

TQEF Research-Informed Teaching Initiative

Final Project Report

Project Title

*Developing Learning Hubs to promote student teacher
understanding of professional knowledge and skills*

Faculty of Education

School of Early Years and Primary Educational Studies

1. PROJECT AIMS and RATIONALE

The project's overall aim was to explore and develop the model of a 'Learning Hub' as a forum in which student teachers can work collegially to research and reflect upon their practice.

A Learning Hub is an innovative element of the Faculty's model of primary Initial Teacher Education (ITE). It comprises a group of schools within a 10-mile radius which offer some coordinated training opportunities to the student teachers placed there, in addition to the training opportunities routinely provided by each school to its student teachers. It also offers scope for wider aspects of partnership, such as CPD and research involving teachers, students and Faculty tutors.

The project had two complementary subsidiary aims, each pursued in a separate Hub and through separate activities:

i) to develop the model and practice of the Learning Hub.

The rationale for this aim was that the Faculty could enhance the quality and range of its school-based training of student teachers by broadening and strengthening its partnership activities with schools. This would be done by introducing new forms of training and by offering additional support and opportunities beyond the placement of student teachers. The intention was to improve the practice in schools and thereby enhance them as contexts for the training of student teachers. The creation of a virtuous circle was sought.

ii) to explore the uses of video-conferencing as a medium for professional dialogue between student teachers in order to enhance student teachers' own professional reflection on practice.

This aim was central to the Research Informed Teaching rationale. The promotion of video-conferencing was to provide a medium through which student teachers could reflect critically and collaboratively on their teaching. This was to embed the idea of practitioner research as a way of identifying courses of action to improve teaching. Alongside this, it was intended that student teachers would benefit from collaborative professional dialogue whilst

on extended school placement, to overcome the isolation of that element of their training, and that this could best be facilitated by video-conferencing.

Both of these subsidiary aims had implications for the Faculty's model of ITE, in which the student alternates between two main modes of activity:

campus-based training undertaken in peer groups with strong input and support from a team of tutors on a range of subject and generic professional issues;

block school placement alone or with one peer and with occasional support from a single university tutor.

2. PROJECT TEAM

Chris White – Lecturer in Partnership and CPD

Steve Waters-Adams – Leader of Primary Science team

Rob Bennett – Director of School Experience and Partnership

Each Learning Hub has a coordinator – an experienced mentor to UoP students who coordinates and leads the Hub's partnership work with the Faculty.

A Hub in Somerset led on the development of the model and practice of the Learning Hub. A Hub in Cornwall led on the uses of video-conferencing by student teachers.

3. METHODS USED

3.i developing the model and practice of the Learning Hub.

It was agreed that this was at one level an organisational matter, though the expectations and attitudes of students and schools also needed to be addressed.

Two joint training afternoons were organised by the Hub coordinator and offered to BEd students placed within the Hub area on their final school

experience. These afternoons addressed essential elements of teacher training which are difficult for some schools to cover:

- the support of pupils for whom English is an additional language,
- policy and practice in meeting the requirements of the Government's (2005) white paper *Every Child Matters*, which covers issues of child protection and wellbeing.

20 students placed in schools within the Somerset Hub were invited to these afternoons. All attended. Their evaluations of the sessions were all positive.

The main points made were to identify the benefits of:

- professional dialogue within a group of peers during a long placement that gives little or no contact with peers
- a structured seminar led by an expert practitioner in the topic area
- working in an in-service mode, as practising teachers do
- spending time in another school and learning from that setting
- having time to catch up with peers and share and compare progress on the placement.

There were no negative comments.

These arrangements were repeated the next term for a similar sized group of Primary PGCE students on final placement in the Hub area, and again for BEd students the following year. Each session was formally evaluated.

Feedback from students was entirely positive.

It was agreed that an appropriate format and focus for these sessions had been devised from the outset, and that the model was successful as it stood.

There were some costs involved in these arrangements:

- supply cover for the Hub manager and for the speaker
- venue and refreshment costs
- travel expenses for participating students.

Total cost of each seminar was some £300 for 20 students. This was judged to be good value.

2.ii the uses of video-conferencing as a medium for professional dialogue between student teachers.

