

Susie Hoad's Development Work: Exploring learning styles in Science at The Nobel School, Stevenage

Susie Hoad was a member of the Teacher Led Development Work group at The Nobel School, Stevenage (2004-05). She was awarded the Certificate of Further Professional Studies in the summer of 2005.

Susie was Second in Science at Nobel when she carried out a project to try to develop a wider teaching repertoire for Key Stage 5 students. She thought that investigating students' preferred ways of learning would enable colleagues to devise classroom activities that more closely matched the students' needs.

Susie had taken note of what 'Pedagogy and Practice' (DfES, 2005) tells us about learning styles:

Successful learning takes place when teachers play to pupils' strengths and build their capacity to learn in a range of styles. For this to happen teachers need to have an understanding of the different learning styles within a class and create learning opportunities through a variety of teaching strategies and techniques.

(DfES, 2005: Unit 19:1)

She believed that it was important to recognise the diversity of learning styles within any group of students but was aware that colleagues needed support in developing their understanding of this diversity and in developing their teaching styles in response.

Susie began the development work by using a learning styles questionnaire with all students taking Science at Key Stage 5. The instrument she used was based on the VAK learning styles which is a very popular approach publicised by Mike Hughes amongst others. This approach uses three categories: 'visual', 'auditory' and 'kinaesthetic' and the questions are intended to determine which of these categories is the dominant way of learning for each student.

Susie wanted to know if there was a link between preferred ways of learning and the students' academic performance so she compared the results of this learning styles questionnaire with the ALIS⁵ data. Like YELLIS, the ALIS procedure provides predicted grades by analysing previous test results.

She also carried out some lesson observations to try to determine the dominant teaching approaches being used and to see to what extent these matched the students' preferred ways of learning.

⁵ ALIS – A Level of Information System

Another interesting question concerned the relationship between students' choice of specialism within Science and their preferred ways of learning. For example it seemed that those who had chosen Biology tended to be categorised as visual learners whereas those who had opted for Physics tended to be predominantly kinaesthetic learners. This raised interesting issues about the way these different specialisms are taught and the extent to which these approaches are 'built into' the subject.

Another fruitful comparison was between two groups being taught the same specialist subject but with different teaching approaches being dominant in each case. This exercise suggested that the group in which the more active and visual approaches were used tended to outperform their counterparts in the group that experienced predominantly auditory approaches.

These explorations and comparisons provided Susie with evidence that she used in discussions with her colleagues in the Science Department. The indications from her work were that students:

- perform better when classroom activities correspond more closely with the students' preferred ways of learning
- perform better when they have the opportunity to learn in active and visual ways
- seem to choose options within Science according to their preferred ways of learning

Susie's work fed into the Science Department's review of Schemes of Work and into the Department Action Plan. It was clear that the issues raised by this work had to be pursued at Key Stages 3 and 4 to ensure that students were not only better prepared for learning Science at Key Stage 5 but also that they were able to make their option choices for the right reasons.

It is interesting to note the point that Susie makes in the final reflection at the conclusion of her portfolio, that as students' awareness of their own learning preferences and habits increases, they are likely to become more demanding of their teachers. Responding to this demand represents a considerable challenge to us all but one which Susie argues is only right.

References

DfES (2005) *Pedagogy and Practice: Teaching and Learning in Secondary Schools. Unit 19: Learning styles*. London: DfES.