Communal e-learning styles in the online classroom

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Introduction

One defining feature of adult learning is that it is self-directed (Merriam, 2001). Adults who engage in formal learning invest in their learning and, in general, know what suits them and how they like and want to work. The large body of research around individual learning preferences and dispositions illustrates the various characteristic ways in which learners think, act and feel in specific learning situations (Smith, 1993). While the online classroom is not new, it has only recently become sufficiently mature that whole cohorts of students and tutors use the medium regularly and routinely, most usually in concert with other modes of learning and teaching: traditional lectures, seminars and tutorials.

In this paper we explore the dispositions towards ‘communal e-learning’ of a cohort of initial teacher trainees within a primary post-graduate (PGCE) programme. Teacher training in the UK is required to work towards nationally decreed ‘professional standards’ established by the government’s Teacher Development Agency (TDA, 2006). Our trainees enrol in a one-year vocational programme to achieve Qualified Teacher Status (QTS), to teach in primary schools. Amongst other things, the TDA standards require these trainees to develop ‘professional attributes’ and ‘professional skills’, and trainees have opportunities to develop these through alternate periods of university-based work and school-based experience.

The course is designed towards achieving the TDA standards both through individual responsibility and collaborative working: student teachers are encouraged—required—to assume professional duties during which they confer with professional colleagues, mentors, tutors and peers, working together to achieve effective practice. In this way, trainees are inducted into the language and register of a professional discourse in order to define the problems being encountered, eventually allowing them to de-contextualise what are usually highly contextualised situations, to add structure to what is commonly very unstructured.

The relevant parts of the standards specify professional attributes, such that trainees:
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- Have a commitment to collaboration and co-operative working
- Act upon advice and feedback and be open to coaching and mentoring
- Work as a team member and identify opportunities for working with colleagues, sharing the development of effective practice with them
- Ensure that colleagues working with them are appropriately involved in supporting learning and understand the roles they are expected to fulfill.

To help achieve this we have established a web-based discussion forum that trainees can access throughout the year, both during the university and school elements of the course. Although this e-learning environment has offered an array of obstacles and opportunities, the entire cohort of students have used the website, with 84% of them using the discussion forum in one form or another over the year-long period. Our interest in this paper lies in the extent to which participants engaged in this communal professional e-learning, and the directions indicated by the outcomes: ways in which we can improve this part of the programme through evidence of preferred e-learning styles and strategies.

E-learning styles

Throughout educational research the idea of learning style usually refers to how people prefer to learn and an individual’s learning style may be defined as a self-consistent mode of functioning which individuals show in their perceptual and intellectual activities (Witkin et al., 1977). Models and theories about learning styles contribute to a general theoretical framework that favours variation and personalisation in the forms in which individuals learn. The concept of learning styles derives from a view of learning as an active constructive search for meaning in which each person processes and interacts with information in different ways. These different interactions mean that individuals deal with new data in accordance with their own personal and cultural characteristics, their background knowledge and their styles of learning. A great deal of work (for example, by Entwistle et al., 2000; Riding & Rayner, 1998; Sadler-Smith, 1997; Schemck, 1988) about learning styles and learning strategies has been reported since the 1970s, and many different taxonomies and measurement instruments have been designed, for example by Entwistle (1998), Honey & Mumford (1992) and Kolb (1984).

A learning style relates to the characteristic and habitual ways in which these individuals process and evaluate information, solve problems and make decisions. A learning strategy is more specific, and is commonly seen as a way of approaching and tackling tasks, is learned, and is capable of modification. Riding (2002) makes the distinction as follows:

"Styles are in-built, habitual in use and fairly fixed. In contrast, learning strategies may be developed by the learner to help in situations where their style does not naturally fit the task being done (p. 99)"
However, our belief is that this body of research is not easily and instantly transposable to e-learning. To begin with, e-exchanges of the kind we describe here are very largely text-based rather than oral or actional, learning tasks are open and loosely framed, exchanges can be formal or informal and can be synchronous or non-synchronous with others. That is, students can join in exchanges at any time and at any point in the debate, the notion of ‘timeliness’ loses meaning. Moreover, ‘openness’ is an important part of our form of collaborative learning (McConnell, 2002) and we want learners to share ideas and accept new ones, be intellectually-open and accept possibilities of change, be frank in self or peer evaluation and to build good professional relationships, even though any sense of group affiliation is unrestricting and flexible.

