated that participation in Lesson Link made them more open to hearing alternate ideas about instruction and more willing to engage in reflective dialogue about practice with their colleagues. As one participant explained, “We each have different strengths and pedagogical beliefs to approach math. We could borrow from one another and craft a lesson that was a part of each one of us.”

*Normally I would have been like, yeah, yeah, yeah, listening, and, then kind of take the ideas and apply it to whatever I wanted to do or what I was doing. But instead, I stepped back and...let that go and said, “Sure, let's go forward with that”...It was fine and safe to do that because it was **our** lesson, it wasn't **my** lesson. (Secondary Facilitator)*

II. Transforming Lesson Planning

Teams members reported that participation in Lesson Link altered the way they approached their lesson planning and thinking about lesson design. Themes that emerged across data sources included *recognizing assumptions*, *anticipating where students might get stuck*, and *focusing on measurable outcomes as an integral part of lesson planning*.

Recognizing assumptions: Teachers reported changes to their thought processes with respect to the assumptions they had about student learning. Both in elementary and secondary teams, teachers shared that there was an assumption going into the lesson that students would already know certain content either because of their grade-level (*they've learned this in a previous grade*), or what the teacher had already taught (*I'm sure they already know this*). Teachers and facilitators repeatedly used the words “assume” and “assumptions” to indicate how they had been incorrect and then were able to make adjustments to the observed lesson based on this new information.

We can't assume that, and we hear this all the time as educators, “Well, you guys covered this last year. Why don't you know it?”... We can't assume that they know it just because they are seniors, or because I know that you do that in middle school. (Secondary Facilitator)

Anticipating where students might get stuck: Teachers and facilitators consistently reported that participating in Lesson Link® led them to anticipate where students may have difficulty in the lesson. By building into the Lesson Link® protocol this anticipation of where students might get stuck, teachers became more adept at having remedies in place as they planned subsequent lessons. The value of this change in thinking resonated in the facilitators' interviews, as well as the Confidential Reflections and Surveys from Year 1 participants. For example, a secondary participant wrote, “I liked how we anticipated what might deviate and already had responses. Less teaching ‘on the fly.’” Another participant wrote that the most valuable part of the process had been, “Thinking of potential areas where students may get stuck and using that to develop intervention strategies.” Participants noted that doing this work collaboratively helped them “predict problems” they themselves would not have thought of on their own. Forty percent of interviewed facilitators noted how much more focused their team was by the third cycle on identifying places where students might have trouble (“get stuck”) and planning for those difficulties. Even in the second cycle, “There was a lot more conversation about the potential areas where they might have difficulty” (Elementary Facilitator).

...to think about where and how students might get stuck...that's become a big component of Lesson Link...So, where might a student get stuck in this lesson, and then, the fix- “What are we going to think about to try and alleviate that, or to be ready to answer or respond to that?”...I think we always think about it in the back of our minds, like, “Oh, this is going to be a problem for Susie,” but I think actually stopping and saying, “So what are we going to do about it?” is a big difference with Lesson Link. (Elementary Facilitator)

Outcome-based planning: Teachers shared that as a result of participating in Lesson Link their lesson planning had shifted towards a greater focus on student outcomes. They reported collecting more

The outcome of what I want my students to do or accomplish has changed. Because usually I go in knowing what I want and not necessarily thinking of what the kids are going to produce and if they really got it or not. So now when I'm planning my lesson I try to think what I want the kids to show me, what I want them to learn and then sort of work backwards. What are we going to have, to prove that they understood our teaching point and our objective? What facts are we going to have or what hard evidence are we going to be looking at? (Elementary Facilitator)

“valuable data” and pushing for evidence to determine student mastery of content. As one teacher reported, she was more focused on “what I want students to come away with.”

