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Japanese Lesson Study: A Numeracy Coach's View

Extended summary

In this paper, we attempt to examine what aspects of Japanese Lesson study effects teacher practice, by analyzing interview data provided by a professional teacher educator, employed by a group of primary and secondary schools to support and improve teachers' effectiveness in mathematics teaching. The interviews were conducted during 2012 and 2013, at the completion of Lesson Study cycles, for the Implementing structured problem-solving mathematics lessons through Lesson Study project, which ran from 2012 until 2014, in schools located in a metropolitan region of Melbourne, Australia.

The interview data, reported here, are drawn from two interviews with a Numeracy Coach. Numeracy Coaches were experienced classroom teachers, but, in the case of Paula (a pseudonym), the Numeracy Coach was experienced also in mentoring teachers, and was a highly regarded mathematics education expert. In the light of her expertise, and her role within the project schools, it was valuable to the research project that it had this Numeracy Coach as part of the team. Paula's perspective on the outcomes of the project was from that of a professional teacher educator. This meant that in her interviews she was able to comment more broadly than the teachers, and gave her impressions as a school-based, professional teacher educator.

Paula noticed the effects of the project on the participants, and made comments in her interviews about what she had noticed. One of Paula's observations was on the effects of professional readings. The research team provided professional readings about the Japanese model of Lesson Study to the participating teachers, which Paula saw as emphasizing how Lesson Study

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links research to practice, and thus can build not only teacher pedagogical knowledge, but also teacher content knowledge.

Another aspect raised by Paula was the high value participants put on of the sharing of experiences and resources, across schools, and between teachers, with a highlight being a first year teacher learning from a teacher with twenty years of experience.

Paula noted, that trialling a task in their own classrooms, encouraged teachers to more in-depth discussion during lesson planning meetings. She suggested, that trialling the task was critically important, because it made teachers think about the implications of the language and about student responses to planned tasks. A further observation by Paula was about the value of the support principals provided, for lesson planning team meetings, by re-organizing school times and classes. According to Paula, collegiality may be the hardest aspect of the Japanese model of Lesson Study to implement successfully and it requires the encouragement and support of the school leadership.

Overall, Paula's observations, and insights, highlight the fact that an experienced teacher educator can be a critical factor in identifying teacher learning and development through Lesson Study experiences. For example, the value of trialling lesson tasks is that it provides teachers with ideas about student responses, and makes planning a successful lesson have more likely. The implications are that everyone could, and perhaps should, trial new ideas in their own classroom, which Paula adopted in her own work. An interesting comment made by Paula about collaboration was that she noticed that the teachers' language in the planning meetings shifted from "I" to "We".

The context that builds teacher confidence is in lesson planning with colleagues, whether across, or within, schools, working on a joint project, and going public in a safe, supportive environment. The public research lesson is possibly the most confronting aspect of a Lesson Study cycle: yet Paula did not comment on this aspect of the cycle, apparently because the teachers involved did not express or exhibit any concerns. Further, benefits to the teachers in this Lesson Study project were not limited to improved content knowledge, but also in increased confidence and a raised professional profile with their colleagues.

Key words: Japanese Lesson Study, Numeracy coaches, Teacher professional development.

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