

National Research Themes R&D Project, Theme 2: Final Case Study, October 2014

What Makes Great PD that leads to consistently great pedagogy?

Alliance name	Brooke Weston Teaching School Alliance (BWTSA)
Alliance context	Situated centrally over a large geographical spread in the East Midlands with a partnership population of twelve schools and three universities, BWTSA serves a full range of socio-economic contexts.
Schools involved in the R&D project	Casterton Business and Enterprise College (Secondary) Brooke Weston Academy (Secondary) Bishop Stopford School (Secondary)
Research focus Theme 2	To explore whether Lesson Study (LS) can be adopted as a tool for meeting the CPD needs of teachers and whether it can also be used as a means for shifting the culture of CPD in schools.
Research question(s)	<p>RQ1: To what extent has the culture of CPD across the TSA changed during the course of the project in terms of (a) perceptions and (b) practices?</p> <p>RQ2: To what extent does the methods used (in lesson study) impact on student outcomes?</p> <p>RQ3: How has Lesson Study impacted upon teacher professional development? What can we do to make people more independent about their own CPD?</p>

The Implementation Phase

Initially, the project was opened to interested parties to consult with their schools and departments; to learn what was on their action plans for the up-coming two years (Claim #3: Stoll et al.). Participants were encouraged to, in the true spirit of LS, to choose the area for their action research based on a challenge in their teaching that they would like to work through (Claim #6: Stoll et al.). The project itself had a much more strategic aim in its desire for schools to examine their CPD practices and cultures. There was much cross-over then, with the Nine Claims (Stoll et al.) because although some decisions were being made from a top-down perspective, many more local ones were tackled at a teacher level (# 9). The research questions allowed us also to focus heavily on the Claim 4 and 5 too. Both these claims consider whether effective professional development connects with work based learning and with the nature of LS, this allowed our participants to engage in practices that were rich and natural to teachers. Because of the strategic nature of our work, all the LS projects aimed to develop a method within our schools that was sustainable.

Schools were recruited into the project based mainly upon choice. This meant we attracted research engaged schools that were keen to see the results in their own settings. Recruitment took place over a number of months where all partner schools were invited to a launch event and a R&D conference. Surveys were taken at these events and delegates who indicated an interest in further action research were invited back to a more intimate event lead by Pete Dudley, who outlined his rationale and methodology for LS (Dudley, online). The intended outcomes for the project were wide. Essentially, we were looking to develop a model of CPD that can be used effectively in our schools that moved from a more static system of training to CPD based upon peer support and work-based learning (Claim #4: Stoll et al.). It was also important that each LS had its own aims and intended outcomes and these were devised by the LS teams themselves; each project was encouraged to formulate their own research questions which were also based on outcomes in their own teaching.

For the question of CPD culture we took a survey of all staff in participating schools as a form of baseline date. This was conducted in April 2013 and repeated in June 2014 and was administered by our partner HEI, Leicester

University (Claim #4: Stoll et al.). The intention was to see if there were any changes to practices and values over the course of the project and whether any change could be attributed to this project. In addition, individual LS triads were encouraged to take baseline data to measure the impact of their own enquiry.

The Innovation Phase

Pedagogical strategies differed across the projects. Some of the specific practices are detailed below, that spanned the breadth of all the LS projects; this list is not exhaustive:

- Student centred learning with teacher as facilitator and student as teacher, learning by reinforcement and problem solving strategies.
- Student voice through questionnaires.
- Differentiation, for example, group work and the criteria for successful selection of groups and matching group working to activity.
- Paired / cued spellings and additive word lists to reinforce spellings. This developed peer-peer support for students and experimented with selected pairings.
- A combination of innovative teaching styles; use of audio, video, role play, humour, competition and didactic teaching styles; comprehension, exam question and answer, teacher led instruction.

