

Developing blended learning resources and strategies to support academic reading: a student-centred approach

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Abstract

This paper focuses on a blended learning curriculum development project, in which a student was *prospectively* engaged with teacher educators in developing resources designed to increase support for academic reading. Curriculum development took place in the University of Hertfordshire School of Education through the Change Academy for Blended Learning Enhancement (CABLE) Project, which was developed through participation in the UK Higher Education Academy and Joint Information Systems Committee Pathfinder Programme. Senior colleagues in the School and members of the University of Hertfordshire Blended Learning Unit, a Centre for Excellence in Teaching and Learning, provided strategic and operational support. The project evaluation framework was based on RUFDATA, the acronym proposed by Saunders (2000).

The need for support for academic reading had been demonstrated through programme evaluation and review. Gaps in provision were identified following a survey to define the scope of Master's level reading and an audit of available resources. Resources and activities for accessing, interacting with and sharing reading materials were developed by teacher educators in consultation with the student (education practitioner) team member and a university Information Consultant. In addition to the student contribution throughout the project, other participants on the Continuing Professional Development Programme module contributed to evaluating the resources developed to support their reading.

This project provides an example of a learner-centred approach to programme development. Students' views were valued as part of the design process through identifying learning needs; developing and trialling resources to support academic reading; and as part of the ongoing development and evaluation.

Keywords: academic reading; blended learning; CABLE Project; curriculum development; evaluation; learner-centred; student-centred; work-based learning

Introduction

This paper focuses on a blended learning curriculum development project at the University of Hertfordshire, in which the students' perspective was a central theme. These students were education practitioners, typically teachers, on a Master's level Education Continuing Professional Development (CPD) Programme. One student from the cohort joined a project team, which was set up to develop resources and strategies to support academic reading to meet a need which had been identified by tutors and previous students. In relation to this project the student shared in the decision-making process of the team, informed the priority and emphasis of resource development and worked collaboratively with other student members of the cohort, trialling the new resources and strategies and providing feedback.

The next section of the paper outlines the context for the project in relation to international developments in e-learning and blended learning and the ways in which the flexibility they offer can be used to support learner-centred work-based learning. The paper then provides some background to the project itself, describes the method used to implement and evaluate the project and presents and discusses some evaluation findings. This project provides an example of the prospective involvement of a student in curriculum development.

Context

At the end of the last century politicians and policy makers were increasingly expectant of the benefits of e-learning for universities (Hawkrige 1995; Bates 1995; Eizenstat 1996; Greenhalgh 1996; Martin and Beetham 1997; Dearing Report 1997; Blunkett 1998). Time and place no longer provided traditional barriers to learning opportunities and this increased flexibility captured the imagination of key stakeholders in education worldwide. In order to

manage different two-way telecommunication tools such as discussionboards, blogs and wikis, universities commonly turned to commercial course management systems, such as WebCT and Blackboard. The University of Hertfordshire designed, what Ellaway, Dewhurst and McLeod (2004, 127) refer to as, a 'home-grown' system called StudyNet.

While pedagogical developments and research were largely focused on e-learning, the beginning of this century saw the emergence of the concept of blended learning. Bliuc, Goodyear and Ellis state (2007, 4) "'blended learning" describes learning activities that involve a systematic combination of co-present (face-to-face) interactions and technologically-mediated interactions between students, teachers and learning resources.' It is this *systematic* approach which is key as successful blended learning is a considered approach to curriculum design in which the advantages of face-to-face learning are integrated with the advantages of e-learning (Garrison and Kanuka 2004). These authors note, 'blended learning inherently is about rethinking and redesigning the teaching and learning relationship' (2004, 99). Kirkwood and Price (2006, 6) argue that if a teacher sees information and communications technology (ICT) just in terms of its 'capacity to store and deliver teaching materials, or its potential role in finding and retrieving dispersed resources' then they are likely to use this transmission of knowledge approach in their work. Whereas those who regard ICT as an opportunity for dialogue between individuals involved in learning and teaching, are more likely to adopt a different approach to supporting learning. Bates (2005, 221) provides a word of caution when he points out: 'Good teaching may overcome a poor choice in the use of technology, but technology will never save poor teaching; usually it makes it worse'. There are challenges in using blended learning and Draffan and Rainger (2006) propose a model for identifying these in which they focus on the perspectives of both the learner and the teacher.

