

Alliance Impact Case Study – NCTL

Section One – purpose and aims:

Lesson Study (LS) is a form of teacher professional development that originated in Japan and has been cited as a key factor in the improvement of their mathematics and science education (Stigler & Hiebert, 1999) but has been developed and used in many subjects proving to be a success. Through lesson study, teachers work together to improve their teaching in the context of a classroom lesson. Perry and Lewis (2009) describe the lesson process as:

Lesson Study is a cycle of instruction improvement in which teachers work together to: formulate goals for student learning and long-term development; collaboratively plan a “research lesson” designed to bring to life these goals; conduct the lesson in a classroom, with one team member teaching and others gathering evidence on student learning and development; reflect on and discuss the evidence gathered during the lesson, using it to improve the lesson, the unit, and instruction more generally. (Perry & Lewis, 2009, p. 366)

Lesson Study has traditionally been one of the professional development processes used to encourage teachers to work together in teams to become more effective teachers. The Priory School believes that working together and sharing good practice is the key to success and encourages teachers of all subjects to engage in learning communities where teachers can develop their teaching practice focusing on how students learn.

Our lesson study consisted of three different subject teachers, English, Science and RP and lesson observations were completed at KS3 level. The process included preparing, observing and critiquing three different lessons in the context of finding out how differentiation impacts on the students learning and understanding in a mixed ability setting.

By conducting lesson study, we anticipated to gain greater insight of the difficulties pupils might experience in lessons and whether these can be reduced by differentiated resources/materials. The purpose of this study was to observe how three case study pupils achieve the lesson objectives by presenting them with range of tasks and delivering the lessons in different ways in order to meet their learning needs. The case study pupils were of high, middle and low ability and these were carefully selected as a triad during the planning phase using class data.

Our triad, decided to focus on differentiation, not only because it's a whole school objective but also by examining the work of theorists, such as Piaget (1961) and Vygotsky (1978) and the importance of motivating all children by providing challenging tasks. These tasks must be differentiated to account for the range of ability in our mixed ability classrooms and it is

therefore vital for teachers to acknowledge the level of individual pupils, so that appropriate tasks can be set to fulfil certain goals and enhance learning. Therefore, we felt that intervention was required in this area and our success criteria was decided in the planning phase and defined as follows:

- To look at the impact of differentiation in students' progress and engagement throughout the lesson.
- To analyse how different ability students achieved different lesson objectives/ targets - for all lessons three outcomes were decided during the planning phase so all teachers knew what to expect from the different students.
- Evaluate how differentiation works best in different subject areas.

Section Two – implementation, innovation, evidence, risks and issues

There were different barriers that had to be overcome throughout the lesson study cycle. The main one was the arrangement of cover in order to complete the three cycles of lesson observations. This was managed by arranging to observe lessons during PPA/ free time and once year 11 had started study leave. This also helped reduce the cost of the project. Furthermore, planning and post lesson meetings were organised at breaks and lunch times and unfortunately, at some stages, these meetings required more time which due to different logistical barriers was difficult to find. In future lesson studies, this is something that needs to not be overlooked and it's essential to set this time aside for reflection and discussion of findings.

Personally, I felt that the time spent planning, delivering and discussing was beneficial as I was learning from the other teachers as well as focusing on the students learning rather than the teaching, and therefore, there was no personal or professional judgement within our triad and I never felt under pressure when being observed. In addition, the opportunity to be working cross-curricular, out of my academic area and observing people that I wouldn't normally also proved to be very beneficial, not only due to the findings of the LS but also different ideas and approaches to teaching.

When observing the different lessons, another challenge was the fact that we didn't want the students to know they were being observed. In the first cycle of observations, this was evident to the students and could possibly have had an impact in our findings as students were aware they were being observed. As a result, the approach to the observations was changed and teachers observing were more discrete in subsequent lessons, this worked better as the students didn't realise they were being observed and therefore behaved naturally, providing an opportunity for realistic results.

