University of BRISTOL

Graduate School of Education

Research Briefing No. 14

School Science: Teachers' perceptions of online CPD

Key findings

- **Science teachers are online but aren't keen on participating in online CPD**

All teachers surveyed use email and a significant proportion subscribe to mailing lists, use YouTube and social networking tools. Many regularly access ideas and resources for use in the classroom online yet do not view this as continuing professional development (CPD). Fewer than 10% of the surveyed teachers had actually participated in an online CPD course and many expressed strong apprehensions about doing so, primarily relating to their perception of the lack of informal personal contact.

- **Science teachers prioritise subject content of CPD and worry that increasing opportunities for online CPD will lead to an expectation of working outside school hours**

When science teachers are making a decision about engaging in any CPD, the proposed subject or pedagogical content of the course, its perceived quality and time needed are prioritised over method of delivery. Expectations on engaging in online CPD outside term-time or the school day are a noticeable concern even though teachers had noticeably better online access at home than in school.

- **For some, online CPD was seen as valuable especially where it was associated with long term goals**

Those who have had positive experiences with technologies had more insight into what technology can do and are more likely to take up online courses in their own time.

"Online is good at getting basic stuff, but not subtle stuff where questions can be raised. Online can't ever replace face-to-face training, but it can complement it. Online does not beat getting together with likeminded people - that generates a lot of ideas very fast."
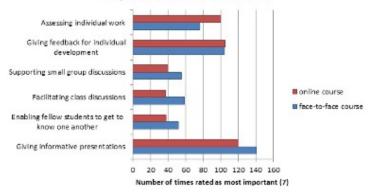
The research

The aim of the project funded by the National Science Learning Centre was to conduct a national survey sampling science teachers in at least three Government Office Regions across England in order to:

- Provide more in-depth understanding of science teachers' perceptions of the expected outcomes, benefits of and barriers to online-supported CPD

- Learn from the experiences of those who have experienced online CPD elsewhere, particularly what they found supportive and what they found frustrating

- Explore the barriers to engagement for those who have not contemplated online CPD

This survey was conducted during the academic year 2010/2011.

Researching learning: transforming lives

Aspects of a course tutor's role

Comparing tutor roles in face to face and online CPD

Research design

A mixed methods approach was employed centring on the development of an extensive online survey which allowed us to reach a broad range of participants at a time of their choosing.The survey design process involved telephone interviews with professionals involved with the design and/or delivery of online courses for teachers to identify issues that the survey might probe and a pilot of the draft survey with a small group of teachers. Further more qualitative data was collected through follow up interview with a sample of participants representing the participant experiences identified in the survey.

The survey was advertised in the National Science Learning Centre's e-newsletter. It was completed by 373 respondents completed the survey of whom the majority of teachers were working in secondary schools. Respondents were predominately from the maintained sector with a 65% female and 35% male gender balance which is consistent with the national figures.

Further information

Teachers expectation of support in CPD courses

As part of the survey the science teachers were asked to compare the importance of the tutor's role in face-to-face and online CPD courses. The individual aspects of the tutor's role to be rated were: giving informative presentations, enabling fellow students to get to know one another, facilitating class discussions, supporting small group discussions, feedback for individual development, and assessing individual work, both for face-to-face courses and for online courses. The chart above compares teachers' perceptions of these different aspects of a tutor's role between face-to-face and online courses. It shows the number of times each was rated as "most important" (7). It was clear that the tutor's role in enabling fellow students to get to know one another, facilitating class discussions, and supporting small group discussions was rated by teachers as considerably less important in online courses than in face-to-face courses.

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