Findings from a survey of 568 practitioners in workplace settings in Korea, Taiwan, the United States and the UK suggest that blended learning has become a popular method of delivery for workplace learning (Kim et al 2006). Sixty-five per cent of respondents indicated that their organisations were using blended learning approaches for employee training and a further twenty per cent were considering using such approaches. Although this trend was similar across the four countries, blended learning approaches were being used least in Taiwan. The greater flexibility of learning opportunities offered by e-learning and blended learning also helps meet the need to support work-based learning. In the UK, the Leitch Review of Skills (2006) established to consider long-term skills needs recommends that the UK commit to becoming a world leader in skills by 2020. The review suggests that higher education institutions (HEIs) need to include the whole working age population and ‘...make available relevant, flexible and responsive provision that meets the high skills needs of employers and their staff’ (2006, 68). Nixon et al (2006), reporting on the position of work-based learning in higher education in the UK, suggest that the pedagogical approaches that institutions have developed focus on a process-driven curriculum rather than a content-driven one. The authors (2006, 39) also note that:

‘The adopted pedagogical approaches also emphasise the need to take on a **more flexible approach to delivery** that utilises a mixed mode or blended approach to learning, integrating e-learning and distance learning alongside more conventional and formal approaches to education. This enables the student to have a greater say over when and where the learning takes place, and allows the learning to be built around other work and lifestyle commitments.’

Sharpe et al.'s (2006) review of undergraduate experience of blended e-learning in the UK and recent research funded by the UK Joint Information Systems Committee (JISC) investigated the learners' perspective on e-learning (Conole et al. 2006; Creanor et al. 2006). Conole et al (2006) raise issues for policy and practice from their examination of students' current use of technologies to support their learning.

The move away from a focus on curriculum content reported by Nixon et al (2006) for work-based learning had previously been described by Norman and Spohrer (1996) in relation to education more generally. Norman and Spohrer (1996, 26) suggested that 'The new approach, termed "learner-centered" is somewhat akin to the "user-centered" focus of modern interface design. Here the focus is on the needs, skills and interests of the learner'. The user-centred design approach emphasised the needs of users, rather than technology in computer design (Norman and Draper, 1986). A transition from 'user-centred' to 'learner-centred' design, an approach that considered the specific needs of learners, was later seen as necessary by those studying the interaction between people and computers (Soloway, Guzdial and Hay 1994). Quintana, Krajcik and Soloway (2000) proposed a definition for *learner-centred* design when considering software development; extending the definition for the *user-centred* design approach. They considered the target audience, learners; the design problems addressed, '...the conceptual gap between the learner and a work domain' (2000, 258); and the underlying theoretical approach used to address the problem, learning theories.

In the context of the project described in this paper, the terms 'student-centred' and 'learner-centred' have been used to describe the way in which the curriculum was designed around the needs and preferences of the students. This use of the term shares some of the concepts embodied in definitions of patient-centred healthcare

(International Alliance of Patients' Organizations 2007). In practice, however, in this project one student member of a cohort was engaged in the project team and represented and liaised with other members of the group who shared in the evaluation activities.

Background

Change Academy for Blended Learning Enhancement (CABLE) Project

Student participants contributed to the development of the Managing Professional Development (MPD) module in the Master's level Education Continuing Professional Development (CPD) Programme at the University of Hertfordshire School of Education. This programme development took place through the CABLE Project which was developed at the university through participation in the UK Higher Education Academy (HEA) and the JISC Pathfinder Programme (The Higher Education Academy 2008). This formed part of the Higher Education Funding Council for England's ten year e-learning strategy. Funding for the Pathfinder Programme was awarded to the University of Hertfordshire Blended Learning Unit (BLU), a Centre for Excellence in Teaching and Learning (CETL) and the School of Education was successful in bidding to take part in the project. The primary aim of the change management CABLE Project was to embed transformative changes in learning and teaching strategies, enabling e-learning/blended learning to be used in strategic and sustainable ways to enhance student learning.