Section Three - Impact of your work

The LS approach is very different from a normal lesson observation. Firstly, students were in their classroom environment and there was no other stimulus which meant that students responses were not planned – these responses and the learning being achieved were part of the learning process and it gave the chance to analyse this for individual students rather than most of the class as a formal observation would.

In the first cycle, a science lesson was being taught and the focus was on differentiated resources. From the planning phase, teachers observing the lesson knew what the teacher teaching wanted each case study student to achieve and at which stage of the lesson (this is written on the planning sheet for reference). The lesson went well and students achieved learning objectives, however during 'post-lesson' interviews' with the students it was clear from the responses of both low and middle ability pupils that the teacher had spoken too much causing them to lose focus at times.

As a result of the first lesson, it was decided during the second lesson planning phase that the aim of the observation had to be to reduce teacher talk in RP. This second lesson, as planned had very little teacher talk and students were going around the class in groups teaching each other. Surprisingly, one of the target students (middle ability) was found to be constantly off task and struggled to make progress on his own (without the teachers input). It was clear, during the observation that the pupil didn't enjoy cooperative learning and preferred listening to the teacher. It was evident that the student felt intimidated and therefore off task when doing group discussion, possibly due to a lack of social skills. In the 'post-lesson interview', the student said how 'he did not like to work with others and had not enjoyed the lesson'.

Interestingly, if this second cycle lesson had not been part of lesson study research and if the pupil had not been selected, these findings could easily have been missed, as the class as a whole were enjoying the task and both engagement and progress was significant throughout the lesson for most students. This immediately had an impact in our teaching, emphasizing the importance of differentiated resources and the need to incorporate different learning styles and individual needs.

Having made these discoveries from the first two lessons, the third observation involved different teaching techniques that would meet different learning styles focusing on a differentiated seating plan in an English lesson. In this lesson, students had the opportunity

to work with two different learning partners, one of similar ability and another of different ability. It was evident from the third lesson that students felt very comfortable working in pairs with different people. In the post lesson interview all three students mentioned to really enjoy the opportunity to discussion, one of the students said “I really enjoy the discussions in our English classes because they allow us to really enhance our answers”.

Section Four - Disseminating impact & system learning

It's beneficial to start LS by reading 'Improving practice and progression through lesson study' as it explains how the Lesson study process works.

Being positive and open-minded about observing and being observed is another skill that one must have in order to conduct LS successfully, it is focused on the students learning rather than the teaching and it's important to develop trust and honesty within the triad, furthermore, be reflective in own practice as well as others and open to try new ideas.

As a result of lesson study, the importance of planning learning to match the pupil's needs has become very clear, as in observations, there is the opportunity to see each pupil learning in a much sharper detail than usually possible. Furthermore, it provided an opportunity to develop evidence-gathering skills and more importantly a chance to see a lesson from the student's point of view.

I enjoyed the collaborative, equal nature of the lesson study approach - reciprocal visits, teaching, observation, analysis, planning, input from teachers in different subject areas were all helpful to improve own practice. For example, when planning the lessons together, it's interesting to see the different assumptions about teaching and how these differ within the triad.

The main problem to complete a full lesson study cycle is that it takes time, enough time for the three research lessons and the four review and planning meetings, this was very tricky to fit in. However, Lesson study enabled me to think carefully about the goals of a particular lesson as well as deepen my subject knowledge as I was having to teach other non-specialist teachers during the planning stage. Additionally, it gives the opportunity to collaboratively plan lessons (which doesn't happen often in teaching) and observe student's behaviour and learning.

Is lesson study worth the time? Yes, it has definitely helped me to feel more confident in my practice, however, it is important to note that the findings were at a very small-scale and all using qualitative data showing positive teacher and student outcomes. These findings are positive but limited and give opportunity to more LS research cycles.

References

Perry, R., & Lewis, C. (2009). What is successful adaptation of lesson study in the US? *Journal of Educational Change*, 10, 365–391.

Stigler, J., & Hiebert, J. (1999). *The teaching gap*. New York, NY: The Free Press.