

<b>Cover Sheet for Proposals to Circular 05/06: Learners Experience of e-Learning Programme</b>	Bid for an: B) Institutional Studies project;
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**Name of Institution/Organisation:**  
University of Warwick

**Name of Partners**  
University of Northumbria

**Name of Proposed Project:**  
*Students' Blending Learning User Patterns (BLUPs)*

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**Length of Project:**  
24 months

**Project Start and End Dates:**  
Start Date: 01/03/2007 End date: 28/02/2009

**Total Funding Requested from JISC:**  
£79,748

**Funding Broken Down over Academic Years:**

Mar – Jul 07	Aug 07 – Jul 08	Aug 08 – Feb 09
£12,631	£41,729	£25,387

**Total Institutional Contribution:**  
£32,417

**Outline Project Description**

The proposed study has two components. Firstly, it will examine the ways in which new undergraduate students blend the modes of learning available to them, both from the personal domain and the institutional domain. Secondly, this information will be used to inform institutions and staff about how best to draw on these approaches to support their teaching and the students' learning.

The project's research methodology is designed to provide an opportunity for students to conduct research and disseminate their findings. This is in line with research-based learning approaches that are prevalent at Warwick. Throughout the project, it is intended that students are not passive subjects but full research participants, developing skills of reflection and critical analysis of their learning approaches. This enables the student body to influence institutional support it receives by making explicit the kinds of skills, experiences and the requirements based on their learning preferences and behaviours.

The project deliverables will be highly practical in that the information on learners' experiences of blended environments will indicate the preferences, intentions and behaviours in using the range of tools and environments at their disposal to communicate and learn. In so doing, this generates not only a set of 'user requirements' for provision of e-learning environments, but also may highlight strategies for tutors and institutions for delivery of student (and staff) support services.

# Students' Blending Learning User Patterns (BLUPs)

## Introduction

The focus of the proposed project is to identify the ways in which new undergraduate students *create* a blended environment for themselves, and the ways in which institutions and practitioners can use these blending preferences and behaviours in tailoring their provision for teaching and learning support.

Students' "blending" of learning is a mix of activities drawing on informal and formal learning environments as well as previous experiences and current conceptions of learning (and e-learning). The initial scoping study, investigating learners' current experience of e-learning and their needs and expectations for the future, demonstrated the high complexity of the context for research in this area. The student body one needs to draw on is increasingly diverse, the tools and technologies at our disposal are ever-evolving in sophistication and the opportunities to communicate and learn in different ways are growing with alarming speed. Even for so-called 'expert' learners, these changes can be disconcerting. For novice e-learners, it can result in disadvantage and exclusion (as they can feel 'left behind') rather than equality and inclusion. There is therefore a need to ensure students are supported to continually update and admit new approaches.

Students' learning activities require them to blend provision and experience across a wide range of physical and virtual dimensions. Interviews with half a dozen first year students (full and part time, UK and international) have been conducted in preparation for this proposal. These interviews indicate that students prefer to use their own choice of technologies, such as MSN, because they can be integrated with their existing extra-curricular activities, and the activities of their peers outside the education system. University systems are then added onto these platforms but can remain peripheral. The degree to which this is representative of students is, at this stage, highly conjectural, but these results do demonstrate that blending of various virtual and physical environments is a process that students actively undertake.

In this sense, e-learning innovation can often be in conflict with students' own behaviours and capabilities. The project adds a key dimension to the JISC programme, because it will examine the ways in which students' use of technology in the institutional domain relates to their other learning experiences and how it fits around their lives and jobs. The designers of innovative learning and teaching in 'piloting' particular e-approaches must take into account the ways in which students 'naturally' use technology in everyday life as well as in their approaches to study, assessment and interaction with peers and tutors. How better to improve the experience for students than to encourage tutors to adopt their students' preferred reflective and communication platforms. An understanding of the broad matrix of the variety in students' preferences and skills development needs is likely to foster reflection on existing learning designs.

The proposed work builds on Warwick's and Northumbria's longstanding reputation for excellence and innovation in teaching and learning. Through the evaluation of new pedagogic initiatives in academic practice and student learning, the proposed study seeks to identify student and staff needs and recommend solutions to inform support provision in central services and academic departments.