According to Manochehr (2006), electronic learning (e-learning) is an evolving, dynamic and rapidly changing educational opportunity that is the product of advanced information technology environments. E-learning refers to using electronic applications and processes to learn. These can include web-based learning, computer based learning, virtual classrooms and digital collaboration. ISP (2004) lists, for example, access to learning via CD-Rom with multimedia capabilities, satellite TV, extranet, internet and intranet. Zenaida (2004) predicts that e-learning will soon play an essential role at all levels of education from primary school to university.

In reality e-learning has already influenced the field of teaching, with more and more courses are being delivered over the web (Chang, 2001). Within higher education there is a move towards flexible, online learning for it has a number of benefits (Upton, 2006). For example, by increasing the degree of flexible learning, access to those courses is extended across a greater geographical area to those who in the past could not access these courses, those whose disability prevented them from accessing courses (Akhtar et al., 2007) and those whose social background are not conducive to campus learning (Wade, 1994). Benefits of online learning have been explored in a number of studies. Steele et al., (2002) and Buckley (2003), for example, report that students respond both positively and negatively towards online learning resources. Some e-learners score better than those who are not (Dewhurst et al., 2000), some the same (Stocks & Freddolino, 1998) and some worse (Waschull, 2001).

These recent developments in web-based services and the enhancement of collaborative tools have fueled the demand for similarly specified educational software and services. Many schools and universities all over the world have now deployed blogs, ePortfolios and educational social-software for use by the academic community. There is, however, limited evidence in the research literature that directly links instructional strategies to communal learning modes. On the surface, it appears to be a common goal on the part of courseware developers, to individualise further, to move beyond individual instruction to individualized instruction. In these cases, those working exclusively within virtual learning environments (VLEs) have shaped their work through trading on the learning styles research above.
For example, SMILE, a web-based knowledge support system has been designed to promote intelligent support for dealing with open-ended problem situations and uses a learner profile which follows Honey & Munford’s categorisation (Stoyanov and Kommers, 1999). This same learning style model is also used by the INSPIRE system, which aims to generate different lessons for individual learners, for meeting their learning goals (Grigoriadou et al., 2001). The 3DE European Project (www.3deproject.com) categorises learners into ‘activists’, ‘reflectors’, ‘theorists’ and ‘pragmatists’ in order to create courses customized to their needs.

Learning styles research within e-systems has also developed a number of Personalised Learning (PL) systems so that TrainingPlace.com, for instance, is an example of a commercial PL system based on learning styles research. This particular system uses Learning Orientation Theory, and categorises learners as ‘transforming’, ‘performing’, ‘conforming’ and ‘resistant’. Based on this categorisation, the system presents different learning experiences to each learner. The drawback here is that the systems developed are designed to individualise the learning environment. So, at the extreme, the KOD European project aims to deliver an adaptive learning environment for personalised learning (Karagiannidis, Sampson, and Cardinali, 2001). In this context, the aim of the project is to enable users (learning material authors, tutors, publishers, etc) to define the PL logic (determinants, constituents and rules) that drive the personalisation of the knowledge package.

**E-group work**

There has long been interest in the use of cooperative groups as effective learning contexts in classrooms. This interest has been fuelled by the increasing realisation of the link between learning and social interaction (for example, Bennett, 1994). Hertz-Lazarowitz and Miller (1992) raised an interesting comparison between ‘traditional’ and ‘cooperative’ classrooms in order to illustrate and clarify a model that motivates educators who are searching for a constructivist perspective as an alternative to staple classroom methodologies. Cooperative classrooms are more typical of a complex social system: the class functions as a set of small groups, or ‘groups of groups’; learning tasks are of a divisible and/or investigative nature and deal with multifaceted problems rather than with unitary tasks that can be solved by a simple correct answer. In these classrooms, teachers offer guidance to develop the skills that pupils need as members of relatively autonomous groups; the teacher acts as a ‘learning facilitator’ or resource rather than simply as a dispenser of information; learners must rely on and develop their social interactive and cognitive skills to carry out their learning tasks; learners exchange information, generate ideas, and participate in active information gathering as well as in multilateral communication net-works, and learners take on various roles in the learning process. That is, learners’ behaviours follow a broadly social constructivist approach to learning, rather than the passive-receptive approach typical of many classrooms.
The basis of these studies is that ‘task-focused interaction among students’ improves learning by producing cognitive challenge and by exposing students to higher-quality thinking. The fundamental principle of the developmental perspective on cooperative learning is that interaction between learners around appropriate tasks increases their control of critical concepts and skills. Some disadvantages of group work, in our view, are that—in certain circumstances—the collective knowledge constructed by the group itself can be lost or, at the very least, degraded. It is common in many teaching situations that the intended product of group activity is to enhance the learning of the individuals who are involved and, while individuals may prosper, it is the ‘collective knowledge-in-action’ that can disappear.

