Making it different: a blended learning pilot project with first year geography undergraduates

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Abstract

Internationally, recognition is growing that the transition between second and third level education is raising a number of challenges for both students and educators. As class sizes grow, resources become more constrained and the expectations of the 'ipod generation' are transferred to the educational environment, the context of university teaching and learning is being transformed. In recent years, there has been a growing realisation that not all students learn the same way, a diversity of learning styles is very often visible within the one student group and therefore longstanding approaches to undergraduate education might not be ideal for all students (Young, 2002). Within this context, modes of instruction that cater for different paces of learning and learning styles by combining 'traditional and electronic media to cater for the "net generation" (Mohanna, 2007) have become increasingly important. This paper discusses the transformation of an introductory human geography module at University College Dublin (UCD) designed to promote variation in and facilitate a diversity of teaching and learning approaches. It highlights the important issues raised at the design and delivery stages, and assesses the potential to embrace and expand on current understandings of blended learning. Our understanding of blended learning, more broadly applied than in much of the literature, allows us to move beyond the strictures of other popular approaches like problem-based learning (Spronken-Smith, 2005). We argue that blended learning offers a way of drawing on recent initiatives, particularly in terms of enquiry-based learning, within the confines of growing resource restrictions and changing student demands.

Introduction

Internationally, recognition is growing that the transition between second and third level education is raising a number of challenges for both students and educators. As class sizes grow, resources become more constrained and the expectations of the 'ipod generation' are transferred to the educational environment, the context of university teaching and learning is being transformed. In recent years, there has been a growing realisation that not all students learn the same way, a diversity of learning styles is very often visible within the one student group and therefore longstanding approaches to undergraduate education might not be ideal for all students (Young 2002). Within this context, modes of instruction that cater for different paces of learning and learning styles by combining 'traditional and electronic media to cater for the "net generation"' (Mohanna, 2007, 211) have become increasingly important. Geography, as a discipline, has since at least the 1960s utilised emerging technologies as key teaching and research tools and it is no surprise that blended learning – the integration of 'face to face' with online learning - is finding a welcome home in Geography Departments. This paper discusses the transformation of an introductory human geography module at University College Dublin (UCD) designed to promote variation in and facilitate a diversity of teaching and learning approaches. It highlights the

important issues raised at the design and delivery stages, and assesses the potential of geography to embrace and expand on current understandings of blended learning.

Blended and hybrid learning

Blended learning is becoming an increasingly important 'buzz word' within higher education. As universities and other third level institutions face growing student numbers, constraints of space and a more diverse student mix, depending solely on the traditional face to face lecture is no longer possible or appropriate in many contexts (El Mansour & Mupinga, 2007). Garrison and Vaughan (2008, p. ix) have even suggested that 'those who have grown up with interactive technology are not always comfortable with the information transmission approach of large lectures. Students expect a relevant and engaging learning approach'. Promoting a more student-centred approach to learning while meeting the competing demands on academic time is not easy but Dalsgaard and Godsk (2007) have suggested that blended learning techniques have the potential to facilitate this process. By comprising a significant on-line element to complement the face-to-face component of particular modules, the learning environment becomes more flexible in terms of the timing and pace of learning as well as the approaches adopted.

However blended learning has not been without its critics. Oliver and Trigwell (2005) argue that it creates unnecessary dichotomies, is conceptually fuzzy and should be at least reconceived, if not abandoned as a learning approach. They suggest that it does not place enough emphasis on the learner as it is primarily concerned with the mechanics of teaching and learning. While this may be true in some contexts, in general these criticisms appear harsh and ignore the underlying motivations of many educators who adopt a blended learning approach. In their learning styles research, Felder and Soloman (undated) clearly suggest that the relationship between course design and student learning style is very clear. If a blended learning design using a range of media, engaging students in a variety of activities and promoting a diversity of learning environments – from online to lecture hall - is developed, it seems reasonable to assume that a more active learning style will be adopted. Building on this general principle, Entwistle & Smith (2002) have argued that the way in which students perceive a learning situation is what determines their learning approach. Students that are encouraged to value equally, engage with and see the synergies between the face-to-face and online components will by their nature adopt a blended learning approach. This is characterised by greater opportunities for the students to manage their own learning in different settings, and actively encourages the adoption of a heuristic approach in the knowledge that the face-to-face classes will complement and clarify the online component as needed.

A blended learning design could also encourage more active learning and engagement with particular topics and modules, as the online component allows students to access the necessary content but the reduced number of face-to-face lectures result in the students being forced to investigate topics themselves or with their peers, rather than depending on the lecturer to provide all the answers in class. In the first year of university, the learning environment can be alien and overwhelming especially in programmes and institutions where there may be very large classes of over 400 students in one

lecture theatre. In this situation it might be very easy to rely on a didactic, teacher-centred approach to education where the lecturer is considered an expert rather than the facilitator of knowledge acquisition. Students, through no fault of their own, can very quickly become socialised into a passive approach to learning with an overall detrimental impact on their academic development:

> 'Learning is not a spectator sport. Students do not learn much just by sitting in class listening to teachers, memorizing prepackaged assignments, and spitting out answers. They must talk about what they are learning, write about it, relate it to past experiences, apply it to their daily lives' (Chickering and Gamson, 1987, p 3).

A key advantage of blended learning is that the online discussion boards, chat rooms and other tools can facilitate questioning, investigation and discussion with both their mentors and peers in a way that is more difficult in a very large class. But the online component also facilitated the more effective use of time in the face-to-face lecture situation. Vogel and Oliver (2006) have identified a number of key pedagogical choices and tools that the online component can support including:

- Preparation for face-to-face classes
- Reflection & peer review
- Discussion between peers and mentors and feedback from mentors
- Presentation of ideas and peer review through sharing and commentary
- Facilitating content availability
- Assessment
- Self-management of learning
- Operational / administrative activities such as the management of groups or the circulation of important notices and instructions.