The whole ethos of this LS practice reinforces a hegemony that is clearly based upon teachers learning from one another. The group of schools took on board Hargreaves' ideas about Joint Practice Development (JPD) as discussed at the NCTL conference in November 2011 and again in March 2012. This form of practice allows teachers to take more responsibility for their own professional development using action research at its heart (Claim 6: Stoll et al.). The aim was to move away from a structure where CPD is something that is *done* to teachers to something that allows full ownership. LS is a form of CPD that allows teachers to consult with students and learn from their learning. It permits a bit of risk taking in their lessons because observation is no longer built on a judgement but on observation of student learning. It therefore legitimises that risk taking (Dudley, 2014).

The project was designed specifically with the foresight to consider how these methods of CPD could be sustainable in the future. Each participating school was provided with a facilitator, who was usually someone on the senior leadership team (SLT) and each lesson study had a self-selected leader, who was usually actually quite a young member of staff, but someone who was excited and has a vision for the project. All group members were able to choose their focus, but each needed to be, in some way linked to school or departmental action plans. All, therefore, chose an issue that was relevant to them. Each facilitator provided the project co-ordinator (who was also the R&D lead for the TSA) with regular evaluations focused on both practices and outcomes. Each group therefore worked collaboratively with each other and leadership was distributed to teachers who had an investment in the scheme.

The Impact Phase

Our outcomes were, as far as possible, matched with the original research questions we outlined. As can be expected from LS, the outcomes were far ranging and were both qualitative and quantitative in nature. We found both hugely useful, with the Culture Survey representing a rich form of quantitative data for the SLT in schools involved (some of which wasn't easy reading).

The project's main research questions and our outcomes are detailed below:

RQ1: To what extent has the culture of CPD across the TSA changed during the course of the project. Consider (a) Perceptions (b) practices.

Results from the April 2013 Culture Survey suggested that teachers and managers in all three schools rated some of the key concepts of LS quite low in their list of priorities. Where mean scores in the 40s are low and a mean score of 80+ high, results from the lead school, for example, suggest collaborative practices were relatively low (at 51.41) in April 2013 and showed a slight increase in 2014 at 56.00. Although still moderate, it represents a shift in the right direction. This suggests that, in this school, teachers are now less likely to be satisfied with more traditional forms of passive CPD and would be more amenable to collaborative practice (Claim #7: Stoll et al.). The results for research practices were also similar: scores between 2013 and 2014 increased from 42.75 to 48.33 in the lead school. The two key concepts for LS were, indeed, not being used well in our schools; the outcome of the two-year project suggests there has been some impact on whole school thinking, for example, how teachers valued collaboration rose from a moderate mean of 67.93 to a reasonably high 72.95 in the lead school and in one other school from 70.67, already relatively high, to 75.23 (although there was a decrease in practices and values for collaboration in one school, which will need investigating in the future).

Discussion notes and interviews with facilitators also formed an important part of the outcome data, especially regarding teacher perceptions. All teachers involved in LS, without exception, reported that they have learnt a lot from peers in this non-threatening environment. Facilitators, in evaluation, were able to confirm that this method of CPD is one that is time consuming but sustainable. The methodology of this form of action research has been developing through the two years of the project and has affected the way people view CPD (see results above). The change in the culture is something that has to come, to a certain extent from top down (Claim #9: Stoll et al.) and is a relatively slow form of change. That said, one school has developed a clear second generation LS in which the participants of the first are now facilitators with new groups. It is clear then that practices are changing. Just taking some simple numerical data can show this. Two years ago there were no LS projects happening in any of the schools. We then started with some initial groups, with two LS in the lead school and one in each of the others. By the end of the project we have 2 new LS in the lead school, 3 more in School 2 and 2 more in School 3. Indeed, at this point it becomes quite difficult to count because current LS leaders are working unofficially with other groups. In addition, the TSA is demonstrating the sustainability of the project through introducing this and similar methods of action research to our colleagues who are new to the profession (Claim #6: Stoll et al.). The lead school has introduced this as a unit of the NQT programme and with ITT colleagues.