Communal constructivism (Holmes et al., 2001; Barbosa et al., 2004) is an approach to learning in which learners not only construct their own knowledge as a result of interacting with the environment, but also actively engage in the process of constructing knowledge from within a community and retaining it in some form. Building on constructivist theories, ‘communal constructivism’ is less some conjunction of individual and social theories as development of the two. While it trades upon both the individual and collective aspects of knowledge construction, it also incorporates a further interactive dimension that makes essential use of ICT systems to establish, organise and retain that knowledge. The argument here is for a communal constructivism where teachers and students are not simply engaged in developing their own information but are actively involved in creating knowledge that will benefit other students and teachers. The idea is that courses of learning are deliberately structured so that the work of any one group is developed and retained in such a way as to be easily available to other groups. Subsequent groups are not simply advised but are required to build upon this work. Their efforts, too, can be stored and so the process continues.

This communal constructivist approach requires that modes of working be dynamic and adaptive. It means, from the very outset, that students see themselves as producers and not just consumers of information. Creating an environment where students leave their imprint on the course, and the professional field, is an integral part of their learning and not only benefits their own learning, the learning of their colleagues in their classes, and those that will come after, but more importantly, creates graduates who will be well aware of the importance of knowledge construction in education. As Holmes et al., (2001, p. 4) say:

In this model students do not simply pass through a course like water through a pipe but instead, river-like, leave their own imprint in the development of the course, their school or university, and ideally their discipline. This results in a gain for the institution or course but, more importantly, the students themselves will benefit. Using a river analogy, the river water will leave rich mineral deposits and slowly influence the course of the river itself. That is, if student learning processes and their work can be captured
then the course might build up knowledge rather than simply repeat it year after year.

**Our own work**

**The programme**

We describe here a one-year case study involving 154 postgraduate trainees in West London, all studying for the same PGCE qualification and to meet the professional standards for QTS (DfES, 2007). As part of the course all trainees attend and complete the coursework for a general professional studies (GPS) module. The main aims of this module are to enable students to develop a critical understanding of the relevant theories and current research regarding educational practices in school, to gain understanding of and critical insights into teaching and organisational strategies and how to employ these in order to develop effective learning, to develop trainees as reflective professionals through analysis and evaluation of their own learning and developing professional skills and finally undertake high-level critical reflection on chosen aspects of learning and teaching. These aims are met through weekly university taught sessions between block school experiences, comprising lectures, seminars and practical group work, as appropriate to the content and purpose of sessions. Trainees also compile a written profile of professional development, in which they reflected upon their own teaching and learning.

In addition to the taught sessions, trainees also have access to a web-base specifically designed to support their learning through the access to supplementary reading materials including curriculum guidance, relevant research papers and appropriate web-links. The web-base is also used as a notice board and area to disseminate general information regarding the course and finally a group online discussion board where every trainee was able to post their own comments and reply to those of others. In 2007, the Office for Standards in Education (Ofsted) commended our web-based materials and resources as being of high quality and essential to trainees’ learning and research.

This system of online discussion allows for anytime/anyplace interaction and research has shown that text-based communication can promote robust interactions (Johnson *et al.*, 2000), so guidance was offered, with examples of appropriate comments and ways of using it effectively. The system allows us to differentiate between the total number of students who access the website, those who access the discussion board section, and those who write and respond. Trainees’ comments have been analysed dating from when they began the course in September 2006 to June 2007, and our data in this study show that of the 217 comments posted, these were read 13,429 times in total.
**Categories of response**

As we were looking for emerging categories of E-learning style, we sought to use a system of inductive analysis allowing the findings to emerge from the frequent, dominant and significant themes inherent in the data, without the restraints imposed by specific structured methodologies. Prior to any formal analysis, we undertook familiarisation of the data, involving repeatedly reading the comments posted. According to Thomas (2003), the raw text should be read in detail so that researchers become familiar with the content and gain an understanding of the themes and details in the text.

