



Creating the University of the Highlands and Islands

The LINC project

Learning in Networked Communities

Internal Evaluation Report – Executive Summary

Dr Liz Broumley, Dr Elisabet Weedon, Ms Ruth Nicol

LINC was an Adapt Project



Map of UHI Millennium Institute Academic Partners and Local Learning Centres



Final Internal Evaluation Report – Executive Summary

1. Introduction

The LINC (Learning in Networked Communities) project was one of the most complex Adapt projects in the UK; this 15-month project took place between April 2000 and June 2001 across the Highlands and Islands of Scotland. The project had eight objectives, which were, to:

1. establish community learning networks in the eleven UHI Millennium Institute (UHI) / Highlands and Islands Enterprise (HIE) areas
2. develop systems, processes and skills to support delivery of online learning through Local Learning Centres (LLCs)
3. undertake market research in each area to identify demand for learning in local communities and businesses
4. carry out marketing activities to stimulate demand and raise awareness of learning opportunities through UHI
5. enhance and develop a database of learning opportunities, to be integrated with the careers service and SUfl
6. trial a range of online delivery mechanisms for learning programmes in each of the local learning centres for a target of 530 beneficiaries
7. develop online learning resources for a range of existing modules from UHIMI degree programmes
8. evaluate and disseminate the findings from the programme

Despite the tight timescale the project made considerable progress on each of these objectives except the fifth, which was subsumed into SUfl activities and therefore ceased to be a LINC objective.

The sparse population and large distances makes physical access to tertiary education within the Highlands and Islands difficult, even with the network of academic partners within UHI (Munro 2001). The involvement of almost 50 local learning centres (some owned by UHI Academic Partners¹, some independent centres which collaborated with UHI for this project) brought access to learning closer to many within the region. The development of online learning opportunities also allowed people to access learning resources from work or home. The project enabled unique access to learning for local communities and thus contributed to key aspects of UHI's mission.

UHI Mission

To establish for the Highlands and Islands of Scotland a collegiate university which will reach the highest standards and play a pivotal role in our educational, economic, social and cultural development.

There were several constraints that impacted on the project achievements. The criteria to select Adapt beneficiaries, those who could benefit from the programme by taking part in the online learning, were defined by the Adapt programme itself and did not reflect the needs or economic realities of the Highlands and Islands region. The programme focused on Small and Medium-sized Enterprises (SMEs) therefore potential learners working for larger organisations were not eligible. To achieve the objectives in such a short timescale demanded an infrastructure and decision-making process that was being put in place as UHI developed and as the project got underway. This last constraint had an effect on communication and management within the project.

This summary outlines the achievements of the project, the lessons learnt and makes recommendations for future development of networked online learning within the UHI community.

¹ The Academic Partners are the Colleges and Research Institutions in the UHI Network.

2. What did the project achieve?

The key achievements of the project (related to the objectives) were the:

1. **Development/enhancement of community learning networks:** the LINC project enhanced the involvement of local UHI Academic Partners in the community learning networks in their region. (Objectives 1 & 2).
2. **Closer collaboration with Local Learning Centres:** These developments built on the established network of Local Learning Centres put in place by some of the Academic Partners. In addition several new collaborations were developed between the local college and independent Learning Centres and in two areas this collaboration has led to success in securing additional funding to develop opportunities initiated by LINC. (Objective 2).
3. **Initial assessment of the demand for online learning within the region:** The project has identified a demand for online learning ranging from short-course, FE level provision to full degree programmes. In addition demand was identified to use individual degree modules as Continuing Professional Development (CPD) by graduates. However there is a need for further investigation for the demand for online learning in the region. (Objectives 3 & 4).
4. **Access to new learning opportunities for the community:** The project gave a total of 288 learners (192 beneficiaries of Adapt funding) the opportunity to study one or more degree modules online (study time 15 weeks at 10 hours per week). Feedback from participants indicated that the opportunity to study locally was important. (Objectives 1, 2, 6 & 7).
5. **Development of online learning skills amongst UHI staff:** LINC gave staff an opportunity to develop two distinct sets of skills, those for creating online learning resources and those for tutoring online. These professional skills are essential for the development of UHI itself. Several of the modules created have been modified as a result of the LINC experiences and are in use now as part of full degree programmes. (Objectives 6 & 7).
6. **Greater understanding of the development and delivery of online learning:** The project identified administrative and organisational issues that are central to the delivery of high quality networked degrees. It has begun the process of identifying time and cost issues unique to UHI as an institution. It has confirmed key pedagogic principles necessary for both design and delivery of successful online learning that enable students to develop their skills as successful and (increasingly) independent learners. (Objectives 6 & 7).
7. **Measurable improvements in the operation/support for learning over the project:** The online LINC modules were offered over two semesters so it was possible to identify areas of significant improvements in the quality of the students' experiences, particularly with regard to induction, pastoral student support, technical support and completion rates. (Objective 6).
8. **Testing of two Virtual Learning Environments:** Virtual Learning Environments (VLEs) are an integrated computer-based learning environment which contains the learning resources, communications systems (both email and discussion boards) and student tracking systems. A variety of VLEs are available so the opportunity to test two, WebCT (which provides a fully integrated system) and Fretwell Downing (which provides detailed student management), was very valuable. Experiences showed a clear difference in favour of WebCT. (Objectives 6 & 7).
9. **Quality issues:** Significant progress has been made in identifying the quality standards that need to be in place in order to ensure that students have a positive experience and that staff are in a position to provide high quality academic, pastoral and technical support. The institutional infrastructure and regulations to ensure that UHI meets the external quality assurance criteria are benefiting from the LINC project. (Objectives 2, 6, 7 & 8).
10. **Evaluation and Research:** The final objective of the project, undertaking evaluation and dissemination, means that the lessons from the project were identified and are being used to inform ongoing developments within UHI. In addition these are being disseminated to local, national and international research audiences and in the process the profile of educational research at UHI is being raised. (Objective 8).