## Project Description

### Aims and objectives

The proposed study aims to explore the ways in which students blend the types of learning available to them, both from the personal domain and the institutional domain. This information will be used to inform and make recommendations to institutions and staff about how best to draw on students' experiences to support their learning. While the research will focus on first year undergraduates, it will aim to include in the sample both 18 year old and mature students, and both full time and part time students, representative of the diversity that exists on any one programme of study. The project will provide information about the various tools and environments, as well as adaptations to these, which students use to communicate and learn, and will suggest strategies for making effective use of "typical blending patterns" for course design and support requirements.

The project will gather information on preferences, intentions and behaviours in 'blending' learning resulting in a set of '*typical use patterns*'. While the research methodology underpins a qualitative and holistic view, the project will particularly focus on how students engage with collaborative work, personal

development planning and support services. Where appropriate, this will be correlated to specific characteristics of learners, such as cultural background, language, gender, subject discipline, disability and so forth and drawing out factors such as access, IT confidence, study skills and information management. The outcome will be a set of case studies based on prevalent 'patterns' of choice and behaviour and the characteristics and factors that may influence tendencies towards such practices.

Working in partnership with students, learners' expressions of their own blending process is likely to be highly empowering in enhancing engagement with e-learning components of their courses. The research methodology will endeavour to take a 'naturalistic' approach, resulting in "purposeful samples" rather than purposeful sampling. By identifying a set of 'patterns' of blending, based on the beliefs, intentions and strategies of students, tutors and academic support services are in a better position to undertake the necessary "gap analysis" in training and development. In so doing, the project's research questions contribute to a number of those identified in the scoping study review.

### Research methodology

The following factors are likely to influence the approaches students take for their study:

- informal and formal learning
- previous experience and current experience.

In addition, students' blending of learning is likely to draw from a matrix of learning environments, such as those represented below:

	<i>Physical environment</i>	<i>Virtual environment</i>
<i>Institutional</i>	Library, Collaborative Learning Spaces, common rooms, learning cafés, placements	VLE, web pages, blogging systems, e-portfolios, online tests, student portals
<i>Personal</i>	Bedroom, kitchen, café, workplace	MSN, MySpace, Hotmail, Bebo, Instant Messaging, SMS/MMS

Together, these represent both opportunities and challenges/threats in the transition that new undergraduate students experience in starting university. Not only have their institutional physical and virtual environments changed, but (unless they continue in the parental home) so have their personal physical ones. The only constancy may be their personal virtual community. The experience that students bring of blending their various environments, and the influence these established communities and practices have on their current learning, is also a factor in their university education.

The project supports the research questions put forward in section 21.2 of JISC Circular 05/06 in many ways, and focuses predominantly on the issues of *choice*, *personalisation* and *critical moments*. However, it is highly likely the work will have implications for institutional *policies* in terms of student and staff development and tutor support, and institutional *systems* in terms of integrating tools used in the personal domain but currently outside the systems that support the formal curriculum.

We propose to examine:

- ◆ What tools and environments, physical and virtual, are students using that they feel are especially useful to their learning?
- ◆ What did they use them for, how did they combine them and how effective were they perceived to be? What other types of physical or virtual tools or environments would have been useful and why?
- ◆ What influences their choices as to which options they select or omit (e.g. working at home or University, working with University-provided platforms or other platforms, working in virtual groups or physically-present groups)?
- ◆ Have the students changed the way(s) they use tools and environments since commencing university? (If so, how have they managed the transition of these blends from pre-University to undergraduate study?)
- ◆ What are their expectations of how their learning will be facilitated at university? Are these being met? How could the university/department do more within these areas to facilitate the students' preferred modes of blending of their learning?
- ◆ How do staff and institutions draw on this information to enhance their services to students and staff/educational development?

The methodology employed for this project is Interpretative Phenomenological Analysis, which supports the “naturalistic inquiry” approach recommended in the Scoping Study. This methodology has been selected due to its appropriateness for a study that is taking a grounded approach to a field that is largely unresearched, and is predominantly investigating the perceptions and intentions students have of their activity and their experiences of blending learning. It is not possible to determine from our sample how representative they are of the entire student body. However, they offer a flavour of the kinds of ways in which students are blending tools and environments at their disposal.