The next stage involved organising the data and meaningfully reducing it. Miles and Huberman (1994) describe this as the first of their three elements of qualitative data analysis, and refer to it as data reduction. Not only do the data need to be condensed for the sake of manageability, they also have to be transformed so they can be made intelligible in terms of the issues being addressed. Our log of student exchanges were first annotated to identify initial patterns so that we were creating codes as the data was studied. Once we had identified initial patterns, the data was continually reworked in an iterative process of clustering and reduction until ‘saturation’ occurred, that is, the merging patterns was modified in the light of constant comparison and refined until no new insights were created. This process resulted in four categories emerging from the original data. Our resultant categories are shown in Table 1.

### Table 1 Categories of e-communal learning styles

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<tr>
<th>Category</th>
<th>Characteristics</th>
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<tbody>
<tr>
<td>1. <strong>Communal</strong> engagement in</td>
<td>Students who bring forward issues from their school-based experiences, seeking group solutions, advice on behaviour or the teaching of particular topics or specific learning issues, proposing ideas about what might be done, working through professional matters</td>
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<tr>
<td>professional issues within the</td>
<td></td>
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<td>programme</td>
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<tr>
<td>2. <strong>Collaborative</strong> engagement</td>
<td>Not professionally-orientated but directed to complete task requirements, using the online classroom for course-related matters but not for ‘professional problem solving’, for example, for university-based assessment issues or tutors, course details etc.</td>
</tr>
<tr>
<td>in instrumental and strategic</td>
<td></td>
</tr>
<tr>
<td>issues within the programme</td>
<td></td>
</tr>
<tr>
<td>3. <strong>Cooperative</strong> engagement</td>
<td>A low problem-based user of the online classroom, not used for professional matters at all but for other group, social, personal uses</td>
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<tr>
<td>in social discourse</td>
<td></td>
</tr>
<tr>
<td>4. <strong>Low-engagement users</strong></td>
<td>Engages through reading but not initiating or responding to discussion</td>
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</tbody>
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Note All students (100%) accessed the programme’s web site at some point during the course, the majority making use of the site a few hundred times over the period of the programme, averaging hits once or twice a day. The highest number by one student registered 1424 ‘hits’: it is unclear why this person needed to access the site so often. The distribution is shown in Table 2.
Figure 1 Schematic of responses

The schematic in Figure 1 shows the distribution of the student ‘hits’ on the programme website.

Table 3 gives the full break down, categories 1 and 2 showing the ‘non-discussants’ who entered the website but not the discussion board element, and the ‘low engagers’ who entered and read the discussions but did not respond. It is clear from this table that this is the largest number of students, those who engage passively with the group discussion. That is, they open discussion items posted by others and read these but then do not feel the need to contribute further by responding or posting an item of their own. We have reported this phenomena elsewhere in similar circumstances.
(Pedrosa et al., 2005): those who receive but do not contribute to ongoing discussions, the passive-engagers with the system.

In the third category, are a small number of students who use the discussion board for cooperative social exchanges, but this is rare in the context of the overall discussions posted. In the fourth category lie those students who exchange information, discussion about the mechanics of the programme, whether it is the school-based element, when they are not in attendance at the university campus, but separated and working in primary school in the local region. Finally, in the fifth category lie those students who use the discussion board to raise professional issues, students who raise issues from their school-based experiences, seeking group response, advice on behaviour or the teaching of particular topics or specific learning issues,

<table>
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<tr>
<th>Category</th>
<th>Criteria</th>
<th>Percentage of students (n = 154)</th>
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<tbody>
<tr>
<td>1. Non-discussants</td>
<td>Access the site (possibly to read lecture notes, presentations etc) but not the discussion board engagement</td>
<td>16% (24)</td>
</tr>
<tr>
<td>2. Passive engagement (shows ‘reading’ response)</td>
<td>Read the ongoing correspondence without initiating discussion or posting responses</td>
<td>51% (79)</td>
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<td>3. Cooperative engagement in social discourse</td>
<td>Initiate and respond to non programme-based practical questions (e.g. parking). Initiates and responds to issues of social organisation.</td>
<td>3% (4)</td>
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<tr>
<td>4. Collaborative engagement in instrumental and strategic issues within the programme</td>
<td>Initiate and respond to school experience-based anecdotal discussion. Initiate and respond to university-based anecdotal discussion. Raise and respond to questions about university-based practical course issues (e.g. deadlines/course requirements).</td>
<td>21% (33)</td>
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<tr>
<td>5. Communal engagement in professional issues within the programme</td>
<td>Initiate and respond to real problem from school-based experience (e.g. behaviour/teaching specific topic). Initiate/seek and respond to advice on programme-orientated issues (e.g. reading/study buddies). Offer and respond to general advice concerning professional issues/ have found useful resource and offer to share this.</td>
<td>9% (14)</td>
</tr>
</tbody>
</table>
proposing ideas about what might be done, working through professional issues.

