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Project Report

Education Professionals' Perspectives on ICT CPD: Past, Present and Future
The experiential learning of advisers responsible for school teachers' ICT CPD programmes

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Introduction
This report investigates the experiential learning of advisers, teacher educators and senior managers in schools who are responsible for devising Continuing Professional Development (CPD) programmes in Information and Communications Technology (ICT).

Whether they are funded by a company, a university, a region or independently, they are all termed 'advisers' for the sake of brevity in this study. The role of these ICT advisers is changing considerably in the UK, which may have significant impact on what kind of ICT programmes advisers are able to offer in the future.
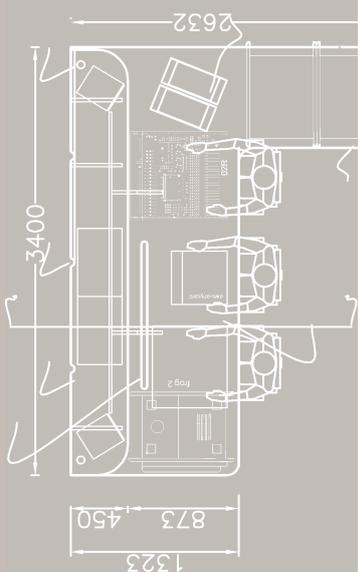
In these circumstances the type of ICT CPD that is provided for the advisers themselves is crucial if they are to be at the core of the transformation and personalisation agenda in schools, particularly as the £45 billion Building Schools for the Future (BSF) agenda begins to have an impact on the ways in which schools as learning institutions operate. For example, the impact of this programme will depend on the collaborative and flexible vision of those who teach the education workforce about the potential of ICT in teaching and learning.

Two hundred and fifty self-elected members from Naace, the MirandaNet Fellowship and ITTE who currently run ICT CPD programmes participated in this study. Between them these organisations represent a significant number of the UK's leading advisers who have joined a professional organisation as a means of furthering their professional ICT knowledge.

This report, funded by the Centre for Excellence in Work-Based Learning for Education Professionals (WLE) at the Institute of Education, University of London, builds on previous MirandaNet studies into attitudes to online training of members of these three professional organisations (Preston, Cox et al. 2000), the MirandaNet evaluation of the national NOF ICT CPD programme for the TDA (Preston 2004), and a recent Naace study funded by Becta (Davies and Adam 2007). Another influential study emphasised the need for ICT CPD programmes to acknowledge teachers' belief systems and the potential conflicts for teachers whose practice is located within existing traditional frameworks (Pickering, Daly and Pachler 2007).

Two further studies, yet to be published, have provided more data through re-analysis of the NOF data in the light of Guskey's five critical levels for the evaluation of professional development:

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participants' reactions; participants' learning; organizational support and change; participants' use of new knowledge and skills; and, students' learning outcomes five critical levels for the evaluation of professional development in general (Guskey 2002; Davis and Preston 2007 in press; Davis, Preston et al. 2007 in press). These studies show that the most effective impact on the ecology of the classroom was achieved by those NOF providers whose advisers took a learner-centred approach, with some support for school advisers to deploy the ICT CPD within the training. In this decentralised model, the local advisers are clearly essential to the success of ICT CPD in schools. This suggests that the quality of their training is a key driver in transformation and personalisation of learning for students.

The research aims to provide a better understanding of what ICT training these advisers have had in the past, how these advisers like to learn, what they consider to be motivating and effective in their experience of ICT CPD, and how they see the future of ICT CPD for advisers. In particular, the report examines the role of professional organisations as 'communities of practice' (Lave and Wenger 1999) in furthering professional learning about digital technologies.

The methodology includes the analysis of just over one hundred and fifty web-based questionnaires and fifty critical incidents. In the last stage of data collection at the Naace conference, a group of about fifty advisers, who had seen presentations by colleagues about different aspects of ICT CPD, were asked to come to a collaborative judgement about how ICT CPD should look in the future.

The individual richness of the advisers' own words in the critical incidents that are recorded in the full report are lost in summary. For details, see the full report (Preston and Cuthell 2007). Only the most vivid comments can be recorded and generalisations as appropriate.

The findings

The results are grouped under five headings: current qualifications in ICT; the motivating factors which led to a sustained involvement in ICT CPD; the pedagogical models that have provided the most fulfilling learning experience and had most impact on practice; the importance of a collegiality in learning about ICT vision; and the design of ICT CPD programmes that will prepare these advisers for the future when ICT will support learning in the majority of schools.