In the School of Education, the aim of the CPD Programme development was to increase the support for students' reading in an academic context using blended learning. This need for increased support had been previously identified by students through module evaluations and representation at programme committees. Teacher educators and external

examiners also identified this need through ongoing programme review, evaluation, and action planning.

Method

The CABLE Project in the School was managed by a core team, which included a student representative from the MPD module who was at an early professional development career stage, in common with more than two-thirds of the student cohort. The remaining core team members' expertise and responsibilities included strategy development, blended learning, supporting practitioner research, curriculum development and evaluation and academic quality and enhancement. A Steering Group, senior colleagues in the School and members of the BLU provided strategic and operational support.

The support for academic reading was considered in terms of resources and activities for accessing, interacting with and sharing Master's level reading materials in face-to-face and online modes. The scope of Master's level reading was defined following a survey of teacher educators in the CABLE team. Concurrently, an audit was conducted to establish the resources available to support academic reading within the university. The findings were used to identify gaps in provision, which were then prioritised and listed using a framework in which resources and activities were categorised according to context (face-to-face or online including StudyNet) and type of support (accessing, interacting with or sharing).

Building on the survey and audit findings and on the existing use of blended learning in the School, teacher educators developed resources and strategies to support academic reading. These included face-to-face sessions with tutor support, handouts, and online activities using social software and the use of voice-over text. This development was carried

out in consultation with the student team member and with support from a University Learning and Information Services Consultant.

Evaluation

Framework: The project evaluation framework was based on RUFDATA, the acronym proposed by Saunders (2000). RUFDATA provides the basis for the following series of decisions that can frame evaluation activity: reasons and purposes, uses, focus, data and evidence, audience, timing and agency. The main evaluation activity took place from May – July 2007 and focused on the process and outcomes of the first ten months of the project.

Purpose: The project evaluation served formative as well as summative purposes. The formative dimension of the evaluation was designed to improve a specific Master's level programme and developed in ways that recognised the value of situated forms of reasoning (Elliott, 2009). Such evaluations, classically, do not aim to generalise beyond the setting (Patton, 1990). Here, the evaluation of the resources is context specific but the evaluation of the process, including the student involvement in it, may be transferred to other settings.

Ethical considerations: This evaluation was covered by the University of Hertfordshire Protocol for Reflective Practitioner Work by Academic Staff. Confidentiality of participants has been maintained and the student member of the project team has given informed consent for the evaluation process.

Method of the evaluation

The purpose, scope and main activities of the evaluation were defined and agreed following desk-based research and consultation with stakeholders. Data and evidence were collected using the following methods and activities:

- *Documentation review of paper-based and electronic records.* These included: Pathfinder (the weblog of the HEA/JISC Pathfinder Programme¹), the website for the CABLE Project on StudyNet, project progress reports, meeting notes and presentations.
- *Survey methods using face-to-face interviews or email questionnaires.* The survey questions, developed in consultation with members of the project team, were the same for both methods of administration. Questions were categorised under the following headings: role in relation to the project; strategic implications; practical issues; quality issues and future developments. Additional comments about the project were invited. Survey participants included colleagues providing strategic and operational support and some members of the core project team.
- *Module evaluation forms.* The module evaluation forms were developed in consultation with members of the project team. Questions were designed to provide information about MPD module participants' use of resources for reading at Master's level; what had helped them with their Master's level reading; where the programme could provide additional support and additional comments about their Master's level reading. Participants were invited to complete evaluation forms soon after starting the module and during the final session.
- *Meetings and discussions.* Information was obtained from notes made at scheduled project team meetings and discussions of working groups focusing on particular aspects of project development. In addition, there were informal 'corridor meetings', which typically were based around posters designed to engage colleagues with the process and findings of the project as a means to broaden its impact.

1 Weblog of the Academy/JISC Pathfinder Programme. <http://elearning.heacademy.ac.uk/weblogs/pathfinder/>.

Findings

This section of the paper sets out some of the evaluation findings relevant to the student contribution to the project.

The process of the CABLE Project

Findings from the documentation review were integrated to develop a timeline to show the sequence of activities carried out during the project. CABLE Project team members from all six participating Schools in the university, members of the BLU, facilitators, students and a HEA representative attended a residential event in January 2007. This event supported team development and provided opportunities for action planning and networking and for identifying staff development needs.