The Faculty had taken out a licence for a video-conference system called Adobe Connect, which operates via an email invitation to take part in a video-conference at a specified date and time. The email contains a hyperlink to a site which gives access to the live conference. This system was selected because it gave access to the video-conference from any PC or laptop with good internet access. If there was no built in camera, a small webcam costing less than £10 could be connected via USB port. The participants in the video-conference could therefore operate from a range of locations, school, university, home or internet café. This was important, as we wanted the activity to be easily fitted into the busy lives of the students and tutors.

The project was to be piloted with BEd Year 4 students placed in the Cornwall Learning Hub, whose 10-week final placement gave the time-span necessary for training, implementation and evaluation of the video-conference project.

This aspect of the project built on some extensive research undertaken by our colleague Nick Pratt, in a research and development project funded by the Teacher Training Agency to promote e-learning. This work has been published as

Pratt, N. (2008) 'Multi-point e-conferencing with Initial Teacher Training students in England: pitfalls and potential', *Teaching and Teacher Education*, 24(6) pp. 1476 - 1487.

Pratt, N. (2008) 'Using multipoint conferencing with teaching students: balancing technological potential with practical challenges', chapter in R. Donnelly & F. McSweeney (Eds.) *Applied eLearning and eTeaching in Higher Education*, Information Science Publishing.

Technical issues and protocols

Schools are necessarily anxious about unauthorised access to their electronic communication systems by people of ill intent. The Government has established a National Grid for Learning to promote and manage schools' use of electronic communication systems. This is regionalised, with the South-West Grid for Learning (SWGfL) covering this Government Region. SWGfL maintains and manages the firewall that protects its own operations and those

of its schools, and controls access to and from school computer systems from outside.

A meeting was held with the SWGfL's e-learning coordinator in her Exeter office to discuss this project and to establish protocols and procedures for its easy implementation in schools within the SWGfL region. It was agreed that school headteachers would request the opening of a port in their firewall to allow access to an outside body such as the University. This is a matter of some technical complexity, involving specific reference codes for each of several items which must be obtained from a variety of sources inside the school and without.

There were also issues of protocol. These Cornwall schools were all new to partnership with the Faculty. School partnership is a sensitive area for HEIs, which depend upon schools offering placements to student teachers, but have no power to require them to do so. There is a shortage of good placements, so HEIs in every region are to some degree in competition with each other; it is important therefore to avoid any action that might seem presumptuous or inappropriate.

Most of the primary schools in the Cornwall Learning Hub are very small. They rely for their ICT technical support on a peripatetic contract service, with a technician visiting the school, typically on one day a month, to deal with a list of accumulated hardware and software issues. This raised the prospect of delays of several weeks before all of the schools had identified the unique reference codes needed for video-conference access. This was a necessary preparation for the applications to SWGfL for this access, which would themselves take a week or two to process. The sense of time ticking away from each successive student block placement became a feature of the project.

To reduce the delays, the project tutor undertook to obtain the access codes for each of the schools, and to complete the SWGfL application forms, so that headteachers had only to check, sign and email them out.

If the video-conference facility was to be seen by the student teachers as a benefit and not an unwelcome imposition, it had to take place at a convenient time and place. Some of the students were living with host families whilst on

placement, with no internet access and often no computer. So the only place where all students could access the video-conference was the placement school.

After several approaches had been trialled it was found that the most profitable arrangement was for the video conferences to take place at a pre-arranged time and day, normally 4pm, a time when lessons have finished but students would expect still to be in school.

The technical issues brought considerable delay and frustration to the setting up of each new video-conferencing group; but after several false starts a full trial was held. The systems were tested, but a new technical issue, arising from the particular provider of each participant's email account and its compatibility with SWGfL checks, prevented some of the group entering the conference.

This was by now late in the student teachers' 10-week placement period; so it was decided to regard this as a preliminary trial, with the first full pilot to take place the following term with PGCE student teachers placed in the Cornwall Hub on their extended final placement.

The technical issues and questions of protocol arose again there, as some different schools needed to be included because of the vagaries of school placements, and this delayed the start. The school staff and the student teachers were trained in the use of the equipment, and a technically successful trial was held. At this point, nearly a year into the project, the technical issues could be moved aside to allow the focus to move to the substantive issue of the research, namely the value to these student teachers of using video-conferencing for professional dialogue amongst a group of peers placed within a Learning Hub.

