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CABLE an approach to embedding blended learning in the curricula and across the institution

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ABSTRACT

The CABLE project developed a local process based on the Change Academy model in order to bring about significant curricular and structural change at the University of Hertfordshire, specifically to embed blended learning within the Academic Schools. Teams from six academic schools were selected to take part in the Change Academy for Blended Learning Enhancement (CABLE) scheme in 2006. The aim was to enhance the leadership and change management skills of 50 academic staff in order to effect sustainable change in curriculum design and to enable the staff to become change agents for further blended learning curriculum enhancement. Key outcomes from CABLE were the embedding of blended learning in six Academic School strategic business plans and an increased use of blended learning within academic programmes. The paper summarises the CABLE process and its outcomes, and evaluates its effectiveness. Participants including students have formed a thriving community in which good practice and transformative change is shared, supported and embedded. These aspects of the project are discussed further in the context of the cultural change required to fully embed changing practice across the institution.

INTRODUCTION

The education sector is exploring ways of using the opportunities that technology brings to enhance the student learning experience and there are many examples of successful implementations of e-learning. However, as the HEFCE strategy for e-learning[1] acknowledges, HE institutions have tended to use technology to support learning and teaching but not to fundamentally change their approach to learning and teaching. The HEA/JISC Benchmarking and Pathfinder initiatives were established to help HE and FE institutions tackle this issue. The University of Hertfordshire's Pilot Pathfinder project recognises the need to change learning and teaching culture across the University, so that blended learning is embedded within academic modules and programmes and e-learning is seen as more than just a supportive addition to the more conventional face-to-face teaching.

This paper describes the University's CABLE process, which was adapted from the Change Academy[2] process, and was developed during the Pathfinder project. The paper also summarises and evaluates the early outcomes from the project. The University of Hertfordshire (UH) has 24,000 students and 22 Academic Schools and is committed to the excellence of its learning and teaching. Blended learning – the integration of e-learning and more traditional approaches to learning – is at the core of its Learning and Teaching

[1] http://www.hefce.ac.uk/learning/elearning/
[2] http://www.heacademy.ac.uk/ourwork/institutions/change

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Strategy. The University has established the Blended Learning Unit (BLU), a HEFCE Centre for Excellence in Teaching and Learning, which is supporting and promoting this Institutional agenda.

THE BLENDED LEARNING UNIT

The university has an excellent infrastructure to support blended learning based on the institutional strategy of developing campus based Learning Resource Centres and maximising the use of digital resources. A major part of this strategy included a locally developed Managed Learning Environment (StudyNet) integrated with a student intranet which was implemented across the whole institution in September 2001. StudyNet provides a suite of tools to enhance teaching and learning by delivering course materials, communication, group work and assessment through a web browser.

The Blended Learning Unit was established in 2005 and comprises four core staff plus 12 Blended Learning teachers seconded into the unit for two days per week. These teachers are academics who continue to teach in their academic departments whilst contributing to the goals of the unit. This is an important aspect of the strategy at UH, to concentrate on a DIY (do-it-yourself) approach rather than a DIFM (do-it-for-me) approach, equipping all academic staff, teaching campus based students, with the capability to develop and implement blended learning themselves. The primary goals of the unit are:

- To remove barriers to e-learning
- To develop and implement blended learning solutions
- To disseminate and communicate experiences of using blended learning
- To evaluate the impact of blended learning and of the Blended Learning Unit

BENCHMARKING

An initial planned action to help meet the goal of evaluating the impact of blending learning was to measure the degree of implementation of blended learning across the institution. At the same time the HEA/JISC instigated the Benchmarking Programme'[3] which provided the opportunity to conduct an in depth study of the implementation and effectiveness of blended learning within UH to inform future activities and strategy of the Unit. UH adapted the ELTI methodology[4] for its benchmarking study. The benchmarking exercise demonstrated that UH has a sound e-learning infrastructure and that there are good examples of strategically aligned policies and practice that facilitate the use of blended learning. Furthermore the majority of staff have core ICT skills and are therefore equipped to incorporate a range of e-learning opportunities into their teaching practice. However the benchmarking also showed that there was significant variability in the ways Academic Schools approached e-learning and the degree to which e-learning enhances the student experience varies between Schools and within Schools. In general the implementation of e-

[3] http://www.heacademy.ac.uk/ourwork/learning/elearning/benchmarking
[4] http://www.jisc.ac.uk/whatwedo/programmes/programme_jos/project_elti.aspx

learning tended to be additional to the more traditional approaches to learning and teaching rather than fundamentally changing the approach to learning and teaching. The full report is available on the Blended Learning Unit web site[5].

