

# **Building the Capacity for Effective Learning**

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## **About the school**

Fallibroome High School is a successful, oversubscribed, mixed comprehensive school situated in Macclesfield, UK. It has 1491 students, including 290 in the sixth form. The intake of the school reflects a wide socio-economic spectrum. Attainment on entry to the school is above average and this is maintained or improved, with very strong results at Key Stage 3 (ages 11-14), Key Stage 4 (ages 14-16) and Key Stage 5 (ages 16-18). Our A\*-C percentage at GCSE has been around 76% for a number of years, in line with challenging predictors. At KS5 our results have been on an upward trend since 1998 and our average points score per examination entry has placed us in the top 10% of schools nationally for the past two years.

The school has been a Specialist College of Performing Arts since 2003 and is also the lead school in a Networked Learning Community with five of its associated primary schools. Since 2004 Fallibroome has been a Leading Edge school, working closely with two other secondary schools in Macclesfield. Fallibroome is also a Research School for the Campaign for Learning and is especially interested in Cooperative Learning approaches and how they can support Assessment for Learning.

The Ofsted report in November 2002 described Fallibroome as 'an excellent school' and praised our commitment to innovation in teaching and learning. In November 2005 Ofsted came to complete a Survey on the Achievement of Different Groups of Learners and commented on the 'total commitment to raising standards through a clear strategy and approach to teaching and learning' and highlighted that the cooperative learning model is 'effectively supporting learners not only in groups but as individuals'. The features judged to be outstanding in the lessons observed included: 'the pace of lessons, the team work and cooperation between pupils, the use of various teaching/learning techniques and pupils' positive attitude to work.'

## **Our journey**

The school has a very strong commitment to research into teaching and learning, both in terms of using research findings, as well as engaging in research itself. Over the past three years we have been a lead school in the Campaign for Learning's three-year action research project which is investigating the meaning and impact of Learning to Learn (L2L) strategies and approaches.

In particular, Fallibroome has focused on cooperative learning, based on the work of Dr. Spencer Kagan (1994), in the USA. Our decision to focus on cooperative learning strategies was taken after exposure to lots of different teaching and learning ideas and followed consultations with the staff when the headteacher, Peter Rubery, was first appointed. An issue which arose from this dialogue was that the staff wanted to do more to help students develop their own dispositions for learning rather than relying on spoon-feeding. We acknowledge that L2L encompasses many different aspects, but essentially we believe it is about capacity building. We want to enable our students to become proactive, self-aware and analytical learners and so we have invested heavily in development to ensure that our staff are proactive, self-aware and analytical teachers.

In the first two years of our research we concentrated on making teaching more effective by making it more engaging and mind-friendly, as this is an important aspect of a definition of L2L. The cooperative strategies provide a way to structure and regulate discussion and so facilitate participation. As our research has developed, we have also strengthened our focus on the students' role in learning and consequently, we would also want to include Assessment for Learning (AfL) principles in our definition of L2L, because we believe that it is through the dialogue generated by AfL strategies, that learning takes place. AfL completes the feedback loop, by involving the student, giving them the tools to allow them to establish what they know now, what they need to know and how to bridge the gap.

### **The link between Cooperative Learning and Assessment for Learning**

Many schools will have been influenced by the recent research on Assessment for Learning (Black and William, 2003) and the five key strands of:

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

As a result of our work with cooperative learning approaches, we feel that we can show how cooperative learning can directly enhance the strands marked with a star. Kagan's approach to cooperative learning is based around a series of structures which place an emphasis on four key principles, known by the acronym PIES:

*Positive Interdependence*  
*Individual Accountability*  
*Equal Participation*  
*Simultaneous Interaction*

Students are organised in heterogeneous teams of four and the teams are changed at regular intervals. An important emphasis is placed on the social skills of team-building and class-building and this helps to establish a climate for learning in the classroom. The structures lend rigour and accountability to group work, preventing students either dominating or opting out. An analysis of the structure Numbered Heads Together illustrates the point. Firstly the teacher poses a question and gives individual think time, after which all students have to write down their personal answer (individual accountability and equal participation). The students are seated in teams of four and the next stage is for them to 'put their heads together' and arrive at a team answer. This allows simultaneous interaction as well as equal participation. The answer arrived at has to be a team answer and everyone in the team needs to be able to explain it as the students do not know at this stage who will be called on by the teacher. This creates an opportunity for peer coaching, establishing a positive interdependence among the team's members, as it is in everyone's interest for everyone to be able to answer. Once sufficient time has been given for everyone to agree on an answer, the teacher uses a spinner to decide who will respond from each team.