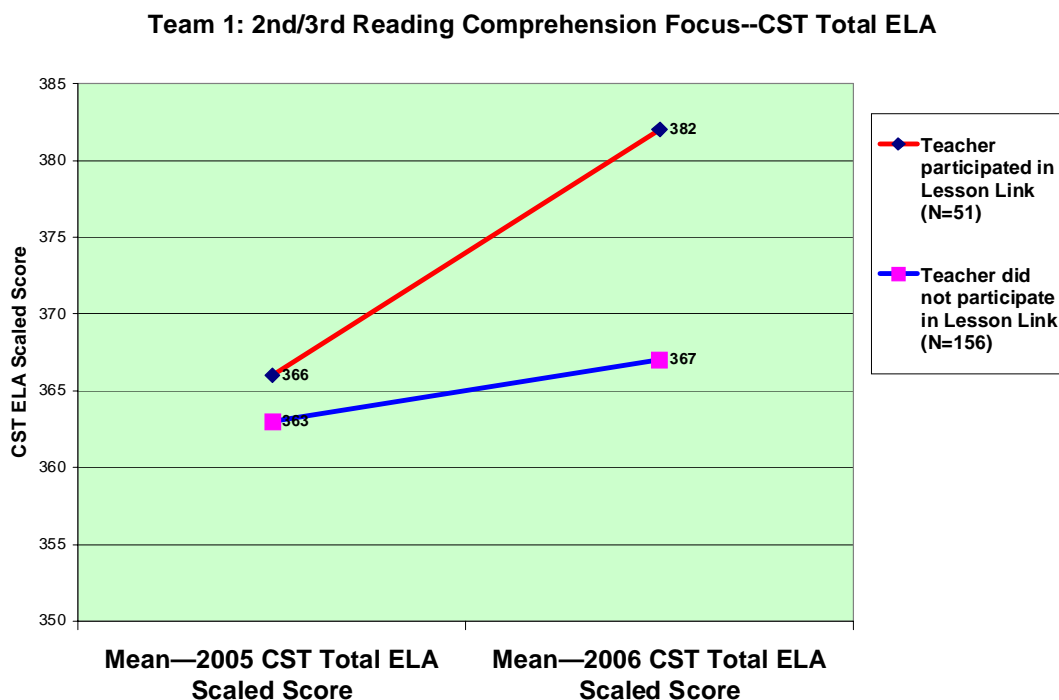
III. Transforming Instruction: Teachers attributed numerous changes to their classroom instruction as a result of their participation in Lesson Link. Changes included: a more focused lesson delivery, listening more and talking less, adapting materials to meet student needs, and focusing the instruction, rather than trying to teach many ideas at once. One hundred percent of interviewed facilitators reported that they, too, had changed their individual instruction as a result of participating in Lesson Link. Facilitators reported using language that made their teaching point explicit for students, shifting instructional strategies such as “keeping my lessons short” or “giving kids the opportunity to speak,” decreasing teacher talk to allow for more student-to-student interaction. Both teachers and facilitators reported that the transformational changes in lesson planning and instruction made during Lesson Link carried over into their individual instructional practice, allowing them to more effectively address students’ academic needs.