Evidence of a movement towards JPG methods rather than more traditional forms of CPD can ironically be seen in the participation of schools in the TSA who did not sign up for the LS project. We have a local primary school and teachers from three projects in the lead school were able to go in and observe literacy and numeracy strategies with KS1 and 2 children. These practices were then used within the planning for the LS cycles. This form of S2S collaboration is becoming much more widely used with schools acknowledging the benefits of working with Alliance partners (Claim #8: Stoll et al.).

As suggested, both by Hargreaves at said NCTL conference (2011) and #1 of the *Nine Claims* (Stoll et al., 2013), our project clearly set out with the end in sight and with clear opportunities for knowledge sharing built in from the inception. At the outset, the TSA formed a larger alliance with two other local TSAs, to form an East Midlands LS group. We have now organised two September conferences attended by schools from all across the Midlands, using presenters with an inspiring collection of experience from their own LS projects. The feedback from both conferences was hugely positive, for example in September 2013, one delegate stated, it was “most useful hearing about how LS is being developed and interpreted in other schools.” Another stated, “I knew a little about the theory of LS when I arrived this morning, but I leave feeling quite enthused to ‘give it a go!’” Indeed, responses from this first [2013] event evidence that 96% of participants rated the quality of the conference as ‘good’ or ‘very’ good. The feedback from the second event is still being analysed but early indications show that responses are just as positive. This Cross-Alliance group also collaborated with the Culture Survey and were part of the same action set meetings run by the NCTL and Sheffield Hallam University. As an outcome to the project, these alliances between TSAs and the Universities have been highly profitable and positive. This development of highly effective professional learning communities has been a key to the success of the project (Claim #8: Stoll et al.). Indeed, the only other TSA from our action learning set groups with the NCTL was another in the West Midlands region who was invited to present at the 2014 conference so furthering the Midlands Partnerships. This TSA is likely to be involved in future Cross-Alliance partnerships.

RQ2: To what extent do the methods used (in lesson study) impact on student outcomes?

We tried to collect evidence for this question based on pupil voice, peer learning of teachers and student responses through observational notes and video data. Though largely qualitative in nature, a number of LS groups sought to access student outcomes through data driven evidence, either based on student testing or departmental / school data. There was clear evidence to suggest that students responded well to interventions and strategies used as part of the LS cycles. Groups found the video data essential to their planning and development, viewing it for planning and reviewing the information at a later date when they wanted to consider the CPD journey they have taken. Teachers have also used this for evidence of pupil voice. In many of the studies, teachers devised tests or quizzes before and after the research lesson took place. This form of quantitative data proved invaluable for evaluating outcomes, although 100% staff involved also agreed that the more varied qualitative responses were also essential for adding context to the figures and providing a rich learning tool for teachers (Claim #5: Stoll et al.). Nearly all the projects gathered qualitative data in the form of questionnaires for students asking their level of confidence in the subject before and after the lesson. In all these cases, improvements were recorded. In the music/numeracy project, the student responses were overwhelmingly positive after the first lesson study cycle, with a fair proportion of the Yr7s (approx. 30%) stating they disliked numeracy at primary school prior to the lesson. However, following the lesson they mostly (90%) stated they thought the numeracy strategies were useful to furthering musical knowledge. In addition, student work in the form of a plenary test showed students had acquired the necessary skills for that lesson and a staggering 83% of students observed said that the numeracy elements helped them to understand how to read notation. Another project has used spelling test data as well as teacher questionnaires both before and after the

event. This project was also working with some students from another project (Closing the Gap: NCTL) so GL Assessment individual reports and class data was used to inform planning of the starter programme. The project also adapted one of the phonics interventions from this project to their own needs. After the two cycles, 71% of the students found the spelling strategies useful. Furthermore, at the beginning of the project, 57% of students surveyed thought spelling was little or no use to them in Science however, after the cycles, 67% of the students found the methods enjoyable. This suggests a marked shift to raising the profile, for the students, of literacy strategies in Science lessons. Moreover, students' spelling accuracy increased, with 66.7% of correct spellings in the first cycle increasing to 75% in the second.