The coordinating tutors invited the student teachers to the conference. There were 5 students, and the first session was limited to introductions and testing of links and systems and the establishment of protocols for conducting the on-line meetings. This was sufficient to demonstrate the working of the system and to reveal the nature of the video-conference as a medium for communication.

First evaluation

After this first conference, the student teachers were asked to assess the potential of the system to contribute to their professional development and training. This was done by a simple questionnaire using a Lickert scale with space for additional comments. This was followed up by visits to the project schools by the lead tutor, to interview students and their teachers.

The response from the student teachers was mainly negative. Their main points were:

- why would we use video-conference when we could meet face to face if we wished to discuss professional issues after school?
- final school placement is a very busy and stressful time, in which additional demands are unwelcome
- just because we have been placed in neighbouring schools does not mean that we have common professional concerns as priorities for discussion.

These responses were unwelcome in themselves in that they all counted against the model under test. However, they did much to advance the thinking of the project team and to increase our understanding of both the nature of the video-conference and the nature of collaborative professional dialogue amongst peers. The focus of the project switched to consideration of the conditions necessary for constructive and productive dialogue, and the affordances of different technologies that could be used for this purpose.

The contrasting easy acceptance by the student teachers in the other part of the project of the new forms of collaborative professional dialogue led us to look more closely at the differences between meeting face to face and via various electronic technologies.

Our conflation of the physical forum of the Learning Hub and the use of video-conferencing as a means of promoting professional dialogue by student teachers was now recognised as problematic. The advantage of the video-conference is that it enables people operating at long distances to communicate with some of the affordances of a face to face meeting, but without most of the essential warmth and closeness that is achievable face to face. There is no genuine eye contact in a video-conference, since each participant is looking at their computer screen and its display of the other

faces in tiled squares. Even where a participant looked directly at their camera, the effect was only akin to seeing a newsreader on TV. The sense of visual communication is illusory. And although each participant could see and hear all of the others, the effect had few of the qualities of a face-to-face meeting within one room.

It was recognised that the video-conference could not offer significantly enhanced opportunities to the group of student teachers who were geographically close within the Cornwall Hub. In short, what was gained via the video-conference by way of on-screen sight of other faces did not compensate for what was lost by the removal of face to face meeting.

Phase 2

The negative responses of these student teachers to this first video-conference trial led the project team to consider the range of communication systems available to students and their appropriate use within their personal and professional lives. It is a truism that many young people currently conduct some of their social interactions through electronic means such as Facebook. We wanted to explore why their enthusiasm for such electronic media did not guarantee a positive reception to the video-conference element of this project. A study was conducted with a group of BEd Year 3 students to explore this. Appendix 1 shows the questionnaire used for this study. The results from this suggested that Facebook had potential to be accepted where video-conference was not; partly because it was a technology that the students felt they owned and to which we tutors were the outsiders, rather than the video-conference which we had attempted to impose upon students as an unfamiliar technology. Issues of familiarity, ownership and control emerged here.

This led to a second pilot, in which a group of BEd Year 3 Science specialist student teachers were invited to volunteer for a trial of the use of Facebook for professional dialogue whilst on their 7-week placement. 5 volunteers were selected. These students and the project tutors had or set up Facebook accounts and one of the students set up an exclusive user group for this study. A date and time for the first on-line exchanges was agreed.

Again a single session was revelatory. All of the 5 students either did not log in to the Facebook group, or offered only greetings and trivial remarks. The tutors' attempts to generate discussion of professional issues met with brief responses or silence. After an hour of on-line awkwardness, and with the generation gap reinforced by the experience, the trial was closed down.

This second abortive pilot was evaluated by analysing the students' contributions and comments. Their simple message was that Facebook was a technology they used for their private lives away from being a student teacher, and they did not wish to contaminate it with professional dialogue, particularly during the stressful time of school placement and particularly not with tutors participating. Once again, the nature of the technology proposed as the medium for the collaborative professional dialogue was seen to be the determining factor in the willingness of the student teachers to participate.

Critical analysis of these two abortive pilots suggested other factors that had to be addressed:

1. was there an evident advantage in using the chosen technology?
2. was there a common issue of sufficient current concern to all participants that they would willingly devote time during the busyness of school placement to a dialogue which might offer support or solution?