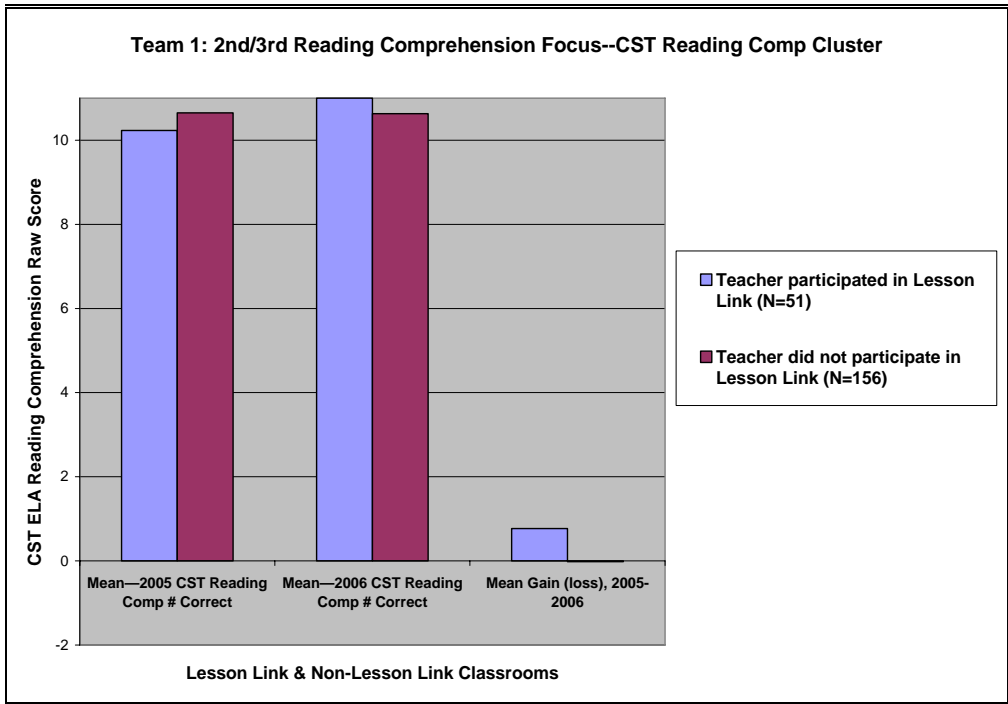
Narrow your focus! I was trying to teach too many concepts in a small amount of time. (Participant)

IV. Transforming Student Achievement

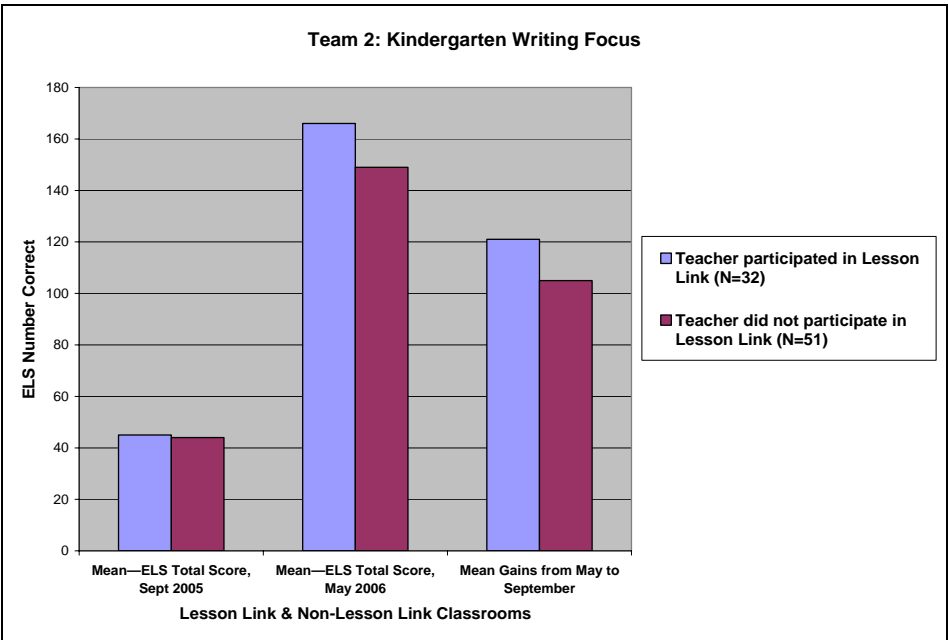
Students whose teachers participated in Lesson Link generally showed greater increases from 2005 to 2006 (or from the beginning of the school year to the end) than did students whose teachers did not participate in Lesson Link, although there were exceptions on a few subtests. Only one Lesson Link team did worse on reported measures than its non-Lesson Link comparison group. Three examples illustrate the change in achievement for students of Lesson Link teachers.

