

# Creating the conditions for Deep Learning: Reflections on our experience so far.

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This paper aims to serve as a summary of our school's experience to date in combining the three personalising learning gateways of Learning to Learn, Assessment for Learning and Student Voice, as well as discussing the impact this has had on the culture of the school at three levels: classroom level; teacher level and strategic / organisational level.

## Combining the three gateways

Amongst the plethora of different ideas that can fit under the L2L umbrella, we have focused on two strands that had convincing research evidence behind them, namely Cooperative Learning and Assessment for Learning. This strategic decision was supported by the strong body of research evidence underpinning both approaches (Black *et al.*, 2003; Kagan, 1994). We have evaluated the impact of introducing these two strands through a three-year action research project. (Reports available at <http://www.campaign-for-learning.org.uk/>). In each of the reports, as well as gathering data from participating teachers, we have made a strong commitment to capturing the students' experiences of the initiatives, thus making students aware of what teachers are trying to do in the classroom and showing them that we value their perspective.

Years One and Two reported on the value of using the cooperative structures. Teachers noted the potential of the structures to build more productive relationships both with and between students. Similarly, they commented on their capacity to raise levels of participation and engagement in lessons and how they create space for 'thinking time'.

These findings were borne out by student tracking, lesson observations and student interviews, which revealed that the students were equally positive about cooperative learning lessons: they appreciated the thinking time and were able to articulate the value of the 'emotionally safe' climate within the classroom. Observations of lessons using cooperative structures and those taught in a more traditional style revealed increased levels of interaction in cooperative lessons, more time on task, more time actively engaged with the topic and less time passively listening to the teacher at the front.

As our understanding of the potential of cooperative learning and the cooperative ethos grew, we became especially impressed by the manner in which this strategy could support AfL. AfL places a particularly strong emphasis upon the provision of opportunities for students to review their work and reflect upon their strengths and weaknesses. Cooperative structures give the teacher the tools by which to manage such activities. Student engagement in peer assessment activities can be greatly enhanced by the supportive culture that can be created in a cooperative classroom. Thus, while both strategies are quite distinct in many respects, one actively supports the other.

This overlap has allowed us to develop a model that draws both approaches together and to present a coherent rationale to parents, teachers and students. There is already extensive research evidence available that points to the clear learning gains that can be made through the use of formative assessment techniques, but we were interested in the additional validity that such findings would have for our staff if they could be duplicated in our own context.

Research carried out in our Geography and in Design Technology departments has shown considerably enhanced progress following formative assessment interventions.

As well as focusing on evidence of learning gains, we wanted to use Year Three of our research project to evaluate any changes in the learning culture of the staff, and of the students in the year group that had been consistently exposed to AfL and CL. To do this, we devised a questionnaire based on the five strands of AfL:

- Objectives
- Questioning strategies
- Feedback
- Peer and self-assessment
- Summative tests

This questionnaire had first been used with staff in 2004 to establish a baseline at the start of our introduction of AfL practices. It was repeated in 2006, following substantial investment in training to develop teachers' understanding of AfL and its application in the classroom. The results showed that our teaching staff believe that there has been a highly significant change in their practice with respect to four of the five assessment for learning strands. Most change has occurred in the use of formative teacher feedback. Summative assessments, however, have remained largely unaltered.

To gauge the impact on our students, an adapted version of the questionnaire was administered to all students in Year 7 and then to all students in Year 8. When choosing to do this, we were aware that it provided a very demanding measure of our progress. We had been working on cooperative learning for at least 12 months longer than AfL. As a result, many of our Year 8 students were already quite familiar with these techniques. In addition, it seemed unlikely that a teacher who was committed to emphasising learning intentions and formative feedback would stop doing this simply because they were working with a Year 8 group. It seemed inevitable that many of the techniques would be used more widely than in Year 7 alone – indeed this is something we would have actively encouraged. We consequently engaged in this part of our research without the expectation of identifying significant differences between Year 7 and Year 8 experiences.

On analysis of the results, Year 7 average scores were, without exception, higher than Year 8. These results have been listed below when the differences were sufficiently large to be measured as significant.

#### Highly Significant Difference (p<0.01)

We found Year 7 results to be higher than Year 8 by a highly significant margin in the following areas:

- a. Use of 'comment only' marking.
- b. The provision of improvement time after work had been marked.
- c. The provision of peer assessment opportunities
- d. Allowing time to improve summative assessments after they had been marked.

