

Developing blended learning in higher education – a case study of the University of the Highlands and Islands

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Abstract

This paper provides some editorial context for a suite of three papers, each of which focuses on pedagogical considerations at the University of the Highlands and Islands (UHI). The paper first identifies the distinctive characteristics of the University, its history, context and purpose. It moves on to explore a major initiative in blended learning at the University, entitled Curriculum for the 21st Century (C21C). Then it introduces the essence of the three articles, each of which focuses on specific elements of blended learning. The term 'blended learning' has different meanings and interpretations in different places. In this article we adopt the definition supported by the UHI academic council:

- A considered approach that selects from a range of traditional face-to-face methods and e-learning technologies to facilitate student engagement, develop independent learners and enhance the learning experience.

Introduction

Wednesday 2nd February 2011 was a momentous day in Britain's most remote and rural region. It was on this day that the UHI was created. The birth of the University was the culmination of almost two decades of endeavours which saw the designation of UHI Millennium Institute as a higher education institution in 2001 and the securing of Taught Degree Awarding Powers (TDAP) in 2008.

The University comprises 13 academic partners located across the region, from Shetland College in the north to Argyll College in the south west and from Lews Castle College in the Western Isles to Moray College in Elgin. The Executive Office is in Inverness and is responsible for liaising with partners in matters to co-ordinate academic activities across the region. These include:

- curriculum development;
- enhancement of learning and teaching;
- arrangements for quality assurance; and
- supporting the development of research, scholarship and knowledge transfer across the region.

The academic partners are all autonomous colleges or institutes tied into the University financially and constitutionally. Some are colleges of further education which offer significant higher education provision at undergraduate and postgraduate level and also have significant research operations. Other partners are small specialist teaching and/or research institutions. Academic partner principals or directors are, in the main, chief executives of their institutions accountable to a board, while two UHI vice-principals, two deans of faculty, a dean for learning and teaching and a dean for research – all of whom are employed by Executive Office – have a role in co-ordinating academic provision across the partners.

The University's Principal and Vice-Chancellor is ultimately responsible for the strategic development of the University and for the management and leadership of the Executive Office. The University Court consists of chairs of the academic partner boards and a number of independent members. This set of arrangements creates a dynamic environment for the development of academic and curriculum policy across the region. This is particularly so because all involved in the University have a public responsibility to:

- ensure that this unique institution continues to mature and flourish; and
- demonstrate how further and higher education can co-exist to provide a tertiary educational environment of excellence.

While UHI does not currently hold responsibility for further education, this is a significant and, in some case dominant, activity for some of the academic partners.

About UHI

The University has about 4500 full-time equivalent (fte) undergraduate and postgraduate students studying across the region, on higher national certificates and diplomas, ordinary and honours undergraduate degrees, postgraduate taught and postgraduate research degrees. Compared with the other Scottish universities, UHI has a higher proportion of mature and part-time students.

Drawing on strong political support and substantial funds from Highlands and Enterprise (HIE) and Europe through the European Social Fund and the European Regional Development Fund, the primary purpose of the University is to bring higher education opportunities to communities across the highlands and islands.

This in turn will:

- benefit economic regeneration;
- provide opportunities for community development;
- celebrate of the unique heritage of the region;
- provide a viable alternative for young people who may have traditionally attended universities in the central belt of Scotland, but who wish to remain in their own communities for their higher education experience; and
- contribute to an improved demographic picture within the region, particularly in relation to the number of young adults in remote and rural areas.

A recent research study commissioned by HIE illustrates this point;

“Currently the Highlands and Islands has 25% fewer 15 to 30 year-olds than would be the case if its population distribution mirrored the Scottish average. This equates to a ‘population gap’ of some 18,580 young people. The size of this gap varies markedly across the region, from a modest 4% in the city of Inverness to a sizeable 53% in the fragile areas of the Highlands and Islands.” (HIE, 2009:2)

A core purpose of the University is to make a significant contribution to addressing this population gap, particularly within remote and rural areas of the region. This is reflected in the current strategic plan, which states:

“Highlands and Islands Enterprise and other stakeholders see UHI as a major contributor in dealing with [challenges such as] increasing the population of the highlands and islands, creating a knowledge economy and high value jobs, assisting the creation of new and more ambitious businesses.” (UHI, 2008:5)

Learning and teaching at UHI

A major element of UHI's distinction relates to learning and teaching. The characteristics of learning and teaching within UHI today have had a long gestation. The key consideration here is what form of pedagogy is appropriate for **this** university at **this** time – how can you create a learning environment that enables students from across the whole of the region to have equal access to higher education study?

During the early stages of the development of the vision for UHI, Richard Hooper, a learning technology consultant, was commissioned to create a plan for the utilisation of learning technology at UHI. At the heart of his model of learning within UHI his vision involved:

“...the optimum method of mixing ICT-based and human tuition within open and distance learning systems.” (Hills and Lingard, 2003:76).

This principle informs the development of thinking about learning and teaching in UHI today. At the most basic level, the university has positioned itself part way between the Open University with strong emphasis on online approaches, and a traditional campus-based university, where face-to-face lectures and seminars are backed up by the use of a virtual learning environment (VLE).