Team 1 was a second/third grade Lesson Link team, focused on improving reading comprehension. Students whose teachers participated in Lesson Link Team 1 gained 16 points in their CST Total ELA Scaled Score from 2005 to 2006, while the comparison students gained only 4 points in their Mean Scaled Score. On the CST Reading Comprehension cluster, students of Lesson Link teachers gained 0.77 points, while students of non-Lesson Link teachers had scores that slightly declined from 2005 to 2006.



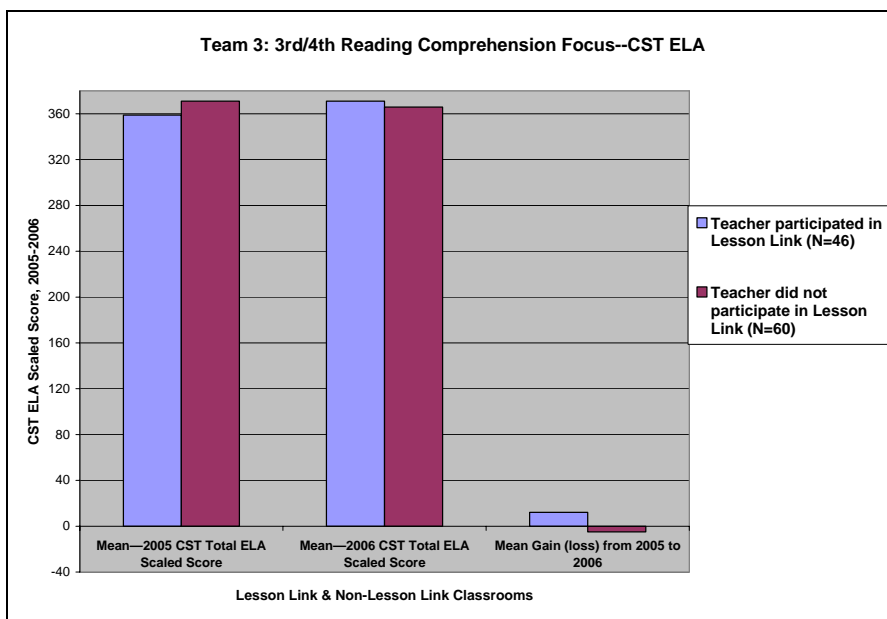


Team 2 was a kindergarten Lesson Link team at a Title I school, focused on improving writing instruction. The assessment given at the beginning and end of the school year assesses a variety of literacy skills, including word writing and sentence dictation. The scores reported are the means for the total scores on the *Emerging Literacy Survey* (ELS), which has a possible 244 points. Although the kindergarten students of both Lesson Link and non-Lesson Link teachers started the year approximately equal (one point difference), by the final assessment, the students of Lesson Link teachers scored on average 17 points higher than did the students of non-Lesson Link teachers, a difference of 7 percent.



Team 3 was a third/fourth grade Lesson Link team at another Title I school, focused on improving reading comprehension. Third- and fourth-grade students whose teachers participated in Lesson Link gained 12 points in their CST Total ELA Scaled Score from 2005 to 2006, while the comparison students had a

decline in their Mean Scaled Score. On the CST Reading Comprehension cluster, Lesson Link students gained 0.60 points, while non-Lesson Link students declined .23 points. Though the comparison group actually had higher 2005 scores than did the Lesson Link group, this trend was reversed in 2006.



In summary, the preliminary analysis of student achievement data indicates that for students as well as teachers, Lesson Link is a transformative process. When teachers are guided to collaborate, plan and teach differently, it has a positive impact on student achievement.