The study will not make pre-selections based on the types of technology used, since the nature of the investigation is to identify the range of technologies that *students* choose themselves. A full range of technologies will be considered, however, since the absence of use of a technology (for example, e-portfolios) may reveal as much information as considering those technologies that are used.

The students involved in the study will fall across the two participating institutions and engage in the work in three main ways:

1. *Broad based interviews involving 40 first year undergraduate students per year*

A cohort of first year undergraduate students will be identified and will engage in a series of semi-structured interviews conducted by the project officer. The goal of these interviews will be to determine the range of approaches that students have taken or intend to take in blending e-learning tools and physical and virtual environments to support their learning. The interviews will include questions around the factors influencing their choice of learning activities, the adaptations/changes made to their study strategies in the light of experience and what they perceive the institution could do to improve physical spaces and virtual learning environments and use of information and communication tools.

2. *Intensive study documented through reflective web logs*

From the main study group, 6 students per year will be recruited to form a core group who will be asked to log their activities through a blog, and communicate about their experiences through a platform of their own choice. The students will also take part in tutoring activities with the project staff, demonstrating their personal technologies and the way in which they are used. A specific aim of this selection process will be the inclusion of special needs students and international students as these are two groups whose support needs are of particular interest.

3. *Research-based study*

Two students per year will be contracted to work as researchers on their own in-depth study, as far as possible under the aegis of Warwick’s Undergraduate Research Scholarship Scheme (URSS), an annual competition. Students on the scheme are appointed a mentor and work over the summer months on their own research, producing a report and disseminating the results in a number of ways, including a poster and presentation at an annual event supported by the HE Academy to which academics from across the UK are invited. The specific nature of their study will be negotiated with the individual student, but its general remit will be to conduct a survey of their peers, and to recount their own and their peer groups’ experiences of blending learning.

Since, ethically and pragmatically we can only ask for volunteers in the study, the students participating is inevitably likely to be a self-selected sample. Efforts will be made to ensure that when selecting from the above set to form the intensive group, variations in IT literacy and faculty are represented as far as possible, although recognising that, to an extent, the self-selection process may inevitably bias the cohort towards those experienced in ICT.

There will be a pilot cohort in year 1 (Mar 07- Jul 07) and a study cohort in year 2 (07/08 academic year) that will aim to establish an initial typology of students and students’ blending patterns that can be applied and reviewed in future cohorts and test out sustainability of the research methodology.

## Project activities and plan

The project will be conducted according to the following phases.

*Phase 1 Literature Review*

A literature review will be conducted identifying the current state of knowledge with respect to:

- Students’ blending of learning
- Linking service provision and teaching to the student experience.

*Phase 2 Engaging with student cohorts*

- Identifying the students within the cohorts.

- Setting up the Research Scholarship study in collaboration with the students.

#### *Phase 3 Conducting the survey*

- Conducting interviews with the students.
- Observing and analysing the records students keep of their activities.
- Inviting students to demonstrate the learning environments they use

#### *Phase 4 Interim conclusions*

- Creation of interim guidance notes and workshops.
- Refinement of research questions and methodology.

#### *Phase 5 Second iteration*

Student engagement and survey will be conducted with a new cohort of students using the refined research questions and any developments necessary in the research methodology. This cohort will be engaged throughout one entire academic year.

#### *Phase 6 Conclusions*

- Final conclusions of the analyses from both years will be created
- Both years of students will be invited to comment on the project and the research findings.
- Creation of final deliverables.

#### *Phase 7 Dissemination*

The dissemination activities outlined below will be undertaken.

## Deliverables

The deliverables stem from the research findings, providing a picture of typical use patterns of students' blending preferences and behaviours as well as a synthesis of evidence that can inform:

1. Institutions when developing systems, tools and environments
2. Academic staff and educational/e-learning developers when designing e-learning
3. Students when developing study strategies

The outputs from the project will include:

- **Literature review**
- **An analysis report** from the interviews with students identifying preferences, intentions/strategies and behaviours
- **A set of case studies** formed from the intensive study group and offering examples and background to some typical use patterns
- **Research reports** from the students undertaking URSS type projects.

These will be synthesised to create **guidelines** for individual staff, academic departments and institutional student support centres (e.g. Warwick's Learning Grid, Northumbria's Library and the Study Skills Centre) on:

- how to support students' blending of learning,
- how to draw upon students' own resources for developing learning
- how to incorporate students' own blending of learning in service delivery.