The benchmarking exercise led to the Blended Learning Unit recognising the need to work much more closely with Schools in order to:

1. Influence the strategic direction in relation to e-learning and blended learning in the Schools;
2. Promote change in learning and teaching and to support the implementation of this change.

The view was that we needed to transform the approach Schools were taking to the implementation of blended learning and that we could achieve this through partnership between BLU and the Schools and through the adoption of a 'change management' approach.

The successful outcomes of the University's prior participation in Change Academy led us to consider the adoption of the Change Academy[6] methodology to achieve our aims. The Change Academy approach is centred on a four day residential event where teams from different institutions gather to focus on their individual projects in a supported and facilitated environment. Key aspects of the residential event are team building and sharing ideas and for teams to work on clarity of project objectives, assessing the options through divergent thinking, converging on a solution, applying project management and risk analysis techniques and most importantly planning to achieve the required change. The residential is supported by consultants and by events and workshops that facilitate the goal of achieving fundamental change.

The aim was to achieve similar outcomes but at a local level. The focus was on School teams working on projects which would lead to a change in their learning and teaching practice through the embedding of blended learning in a module or programme of study and to show sustainability of this change through embedding in School strategic business plans. This was to be achieved through partnership with BLU, through sharing amongst School teams and through the use of experienced facilitators with relevant expertise. Hence the idea of CABLE (Change Academy for Blended Learning Enhancement) was born, which was the basis of our Pilot Pathfinder initiative[7].

PATHFINDER: EFFECTING CHANGE THROUGH THE CABLE PROCESS

Effecting change is always a challenge and particularly so across large institutions. Trowler, Saunders and Knight (2003) argue that a rational and linear approach to change is simplistic and we would concur with this view particularly in relation to effecting changes in staff attitudes, skills and practices in learning and teaching. A change management process

[5] http://perseus.herts.ac.uk/uhinfo/info/blu/blu/resources/benchmarking-e-learning-elti/
[6] http://www.heacademy.ac.uk/ourwork/institutions/change
[7] http://www.heacademy.ac.uk/ourwork/learning/elearning/pathfinder

model has to have a framework but be adaptable to complexities in subject disciplines, the starting points of the people involved and the potential for resistance and the systems barriers within organisations and project teams.

Jackson (2007a), when reflecting on the Change Academy's approach to change, highlights the importance of giving people protected space to plan for changes and for this planning to be supported by skilled facilitation. Change is transformational, it will result in changing attitudes and often in staff working differently. There are challenges particularly with regard to time pressure and skills development. There can be justified concerns about academic quality, and staff familiar with their learning and teaching methods can feel unsettled and threatened by change. Students may also take a conservative approach to change. Change in practice inevitably involves risk and there needs to be a culture shift that allows freedom to experiment and to learn from successes and failures. It is not only academic staff who need to be involved in this shift but also management and support staff. BLU, through the CABLE project, aimed to effect transformational change in learning and teaching practice by focusing on a team in each of six Schools who were to be supported to build a groundswell of change which would influence the participating Schools and others within the university.

The teams typically involved seven people; a nominated team leader, a member of the School management team, a student and academics involved in teaching a particular module or programme. Some teams also involved support staff as appropriate. The first phase of CABLE involved 12 expressions of interest resulting in the participation of six Academic Schools, and over 50 academics and student representatives. These Schools have all included blended learning objectives in their business plans and are currently implementing the outcomes from CABLE for the benefit of their students in this academic year (2007/8). The CABLE projects are summarised in this paper and further details are available on the project web site[8]. The second phase commenced in September 2007 with 10 expressions of interest and a further five Schools participating in CABLE.

From a logistical perspective, it was not considered practical to have all six teams away from the university for a block of four days as in the Change Academy model. Therefore it was decided to make the residential component of the CABLE process a two day activity. This two day residential was more acceptable to the teams and had near full attendance. In order to ensure that all the components of the National Change Academy could still be included in the CABLE experience, there was greater engagement with the teams before the residential and after it. Spreading the engagement with the teams over time brought additional benefits. There was greater opportunity for planning and reflection and teams were able to adjust the time they spent on particular activities more easily than within a timetabled four day period. The time before the residential was used to host two types of meeting. There was a Team Leaders' Meeting at which the team leaders were orientated to the CABLE project and began the preparation to undertake their role, and then Individual Team Meetings, where teams were orientated to the project. Table 1 shows the structure and objectives of the Individual Team Meetings.