While some of these are obviously of more benefit to the teacher than the learner, such as the ease with which content can be made available, the opportunities to facilitate and enhance student engagement are also heightened through the tools designed for discussion, debate and review. Through the use of a range of audio, video, text, graphics and other media in the virtual learning component, greater interest in particular topics may be stimulated (El Mansour & Mupinga, 2007) or a heightened sense of a learning community created (Rovai & Jordan, 2004). It is no surprise that this approach has become very popular throughout the sciences, particularly in Medicine and Veterinary programmes given that it has been most closely associated with the facilitation of problem-based learning simulating real-life clinical or technical scenarios (Ginns & Ellis, 2007). However within the Humanities and Social Sciences with the exception of Psychology programmes, the adoption of this approach appears to have been much slower.

This may be due to a fundamental problem relating to the definition of blended learning, particularly given the interchangeability with which this and other terms are used. North American writers seem to favour the term 'hybrid' over blended, Hinterberger, Fassler and Bauer-Messer (2004) in an attempt to

bring some kind of clarity to the debate have attempted to distinguish between the two concepts. They argue that while the terms blended and hybrid learning are often used interchangeably, it is perhaps more useful to use the term hybrid for a combination of face-to face and e-learning, while the term blended learning may be useful to describe more general mixes of teaching and learning approaches. In this paper, we understand blended learning as a combination of both the online and face-to-face as well as learning that mixes a range of learning materials, resources, types of assessments and in-class activities.

Blended Learning and the UCD Large Class Teaching Project
Geography is now one of the most popular subjects in Arts degree programmes in the Republic of Ireland. In our university, University College Dublin (UCD), close to 900 students take Geography modules over the three years of the BA degree programme. Numbers in first year introductory modules have grown significantly, and first year modules with an upper limit of 400 students are regularly oversubscribed. BA students at UCD do not choose their majors until second year, so first year modules are important in attracting students to the discipline, awakening their interest in the subject, and helping them to see geography as an engaging and interesting degree subject. However, our ability to engage in small group teaching is curtailed by our limited staff numbers, which have not increased despite the growth in undergraduate numbers. As a result, we rely on postgraduate students – often, relatively inexperienced one-year Masters students – for small group teaching in first year tutorials.

We first taught this module in 2005-06, and did so using a conventional approach: lectures, tutorials, an assigned textbook, and an end of semester examination. While student evaluations were generally positive, we felt that we had not encouraged or facilitated deep learning among students, and the result was a more superficial engagement with ideas and concepts than we would have liked. Poor attendance was also an issue, not unique to this particular module but a problem right across the large first-year Arts and Science classes in the university. We had used the university-supported online learning environment, Blackboard, to provide resources to students but we felt its structure hampered our efforts to encourage deep learning. In particular, the hierarchical organization of Blackboard provides few opportunities for interlinking or cross-referencing information. While one of the key stated learning outcomes was that students would by the end of the module be able to make connections between different concepts and ideas introduced in class, detailed reflection uncovered a disconnect between the learning outcomes that we desired and the way in which we could provide resources to students.

Enhancing the student learning experience, promoting autonomous learning, promoting life-long and flexible learning, and developing communities of inquiry are at the heart of the UCD vision of third level education. Garrison and Vaughan (2008, p. 30) suggest that 'the fusion of real and virtual experiences [through blended learning] creates unique communities of inquiry that are accessible regardless of time and location'. When we were asked to take part in a Large Class Teaching Project (LCTP) in UCD, we welcomed the opportunity to contribute to the development of

these objectives and a blended learning design offered us the potential to do so. The focus of the LCTP was specifically to improve the first year experience in UCD, and our role was to radically redesign our module in terms of content and delivery, with the goal of improving student engagement and retention.[1] As well as the concerns that we had already identified around student engagement, attendance and attitudes to learning, we also took the opportunity to better incorporate generic learning skills into our module and to encourage the formation of social networks for learning. The dramatic increase in student numbers in the last five years had resulted in the removal of fieldwork and practical classes, a traditional way of meeting peers and developing social networks and skills, from our first year curriculum. We viewed the LCTP as an opportunity to address the skills deficit and to promote better social interaction, a real concern as evidence has shown that first year students in large classes can very quickly feel disconnected and isolated, leading to disengagement and lack of success (UCD First Year Experience Survey, 2007).

Although many writers have cited a range of logistical reasons for a move to blended learning (El Mansour and Mupinga, 2007; xxxx), our rationale was primarily driven by a desire to enhance the student experience. Ellis et al. (2006) have suggested that blended learning can be an important way of encouraging student discussion with the online and face-to-face environments providing different kinds of opportunities for discussion and peer engagement. It is also reasonable to suggest that the combination of environments and media used within them provides more opportunity to match teaching with diverse learning styles and can potentially stimulate more interest and better engagement (El Mansour and Mupinga, 2007). What students learn online and face-to-face might be quite different as they use a variety of learning approaches, displaying diverse competencies and confidence in the different learning environments and thus blended learning may encourage greater democratisation of the learning process. While this was a critical aspect of module redesign, we were wary not to overburden students nor to place competing time demands on them (Ellis et al., 2006) and to find ways of ensuring that the type of interaction we desired would be facilitated. Ginns and Ellis (2007) have suggested that in adopting a blended learning approach, students must perceive the virtual learning component as a critical part of the module and understand its role in supporting the module as a whole. Underpinning the new learning design of our module were questions regarding how we might get students to routinely use the VLE, an acknowledged difficulty in other contexts, and how to make different parts of the course available at selected intervals so that they would engage with all parts and experience an integrated learning experience. This was critical as evidence found by Davies and Graff (2005) in relation to a 1st year undergraduate business module suggests that students who failed the module had spent a significantly lower proportion of time in the group and communications sections of the course website.