Phase 3

Informed by these considerations, a final pilot was arranged, again with Year 4 BEd students on final placement. This was for a targeted group of three student teachers, all working with one of the project team as supervisor, all teaching the same age group and all with equal but separate concerns with behaviour management in their teaching. Again the arrangements were made, technical considerations addressed, training undertaken. Again, the student teachers voiced their lack of enthusiasm for the proposal; this time before it reached the live video-conference. Again, their misgivings were understandable. Although they knew each other as fellow 4th-year BEds, they were in different subject groups and were not close friends. The professional difficulties they were encountering with behaviour management were extremely stressful, to the extent that one of them was doubting her ability or

enthusiasm to complete the course. The issues were just too raw and sensitive to be aired comfortably in a video-conference.

This reinforced a point made by one of the student teachers in the first trial, the full significance of which was not recognised at the time. Student teachers placed within a Hub, or in any group of schools in an area, are unlikely to be an existing close-knit group of friends. Therefore, discussion of important professional concerns could be awkward or inappropriate, an effect exacerbated by the impersonal and cold medium of the video-conference.

4. IMPACT

4.i: developing the model and practice of the Learning Hub.

This increased contact between the Faculty and the lead school of the Learning Hub led to discussion of other possible joint ventures. This came to focus on a whole-school improvement project for the teaching of Science across the school. This was discussed by Science staff at the school and the Faculty, and a year-long project was planned for 2008-09 academic year. All 21 of the school's teaching staff registered on an in-service module with the Faculty, enabling the drawing down of Government funding, some £3000 of which was transferred to the school to support the work, as is normal practice. This school-based project is enhancing the quality of the Science teaching in the school.

The main benefits of this are twofold:

- i) student teachers placed in the school will experience better teaching as a role model for them;
- ii) the school has come to recognise the Faculty as a source of expertise that will enhance its core business of teaching children, rather than as simply a requester of student placements. The significance of this change of mindset, particularly in a large and influential school, is considerable.

This element of the project, the development of the Learning Hub, has been largely successful. The next phase of development would see the establishment of a coordinated programme of training opportunities for students across all the Hub schools. The Somerset Hub schools are willing to

provide this, but there are cost and logistical implications which the Faculty needs to resolve.

4.ii) the uses of video-conferencing as a medium for professional dialogue between student teachers.

This report has presented video-conference in a negative light; but we still believe that it has potential value for student teachers:

- to allow student teachers with a shared subject specialism to maintain contact with each other whilst on school placement; though in practice they would be more likely to use other media such as text messaging and social networking. This would probably centre on maintaining social contact and not on discussion of professional issues;
- to enable a subject tutor to offer advice clinics to student teachers out on placement. This has interesting implications for the normal model of teacher education, which alternates university-based periods of tutor-led training with periods of school placement undertaken away from subject tutor support, with the student teacher having to rely on school staff and their allocated link tutor, who may be from any subject background;
- to enable the personal tutors of student teachers to maintain professional dialogue with them during school placement to support personal learning and development.

Overall conclusion from the project

The project trialled two methods of establishing collaborative professional learning by student teachers, one using video-conference and the other using face to face methods. Despite the appeal of video-conference and its technical affordances, the face to face medium is seen to be both more popular and more effective for discussion of issues which are often deeply-felt and which require some sustained personal exploration if they are to be resolved.

This project has shown us much about the essential nature of ITE and that of the video-conference. ITE has at its core interpersonal exchanges conducted face to face in one location. The video-conference offers a largely dehumanised exchange which is appropriate in some contexts.

The enthusiastic approval of the group seminars by student teachers in the Somerset Hub gave a valuable reminder of ITE. It enhanced normal practice by offering student teachers an island of collaborative discussion with a group of peers on important topics that would not easily be covered elsewhere.

There is more work to be done in analysing and evaluating this collaborative dialogue, and to identify its affordances along with those of the video-conference.

Continuation/dissemination plans

There is much here that is of value to colleagues within the Faculty and beyond.

The intentions of the project team are as follows:

- to write a paper on the implications of the project for the model of ITE for a journal focusing on ITE such as JET;
- to write a report for SWGfL on technical issues arising from the video-conference trials;
- to offer a staff development workshop to colleagues in the Faculty on the professional and technical aspects of the project;
- to present a paper at a professional ITE conference such as that of UCET (Universities Council for the Education of Teachers);
- to explore the implications and possibilities of setting up a regular 'clinic' by a subject tutor via video-conference to student teachers on placement, as a trial.