#### Significant Difference (p<0.05)

We found Year 7 results to be higher than Year 8 by a significant margin in the following areas:

- a. Reference to learning intentions during lessons.
- b. The use of 'think time' after asking a question.
- c. The use of higher order questions.
- d. Rewarding students for improving.

These results exceeded our expectations. In four of the five strands, Year 7 students report a significantly more formative experience than those in Year 8. This seems to support the teachers' view that assessment practices in Year 7 have become significantly more formative than was the case two years ago.

Closer analysis reveals two further points of interest in these results. Firstly, the results for 'learning intentions' suggest that our attempt to raise the profile of this issue has had equal impact in both cohorts. It seems likely that teachers who are making this an issue in their Year 7 lessons are carrying the practice through into Year 8. A similar pattern is apparent with respect to questioning styles. Secondly, while the teachers' results presented earlier indicated that we had made little progress in our formative use of summative assessments, the students suggest otherwise. It is apparent that, although we have some way yet to travel, significant differences have emerged between Year 7 and Year 8 practice in this respect.

In addition to the quantitative data gathered from the questionnaires, we conducted interviews in October 2005 and again in July 2006 with a mixed ability sample of 36 students. These interviews aimed to gather data about attitudes to key elements of AfL practice such as comment-based marking, improvement time and self and peer evaluation and to try to assess whether attitudes shifted over the course of the year. Two strands were of particular importance:

- What the students understood by marking; and
- The students' attitude to improving their work.

By the time the interviews were repeated in July, a positive shift in both strands was evident. In October, a majority of the students had claimed to be confident about their ability to mark someone else's work but, closer analysis of their comments revealed that they were basing their judgement on layout, comparing it to their own work or just going on gut reaction. By July, more of the students were confident about marking work and, more importantly, they made reference to using an assessment grid, success criteria or a specification on which to base their judgement. Moreover, the July interviews showed that a majority of students felt that, over the year, they had got better at assessing work because they were familiar with the systems and had been taught how to do it.

In October, the students were asked if they were often required to improve their work after it had been marked and how they felt about this. Negative feelings about improvement time increased with the middle to lower KS2 band students and so a major task for the teachers would be to sell the benefits of improvement time. Encouragingly by July, the vast majority of the responses showed that the students were regularly being asked to improve their work, and more significantly, that most of them were positive about doing so.

As the discussion of findings above seeks to illustrate, we believe that we have made significant progress in each of the personalised learning gateways. Furthermore, we would argue that the data gathered from student voice has been particularly powerful both in

illustrating progress to our staff and in highlighting areas for development, and as such, it is a crucial element of our drive to establish a deep learning culture in our school.

### **Towards a deep learning culture**

We believe that deep learning is becoming an ethos that permeates our school at several levels. On one level there is the student experience in the classroom, where we have worked to help them become more aware of the learning process and of the need for their active contribution to it. Creating opportunities for student voice has played an essential role in promoting explicit talk about learning and we will develop this potential further in 2006-07 by establishing a student enquiry group, who will be trained in effective teaching and learning methodology, will gather evidence of impact and who will report back to our middle leadership group.

On a second level, we have had to make a substantial and sustained investment in deep learning opportunities for our staff, supporting them as learn about new practice and make sense of it compared to their previous experience and aligning this encouragement with clear expectations to constantly seek to apply their new skills in the classroom.

Finally, the deep learning ethos has affected the school at a strategic level and here, the process of being involved in tightly structured action research, focused on the classroom has been of real benefit. It has helped us strengthen our capacity for critical reflection, enhanced our ability to gather and use data from a greater range of sources and improved our capacity to interpret data both more skilfully and more rigorously. Explicit discussion of learning, using practical examples from the classroom experience of both staff and students, is now more frequent and more precise and we believe that this will allow us to continue to build on what we have achieved so far.

### **References:**

Black, P., Harrison, C., Lee, C., Marshall, B. and Wiliam, D. (2003) *Assessment for Learning: Putting it into Practice*, Berkshire: Open University Press

Kagan, S. (1994) *Cooperative Learning*, San Clemente, CA: Kagan

### **Authors**

Jane Gormally is responsible for Teaching and Learning and Francis Power is responsible for Monitoring and Assessment at Fallibroome High School. Since joining the leadership team in 2002 both have been especially keen to focus their efforts upon strategies with a proven record in improving student learning. Cooperative learning and formative assessment can both point to significant and persuasive evidence to this effect. The tools and strategies suggested by both initiatives gave our project a pragmatic, down-to-earth feel that was essential in developing support among our teaching staff for the changes being recommended.

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