We also believe that the concept of blended learning, broadly applied, allows us to move beyond the strictures of other popular approaches like

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[1] The Large Group Teaching Project in UCD was the initiative of vice-principals for teaching and learning in Human Sciences and in Life Sciences. It targeted first year modules in geography and biology, each with over 300 students, and ran in 2006-07.

problem-based learning (Spronken-Smith 2005). One of the difficulties with problem-based learning from our perspective is that it involves intensive use of resources. Spronken-Smith (2005), for example, wrote of a third-year research methods class with between 60 and 75 students, taught by a variety of people including six tutors, many of whom were lecturers. Group sizes of 7-8 were, in retrospect, felt to be too large. In our case, we had 370 students, two lecturers, and tutorial groups of 15 taught by postgraduates with limited experience of teaching at university level. Therefore, blended learning offered us a way of drawing on recent initiatives, particularly in terms of enquiry-based learning, within the confines of resource restrictions.

Transforming *Introduction to Human Geography I*
Bearing in mind the desires of the university in relation to the Large Class Teaching Project, the critical issues identified by the module coordinators and lessons from the relevant literature, redesign of the module was guided by a number of overarching principles: to present material in a thematic rather than compartmentalised way to align with the desired learning outcomes, to engage students in learning activities rather than passively receiving information, and to integrate module content with the development of generic skills and the fostering of social networks or communities of learning. Our particular approach, had at its core, enquiry-based learning. As a form of problem-based learning, enquiry-based learning offers "another dimension to undergraduate education as it purports to strengthen teaching-research links by bringing teachers and students together in a community of inquiry, and is inherently learning-centred" (Spronken-Smith, 2007, p. 2). We began redesign of the module with these factors in mind in March 2006, with a view to delivery in January 2007, and assistance was provided by the Centre for Teaching and Learning within the University.

Adopting a student-centred or 'student as partners' approach characterised this module from the outset. In contrast to the evidence provided by Oliver and Trigwell (2005), the blended learning approach provided opportunities to do this from design to evaluation. In Summer 2006, three undergraduate students who had successfully completed their second year were employed to develop module content. At that point, the learning design was in place and the coordinators had identified four case studies that would unify the module content (Figure 1). The students were then given the freedom to source / develop content that they considered appropriate and helpful for learning. Weekly meetings between the students and the module coordinators took place to review progress, resolve difficulties and provide general guidance. The students were provided with access to iMac computers, video cameras, digital photo cameras and the Internet and were encouraged to demonstrate a range of research skills that they had learnt during their own studies including fieldwork, interviewing and documentary analysis. They were given full control of the design of the Virtual Learning Environment and at the end of the internship, the coordinators reviewed the portal and discussed with the students how the material would be used and adjusted if necessary.
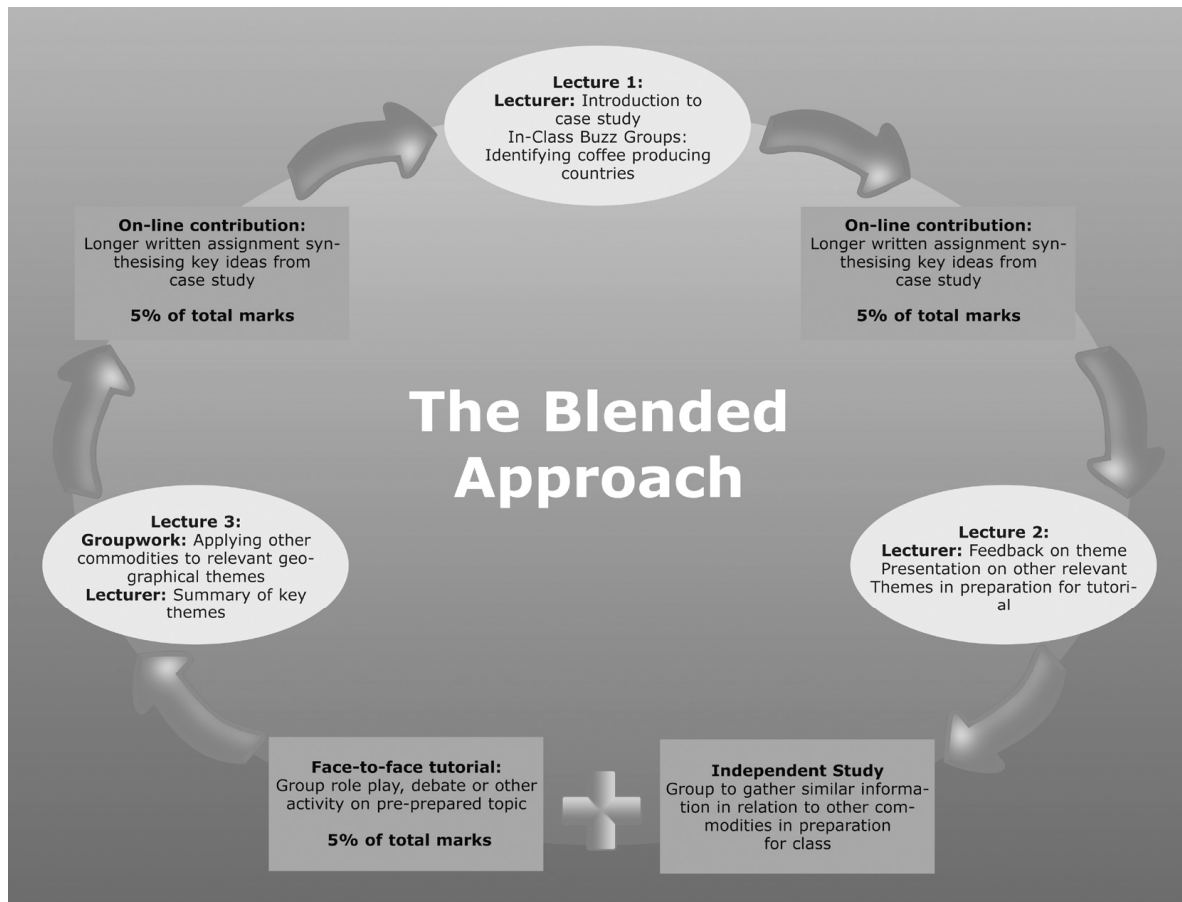
Figure 1 The learning sequence for each case study