Unanimously, teachers involved in all these projects agreed that they learnt a huge amount from the process but it was agreed that this was because the whole thing was based on student outcomes and progress. This suggests that there is a direct link between CPD and pedagogy. Where results were less expected or less positive, the researchers made this a priority for their subsequent LS cycle (Claim #6: Stoll et al.), for example, one project, responding to student interviews after the lesson were able to include more student centred approaches in subsequent lessons and received a 95% favourable response after that second research lesson with evidence from student work also suggesting the change of pedagogy having an impact on student learning.

RQ3: How has Lesson Study impacted upon teacher professional development? What can we do to make people more independent about their own CPD?

Evidence from the Culture Survey from all schools involved would suggest that whilst changes in perceptions and practices towards a more independent form of CPD are relatively slow, there is a rising trajectory where colleagues are more aware of the variety of CPD options available. In addition, Performance Management data also suggests that teachers at all levels are being encouraged to adopt a more proactive approach to their own professional development. Sadly, the duration of the two year project is perhaps too short to see the real impact and the results of the project suggest that culture change is often something that should be done in the same way you eat an elephant: bit by bit. Additionally, the Culture Survey demonstrates that teachers in the three schools are often not aware of the clear link between research, for example, and CPD. The R&D working group of the TSA grappled with the definition of the term 'research' which seems to be misleading for many. Colleagues are struggling to see research as anything more than book research carried out by people completing Masters courses, when, in fact, all teachers are researchers, which is why, for the purpose of this study, we tended to use the term enquiry, which was more teacher friendly. More, however, needs to be done to dispel these myths. Moreover, these concepts of CPD are becoming more sustainable across the Alliance. Our NQTs and ITTs currently have two sessions in their programme given to action research, where the model of LS is disseminated. Perhaps this is where there were the most significant results from the Culture Survey. In the lead school, which has now started hosting the NQT and ITT programmes, it recorded in 2013 a mean value for teachers with less than 2 years of experience of 22.22 for research orientation practices and 36.11 for values. These were incredibly low, but potentially due to the issue of not really understanding how research can be used in the classroom. In 2014, following one year of the NQT programme where LS was advocated strongly, these figures had increased to 61.11 and 63.89 respectively.

Concluding Thoughts

It is clear, through this project, that there is a direct link between collaboration, joint practice development, improving pedagogy and enhanced student outcomes. LS is proven to really put the magnifying glass on issues and as Dudley stated in our September 2014 conference, the processes allow us to slow time down, to really consider how our students learn, by observing and consulting them. He states, "we must develop superpowers [of LS]...the X-Ray spectacles that allow us to see the invisible" (Dudley, 2014, *East Mids Lesson Study Conference*). The way we have gone about this study was to allow teachers the autonomy to develop their own interests resulting from their own experiences. Dudley (2014) also states that this is the way LS will go viral. It, therefore, is a process that "energises and mobilises" and as a result can become a "game changer" (Claim #2: Stoll et al.). Finally, the biggest barrier to success for this project has been time. This is perhaps a reason why the results from slightly more experienced teachers are less promising in the Culture Survey. In the lead school, the mean for collaborative orientation practices was 45.00 in 2013 for teachers with 2-5 years' experience reducing to 38.33 in 2014; however the values score for 2014 was 80.00 showing there is a huge discrepancy between what teachers believe is right and what they are actually doing. 100% of the teachers involved in this project agreed that time was a barrier. Perhaps the best advice comes again from Pete Dudley (September 2014) who tells us that where it works well in Japanese models the process is marked into the timetable, although it could be argued that, in this country, that provision needs to come from central Government. In the recent LS conference, Dudley cited Sue Teague who stated, "Heads need to do it to lead it" implying that some decisions clearly need to come from top down (Claim #9: Stoll et al.), even if leadership thereafter is distributed to teachers.

Citations

Dudley, P. (2013) *Lesson Study: Handbook*. Online at: <http://lessonstudy.co.uk/lesson-study-a-handbook/> last accessed: 28th September 2014.

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