

Research Note

I think, therefore I share: Incorporating Lesson Study to enhance pedagogical knowledge exchange

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Abstract: *This article presents an empirical investigation into teachers' perceptions of incorporating Lesson Study to enhance pedagogical knowledge exchanges. Drawing on the work of Nonaka and Takeuchi's SECI model of knowledge creation in an organisation, the research will explore the potential for Lesson Study to facilitate greater collaborative working between teachers, to enhance knowledge sharing, and thus to generate new communities of knowledge. A second strand of the research looks at tacit and explicit forms of pedagogical knowledge and asks whether, as the SECI model suggests, these are interconvertible.*

Introduction

Lesson Study (LS) is a strategy of continuing professional development (CPD) aimed at improving teaching, expanding and sharing practice knowledge, and enhancing student progress. It is currently being piloted in three regions of the UK: the north-west, the south-west, and the east of England. Although it has been used in Japan since the 1870s (Sato, 2008, cited in Dudley, 2013), its history in Western cultures is much more recent. The process involves a group of teachers who collaboratively plan, deliver, analyse, and re-deliver a lesson.

The project

This research explores the impact of intense collaborative planning and teaching and aims to capture teachers' perspectives of pedagogical knowledge sharing when using LS. Nonaka and Takeuchi's (1995) model of organisational knowledge creation (SECI) will provide a framework for identifying the acquisition of knowledge and its exchange. The purpose of this is to investigate the generation of micro-organisations of teaching as the teachers form new relationships and new micro-organisational networks. Thus, the SECI model is used as a theoretical perspective to capture new micro-communities of *knowledge* (von Krogh et al., 2000) arising through the LS process. LS appears to facilitate the development, and exchange of, pedagogical knowledge, either in a tacit or explicit form (see Senoo et al., 2007), as it involves experimentation, evaluation, and greater colleague interactivity. A secondary focus of this research lies in the claim that tacit and explicit forms of knowledge are interconvertible as they are "inherently inseparable" (Nonaka and von Krogh, 2009, p. 637). Although this opposes Polanyi's (1966, p. 4) "we can know more than we can tell" claim, it allows for an exploration of LS's potential for enhance pedagogical knowledge exchange.

Desired outcomes

The project has the potential to contribute significantly to a restructuring of teaching and learning processes in compulsory education, and indeed beyond, and therefore impact on school policy as it involves a whole-school approach to implementation.

The research aims to:

- capture teachers' perceptions of the exchange process of pedagogical knowledge;
- where possible identify aspects of tacit knowledge exchange resulting from the LS process;
- evaluate the impact of LS on teaching and learning and on teachers' CPD;
- explore the possibility of converting tacit knowledge to explicit knowledge.

The literature

The classroom is arguably a powerful research environment where teachers can identify and evaluate learners' needs (Guskey, 2002; Kazemi and Hubbard, 2008) and working collaboratively has been shown to enhance this process (Cordingley et al., 2004; Opfer and Pedder, 2011). According to Hiebert et al. (2002, p. 3) however, "Teachers rarely draw from a shared knowledge base to improve their practice". Indeed, teaching is generally regarded as a solitary profession and professionals who open their teaching to observation often do so under pressure, such as the requirement to be assessed. Thus, LS reconfigures the teaching profession in the UK in that collaborative planning and teaching are, to an extent, made public.

Although collaborative working is no novel concept in teaching, its use in LS presents dynamic opportunities for pedagogical enhancement. Chia (2013, p. 341), for example, argues that LS can instil a deeper focus on learners, describing it as "an excellent model for constructing pedagogical knowledge and improving teaching". Moreover, Dudley (2013, p. 119) suggests that during a research lesson, teachers are likely to "switch off" the filtration mechanism that discards information – such as low-level disruptions and distractions – whereas LS can promote greater awareness of individual needs.

The SECI model is dependent on four modes: *socialisation*, *externalisation*, *combination* and *internalisation* (see Nonaka and Takeuchi, 1995). It provides a useful theoretical framework as it facilitates the identification of knowledge exchange and proposes interplay between tacit and explicit. As Hong (2011, p. 4) points out, "[t]he process of making tacit knowledge into explicit knowledge is externalization, whereas the conversion of explicit knowledge into tacit knowledge is called internalization". This suggests, then, that tacit knowledge can be made explicit, although the contrary has been argued frequently (Duguid, 2005; Klein, 2008). Gourlay (2006, p. 1415) for instance suggests that it is flawed and argues that "different kinds of knowledge are created by different kinds of behaviour" while Hong (2011, p. 2) reports "epistemological ambiguities [that] cannot be resolved".

Methodology

SECI adopts a sociocultural ontology in that learning is socially situated and is constructed collaboratively before it is internalised (Dudley, 2013; Kleine et al., 2010; Lave and Wenger, 1991). Thus, this model provides a conceptual framework upon which knowledge types can be identified and knowledge exchange may be instantiated.

A qualitative approach will be employed as the research is focused on the socially constructed experiences of the teachers obtained through interaction and therefore explores social phenomena (Silverman, 2007). The project will involve interviewing teachers in 20 schools in the north-west of England. Each interview will be semi-structured to allow for exploration of the theme of knowledge exchange and is expected to last around 30-40 minutes. The questions will seek to identify teachers' perceptions of pedagogical knowledge exchange. The interviews will be transcribed and subjected to a thematic analysis, wherein the SECI model will be used to conceptualise instances of knowledge exchange and to typologize the knowledge forms.

Proposed research questions

Using teachers' perceptions of the LS process, proposed research questions for the identification of tacit knowledge exchange are:

1. What knowledge source(s) do teachers draw on throughout the LS process?
2. How is knowledge constructed/shared during the LS process?
3. In what way(s) does interaction enhance knowledge construction and/or the exchange of knowledge?

Secondary foci:

1. Does the collaborative process enable teachers to make explicit their tacit knowledge, i.e. can they communicate this knowledge?
2. Does knowledge sharing lead to an agreed understanding?

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