In this new design, the number of formal lecture hours per week was reduced from two to one to allow time for e-learning and independent research (Choules, 2006), however the second dedicated hour was reserved for consultation, to allow time for student group work and to add in an additional lecture if it was considered necessary. In general, the module was designed to facilitate more self-directed and, critically, more peer learning. The rationale drew on research by Garrick (1998) who suggests that effective learning entails a student-centred approach that fosters the independent thinking, team-working and enterprise skills required by employers. However we also recognised that some students are less intrinsically motivated than others are we adapted our assessment strategy to incentivise attendance and participation in tutorials as well as ongoing engagement with the learning materials.

Delivering the module
Our module ran in its revised form for the first time from January to May 2007. Over the course of a twelve week teaching semester, we met with the students in a formal lecture setting for at least one and at most two hours a week. Students also had four face-to-face tutorials in the course of the semester, in tutorial groups of around 14 students.

Lectures and tutorials

From the beginning, we attempted to make the lectures as interactive as possible. We both attended and presented lectures, switching positions and roles at regular intervals. After the second week, we asked students to sit in their tutorial groups and ensured that all lectures involved some form of group activity and conversation. We moved between the groups, asking questions, encouraging debate, and then asking group members to outline their findings to the lecture hall, holding a microphone in front of them. Though the students remained in their seats and in their groups for this, many were shy and reluctant to speak in public. We did not force anyone to speak, but were able to identify and encourage those who wanted to speak but were lacking some confidence.

Tutorials were 50 minutes in length, and were run by geography postgraduate students, both MA and PhD. They were inserted into the module programme in weeks 2, 5, 8 and 12, which corresponded to the middle of each case study, as we considered this the most important times for small-group face-to-face discussion and debate. We designed the tutorials, provided training on content for tutors, and also coordinated an MA module on Teaching Skills to ensure that the postgraduate students were full skilled in leading small group discussion. In advance of tutorials, students were assigned preparatory work. The tutorials were designed on the basis that the preparatory work had been completed, and involved debates, discussions, group map work and statistical analysis. Students were awarded marks for their preparation, attendance and participation in tutorials in line with clearly specified criteria that were published in the online forum (Table 1).

Table 1: Grading Criteria for Tutorials

Award	Criteria
5 marks	Critical thinking beyond that normally expected at Stage 1, active participation in tutorial, evidence of good preparation and attendance at tutorial
4 marks	Active participation, evidence of good preparation and attendance at tutorial
3 marks	Evidence of good preparation and attendance at tutorial
2 marks	Attendance at tutorial
0 marks	Non-attendance

Online learning environment

Though UCD supports Blackboard as the university VLE, the use of Moodle was facilitated on a pilot basis for this project after we argued the case for delivering our module using this system. The site was hosted by a commercial company. We designed the Moodle site in advance, so our interaction with the site during the semester primarily involved posting news items and clarifications, dealing with problems, monitoring student and tutor activity, and grading assignments that were submitted online. We did not use the site to post lecture notes or powerpoint presentations, and encouraged students who missed lectures to talk to their groups, tutors or us about the material that was covered.

Our changing roles

Managing a class size of 370 in a lecture theatre is demanding. Prior to this and in the more traditional lecture format, we had described our roles as the intersection of entertainment and crowd control. Through the performance of a lecture, we attempted to attract students to a lecture, retain them in the theatre, distract them from distracting others, and get them interested in and inspired by our material. Often, however, crowd control dominated, and our conversations about teaching focused on what to do with problems such as students talking to each other, texting or surfing on Bebo, or walking in and out of the lecture theatre at random times. In this module, we changed our focus. Rather than delivering our lecture in a didactic manner, we worked on making the hour more interactive. Rather than worrying about conversation, we encouraged it. Rather than being concerned with movement, we facilitated it. The lecture hours were, as a consequence, less rigid, more chaotic, and significantly more interactive. We wrote and planned our lecture structure and material immediately prior to the lecture hour responding to ideas raised in student assignments and student concerns. Frequently, those concerns were with how things worked – the website, the assignments, the library – rather than with ideas. As a consequence, we often felt more like module managers than teachers, but this related more to our perception of what teaching should be rather than the reality of teaching large classes. The most significant change related to how we used our time. During the teaching semester, we spent significantly less time preparing lectures, and significantly more time responding to student questions and concerns, tutor queries and problems, grading assignments, and monitoring the virtual learning environment.