In the School of Education team meetings were held throughout the project, supported by informal fortnightly 'tea-meetings' and frequent ad hoc 'corridor meetings'. The student team member was actively involved throughout the project process, providing feedback in team meetings, and supporting the design, development and prioritising of resources. In addition, she contributed to dissemination activities and together with her colleagues evaluated the learning resources developed during the project.

Reflection on the process of the CABLE Project

Some reflections of eight key stakeholders were recorded using either face-to-face interviews or email questionnaires. One respondent commented that involving a student in the project was an example of 'good practice' which worked to '*keep us focused*', an aspect of the project implementation they found most useful.

When asked what impact respondents felt the project had on them a second respondent reported '*I am more focused on listening to student voice in relation to learning*

and teaching'. They also identified the importance of listening to students' voices and the need to find more ways of doing so, as lessons learnt.

Reflection on the outputs of the CABLE Project

Twenty-four students on the MPD module contributed to the initial evaluation of their use of reading resources and support and twenty-seven completed the final evaluation. Some of the main findings are presented here.

Resources used to support reading at Master's level

Question 1 (initial evaluation and final session): Students were asked which of specified types of resources they had read for their studies at Master's level and to note any additional resources they used.

Number of respondents and main findings: Twenty-three students completed both evaluations. All of these students selected academic journals during both evaluations and eighteen or more students ($\geq 78\%$) selected academic books, academic and professional journals, Government/public sector documents and web-pages/web-sites.

Experience and activities used to support reading at Master's level

Question 2 (initial evaluation only): Students were asked which of the following types of experience and activities had helped them with their reading at Master's level:

- 1 Experience from Undergraduate courses
- 2 Experience from previous Master's modules
- 3 Learning Resource Centre (LRC) sessions

- 4 Experience of personal reading strategies
- 5 Reading in sessions

Students were asked to specify other experience or activities which had helped them or to indicate that they had not experienced help with their Master's level reading.

Number of respondents and main findings: Different types of experiences and activities selected by all twenty-four respondents are shown in Figure 1 below.

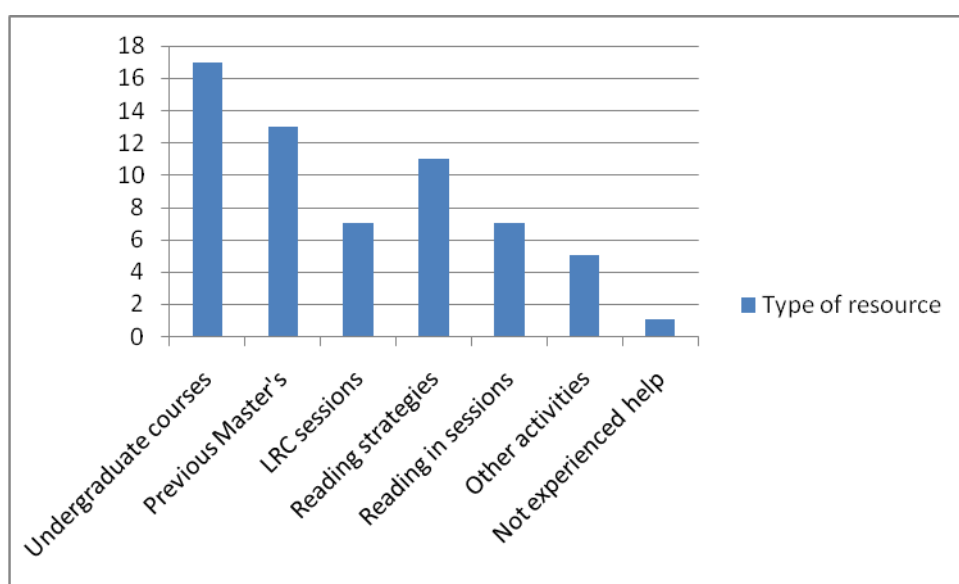


Figure 1. Number of practitioners selecting different types of experiences/activities, which had helped them with their Master's level reading before starting the module

Usefulness of CABLE Project resources/activities to support reading at Master's level

Question 3 (final session only): Students were asked how useful they had found each of ten resources/activities, provided during the module to support their reading (Table 1) using the following response categories: *very useful*, *useful*, *not useful* and *have not used* and to identify, if applicable, which one had helped them most and in what way(s) it had helped them.