Compare this to a more traditional whole class question and answer session, during which research has shown that the wait time after a question is normally just a

fraction of a second, whereas, with the cooperative structures, there is inbuilt time for individual and paired reflection before the teacher would expect an answer. Furthermore, if one considers the traditional model of whole class question and answer, on analysis it proves to be very inefficient. The teacher asks a question and then students raise their hands and the teacher calls on one of them to answer. This model has several problems:

1. Typically, about a third of the group attempt to answer a question in this way. The other two thirds lose interest and can opt out.
2. When one student is selected, the other volunteers lose their sense of involvement. Vocal or other forms of protest often accompany this. They have lost the competition for the teacher's attention.
3. If the student answering struggles, the others begin to wake up. "Like sharks in the water sensing blood, they raise their hands." They are happy and excited by the failure of a classmate." (Kagan, 1994)
4. The failure of one student increases the chances of success of another.
5. Once a student has answered a question, they know that in all likelihood they can now take a back seat as it is unlikely that the teacher will continue to question them.

Cooperative structures can address all of these issues, because they are created to operate by the four key principles described earlier (PIES). Many of the cooperative structures are ideal for creating and regulating the peer-assessment opportunities which are also crucial for AfL. Finally, the collaborative ethos encouraged by the cooperative structures helps to create a positive climate for learning in which the social skills of listening and turn-taking are developed and students can learn to accept and give constructive feedback.

### **How did we build the capacity to change?**

If it is to be successful, introducing a new approach to teaching and learning needs to be carefully planned and staged over time, with sufficient support. The school wanted to assess the impact of the cooperative structures and build a case for their adoption. Therefore an action research project was established with 14 participating teachers, one from each subject area. These representatives received training at six after-school workshops spread throughout the first year and they were asked to focus on using the new approach with just one Year 7 class. (The training is provided by two teachers who were initially seconded, and who are now fulltime consultants. Their contact details are given at the end). Data was collected through the year from staff and students in the form of questionnaires, interviews, lesson observations and student tracking and the response, as discussed below, was very positive.

Clearly, one of the challenges has been to develop first, familiarity, and later, expertise, in the use of cooperative strategies and how to 'scale up' from the initial group of 14 staff to the whole staff of over 90 teachers. This has been addressed through the design of a spiral programme of development, in which all staff receive general training and volunteers can attend the half-termly development workshops which allow them to deepen their understanding of the concepts and give the opportunity for discussion, trouble-shooting and feedback. Participants in these twilight sessions then act as lead learners / ambassadors for the development back in their own department, helping those staff who have only received the general training so far. Some twilight training sessions are repeated from year to year so

that new staff can access the information disseminated to date. Moreover, the focus on cooperative strategies has been maintained for several years and they have been used as the vehicle through which to introduce further developments such as Behaviour for Learning and Assessment for Learning. We are now in the third year of the development and this year the focus is on how the cooperative structures and ethos can help us to implement the principles of the Assessment for Learning (AfL) agenda. Following on from an exploratory working party last year, all departments are now being asked to adapt their Y7 Programmes of Study to incorporate AfL opportunities for self and peer assessment. Marking has changed to reflect a shift to formative comments rather than graded work and reports to parents and the tutor consultation day have been redesigned to reflect AfL ideas.

### **What has our research told us so far?**

Over the past three years the value of using the cooperative structures has become clear. Teachers have noted the potential of the co-operative structures to build more productive relationships both with and between students. Similarly, they have 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 very positive about lessons being taught using cooperative structures, appreciating the thinking time and 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.

Further information about the findings can be found in our more detailed Campaign for Learning reports at:

*Learning Together: Implementing Cooperative Learning in a Secondary School*

[http://www.campaignforlearning.org.uk/pdf/L2L/Case%20Studies%202003\\_4/Fallibroome2004.pdf](http://www.campaignforlearning.org.uk/pdf/L2L/Case%20Studies%202003_4/Fallibroome2004.pdf)

*Building the Capacity to Learn to Learn:*

[http://www.campaignforlearning.org.uk/pdf/L2L/casestudies2004\\_5/Fallibroome\\_Gorally.pdf](http://www.campaignforlearning.org.uk/pdf/L2L/casestudies2004_5/Fallibroome_Gorally.pdf)