One of the key areas we focused on was integrating the online environment, the tutorials and the lecture. We did this in a number of ways. At the start of every lecture, we directed students to the online material, and highlighted upcoming activities such as tutorials and assignments. However, our most important innovation was incorporating student work into our lectures. We took student-generated material from online discussions, submitted assignments and tutorials, and used it as content for our lectures. For example, we used examples of conflict that students had identified in their groups as the basis for a lecture focusing on power and conflict (see Table 2) and as a springboard into concepts such as agents of landscape change. For another class, we scanned maps that students had produced in tutorials and used them as part of a lecture on global migration patterns (see Figure 2). At all times, we identified the source of the material by group number, which led initially to embarrassment and later to pleasure when the group's work was used as an example of good work. Through our efforts, some students began to see the lecture, and the module, as collaborative rather than didactic, and we received positive feedback and comment on their contributions to lecture content and module delivery.

Evaluating the module

As well as the informal conversations that we had with students, the tutors were encouraged to use the Teacher Forum in the online environment to raise any issues of concern and also to discuss with other tutors how they felt the module was going. This gave us an insight into how the module was being received by both students and tutors, and enabled us to be responsive and

Table 2: Student-generated lecture content

Group 1A: Sellafield
• Conflict between Irish Government, Irish population, Irish Fishing Industry, Norwegian Government, British Government, Green Peace, Sellafield power plant
• Exercise power either by political discussion sanctions, by protest or else they rely on their government to voice their concerns.
Group 9B: Sellafield
• Conflict is over the environment (resource)
• International and regional scale: Irish government have made pleas to the United Nations and the European Union directly concerning Sellafield
Group 25A: Occupation of Iraq
• Ideological, territorial, and resource-centred
• Major actors are United States-led coalition forces, as well as the Shiite, Sunni, and Kurdish ethnic groups, and finally the foreign-based insurgents
• Exercise their power through force, mostly armed military or paramilitary force, while at the same time those in government hope to exert political force in order to guide the country as they see fit

deal with any issues as they arose. More formal evaluation of the module also took place through the SETLQ (Students' Experiences of Teaching and Learning Questionnaire) that was administered to students at three time points during the semester. Time 1 was during week 1, time 2 was during week 6 and time 3 was during week 11. A descriptive analysis was undertaken and frequency tables were produced that reported on the responses across the three time periods. A series of paired sample t-tests were also conducted to examine whether student perceptions changed during the course of the semester. Issues of engagement, attendance, social experience and general perceptions were investigated. The final questionnaire also included a set of questions designed to gauge student perceptions of this module in comparison to the other geography modules that students had selected to study as part of their first year programme.

In order to investigate the results and add depth to the quantitative findings, a small number of focus groups were undertaken with first year students. These were organised on a voluntary basis and involved general discussions on the experience of the module and student reactions to it. Focus groups were also held with the tutors at two points in the semester, one midway through the module and one at the end.
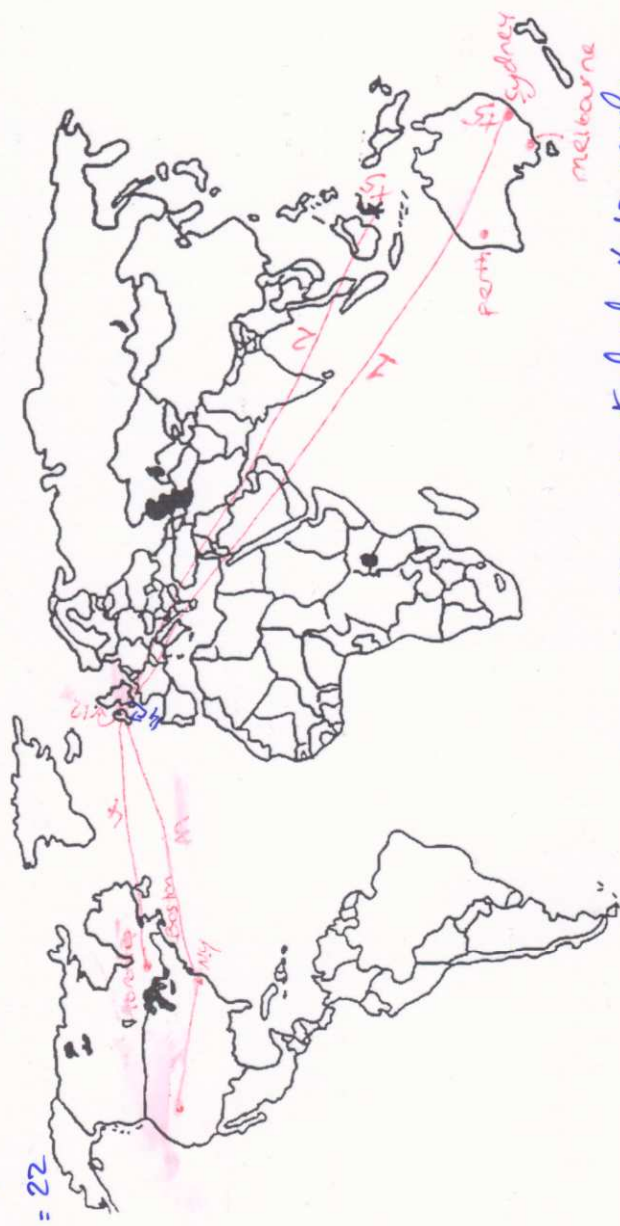
Figure 2 Student material produced in tutorials and incorporated into lectures