While the overall pattern is informative, it is this fifth group who are of prime interest, those who use the discussion board for professional issues. It is small, just 9%, but point the way forward for future development. As we noted at the start, one of our goals is to promote access to a community of practice where these emergent professionals can construct, share and build upon solutions to professional problems. Below are four examples of the kinds of (pseudonymised) ’postings’ that occurred:

Anne: Hi everyone, following the lecture this afternoon on the value of forming an opinion on the school league tables, you might want to listen to a BBC radio programme which was aired this afternoon [gives website]. The programme examines whether they are a useful statistic and covers the background to their introduction, with brief interviews with several secretaries of state. Best wishes.

Bob: Take a look at the BBC article [gives website]. There is strong opinion that the primary curriculum is too focused on meeting targets and taking tests rather than learning skills in the right environment. I feel that on this course we are learning how to teach the children skills in the right environment. With this in mind we should not be driven by ticking all the boxes (I hope!), but providing lessons to meet all the 5 points from Every Child Matters, be cross curricular and have excellence and enjoyment in mind.

Carla: Hey everyone, only just found this discussion board ... Read the BBC article and I completely agree. Coming from Ireland I found the curriculum over here extremely target driven. I believe that although it is very important to have a strong framework, teachers must be given the flexibility to break down the curriculum and transfer it to students. Hopefully the revised framework will provide this flexibility. Well that’s my 2 cents, hope you have a good weekend.

Dan: Thanks for the article and comments, Anne. The article raised some good issues. There are lots of targets to meet in education currently for both children and teachers, however I feel this is necessary in order to differentiate children’s learning and enable each and every child to progress at their pace, however there needs to be a balance established so that children and teachers continue to enjoy the education system and treat it as a means to acquire knowledge and aid in its understanding rather than achieving good marks, as poor marks in tests does not mean children are underachieving. I think reviews are long overdue, education can never be considered static, there is continually new information and new challenges that need addressing. Reviewing should be a continuous and ongoing process to allow clear change and to maximise progression potential.

Discussion

This is an exploratory study with a view to action. We have premised this work on the need to encourage all students to high professional standards
through communal exchanges and reflective discussion. The online classroom, amongst other elements of their course, provides a discussion board on the website where we have sought to enable them to:

- Work synchronously or a-synchronously
- Benefit from sharing their own online materials and opinions
- Harvest the fruits of communal constructivism.

Given this last goal, the discussion forum aspect of the VLE has been a limited success. We know e-based learning liberates learners to work in ways that suit them. This study, then, highlights the need for multiple pathways in web-based provision for trainees on such courses to meet individual, preferred, learning styles. While the context of this study focuses on the VLE, given the rapid developments in ICT people are now gaining knowledge informally using other forms of technology. Conole, de Laat, Dillon and Darby (2006, p. 1) state that

> different learners use a combination of different tools in different ways to meet their own personalised and individual needs; some students keep tools for learning and tools for leisure separate, whilst for others the boundaries of the use of mp3 players, MSN chat etc. are more blurred.

In the JISC report (2005), Sharpe *et al.*, summarise the current situation as one in which policy and practice developers need to see e-learning from the learner’s viewpoint. They recommend that to develop policy (p. 4):

> Rather than asking students how their tutor’s chosen VLE influenced their learning, students could be asked about the technology they use in their life and then about how it might relate to their learning activities.

They argue that technology is changing rapidly and learning activities occur through a range of media including mobile phones, e-mail, instant messaging and Personal Digital Assistants (PDAs), even though students may not perceive some of their technology use as directly related to learning.