[8] http://perseus.herts.ac.uk/uhinfo/info/blu/blu/projects/cable-pathfinder.cfm

Objectives	Activity
Meet BLU Team members	Establishing links with BLU
Understand the CABLE project and process	Collage to establish initial identification of School project
Begin/continue team building	Exploring Belbin[9] role preference profiles
Divergent thinking	Participation in divergent thinking techniques
Existing capacity and staff development needs	Skills needs analysis: skills required and skills to offer
Residential event planning	Agenda, objectives and logistical planning. Questions

Table 1: Objectives of Individual Team meetings

The objectives of the residential event are shown in Table 2. As well as sharing ideas between teams time was given to skill development and project planning. The majority of the time was given to teams to develop their action plans with the support of a facilitator and ready access to local blended learning and staff development experts.

[9] http://www.belbin.com/content/page/49/Belbin_Team_Role_Descriptions.pdf

Objective	Activity
Provide an opportunity to share plans with other teams in order to gain constructive feedback and identify opportunities for working together	Initial project proposal presented as a poster. Other teams gave constructive feedback and offers of help and support as appropriate.
Continue the development of the team	Opportunity for teams to spend time together away from the workplace to work and to socialise. Facilitated meetings with Staff development team for detailed feedback on Belbin role profile data. Support for students to participate as full members of the team*
Continue staff development and identify further development needs	Facilitators and team leaders evaluate development needs through discussion and action planning.
Continue to develop partnerships between the Blended Learning Unit and Schools	Workshops and facilitated discussion.
Provide a range of opportunities and support to ensure factors that will enhance the likelihood of success of the project have been properly considered	Workshops and facilitated discussion, e.g. blended learning curriculum design, project and risk management and change management techniques.
Finalise team project objectives and produce a robust action plan that includes an evaluation strategy	Team time for action planning.

Table 2: Objectives of the Residential Event

Following the residential the CABLE coordinator played a key role in maintaining momentum, keeping in touch with teams and ensuring that any support needed was made available. The coordinator also undertook a monitoring role encouraging fulfilment of action plans and ensuring that synergies between teams (often between apparently disparate disciplines) were further developed. The coordinator also ensured that a degree of mutual support between teams was maintained, and that the facilitator and the BLU tutors who had worked with the team during the Residential Event continued to engage with the teams.

This extended engagement with the teams and the efforts made to facilitate networking between teams differentiates the CABLE process from the National Change Academy process as we were able to capitalise on the opportunities afforded by the local nature of the project.

At the Residential Event School Teams devised action plans with success criteria outlining the data and evidence required to judge whether the criteria had been met. These included activities such as stakeholder analyses, including focus groups of colleagues, managers, students and employers. It was important that changes affecting all these groups actually

met their needs and that there was a sense of ownership in these groups. The teams were encouraged to use the RUFDATA framework (Saunders, 2000), summarised in Table 3 to identify key success criteria from the outset.

Heading	Description (Saunders, 2000)	CABLE Description
Reasons & purposes	Planning, managing, learning, developing, accountability	To achieve transformative change through partnership between BLU and the Schools and through the adoption of a "Change management" approach.
Uses	Good practice, staff development, strategic planning, public relations	To identify synergies between Schools, develop change agents within Schools and develop collaborative links with other institutions.
Foci	Range of activities, priority areas	The need to transform the approach Schools were taking to Blended Learning implementation
Data & Evidence	Numerical, qualitative, observational, case accounts	School engaged in a range of activities including, stakeholder analysis, interviews with students, staff, managers and employers. Quantitative data via questionnaires. School reports constitute case studies of action plans for product and process outcomes.
Audience	Community of practice, commissioners, yourselves	Academic School, Institution, HEA, HE sector, subject centres and professional bodies/organisations.
Timing	When, where, project life cycles	Commenced October 2006, action planning phase complete June 2007. Roll out and evaluation ongoing. 2nd phase commenced in September 2007.
Agency conducting evaluation	Yourselves, external evaluators, combination	School teams, commissioned consultants

Table 3: RUFDATA Framework (Saunders, 2000)

AN EXAMPLE - TISSUE VIABILITY

The tissue viability (managing acute and chronic wounds and prevention of tissue damage for vulnerable people) team is a small specialist group of three. The team has an international reputation and a sound track record in student development including the appointment of at least six former students as Nurse Consultants in tissue viability, most of the specialist tissue viability nurses in Southern England as well as education and skills development for non-specialist nurses throughout the NHS and private sector. However

with changes and severe financial pressures in the NHS, training budgets have been dramatically cut which has had profound effects on the continuing professional development (CPD) for health care professionals. Therefore it became necessary to develop more flexible modes of engagement in CPD, increase student numbers and explore new markets. Also there was a desire to modernise the curriculum and explore the possibilities that new technologies could bring to student engagement. CABLE gave the team the opportunity to focus on these issues; to engage with BLU, the school management team, employers and students to identify how this could be done.