Resource/activity		Support category		
		access	interact	share
1	How to access University of X networks from off campus with Virtual Private Network access	yes		
2	How to access e-journals from off site	yes		
3	How to access e-journals from your StudyNet Portal	yes		
4	How to follow up published research using Google Scholar	yes	yes	
5	Relating research literature to the module content/theme of Professional Development		yes	yes
6	Drawing out participants' perceptions on the use of narrative		yes	
7	Critical reflection: reading images – face-to-face session		yes	yes
8	Critical reflection: reading images – PowerPoint slides on StudyNet site		yes	
9	In session reading: same journal article – relate to key session concepts / experience		yes	yes
10	Using given quotations from a range of texts; discuss and complete chart to relate to experience and assignment		yes	yes

Table 1. List of resources/activities provided during the module to support students' reading and the support category

Number of respondents and main findings: Twenty-seven students completed at least part of this question and a minimum of twenty-four responses were provided for each resource.

Not all students had used all ten resources. The number of respondents describing the resources as *useful* or *very useful* ranged from 15 of 21 participants (71%) for resource 6, *Drawing out participants' perceptions on the use of narrative* (6 respondents selected *not useful*) to 17 of 18 participants (94%) for resource 1, *How to access University of Hertfordshire networks from off campus with Virtual Private Network access* (1 selected *not useful*).

Eighteen students selected one or more of the ten resources/activities that had helped them most. Two participants selecting option 5, *Relating research literature to the module content/theme of Professional Development*, commented as follows:

'helped to link theory with practice'

'forging the links between practice and the theory'

In terms of reading resources and support, one student commented:

'We've received good resources, handouts and things which they've worked on producing. Good when we've discussed texts critically – more reading'

Where the programme could provide additional support

Question 4 (initial evaluation and final session): Students were asked to complete the following statement: *In terms of my Master's level reading skills I most need additional support with...*

Number of respondents and main findings: Eighteen students identified areas for additional support during both evaluations. These responses have been categorised by the authors according to type of support (Figure 2).

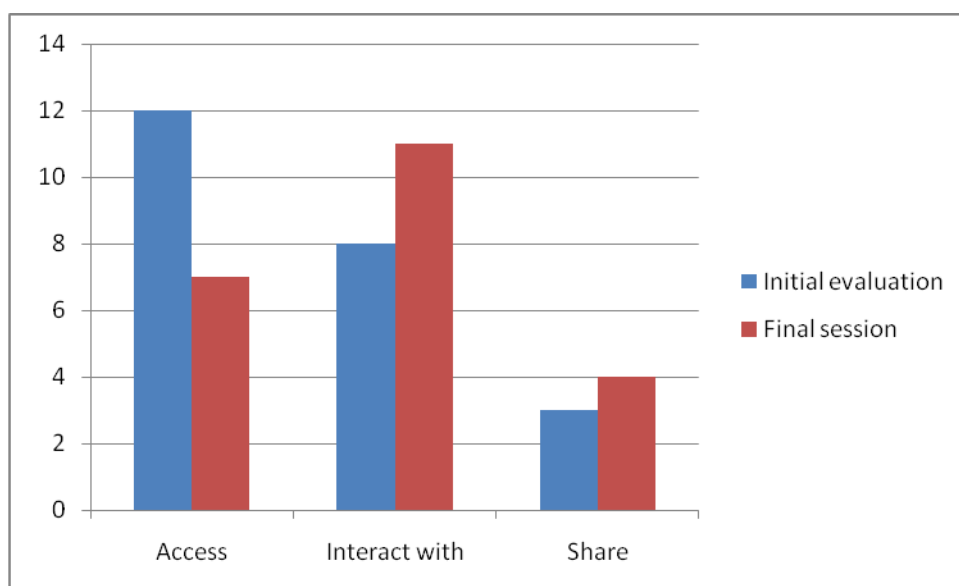


Figure 2. Number of students who suggested areas in which they most needed additional support in terms of Master's level reading skills categorised by type of support during both evaluations

Accessing reading materials: Issues cited by students included identifying sources of information, searching journals and using the university LRC.