It is often accepted (for example, by Low 2007) that ‘task-focused interaction among students’ improves learning by producing cognitive challenge and by exposing students to higher-quality thinking. The fundamental principle of the developmental perspective on communal learning is that interaction between learners around appropriate tasks increases their control of critical concepts and skills. In his work, Low suggests that learning should be goal-orientated and therefore individuals, and adults in particular, approach learning and training with specific objectives in mind. They need to realise that the activities they are undertaking are related to their real life requirements. And because these needs are often related to solving problems, courses that are task focused situated in environments that help them to activate the knowledge in real life, problem centred environments will result in more effective learning.

Successful communal learning also involves structuring group interactions. For example, Meloth and Deering (1992) compared students working
in two communal conditions. In one, students were taught specific reading comprehension strategies and given ‘think sheets’ to remind them to use these strategies (e.g., prediction, summarization, character mapping). In the other group, students earned team scores if their members improved each week on quizzes. A comparison of the two groups on a reading comprehension test found greater gains for the strategy group (also see Meloth and Deering, 1994). Berg (1993), Newbern et al., (1994) found positive effects of scripted dyadic methods that did not use group rewards, and Van Oudenhoven, Wiersma, and Van Yperen (1987) found positive effects of structured pair learning whether feedback was given to the pairs or only to individuals. Again, implications for course designers are clear: by structuring group interactions the positive effects of communal learning will be inflated. These implications are equally as pertinent in the e-learning situation as the traditional classroom setting.

In terms of our study, it is clear from the responses of 154 trainee teachers as part of their professional programme that there are many more ‘low-engagers’ in the system than there are ‘communal engagers’. At this stage we have little information on the benefits students derive from low-level engagement with the discussion, or in high-level ‘active engagement, for that matter. Our aim is to continue developing this provision with other groups of students, to continue encouraging student participation with professional communal e-learning, facilitating the co-design of learning experiences—looking to design the communities that are communal, enabling loosely bound communities for collective critique.

Our goal is to induct trainee teachers into initiating and responding to real problem issues from their professional school-based experience. We want not only that they develop such exchanges but that their discussions are open to the remainder of the student body on the programme so that they can learn from this. Moreover, since the discussions remain alive and active on the discussion board, these can be added to and shaped by successive groups of students. It is true that we want to encourage discussion and responses to the university-based programme issues, for example, course arrangements, assessments and/or the organization of ‘study-buddies’ peer mentoring). However, we see this as a secondary, not primary, purpose of the discussion board.

Our key concern has been a lack of differentiation: treating the members of a programme like this as a homogeneous group, managing the e-class as a unified whole, has lacked effectiveness. It makes little allowance for significant individual differences. By identifying preferred e-learning styles we now aim to benefit both e-learners and e-teachers through the communal construction and accumulation of online materials and activities. This initial study, therefore, gives rise to a series of questions:

1. To what extent do differences between individual students’ learning styles and study preferences relate to their different acceptance of the e-technologies? We increasingly assume familiarity with ICT as an essen-
tial component of everyday life (and train for this in our professional sphere) but does familiarity entail ‘comfort’, such that this would begin to correspond to a learning style?

2. We present a categorisation of our students over the period of their one-year course. So do these e-learning styles have definition and coherence in relation to students’ communal professional learning with subsequent cohorts?

3. We need to understand better the benefits (perceived and actual) that students derive from communal collaboration within this kind of online facility. This will require more detailed research.

4. How will the identification of preferred e-learning styles help online learners prepare for success by guiding their study habits? Our teacher education programme will continue to develop online materials and discussion; our studies will enable us to tailor better these materials to the preferred working approaches of our students.

This study, then, bounded as it is by the concept of communal collaborative learning, is designed to ensure that the necessary infrastructure is possible for collaboration and to cultivate professional sharing. Our next step is to redesign the system, perhaps along the lines discussed by McKay (2000), to allow for:

Co-design: The development of the system so that trainees can personalise their space (even temporarily) as they are working

Co-instruct: Use knowledge and experience of trainees as a clear source of content and approach

Guided practice: To infuse case studies into this e-work

Assessment: Use the system for evaluating collaborative ventures, enabling peer-rated assessment.

These are steps along the way to our more particular needs. Our intention is to tutor for professional exchange, to combine the possibilities of professional interaction and exchange with more informal use as social software. And, while we intend to adapt our own system in these ways, we are also interested in further exploring the use made of the systems we have in place, so that students in future years can build on the debate and issues raised by this cohort, and build upon their communal professionalism.

References


Department for Education and Science (DfES) 2007.


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