The core tissue viability team of three then expanded to encompass members of the school management team, a BLU facilitator and a student. The project plan defined objectives: design a flexible curriculum, develop skills in learning technologies and influence the strategic approach to blended learning within the school. The team engaged in CABLE activities such as divergent thinking techniques, stakeholder analysis, and curriculum design as well as skills development events. The team deconstructed an existing module delivered as a traditional face-to-face design into four smaller modules that used more learning technologies and which could be delivered face to face or as distance learning. Although on the face of it this may be seen as a modest development, in fact there is little capacity within the School for distance learning and the changes made to date have influenced the use of technology to enhance classroom based teaching in other areas and other distance learning modules are being developed. One output from the Tissue Viability team is a Student Induction DVD, which is being adapted for use across the whole School

EVALUATION

The CABLE project was about curriculum design changes and the initial stages of the project were focused on planning. The changes made are being rolled out in the academic year 2007/8 so only preliminary data are presently available. There are two strands to the outcome from CABLE: product (blended learning embedded within School strategic plans) and process (transformation in learning and teaching practice at School level, and the development of local change agents among academic staff). Specific changes include:

- Development of distance learning modules and other flexible learning systems
- Provision of continuing professional development (CPD) activities in ‘chunks’ smaller than traditional modules
- Development of a learning objects repository
- An increased range of learning technologies in use in all six Schools
- Employment of two additional learning technologists (linked to the development of on-line distance learning modules) with a remit for staff development in the use of learning technologies.

Pennington (2003) highlights the need for a robust project plan if changes are to be sustainable, and we believe that one of our key strengths was in having “robust project planning and project management”. School teams were enabled to have a clear vision of their project, encouraged to set targets, publicise outcomes and crucially were given freedom to explore and take risks.

A significant effect of CABLE has been the development of collaborative links with other Schools. Links were made with the other health related team (Health and Emergency Professions) who are developing CPD across a range of discipline areas, and in addition to the team have collaborated with the School of Art and Design to produce life like models for use in the classroom and also for filming wound management techniques. Links were also made with the School of Computer Science for support with some of the learning technologies.

There were challenges across all the teams, predominantly time pressures and initial uncertainty about the process. This uncertainty was an anticipated phase of the project as the teams were encouraged to avoid defining solutions at the outset and this divergent phase was anathema for many, as they tended to be in professions focused on problem solving such as health professions and designers. However evaluations at the end of the planning phase of CABLE indicated that with hindsight this approach encouraged more creative outcomes. The teams were allocated a modest budget for their projects and it was anticipated that this would mainly cover 'buy out' time for staff and funding of student input. In the event this plan proved problematic as workloads were fairly fixed before the project bids were submitted and several of the staff within the teams taught in very specialised areas where replacements were unlikely to be found quickly. Time pressure notwithstanding it became clear at a final awayday event that the teams reflecting on what they had achieved to date did have a sense that they had changed as individuals and that their learning and teaching practice had been influenced and enhanced by their team project. There was general consensus that there were considerable successes and that despite pressures and some low periods there had been a lot of fun and laughter.

Jackson (2007b) presents key features of teams that are likely to work well and those who may not; highlighting the need for teams to be properly supported, to have effective leadership and that teams must be fit for purpose. A preliminary step for CABLE was to have Belbin role preferences identified for all the team members. This initially was met with some uncertainty and cynicism from a few but was ultimately found to be useful. The Health and Emergency Professions team leader noted that it was important to have team members bring a range of skills and talents such as technical and creative skills as well as drive and enthusiasm. She noted there were no 'shapers' in their team but being aware of this was helpful and enabled the team to make good use of facilitators. Another team had a predominance of implementers and completer finishers and facilitation centred on enabling creativity and drive into the group.

Key issues from other School teams included a concern that blended learning was a substitute for face to face teaching. But outcomes from CABLE include the use of video as an aide memoir for classroom activity, on line tutorial support, active engagement in a staff/student blog and now a desire to develop Wikis within the School indicating a fundamental change in attitude to blended learning and more confidence among staff. Another team noted the increased autonomy that members felt in having individual aspects of the Workplan to focus on. This School has been able to compile a repository of practice exemplars, which is influencing practice beyond the team, indeed has led to workshops for staff in other Faculties. One team interviewed staff and identified a concern that academics were sometimes fearful of losing face and 'getting it wrong' in front of students and peers if

they used unfamiliar learning technologies. The team explored mechanisms of support, development of technology skills and how workload models could (and should) be adapted to enable time for skills and curriculum design development. One of the teams described CABLE as a catalyst and their enthusiasm and outcomes drew in other people in the School. Seel (2007) identifies this as "emergent change", in effect a critical mass affecting those around them which was a phenomenon recognised by all the teams.