Across the University, many students can study modules by:

- face-to-face tuition using video-conferencing, both asynchronous and synchronous;
- using local support; and
- using a virtual learning environment (currently Blackboard).

This mixture of pedagogies characterises UHI's approach to blended learning. The use of video-conferencing in particular enables small groups of students from remote locations to join together to form a single cohort for a module. There may be (say) two students in Shetland College in Lerwick, three

in Orkney College in Kirkwall and ten in Inverness College, all of whom are taught from one location by one tutor using video-conferencing, but with local support. This strategy enables students to undertake university study while based in their own communities.

These pedagogies are not without challenge. Later in this edition, Engstrand and Hall consider the student experience around the use of streamlined video recordings. Across the UHI partnership, and in particular in the larger partners at Inverness College, Moray College and Perth College, many students experience more traditional face-to-face teaching. This may be because cohort sizes are a disincentive for a blended approach, or because the subject requires a face-to-face experience. Many elements of aircraft engineering, for example, would fall into this category, as students require physical access to facilities and equipment.

The adoption of this form of blended learning is at the core of UHI's mission and vision. It is the pedagogical vehicle through which students can access higher education from their own communities without having to leave the region for other universities if this is not their wish.

Success factors

For blended learning to succeed, it is important that:

- staff and students work in an environment where there are powerful incentives to engage with blended learning;
- the educational arguments to support blended learning are clearly articulated and uniformly accepted at both policy and practitioner levels; and
- students are inducted into this approach to learning, both carefully and longitudinally.

This is sometimes complex in a constitutional environment consisting of 13 autonomous academic partners. The blended learning approach may be of more interest to students in remote and rural areas where it is the only way to access to the curriculum. Conversely, where there are students in urban areas, viable cohorts may mean that there are fewer incentives to encourage a blended learning approach. Many of these issues are being considered in the University's Curriculum for the 21st Century initiative.

Curriculum for the 21st Century

To take the UHI vision for learning and teaching forward, a dean of learning and teaching has been appointed to work with the faculty deans and academic partner colleagues to implement a transformational initiative entitled Curriculum for the 21st Century (C21C). In essence, UHI's mission is to:

- make higher education widely accessible across the region; and
- attract students from outside the region, from the rest of the UK, Europe and overseas.

The curriculum needs to be as flexible and accessible as possible; it must evolve to maintain its relevance to students and employers and remain cost-effective and of high academic quality. C21C is designed to facilitate the achievement of these goals by reviewing, restructuring and enhancing the academic portfolio and transforming the delivery mechanism.

C21C is not a short-term programme of activities. It is challenging to implement in all areas as it means working more collaboratively, both at institutional and subject levels. This includes, at its core, greater networking of teaching delivery and increased sharing of modules and units between multiple programmes (within schemes or cognate groupings of programmes). As well as changes in programme architectures and regulations, achieving C21C involves increased use of both existing and emerging technologies and methods to support curriculum delivery – this will require major staff development.

Benefits

The main beneficiaries of these changes will be UHI's students, and consequently their employers both within and outside the region. Our students will have access to a greater variety of learning opportunities and teaching styles which will involve, more often than not, teams of lecturers rather than single individuals. Students will benefit from the flexibility of a more modular curriculum and greater access to learning at a time and place which suits them.

Students will be able to select a programme of study that suits them from a wide variety of subjects, irrespective of their location or circumstance. They will have online access to high-quality teaching materials on a 24:7 basis. They will be supported and guided through these materials by lecturing staff who will be themselves supported by their teaching team colleagues, managers and technical staff. To a much greater extent than at present, students will have multiple progression routes available to them as they move from one level of study to another.

Because students will have access to learning materials they can study asynchronously (at any time) they will be able to learn at their own pace at a time that suits their personal and professional circumstances. Having gained in confidence and understanding from this flexible learning, students can make better use of timetabled classes with their lecturers – whether this is via the web, video-conference or face-to-face in the classroom, workshop or laboratory. They can, for example, come prepared with questions and answers from previous sessions. In this way the work the students do themselves will support and be supported by the learning that takes place under the guidance of the teaching team.

Depending on the nature of learner demand, and of the academic subject area, some modules or programmes may involve a high proportion of asynchronous study (even 100%). Other modules and programmes may retain a significant proportion of face-to-face, timetabled delivery. Whatever the blend of delivery models experienced by students, programmes of study, as a whole, will instil and develop in students a range of attributes, such as high level communication skills, that are appropriate for graduates. The use of technology to support and promote learning and work is highly relevant to many of these attributes.

Objectives

At its core C21C aims to transform access, choice and quality of student experience. It is designed to meet four objectives:

- to enable UHI to deliver as much of its higher education as is possible to all its academic partner campuses and, where appropriate, beyond. This objective focuses on the principle that wherever a student is based in the region, they can access most of UHI's provision;
- to enhance the learning experience by blending learning methods in a manner sympathetic to the content of the curriculum. This objective is concerned with the notion that the exact blend for any one module will vary according to the nature and content of that module. Some modules will need considerably more face-to-face content than others;
- to release staff time to provide space for reflection, scholarship and in some cases research;
- to eliminate duplication and deliver a maximum number of programmes as pathways sustained by a minimum number of modules and HN units and thereby to create greater efficiencies in curriculum delivery.