Firstly, in terms of CPD provision, the findings echo earlier studies because it is still the case that only about one third of all respondents had a post-graduate qualification that included a component of ICT. One third of all respondents had undertaken no ICT training in the previous three years and some 10% had never received any such ICT training.

However, there may be a trend to redress this balance because just over half of respondents had received some formal ICT training during the previous year. Also 95% of these respondents report that this recent ICT CPD has had an impact on their individual learning and 75% report an impact on their institution. These statistics suggest that that course designs for this group are improving, with particular mention of the MTeach postgraduate qualification.

However, barriers still remain to registering for formal courses: finding time to reflect and adequate resources. Only three respondents stated that time and space had been allocated for their own ICT CPD. Although take-up of formal ICT CPD is not high, a majority were convinced that the most effective CPD is autonomous and self-directed, as well as an integral aspect of personal and professional growth.

Amongst these expert advisers there is the self-expectation of continuous learning to maintain professional credibility. Some professionals thought that postgraduate

study was vital as a way to provide a space for critical reflection away from the demands of delivering programmes for teachers. But many realised that this privilege emphasised a fundamental difference between those who work in schools, and advisers who typically work in other kinds of organisations that allocate time for ICT CPD. There was recognition amongst these advisers that the demands that ICT CPD places on time come at a cost – which needs to be acknowledged.

Secondly, in terms of motivation, the most frequently cited factor that re-occurred was a work-related demand. A sense of professionalism was also a strong motivator and a few advisers were taking the formal routes of MAs or PhDs to progress their career. Recognition or referral by third parties sometimes acted as a spur to finding time to take a formal course. In other cases it was an inspirational individual, often a speaker in conference, who had triggered a commitment to formal learning.

In terms of motives for using ICT, equipping learners to be independent featured prominently (48%) as did international collaborations (19%). A continuous thread throughout the critical incidents was the reference to professional collaboration as a key motivation for pursuing professional development.

There was significant agreement, thirdly, on the success of those pedagogical models that sustained learning momentum, because they focused from the start on the intrinsic motivations of the advisers and on what the advisers felt they needed to know. The advisers thought that academic courses that simply seek to transmit externally agreed information and skills did not have much impact on learners or systems.

Activities that were considered to be effective were longer than one-day courses, required a sustained level of commitment from the learners and included professional collaboration and impact on the workplace. Work-based learning, rather than skills-based or academic courses, was deemed most useful by 41%. Some advisers commented on the authenticity of work-based learning compared with an academic approach. Yet very few respondents made any link to supporting vocational learning – a key strand of the new 14-19 curriculum.

A sense of collegiality in learning, the fourth focus in the report, was a strong thread and subtext that ran through the majority of the critical incidents in learning. This kind of social networking was widely seen as both supporting professionalism and ensuring that advisers could keep up with new developments in technology and professional knowledge.

One element of collegiality that was mentioned was the opportunity to present to other colleagues in conference. The learning emerged from the preparation of a coherent presentation and the feedback. National and international exchanges by teachers, including workshops and visits to the local schools, were recommended by those advisers who had had this experience.

Attending a course or a conference was a more conventional route to making social connections, where advisers learnt from peers in a 'community of practice' setting. The power of networking was seen as one of the most beneficial aspects of attending a conference. There was some evidence that learning was taking place in online courses as well and in the online facilities of the professional organisations.

In terms of ICT CPD needed for the future, the fifth consideration, there was a split in opinion in the questionnaire responses with Naace members identifying learning platforms as the priority while ITTE and MirandaNet members pinpointed a need for work-based courses and applied research. What appeared in the critical

incidents, however, from Naace members was a new understanding of about learning in communities of practice. Also the potential of virtual learning environments (VLEs) to sustain collaboration across physical boundaries which had been closed until recently. Development of digital content was also seen as the most appropriate areas to develop in order to enrich 21st century skills. This endorses the development of the Naace ICT knowledge base which is currently being piloted.

Some tensions could be traced in the subtext. One view was that attitudes towards young learners in the present do not always match with plans to use ICT to underpin greater personalisation of learning and more student choice over the subject matter to be learnt.