Discussion

Although our data analysis is still ongoing, a number of key findings emerged from the evaluations and our reflections on the experience of delivering a module in this way. Although groupwork is an important aspect of collaborative and enquiry-based learning, it also brings with it a number of challenges. The group glossary was the main group assignment for the module, with a value of 20%, and during the module student concerns were raised about the unequal contributions being made to the assignment by some members of particular groups. This became a significant issue for students, as reported in our conversations with them and their conversations with their tutors. Although we encouraged students to try to motivate their peers and to develop skills in group dynamics, major concerns remained. As a result, it was necessary to develop a more nuanced approach to grading the glossary. After discussion, we decided that 12/20 marks would be allocated to the content produced by the group and 8/20 marks would be attributed to the individual contribution to the group assignment. This was particularly easy to assess using the reports and logs tool available in Moodle. This ratio was chosen to ensure that students still had an incentive to work as a group and had a twofold impact. While it did allay the fears of those who were already working hard in relation to the overall grade they would be awarded, it also encouraged the less motivated students to get involved as they could no longer rely on their group members to pull them through. This is not unique to this module as many studies have identified the difficulties that students have in coping with group dynamics when collaborative learning is employed (e.g. Plowright and Watkins, 2004). In an open-ended question at the end of the questionnaire inviting general comments, responses ranged from those who wanted to *'change amount of group work; it can be hard to meet with your group and it affects your mark'*, or *'get rid of groupwork'*, to those who suggested that we *'encourage the groups to meet more'* and have *'more group assignments; it strengthens team work'*. This element also emerged quite strongly in some of the quantitative responses, indicating that groupwork can actually played a hugely positive role from a practical as well as a learning perspective. In a question asking students to score eight reasons for attending lectures and tutorials in order of importance, 'feeling responsibility to my group to be there' was ranked 1, 2 or 3 by 49.7% of students. This suggests that peer motivation was a key attribute in improving attendance and engagement in this module.

Analysis of the results also suggest that assessing the module by tutorial participation and a range of continuous assessments throughout the semester has played an important role in keeping students engaged and motivating them to attend lectures and tutorials (Figure 3b). Students rate the relevance of the tutorials to the assignments as critical in their decision-making processes, highlighting the absolute necessity of ensuring constructive alignment of all elements of the module, but more importantly incentivisation of attendance and participation emerged as the crucial factor in promoting better engagement and attendance. Of those who responded (n=203), 24% of students reported that the most important reason they attended tutorials was because they get marks for them. While, we may idealistically believe that student attendance should be expected automatically, these findings suggest that an understanding of student
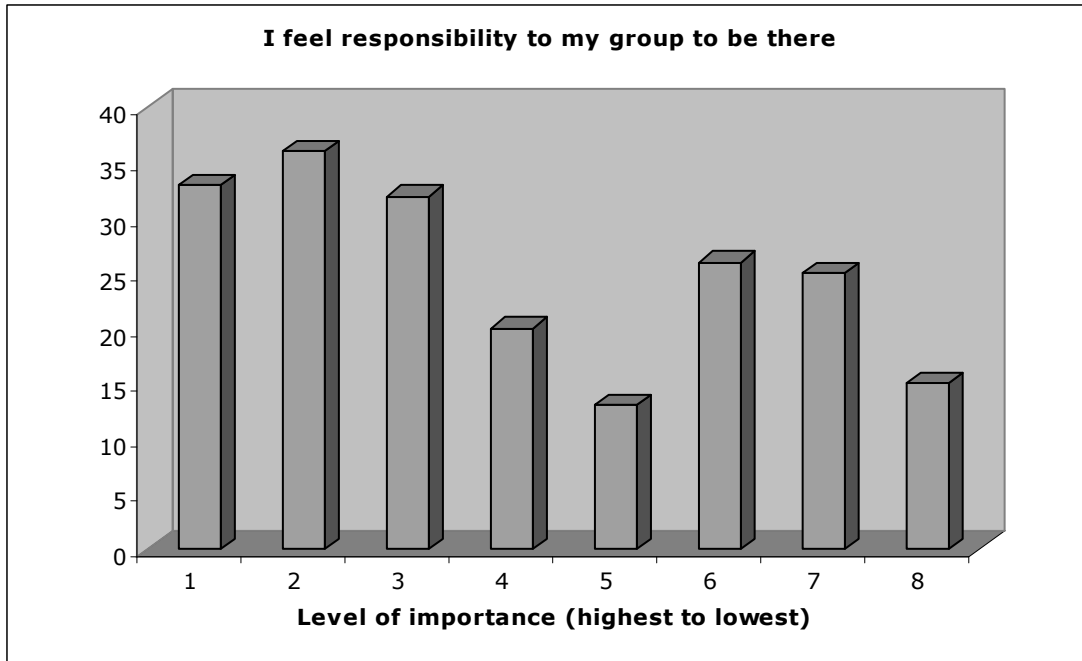
I feel responsibility to my group to be there

Level of importance (highest to lowest)