- 11. Development of new networks of staff within UHI:** This project has enabled a wide group of staff, from different functions within all the UHI Academic Partners, to work together. In so doing it has created new networks of people who continue to collaborate in a range of processes which are furthering UHI's development. (An outcome of the whole project rather than specific objectives.)
- 12. Short courses:** In addition to the opportunities for online learning a series of short FE courses (1 day or less) were delivered in local colleges or learning centres to a total of 582 people (438 beneficiaries). This was in addition to the original eight objectives but fitted closely to objectives 1 & 2.

Some of these achievements should be considered as the beginnings of a longer process rather than absolute finite outcomes of LINC. For example, the LINC project alone cannot create the quality assurance systems UHI requires for networked online learning, but it is making a significant contribution to these developments. The experiences of many of the staff involved are informing the course teams who are continuing the process of developing and delivering networked online learning. New initiatives on staff development and technical support have been implemented as a direct consequence of the LINC project. In the process of achieving the benefits listed from the LINC project a wide range of lessons have been learnt, which are also informing ongoing developments.



Columba 1400: One of the Local Learning Centres involved in LINC

3. What were the lessons from the project?

The LINC project enabled UHI to pilot both the development of community learning networks for Higher Education provision and the design, development and tutoring of online learning resources. A critical emphasis throughout the project was on the development of networks. These included: networks of Local Learning Centres (LLCs) and their staff, networks of tutors developing and tutoring resources, networks of students using these materials, networks of co-ordinators supporting the students and the learning centre staff and networks of those providing the administrative support to the project. In listing the lessons from LINC it is useful to examine what was learnt from each of these networks and to use this feedback constructively in the development of high quality online networked learning within UHI. It is important to remember, as background to this discussion, that 'online learning' is not necessarily synonymous with 'networked learning'. Online learning can involve independent learners using online resources with little or no interaction with others as part of the learning process, networked learning involves interaction with other learners and, in the case of UHI, often a range of staff from different Academic Partners. Both audio and video conferencing technologies can support this networking as well as Internet technology. However in the LINC project learning networks were created through Internet technology alone.

3.1 Community Networks

- The value of the project in relation to developing networks of Local Learning Centres tended to be greatest in those regions where the local Academic partner did not have a history of involvement with community learning or a network of their own learning centres.
- Local Learning Centres provided access to computer resources and face to face contacts with support staff and fellow students, which was very valuable for some learners. Learning Centres have an important role in enabling access and minimising the effects of a digital divide between those who have access to computer technology and those who do not (OECD 2001).

- The collaboration of LLCs did enable greater access for local people, and provision of local learning opportunities was an important reason for some of the students becoming involved with the project.
- The project would have benefited from more detailed knowledge of the demand for online learning, both in local communities and across the Highlands and islands as a whole.
- Feedback from LINC co-ordinators suggests that demand for online learning varies between local areas. Feedback from students and employers suggests there is a wide range in type of learning opportunities people would value, from short specific 'bite-sized chunks' on particular Information Technology (IT) applications to the use of degree modules for CPD, to full degree / postgraduate programmes.
- The LINC project suggests that UH online learning is attractive to a wide range of potential students, from those who do not have the conventional entry requirements for degree programmes to those who already have post graduate qualifications. This has important implications for both academic provision and student support.
- Many of the Local Learning Centres that took part in the LINC project were established relatively recently and gave different levels of service to their users, therefore there were considerable variations in the quality of support students might find at different centres.