It was clear that the residential event was key to establishing a shared vision and clear goals as well as a unique opportunity to spend time in a creative and supported environment where there was time to talk to colleagues and people in other disciplines. One group commented it brought 'realism' to the group and the plan became more focused. It was also beneficial for the development of closer links with BLU, which proved to be of mutual benefit as CABLE continues. One team identified CABLE as a catalyst for change enabling a "sustained professional dialogue" with both staff and students. They commented, "they (BLU) are good listeners and come out with realistic and workable suggestions", and are "providing pedagogical leadership".

Seel (2007) discusses the complexity of culture change and how changes are often not sustained. BLU is currently planning a third wave of CABLE and has maintained communication with Schools.

Some challenges have centred on institutional processes such as modular structure design, student registration and administrative processes involved in developing new modules. The core CABLE team ensured that such systems barriers were brought to the attention of senior management. Dialogue between relevant groups was encouraged which has led to amendments and simplification of process where possible; we have learned that including systems and processes is vital to ensuring sustainability. Most of the teams commented on the willingness of other people to help in developments particularly those involved in student administration, learning and information services and marketing among others. Relationships have been developed within and across Schools and departments, which have opened up collaborative links. The challenge for BLU is to co-ordinate this activity and maintain momentum. At this stage of the project process outcomes are tangible and in terms of transformative change are of much interest to this institution and the wider higher education sector. As one of the School Teams reported:

> The CABLE project has led to a review of support for blended learning in the Faculty with a recent decision to more than double the support for this learning within the Faculty.

Student involvement is an important part of CABLE and despite some initial reservations from staff, proved to be popular. Students appreciated being involved and were valued by the teams:

> As a student I found it interesting to see how much detail goes into curriculum design and how much the needs of the student are considered,
>
> We would be galloping along and our student would say, "hang on a minute" and you think that is so sensible – it kept us realistic

Blended learning is now explicitly within the CABLE participants' School business plans. There is a climate for change within the Schools and it is clear that the experience of change was positive for most of the team participants. This has proved infectious as 10 School teams bid to become involved in the second wave of CABLE (CABLE 2.0) at the University of Hertfordshire and we are currently planning CABLE 3.

In general the outcomes of the CABLE process include:

- Increased intra, and inter, School collaboration
- Enhanced partnerships between the BLU and Schools
- Fresh approaches to curriculum design encompassing learning technologies
- Leadership and project management skills
- Development of agents for change
- Synergistic approaches to staff development between the People Development Unit, and the BLU as well as enhanced working relationships with other institutional departments such as academic Registry, Academic Quality Assurance and Enhancement and Learning and Information Services.

A key outcome has been the personal journey of many of the participants. Initially there was some anxiety about workloads and the ambitious timing of the project. It is evident that staff are thinking differently and the initial enthusiasm for this project has been productive and sustained.

> Definitely a good experience to have worked through and helped me to develop new ways of thinking for me and of working with colleagues I didn't know from my teaching.

> I never thought we would do it, but I am amazed at what we have done, not sure what the students will think next year but I hope they appreciate the effort.

CONCLUSION

The CABLE project has attracted attention from the HE sector with many requests for workshops and support to explore our methodology. We have recently attracted funding from the HEA to run a CABLE Transfer process for four other institutions with external evaluation of the methodology and outcomes. Substantial partnerships have been established between BLU and Schools. BLU has deeper insight into the existing skills and interests of staff as well as the learning technology skill development needs of staff. This will inform BLU strategy and activities in years to come.

At a final 'awayday' for the CABLE teams in July 2007, Derek Morrison for the HEA observed in his weblog: "I was left with a sense of a dynamic project that had started to make that ever-so-difficult breakthrough of changing attitudes, linking to theory, and enhancing practice"[10]. A team member highlighted a key benefit from her perspective in a big School with a multiplicity of subject disciplines "I was part of an innovative project,… an opportunity to work closely and get to know other members of the School who you would not normally work with on a focused project".

[10] http://elearning.heacademy.ac.uk/weblogs/pathfinder/?p=87#more-87

There is much still to be done and we want to test the methodology in other disciplines and contexts. Adapting the well established Change Academy methodology has enabled a successful project. CABLE is a flexible and localised application, which facilitates an ongoing and long-term relationship with academic staff (and others) in order to influence and support curriculum design. This encapsulates e-learning technologies and the dissemination of good practice in blended learning enhancement.

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