Recommendations for future strategy, planning, staff development and student study skills support based on the evidence of students' preferences and practices will be a key output of the work. In terms of outcomes of relevance to the community, it is anticipated that the findings of the project and above deliverables, which draw upon these findings, will offer evidence and advice in terms of the following:

- best practice in blended learning design for teachers and how to build in appropriate quality assurance mechanisms
- the pedagogical and technical infrastructure needed for blended activities in courses
- the kinds of self-directed and interactive learning by students involved in blended approaches to study
- typical use patterns derived from the interviews and detailed case studies developed during the project
- guidance on the assessment of student learning from blended activities and the evaluation of the effectiveness of skills development
- the kinds of training and advice that can be offered locally in staff and student development support centres, and nationally through the activities of the JISC and HE Academy.

## Dissemination & evaluation

All of the deliverables will be made available to the JISC community free of charge. The project will seek to embed the learning from the study in the following ways:

- ◆ Create a BLUPs project website where documents and reports, guidance and case studies will be made available. <http://go.warwick.ac.uk/cap/landt/eddev/projects/external/blups>
- ◆ Undertake staff development through the usual accredited and non-accredited institutional programmes and advisory/collaborative contacts.
- ◆ Workshops on the service delivery perspective will be incorporated into a series of one-day seminars already operating in the Library to disseminate the work of the Learning Grid at Warwick.
- ◆ The implications for teaching will permeate into the debates and innovations that take place within the institutions' staff development programmes and innovation/enhancement projects as well as the M1/M69 regional group of in-house service providers.
- ◆ A representative of the project team will participate in the relevant JISC pedagogy group meetings, joint programme meetings and dissemination events and the continuing work will be communicated across JISC projects community and to other organisations such as Regional Support Centres and the HE Academy.
- ◆ Collaborate with the JISC and HE Academy to create and make available to the community a series of briefing papers and workshops based on the guidelines to staff, students and institutions.

The latter will be done at an early stage as well as towards the end of the project. In so doing, it provides an opportunity for "review and respond" of the findings against practice elsewhere, and is an integral part of the project's evaluation strategy.

As part of the general research methodology, the project will be reviewed and monitored by the Advisory Group with regard to the effectiveness of its methodology and management.

## Key Personnel and Project Management

The University of Warwick will act as lead site and will have responsibility for the overall management and delivery of the project, including the planning of outputs, deliverables and milestones. The **management team** will consist of Co-directors, one in each partner institutions, Dr Jay Dempster, Centre for Academic & Professional Development (CAPD) at University of Warwick and [Dr Deborah Goodhall](#), and a Project co-ordinator (Mark Childs, CAPD). The Project Officer will be based in the lead department. The project directors will report in the usual ways on teaching and learning and e-learning to their respective department and institution.

A **project advisory group** will be established at an early stage to ensure representation of the project throughout the funded period and beyond and to draw on expertise elsewhere. The group will meet annually, but briefings and input are likely to be predominantly online. The group will be comprised across both institutions of the Project Directors, heads of student and staff development, IT and Library services, CETL directors, and student union and academic staff representatives. It will report to e-Learning Steering Group, and liaise with Student Liaison Committees and BECTa, as well as other JISC projects, to take account of existing or planned student surveys that are of relevance to the project's research. Given the rapid changes in information and communications technologies, this will help to facilitate future research and build on lessons learned to inform and sustain knowledge transfer as on-going institutional practice.

The project is a collaboration between the University of Warwick and Northumbria University and will form a partnership between academic development departments, learning resource departments and academic departments, as well as links with CETLs at the two institutions. Both institutions have a strong profile in pedagogical innovation and e-learning (see Appendix 1).

The Centre for Academic and Professional Development (formerly Centre for Academic Practice) at Warwick, in a strong position to lead the proposed study. The Centre and the proposed Co-Director, Dr Jay Dempster, has a long track record of managing and delivering on educational development work and e-learning related projects. Brief CVs of key personnel in the management and advisory team are provided in Appendix 2.

This project management structure aims to minimise the risk of slippage by ensuring full engagement within the institutions. A risk assessment is outlined in Appendix 3.