Quote from a student about potential of online learning for rural communities

This type of learning opportunity is exactly what we need for people living in very rural communities. Face to face learning is great, if we can get it. More realistically though it's likely to be distance or on-line - with hopefully tutorial support within reach. This type of opportunity is vital if we are to provide rural communities with learning opportunities.

Quote from an employer about the potential of online learning

I feel that this type of learning is essential for people in the North Isles.

- For longer term collaboration it will be necessary to ensure that the technical and pastoral support is comparable across the network and meets agreed quality standards covering technical specifications, technical support, guidance and learning skills support. This has implications for support and staff development within the learning centres themselves. Thought should be given to providing online resources to support Local Learning Centre staff.
- Future collaboration with LLCs that are not part of the UHI network should agree the administrative and funding procedures before the start of the project.

3.2 Support Issues

A key theme that emerged from the evaluation was the support needed by all those involved in a complex innovation of this type. For the majority, whether project staff, LLC staff, academic staff, students or employers, LINC was pioneering work, a purpose of the evaluation is to learn from these pioneers and help to prepare others who are continuing developments. The LINC project has highlighted the types of support needed to move from pilot or pioneering phase into a more stable mainstream provision of online learning. The support provision outlined here is essential to create the high quality learning opportunities that are part of UHI's mission. Some aspects of this provision are unique to online learning, others are part of any good learning programme.

Who needed support and what support was needed?

Six key groups emerged as being critical to the way networked learning was implemented in this project. These are the:

1. academics who developed the online resources
2. academics who tutored these resources²
3. students
4. Local Learning Centre staff
5. LINC co-ordinators
6. project administrators

² In many cases 1 and 2 were the same people, but it is not necessarily the case that the developers of resources will tutor those resources.

To develop high quality online resources academic staff need:

- to be members of a module development team, which collectively have technical, design, subject and pedagogic skills
- sufficient development time for the whole process of planning (including survey of existing available resources), design, development, testing, modification, evaluation and final modification
- technical infrastructure, dedicated computer software and local technical and Virtual Learning Environment (VLE) support
- staff development in pedagogy for interactive online learning and in the specific VLE(s) being used
- formative evaluation of materials as they are developed
- agreed 'house style' for online resources, covering layout, navigation, page size, colours schemes, graphics and accessibility guidelines
- centralised support for copyright issues

Support for quality online tutoring involves:

- clear information on the induction students receive, the pastoral and technical support available to students and from whom
- staff development for online tutoring or e-moderating, which ideally would include experience of being an online student and the design of online activities
- appropriate timetable allowance to enable tutors to be effective online tutors, tutoring this way can be more time consuming than face to face tutoring
- technical infrastructure, including dedicated computer with internet access. (Where tutors choose to tutor from home connectivity costs should be reimbursed.)
- guidelines on turn around times for responding to student queries, giving feedback on online activities and assignments
- guidelines on encouraging and facilitating student participation online
- mentor / peer support from other online tutors

Students require

- integrated academic, pastoral and technical support
- institutional information including regulations, student handbook, study and support facilities
- induction into the VLE, technical skills required to use the VLE and advice about online learning skills
- induction for the online module, including module outline, assessment methods and timetable and integration of the module into the relevant degree programme(s)
- clear indication of what online tutoring they will receive and what is expected of them as online students
- participation in online activities aimed at helping to develop their interactive skills online
- regular e-moderating, to encourage student participation, facilitate academic discussion / activity online
- regular feedback on their contributions / work
- timely answers to queries
- timely and informative feedback on formative assessments
- guidance / preparation for summative assessments, for example advice on exam preparation



Student support at Strathcarron LLC

Local Learning Centre staff require

- technical support to ensure the infrastructure is robust and connectivity is maintained
- clear guidelines about the pastoral role they are performing for online students and how this relates to the support offered by academic and technical personnel
- where necessary access to staff development to enhance their skills in student support
- induction in VLEs and sufficient access to the learning resources students are using to enable them give helpful advice
- relevant information on UHI processes and regulations to enable them to advise students

LINC co-ordinators require

- up to date information about the demand for learning in the area
- prototype / demo versions of the learning resources which could be used in marketing / recruiting
- staff development in the online learning resources themselves
- speedy resolution of network issues affecting Learning Centres and / or students so that decisions can be disseminated and appropriate action taken
- administrative support to ensure that the relevant monitoring and quality assurance information is collected and returned

Project administrators required support from UHI itself, including

- timely decisions on issues of networked learning which affected the project
- continuity in managing a complex project

Within these different groups the support requirements cover technical issues, mentoring / staff development, peer support, administrative support and contractual issues.