Conclusions

- This study adds to the growing body of research that demonstrates how the right kind of professional development can improve teacher practice and impact student achievement.
- While much of the research on Lesson Study has focused on implementation with mathematics or science lessons, this study demonstrates that Lesson Link® can be broadly applied across content areas and grade levels. Participating teachers represented pre-school through grade ten classrooms in a wide range of curricular areas, and included teachers working in bilingual and special education programs. Lesson Link® is the rare professional development model that is flexible enough to accommodate teachers in diverse classrooms and contexts.
- Our data suggest that a critical component of the Lesson Link model is to provide structures that equip teachers with the necessary skills to facilitate conversations with colleagues. We knew from prior experiences working with teacher teams, that in the absence of a trained facilitator, teachers struggle with pushing each other toward greater levels of instructional analysis. In order to ensure the sustainability of the model, we included deliberate structures for building capacity among Lesson Link teachers and facilitators and thus were able to expand the program significantly from Year 1 to Year 2.
- Results from our study indicate that participation in Lesson Link can lead teachers to rethink their instruction and make significant changes in their practice after a relatively short period of time. We were initially concerned that condensing the time frame from traditional lesson study would limit the level of reflection teachers would bring to their lesson analysis. However, we found that

teachers were able to fine-tune their instruction and articulate specific alterations they made to their classroom instruction as a result of their Lesson Link participation.

- We speculate that the collective “owning” of the group-developed lesson facilitated these changes through a shift in how teachers talk about students and their learning. While participating in Lesson Link, teachers cited *their own* strengths and weaknesses with instructional delivery rather than their students’ lack of ability, motivation, or achievement. Teachers avoided phrases such as “They didn’t learn...” and instead discussed what changes they needed to make to their instruction to best meet the needs of their students. Through Lesson Link, teachers were able to recognize and acknowledge their held assumptions about what students knew and were able to do.
- Consistently, we heard from teachers that time provided for planning lessons, followed by observing and debriefing three lessons in one day, gave teachers the opportunity to think more deeply about instruction than they normally have the time to do. Six of the ten interviewed facilitators specifically mentioned the benefit of having time to plan and focus on one lesson in-depth. The number one response to the End-of-Year Participant Survey regarding what was most beneficial about collaborating with colleagues (out of 11 choices) was “Having time to sit down and co-plan a lesson with colleagues” (36%).

...it's all just time. Give me the time to reflect on where I am professionally, and then I can improve. If I don't have the time, and I don't have the direction to do that, if I'm just supposed to be expected to do that, say, during my prep, when I'm supposed to do attendance and other things, the busy work that you do during your prep, I might not actually take the time to reflect. I might feel like, "Oh, that didn't go so well," or, "That was a great lesson," but I'm not going to figure out why. (Secondary Facilitator)

Discussion

Our data show that Lesson Link® has begun to change professional development in the Santa Monica-Malibu Unified School District. We are confident that as we continue to collect and analyze both teacher and student data, we will have evidence to support the promotion of this model throughout SMMUSD. In addition, this successful program in SMMUSD may serve as a national model for impacting teacher and student learning through professional development.

As we look ahead towards expanding Lesson Link® in the upcoming school year, our focus is on securing the model as an integral and sustainable part of SMMUSD’s professional development culture. To this end, we will continue to provide targeted training towards current and new facilitators. This training will be differentiated to accommodate the needs of our veteran facilitators (Year 2), as well as provide start-up skills for the novice facilitators we will recruit in the upcoming school year. We will also be conducting a Year 3 action research study, that will focus on the process by which teachers become teacher-leaders and teacher-facilitators. Furthermore, our hope is to work with site administrators and district leadership to integrate Lesson Link® into existing banked time structures. This has already occurred at two of our Title I elementary sites this year, and we have had requests from several site administrators to integrate Lesson Link into collaborative planning time for the upcoming school year.

The continued enthusiasm and engagement of SMMUSD teachers with this model confirms that Lesson Link has tapped into a professional learning need of district teachers. Our data show that

Lesson Link provides a collaborative, content-driven professional development experience that can transform teacher practice and student learning.

This Executive Summary is based on a paper presented at the 2007 Annual Meeting of the American Educational Research Association (AERA). To request a copy of the original paper, please contact:

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