Interacting with reading materials: Issues included critical analysis (suggested by five students), how to skim read and scanning for information.

Sharing reading materials: Issues included essay writing, laying out ideas and correct referencing.

Student comments about the programme development and reading at Master's level included the following:

'Very nice the way they care so much for the student voice and it's very valued'

'Demanding at the start but very useful to developing knowledge'

'I do feel more challenged + supported in my reading now – hopefully it can be reflected in assignment – still concerned I won't be able to discuss critically in assignment. All makes sense now – hopefully it still will when I type'

Discussion

Using a student-centred approach to curriculum development

It is now commonplace to involve students in various ways in course evaluations.

Questionnaires are widely used to rate the effectiveness of tutors, (Wagner 1999) despite some controversy over their reliability and validity (Simpson and Sigauw 2000). Moreover, the focus of such evaluations has for some time been tutor effectiveness rather than the nature and quality of the course itself (Marsh 1987). While there are recent examples of more flexible qualitative approaches being developed (Hendry et al. 2001) these still seem atypical. Student involvement typically comes at the end of a module and is fed back to tutors and managers in aggregated forms which restrict their value in contributing to the specifics of course development (Chapple and Murphy 1996).

In contrast, the project described in this paper provides an example of an approach to curriculum development, in which a student was *prospectively* engaged with teacher educators in programme development. The contribution of one student, a work-based learner, on a longitudinal basis throughout the project was supported by more usual 'cross-sectional' formal evaluation provided by the whole cohort of learners at the beginning and end of the module, as well as informally throughout. While student prospective engagement was of just one practitioner, they were encouraged, and given opportunities, to discuss the nature of the course, including the changes introduced through the project with their peers. The focus

provided by the student team member was highlighted as ‘most useful’ by one teacher educator during their reflection on the project and a student commented that they valued this ‘care ... for the student voice ...’. For some participants in the project team, this development might be characterised as team collaboration. However, those most directly involved in developing and teaching the module felt that the project team had developed a community of practice, in Wenger, McDermott and Snyder’s (2002, 27) sense of there being

‘a unique combination of three fundamental elements: a domain of knowledge, which defines a set of issues; a community of people who care about this domain; and the shared practice that they are developing to be effective in their domain.’

The student’s participation in the project was commended at progress reports at university wide events. This unanticipated outcome energised the project team and helped to maintain their commitment to a project that had to compete with other priorities at a particularly time-pressured stage of the year. The result was more and better quality learning resources.

Enhancing support for academic reading using blended learning

The importance of enhancing the support for students’ reading was reinforced by the evaluation findings at the start of the MPD module. These findings suggested that more students had received help with Master’s level reading from undergraduate courses than from previous Master’s modules, which included LRC sessions and reading in sessions. In the CABLE Project, emphasis was placed on the importance of providing support for *accessing, interacting with* and *sharing* Master's level reading materials through *blended* learning. As Jiang, Shrader and Parent (2006) noted, students tend to enjoy the ‘any time any place’ feature of e-learning, but tend to get frustrated without face to face interaction.

The students on the CPD Programme are education practitioners, mainly teachers in the early years of their career, whose work commitments and part-time, intermittent attendance on campus might limit their use of texts and similarly constrain their interaction with, and sharing of texts. This suggestion is supported by Williams and Coles (2007, 185-186) following their examination of the use of research information by UK school teachers. They report that survey respondents '...considered the most prominent barriers to their use of research information were associated with lack of time and lack of ready access to sources...'

Students who contributed to the evaluation presented in this paper identified some issues relating to 'access' in which they most needed additional support in terms of Master's level reading skills. Such issues were raised by two-thirds of the respondents, twelve of eighteen, at the start of the module, falling to just over a third at the end. In Salmon's (2000) 5 step framework, supporting learners to gain access to the information and communications technologies required for learning is the first step to which those who are running a course need to focus their resources, time and attention. Only when the learners have learned how to access the resources and technologies and can manage the skills for this in a confident manner can they then move towards the further stages of Salmon's model in which they can engage with the course content.