Figure 3a Reasons for attendance at lectures and tutorials

I need information for assignments

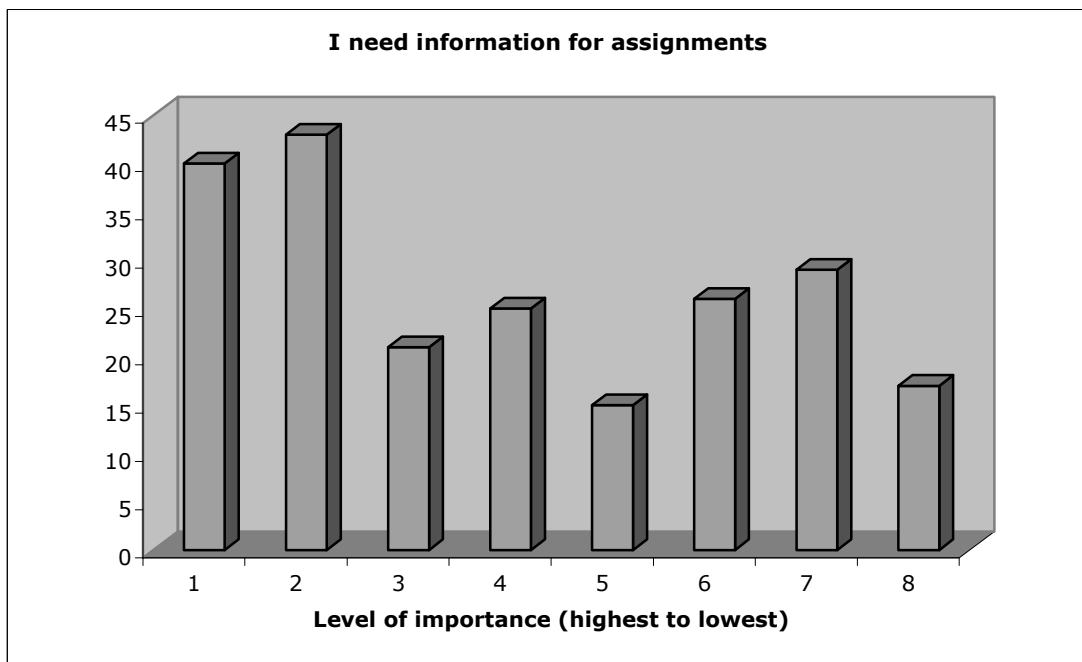Level of importance (highest to lowest)

Figure 3b Reasons for attendance at lectures and tutorials

motivation is crucial in developing methods of enhancing student engagement. Student engagement during this module does appear to have been much higher than in modules delivered in a more traditional manner, and as this was a core objective of our re-design it was an encouraging finding. While we had a general sense that this was the case from early on in the module, the results of the evaluation supported this assertion very clearly. 92% of the student group that responded to the survey were also taking at least one other, if not more, geography modules as part of their first year. They were asked to score their participation in this module and in their other geography modules using a likert scale. The results in Table 3 demonstrate

	Worked hard with classmates outside class		Used electronic medium		Spent time preparing for lectures		Attended tutorials	
	GEOG 10030	*Other GEOG modules*	*GEOG 10030*	*Other GEOG modules*	*GEOG 10030*	*Other GEOG modules*	*GEOG 10030*	*Other GEOG modules*
Never	14	117	11	91	5	54	4	10
Sometimes	53	45	41	44	42	56	18	45
Often	50	10	53	26	68	55	40	57
Very Often	82	13	94	24	84	20	136	73

Table 3 Participation in GEOG 10030 compared to other geography modules

that on a number of widely accepted measures of engagement, students participated much more actively in *Introduction to Human Geography I* (GEOG 10030). This was particularly evident in the time that they spent preparing for lectures, the work that they did with classmates outside the lecture or tutorial room and their use of the electronic medium, a core element in the blended learning approach. However while engagement was generally higher than in other modules, patterns of activity monitored in the online environment demonstrated that this was again primarily driven by assessments. Logs of activity demonstrate marked increased in the days immediately prior to an assignment deadline. It might reasonably be suggested that while student behaviour changed to the extent that there was more regular engagement with the material and classes, some old behaviour patterns in relation to 'cramming the night before an exam', or in this case an assessment, remained evident.

However one of the most significant changes in relation to student behaviour was their rapid embrace of social learning networks, facilitated through the online discussion board, and the regulatory role that they adopted with each other. As the module progressed, the kinds of interaction taking place suggested that levels of self-confidence were growing and students began actively monitoring as well as facilitating each others learning within the groups. They appeared to act as effective motivators to each other, as exemplified in this exchange in one of the learning groups;

Student A: Alright, anyone else online now to do this thing on globalisation?
Student B: Yeah, so any ideas?
Student C: Hi there … yeah I am also online so we should probably try and get some work done. Have you read the articles??
Student A: Think we should get started with some ideas, from a few places I've looked globalisation has been defined as the evergrowing unification and interdependence of the global community. If we all start posting ideas and then we can put it all together and submit our answer
Student D: We could start with a definition, then have a detailed example, maybe some pros and cons and that would be around the required word count. Any ideas? A con for globalisation is that some believe it is killing local traditions and local trade. Starbucks were targeted several times by anti- globalisation protestors as their continuous opening of

new shops was destroying the local coffee shop businesses, some of which had been around for decades. This was a worry in Madrid.

Student C: Right so why don't we all read the articles, then post about 100 words on globalisation by this evening or tomorrow. We can put our answer together then when everybody's submitted something?