3.3 Learning Online

Some students' comments on what they have learnt from LINC

A new way of studying

All new projects have teething problems

Computer confidence

Online learning is a good idea

The importance of an active tutor

Need to set aside time to study

Reminded me that I'm capable of learning

A new subject

Communication with other students

Need to put resources in place to deliver online

Broadened my knowledge

Skills that could help with job opportunities

Feedback from both students and staff provided valuable insight into the pedagogy of online learning and the value of using Internet technology to help overcome the isolation experienced by conventional distance learners. The real added value of online learning is the possibility of interaction with the tutor and with other learners giving students a more holistic learning experience. This connectivity can help to develop critical thinking through online discussions, enable students to help and reassure one another, clear up misunderstandings and enable the tutors to give timely feedback to learners. Online discussions comprise a form of 'courseware' which should be an integral part of the learning resources (Mayes 2000).

To achieve these benefits it is necessary to design online learning resources for **interactivity**, not just activity in learning. Students found the learning materials they used gave them plenty of information and activities to carry out individually, but many felt they would have benefited from greater interaction with fellow students and the tutor online. This interactivity can only be achieved through both

- appropriate design of resources and 'e-activities'
 - active participation by staff and students during the course / module presentation
- The latter point has serious implications for staff timetabling and therefore the cost of online learning.

Other key issues about learning online included:

- establishing realistic expectations about the participation required by both students and staff
- response times by tutors to online queries and assignments
- relation of course content and assignments to the learning outcomes of the modules
- staff development, including experience of online learning
- development of transferable skills (Personal and Professional Capabilities, PPCs) online

Many of the points listed under 'support issues' for both staff and students have a critical impact on the quality of the online learning experience. Implementing them will benefit both staff and students as UHI continues to develop online learning opportunities. The evaluation of LINC has suggested some fruitful avenues for further research into online learning, which will help to enhance the quality of learning online.



Example of one of the modules online

4. Recommendations for networked learning within UHI

In many ways the LINC project was exceptional in that the development and tutoring for the online resources did not take place within the normal degree management systems, which channel development and quality assurance through the course team. However, in other ways the project gave valuable insight into the quality issues that affect networked learning within UHI and the steps that will help ensure that there is comparability in student experience across the network and into the community. Recommendations based on these experiences can be grouped into five main areas; production of resources, staff issues, student administration, support for LLCs and the interface between UHI, the Academic Partners and the Learning Centres.

As a general caveat, planned development of online learning resources should be based on a clear UHI strategy for Academic Development and be informed by a greater understanding of the demand for degree level online learning, both in the communities of the Highlands and Islands and beyond.

4.1 Production of learning resources

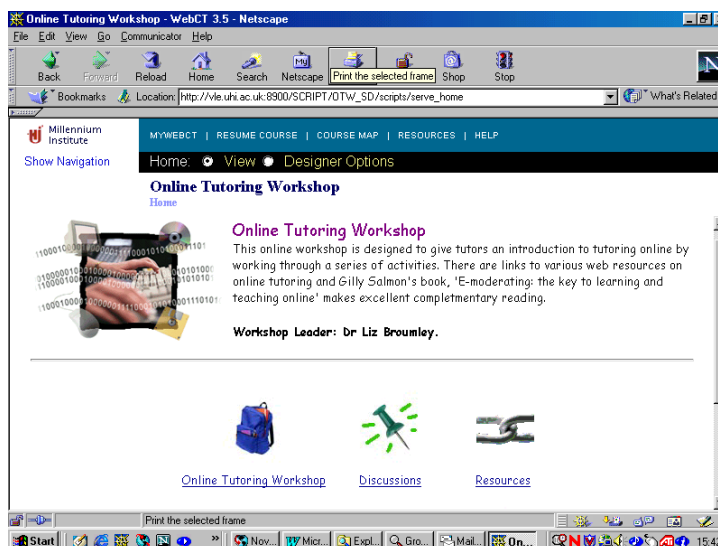
- Agree common standards for the development of online learning resources, which will cover technical specification, legal requirements such as copyright and accessibility, 'house style' and pedagogic approach.
- Allow more time for the development of resources, to include both investigation of existing resources, development of resources within UHI and evaluation of the resources
- Develop a robust procedure for evaluating resources, covering peer evaluation for subject content, pedagogic evaluation, evaluation of production quality and evaluation by both staff and students using the resources in situ. Consideration should be given into how sufficient time can be built into the production schedule to allow for this evaluation process.
- Give degree course teams a central role in development of online resources for their degree programme.
- Identify where (within the course team) the responsibility for modifying and updating the resources lies and ensure that time is available to carry out this process.
- Develop tutor guides for the resources so that the materials can be used easily by people other than those who developed them.

