ESRC Studentship – case for support

The research project will be augmented by a full time 3 year PhD studentship. This will allow the student to begin work at the start of the main research study in March 2008. The student will be registered at the School of Education, University of Leeds (ESRC reference code LED13000). Supervision will be shared equally between the Principal Investigator and Co-Investigator (Dr. XXX and Professor XXX).

The reforms examined within the proposed study ‘The enactment and impact of Key Stage 4 science education reforms’ are likely to involve teachers in developing a range of novel pedagogic practices, e.g. teaching about epistemic aspects of science, dealing with socio-scientific issues in the classroom, managing extended coursework assessment activities, and incorporating workplace-related activities. Within the main study a series of longitudinal school case studies will be conducted. These case studies will include some use of classroom observations to inform subsequent discussions with teachers and students concerning their experiences of novel teaching approaches associated with the reforms. The proposed research studentship will constitute a distinct line of enquiry that will augment this aspect of the main project.

The studentship will provide a detailed analysis of the classroom activities of a small number of teachers and how these change over time in response to curriculum demands and engagement in professional development activities. The studentship will focus on these teachers’ responses to a specific pedagogic challenge associated with the science education reforms e.g. the teaching of epistemic issues in science. The studentship will monitor the professional development needs identified by these teachers, the forms of any such activities undertaken (e.g. in-school or out-of-school support) and the impact of professional development activities on classroom action. A sequence of student focus groups will also be used to assess the impact of classroom activities on students’ attitudes to science education. Working with a smaller number of case studies, the studentship will involve more frequent and detailed classroom observations and associated teacher interviews than will be possible within the main project. This will enable a closer examination of the ways in which development activities impact on, and are informed by, classroom activities over time.

Analysis of classroom observations within the studentship will include a detailed examination of the content, purpose and structure of teacher-student classroom interactions. Such interactions are likely to have a significant impact on student learning of science and their attitudes towards school science. The studentship will provide the opportunity to video classroom activity: a methodology not used in the main study. Video analysis will enable classroom interactions to be related more effectively to the classroom context. Classroom interaction data gathered within the studentship will also be related to datasets within the main project, e.g. to examine the impact of classroom activity on students’ attitude, attainment and future course choices.

The studentship will begin in March 2008. Data collection for the thesis will be conducted during the 2008-09 and 2009-10 academic years. The proposed timing is congruent with activities in the main project.