*Does peer assessment improve pupil performance?*

[http://www.campaignforlearning.org.uk/pdf/L2L/casestudies2004\\_5/Fallibroome\\_Wood.pdf](http://www.campaignforlearning.org.uk/pdf/L2L/casestudies2004_5/Fallibroome_Wood.pdf)

We are now in our third year of using and evaluating the impact of cooperative structures. This year our focus is mainly on Assessment for Learning and how the structures can be used to support self and peer assessment. Over half of our staff have now received extended training in the cooperative approaches we are investigating and all of them have at least a basic understanding of their potential. Feedback from visitors, LEA advisers and Ofsted is consistently extremely positive about the climate for learning established in the school and our culture of high expectations and mutual support. Use of the structures is helping students develop the social skills required to give and receive constructive feedback and we intend to

report on the staff and student experience of Assessment for Learning in Summer 2006.

In the familiarisation phase, when they are exploring the potential of the techniques, our teachers are asked to focus on changing their practice with at least one KS3 class, normally a Y7 class. This is to try to encourage them to innovate and take the risks associated with trying out new approaches without the added pressure of external accountability for examination results. Perhaps as a consequence of this, we have not yet seen an improvement in our KS4 results, although they are already high. However, our KS3 results have been on an upward trend and in 2004 reached a record high for the school of 92%, 91% and 89% for English, Mathematics and Science respectively. Within that, it is interesting to note that conversion rates for L3-5 and L4-5 are outstanding in all three areas and that the less able students in our cohort appear to have made particularly good progress. We are confident that these trends can be maintained as we refine our AfL practices in the light of this year's research and extend the focus to other year groups.

### **Next steps ...**

Having spent three years training the staff, encouraging them to innovate and evaluating the findings, the immediate priority is to embed all of the changes into practice for all staff and with all year groups. Our programme of tailored training opportunities will continue and a sharper focus on departmental self-evaluation is being introduced, using the new Ofsted Inspection Framework to allow departments to feedback on their current position and identify their priorities for development.

We will continue to investigate how to collect data from student interviews and questionnaires, observation and student tracking to ensure that our investment in staff training is being translated into improved practice in the classroom. A further area will be the involvement of parents, particularly through the changes made to our assessment practices in Y7. So far parents have been informed about a shift away from grades to formative, comment-based marking and reports home have been amended to more closely link targets for improvement to the progress grid of levels produced by each department. If, at the end of the year, this has proven to be successful, it will be extended to other year groups.

From a leadership perspective, other schools might be interested in the benefits we have drawn from participation in a structured research project, with mentoring from higher education. It has helped to place research high on the agenda in the school, both in terms of discovering the latest thinking about teaching and learning developments and in terms of discovering the dynamics of what is happening in our own classrooms. We have gained a much greater awareness of systematic and varied ways in which to collect data, which will be of enormous benefit as we prepare for school self-evaluation.

The school has managed to establish an effective model for building capacity through staff development. There has been a gradual reform of the ways in which INSET days and staff meetings are organised. Whereas previous INSET days might have had a key note delivery, led by one person, possibly external to the institution, now it is more likely that a range of workshops will be offered. This allows staff to best access the development they need at that time and gives them more control and ownership of the training. Equally, these sessions are now much more likely to be led by the school's own staff, regardless of position in the institution. This has

fostered a climate in which debate about good teaching is frequent and there are more emerging leadership opportunities. Some staff meetings are still information giving events, as this is unavoidable, but more are now used to run workshops or showcase teaching ideas. Through these developments and through the publication of a monthly bulletin, staff exposure to research has increased, helping to create a well-informed and reflective environment in which to work. A new trend is that teachers who are lead learners are beginning to contribute their own subject specific research reports, either to the Campaign for Learning project or to LEA teams.

The value of networks of staff, both internally and externally, has also been emphasised and we are committed to sharing and publishing our findings and methodology. We have offered a number of workshops to delegates from other schools and these events have been very well-received and have facilitated more distributed leadership opportunities for our staff as well as boosting confidence and self-esteem. Our school is a busy, thriving and exciting place in which to work and learn, and we are looking forward to further development and innovation.

### **Some ideas for further reading:**

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

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

[www.kaganonline.com](http://www.kaganonline.com) Kagan website

[www.teachertoteacher.co.uk](http://www.teachertoteacher.co.uk) Information on UK based training

[www.campaignforlearning.org.uk](http://www.campaignforlearning.org.uk) Information about the L2L research project

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