- Encourage the use of multi-skilled teams (with subject knowledge, pedagogic, technical and design expertise) to develop online resources.
- Develop a common core of resources for student induction / student information.
- Establish local technical support for the VLE for staff developing resources and tutoring online.

4.2 Online Tutoring

To help ensure the quality and consistency of student experiences across the network some consideration should be given to agreeing common:

- staffing standards for online learning, covering contractual issues such as time allowance for online tutoring and the number of students supported
- recommended response times to emails, discussion groups and assignments for those tutoring online
- levels of technical support for staff, including access to computer infrastructure
- pedagogic support / advice for online tutors
- provision of mentoring or peer support across the network
- staff development for those developing resources and / or tutoring online (where possible this staff development should be conducted online)



An online staff development workshop in online tutoring developed as a response to the LINC findings

4.3 Student Support and Administration

In order to address the issues that arose from different student administrative procedures in the Academic Partners and to ensure consistency and quality in student support the following are recommended:

- integrated technical, academic and pastoral support using both online and face-to-face provision
- common UHI application / admissions procedures
- agreement not to enrol online learners after the start of the module
- issue of user IDs and passwords in time for the start of the module
- common comprehensive induction, covering information on the institution, support arrangements, degree regulations, module requirements and assessment and the VLE
- central technical support for students through a telephone help desk
- information for students on the support systems available in their own Academic Partner
- common Student Information System (SIS)

4.4 Local Learning Centres

Provision of degree level learning opportunities through Local Learning Centres provides a useful access route for some, particularly those who might be classified as 'non traditional' learners'. To support both the students and the Learning Centres it is necessary to have:

- clear guidance on the role expected of Learning Centre staff and information about how this relates to other types of student support
- access to library and other academic resources
- appropriate information about UHI degree regulations and the administrative arrangements students must comply with

- relevant and accessible staff development resources for staff within the Learning Centres to enable them to develop their professional skills
- relevant training in the use of online materials and the operation of the VLE
- formal agreements on provision of services, support and payment for those Learning Centres which are not part of UHI Academic Partners in place at the outset of any collaboration

4.5 Interface between UHI, Academic Partners and Learning Centres

The external evaluators (Nicol 2001) examined the interface between UHI, the Academic Partners and the Local Learning Centres in more detail than the internal evaluations. However it is clear that some of the lessons for networked learning outlined here impact on the relationship between the individual colleges and the collective body that is UHI. In order to learn from the LINC project it will be necessary to develop some UHI-wide agreements and by so doing mechanisms for quality enhancement of networked learning will be strengthened.

Conclusions

Even before the LINC project ended there was evidence that some of the lessons of the project were being applied. Feedback from staff and students informed the staff development of others creating online learning resources; induction for students improved significantly between the first and second student cohorts; information to and liaison with the LLCs developed and in some areas has led to ongoing collaboration. UHI is now running some staff development workshops for online tutors online and is using technology to provide mentoring support across different parts of the network. Other recommendations from LINC may take longer to effect, however the process of undergoing this project could have significant outcomes for the quality of online provision within UHI and its involvement in and responses to its local community. To ensure that UHI further improves its provision for online students, and works towards achieving its mission of wider access to quality learning provision, it is necessary to continue to evaluate online learning holistically, using feedback from staff, students, external examiners and the local community.

The achievements of this 15-month project are a tribute to the professionalism of staff working on a very ambitious project within a very tight timescale. The lessons of the project provide a valuable basis for UHI's further development.

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LEARN Reflective Practice Unit
UHI Millennium Institute
Perth College
Crieff Rd
Perth PH1 2NX

Tel 01738 877761
Fax 01738 877018

Email
liz.broumley@perth.uhi.ac.uk
elizabet.weedon@perth.uhi.ac.uk