In a time of Web 2.0, the skills needed to access articles, discussions and scholarly debate concerning subjects, which are covered in the Master's CPD Programme described here, increasingly become more sophisticated and complex. Library visits to search for resources have been enhanced with access to e-books via the university course management system, search tools such as Google Scholar and social book mark sites such as [del.ici.ous](#) and [CiteULike](#). E-learning and information literacy skills are, as Roche and Martin (2006) suggest, essential ingredients of the academic literacies required by today's university

student. Resources and strategies developed during the CABLE Project supported students to use the technology required to access online resources as well as the skills needed to identify resources relevant to their chosen topic.

One example of the impact of student voice in this project was their articulation of the importance of necessary first steps that supported students' *access* to online resources, including the journals that were seen as central to developing academic reading skills. This countered the inclination of some leading team members to focus more on developing resources which supported students' *interacting with* and *sharing* of reading materials. The presence of a student in the project team was a constant reminder of the value of maintaining a focus on student needs, preferences and capabilities, rather than on developing overly complex learning resources. The student's engagement in the project helped to ensure that when it came to developing these resources, the focus on issues of fundamental importance to students was maintained.

The next stage of support provided in this project was for 'learner to content' interaction, one of seven categories of interaction suggested by Muirhead and Juwah (2004, 12), which '*...promote and enhance quality of active, participative learning in a learning environment*'. In the context of distance education, Anderson (2003, 4) has developed an equivalency theorem in which he suggests:

'Deep and meaningful formal learning is supported as long as one of the three forms of interaction (student–teacher; student-student; student-content) is at a high level. The other two may be offered at minimal levels, or even eliminated, without degrading the educational experience.'

High levels of more than one of these three modes will likely provide a more satisfying educational experience, though these experiences may not be as cost or time effective as less interactive learning sequences.'

Students contributing to the evaluation described in this paper raised some issues relating to interaction with the content of reading materials including a need for support for critical analysis, identified by five respondents. This suggests a form or component of 'critical reading' described by Wilson et al (2004, 1) as: '...the ability to learn from text, to think analytically and critically and to develop an ethical and reasoned position as a result.' From their study in which they used strategies to support students in developing critical reading skills, Wilson et al argue '...that critical literacy practices have to be developed on a longitudinal basis by integration across a course structure.'

Sharing academic reading materials, the third stage of support for reading in this project was a requirement for the students on the MPD module for example, in seminars, essays and an assignment. Mann (2000, 297) examined the experiences of reading in an academic context of undergraduate students and argues that:

'... the normally neutral or pleasurable private activity of reading is disturbed in the academic context by the potential for this activity to be made public through the various assessment activities which bound the student's daily reading life. When engaging in reading for academic purposes, students are no longer engaging in a private activity undertaken for its own sake, but in an activity whose evaluated outcomes will – crucially – tell them something about their worth in the eyes of others.'

More students in this project focused on a need for support for issues relating to accessing and interacting with reading materials than for sharing them, although these were identified by some respondents.

Linking theory and practice in the module

One of the resources developed in this project was designed to support students in relating research literature to the module theme, Professional Development. Students who selected this as the resource which had helped them most with their reading commented on the link between theory and practice, suggesting that this was an issue of significance to them. Initial Teacher Training courses in the UK have, since the 1980s, been characterised by an increasingly practical model of training in which the importance of theory has been reduced (Wilkin 1996), providing less engagement with theory than is the case in the rest of Europe (Judge et al. 1994; Poppleton 1999). As many of the module participants were graduates of this post-1992 university, it is also relevant that new universities and HEIs have been found to place less emphasis on theory-related work with students than did the old universities (Levy, 2001). The discourse of schools focuses on outcomes, supporting a technical-rationality in which academic reading has little value and it is not surprising that teachers place little value on academic theory (Pedder, James and MacBeath 2005).

Conclusion

Throughout the CABLE Project, the students' perspective on engaging with academic reading using blended learning was a central theme, and the project provides an example of the way in which a learner-centred approach can be taken to programme development. The resources and activities developed to support academic reading skills were also designed to promote the students' independence, confidence and engagement with literature. Students'

views were valued throughout the project as part of the process of identifying learning needs, developing and trialling resources and strategies to support academic reading, and as part of the ongoing development and evaluation.

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