Other tensions that were expressed highlighted in a different way the gap between advocating personalisation as a school and government agenda, and the actual practice with young learners in school, particularly around social networking. In fact, there was considerable concern about how the dangers of personalisation were perceived by senior managers if young people were allowed unsupervised Internet access. These are aspects of the Internet that will need to be explored by the profession in an ICT CPD context.

Advisers participating in knowledge building activities at the Naace conference reiterated the key barriers to the uptake of ICT in some schools, like teachers' lack of time, poor technical support, the lack of effective ICT CPD programmes and assessment methods which do not value the impact of ICTs in learning. However, they agreed overwhelmingly, as a face-to-face group, that the real reason why the take-up of ICT is still so poor in about 75% of schools is the lack of vision about how ICT can empower and transform. In the view of this expert group, where the vision about personalised learning was strong, ICT was also well used. In this context, an opinion

was expressed that advisers should run ICT CPD programmes that developed clear ideas about ICT vision and strategy with the professional participants that would impact on institutions and systems.

Recommendations

The responses have been received from a self-selected group who could be considered at the leading edge of ICT CPD in England and should be seen in this context. They are all voluntary members of communities of practice which suggests they are themselves keen to learn.

The first recommendations relate to the organisation of ICT CPD. The suggestion is that funding mechanisms for ICT CPD should include space for reflection, and for contributing to professional knowledge bases as part of the process. Advisers should be funded to develop the use of Virtual Learning Environments, and to acquire e-facilitation skills as a means of building Communities of Practice.

Provision should also be made to help build on the ICT CPD elements of communities of practice that already exist. Funding would be useful for 'community of practice' meetings, working parties and conferences that are run in an ICT CPD mode, where the output is designed to contribute to professional knowledge bases used by a wider range of professionals. Methods need to be devised to access and select the ICT CPD funding to help advisers identify what they need to know, and how to gain that knowledge.

The development of work-based learning programmes is the second recommendation. This is because it is the most relevant technique for promoting ICT CPD that has a significant impact of classroom practice through the intervention of expert advisers. The encouragement of practice-based research developed in small groups working on different aspects of an agreed theme as a mode of ICT CPD is suggested. Whilst conventional academic courses,

because of the financial and time constraints, were not considered as the most appropriate to develop 21st century skills, the new work-based academic models that are appearing are seen as particularly valuable for their intellectual impact, their rigour and for the shared sense of academic community, as well as recognition of achievement.

Thirdly, support is recommended for professional communities of practice that should be allowed to administer funds for practice-based projects proposed by members, which will result in contributions to the professional knowledge base. This increases ownership of the results and also permits some management of the topics.

A fourth recommendation is about the kind of multimodal skills required, ICT CPD programmes should be designed to develop 21st century skills to include learning about the use of Learning Platforms, Building Communities of Practice and Developing Digital Content. Activities should be more than one-day or short courses and require a sustained level of commitment from participants.

In terms of ICT CPD programmes the fifth recommendation is that the design should focus on intrinsic motivation and build in factors that contribute to a sense of internal locus of control and promote growth. As part of this development, advisers who have the either the skills or the outreach responsibility to organise visits between schools both nationally and internationally should be supported, in terms of time and expenses, of as part of an ICT CPD programme both for themselves and for the teachers.

Finally, there is a need for a significant rethinking of the way in which advisers are assessed, which includes recognition of the multimodal skills that they are acquiring, and which also investigates a route to accredit collaborative learning in groups, institutions, regions and exchanges.

Suggestions for further research

Some early suggestions for further work-based research with advisers that emerge from this study are to investigate:

- the range of ICT CPD programmes currently on offer;
- the different roles of UK advisers, the diverse funding methods and the kinds of professional who should be encouraged to follow particular kind of ICT CPD programme;
- effective ways to fund adequate ICT CPD programmes for advisers;
- new thinking on accreditation for advisers to test and to develop for others;
- vision building and 'code of conduct' activities involving young learners as well as advisers;
- investigation of the attitudes of those ICT advisers who do not typically sign up for ICT training or CPD and do not join communities of practice, in order to consider how they might be engaged in ICT CPD;
- studies of what an ICT adviser needs to know and where to find the information;
- methods for building and sustaining a professional knowledge base;
- effective ways of working online with advisers and by advisers.

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The full report (Preston and Cuthell 2007) is available as No. 3 in the WLE Centre Occasional Papers Series and can be downloaded from the WLE Centre website.