These objectives feed into two strategic purposes:

- enhancing the student experience via the concentration of resources, shared development, wider access, a broader range of approaches to learning and greater consistency and equivalence across the network;
- increasing the sustainability of UHI's curriculum and delivery via increased co-operation in the development and delivery of a more networked curriculum.

So there are both economic and educational drivers to C21C, but of these the educational driver is of critical importance.

Changes

The diagrams below summarise the changes which C21C will bring about. Figure 1. shows teaching staff at each academic partner teaching the entirety of a module or unit to the students in that partner. This means that not only are there often small classes, but each lecturer has to develop and deliver their own materials and there is often variability between the experiences of students from site to site.

Figure 1. Current situation

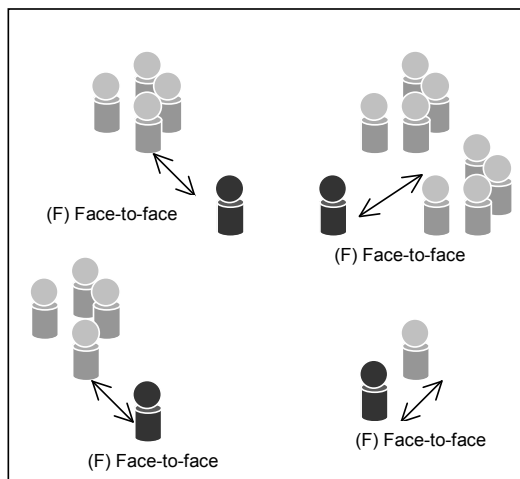
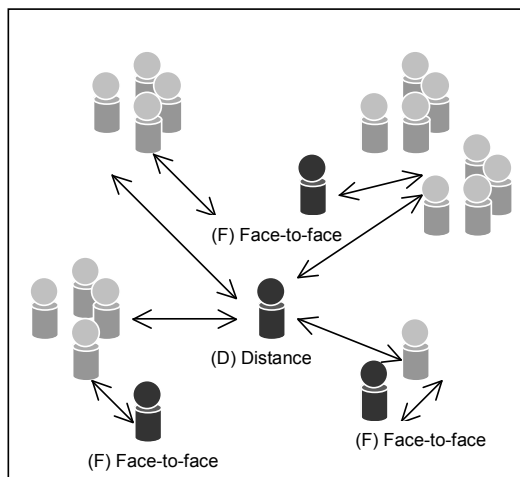


Figure 2. shows the revised situation. One lecturer may deliver certain parts of the module by distance means to all students, with lecturers in each partner delivering the remainder face-to-face.

The advantages of the revised situation include:

- greater consistency of experience;
- the ability to concentrate development resource on teaching materials;
- greater interaction between sites;
- a reduction in duplicated effort; and
- more sustainable class sizes for at least some of the module or unit delivery.

Figure 2. Revised situation



Activities

To realise these benefits there are three main strands of activity:

Rationalisation: The first strand involves the faculties working with academic partner managers, lecturers and others to produce rationalised schemes that make use of a greater proportion of shared units (HNCs and HNDs) and modules (degrees) to deliver the curriculum. These schemes will comprise both HN and degree programmes. They will form the core of a sustainable curriculum and be the focus of planning in the future. The curriculum at both HN and degree level will have many more common elements across the partnership than when compared with the current position. The migration of degree modules from 15 to 20 credits is part of this rationalisation.

Teaching materials: The development of teaching materials will enable the newly created common curriculum to be fully accessed from across the region. The faculties will work to develop teaching materials to transform a significant number of modules from across the curriculum into a blended format. A key aspect of this is that the teaching staff involved will be themselves developed (via a new online module in Blended Delivery) so that they will have the skills to maintain and further develop the modules that they are involved with. This is in addition to the implementation of shared practice for all programmes around such issues as assessment and the use of the VLE as a focus for student communication and information.

Detailed framework: A final strand involves further detailed work on the framework and its implementation. This will include modelling the implications of curriculum changes and funding reforms on income, developing service agreements for the various roles together with their funding.

Questions to ask

In many respects, the C21C initiative is a culmination of many years' work to create an appropriate pedagogical environment for higher education across the region. As with any initiative there are a number of areas to explore and questions that arise, such as:

- What is the student perspective on various elements of blended learning?
- How does this enhance or detract from the learning experience?
- What are the key pedagogical differences between face-to-face teaching in a physical environment and in a video-conferencing environment?
- How can blended learning be best fostered for subjects where there is a need to be based physically in one place?

In the three articles that follow in this edition, Engstrand and Hall focus on the use of streamed lecture recordings and how students use these as part of their learning. Summers and Douglas consider an approach to BSc computing students studying from remote locations. Murray provides a more longitudinal perspective on the development of blended learning, considering the development of a Masters level programme in professional development over many years.

References

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