As well as these significant behavioural changes illustrating a marked increase in active learning and the successful formation of social networks for learning, students' perception of the module also changed throughout the course of the semester. While many students stated at the beginning that they were taking the module because of its perceived easiness, during the first six weeks there was a significant change and students were much less likely to consider it an easy option ($t = 5.24$). This levelled out during the second part of the module suggesting that students were initially surprised by the amount and regularity of work that this module demanded but that they rose to the challenges they encountered. However in comparing the end-of-module results with the results from the previous year when a more traditional approach was adopted, there is a clear shift in the overall pattern of performance. In the 2005/2006, the results from this module displayed a normal distribution with the mean around the C /C- grade. However following the introduction of a blended learning approach, a bimodal distribution emerged. Almost 11% of students received A grades in comparison to less than 2% in the previous year. Choules (2006, p 216) has argued in relation to e-learning and blended learning that 'as with most teaching modalities, deep rather than superficial learners appear to enjoy the greatest benefit' and the results of
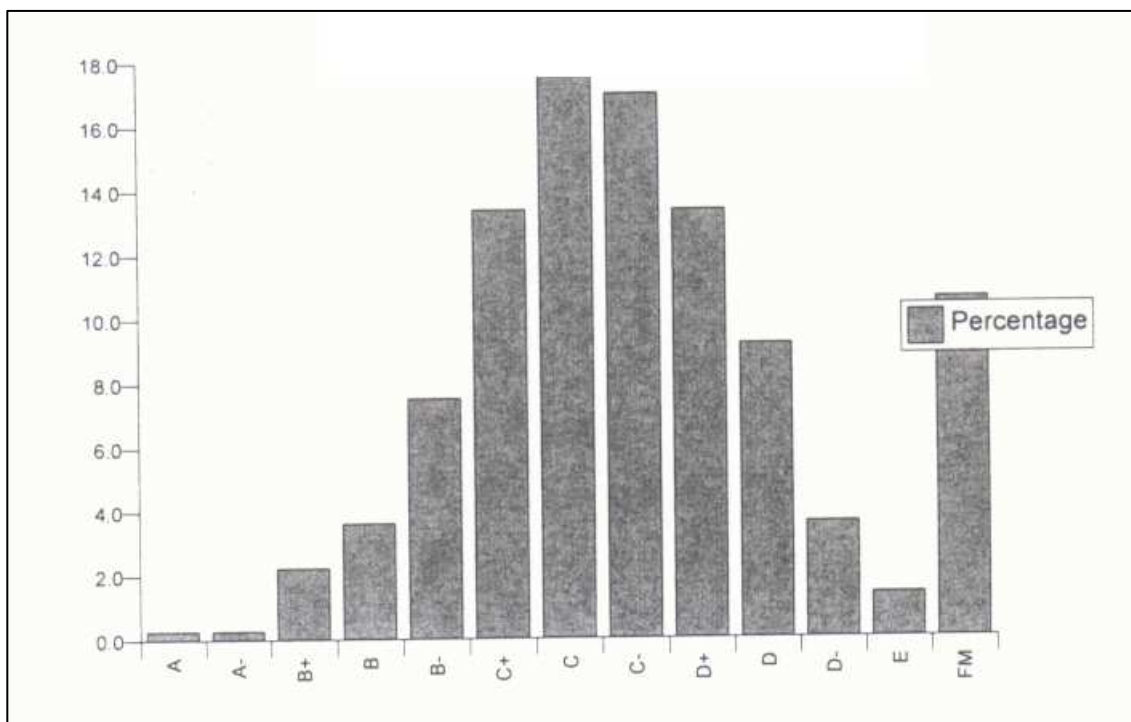

Figure 4 GEOG 10030 module results in 2005/06

*FM grade is primarily students who withdrew from the module but remained on class lists
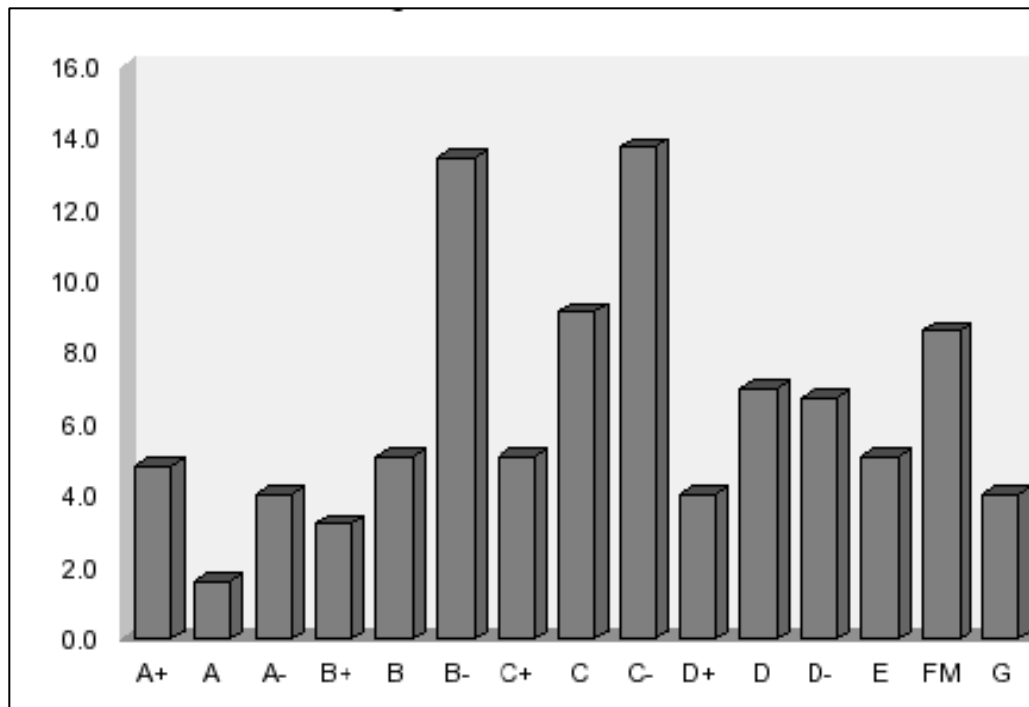
Figure 5 GEOG 10030 module results in 2006/07

GEOG 10030 would appear to bear this out.Those students who engaged with the new approach did significantly better than in the more traditional approach. However on the contrary, we also see that students who fail to engaged were penalised much more by the blended approach which demanded much more than the earlier approach.

Conclusion

This paper aimed to discuss the transformation of our introductory human geography module at University College Dublin (UCD) designed to facilitate a diversity of teaching and learning approaches and address a number of key concerns in relation to first year including student engagement and attendance. It highlighted the important issues raised at the design and delivery stages, including the adoption of a 'students as partners' approach throughout, the impact of the changing roles of tutors and lecturers, and issues that arose in relation to group work and dynamics. Young (2002) has argued that successful blended learning depends on questioning given norms. This redesigned module broke away from the traditional twice weekly lecture format and the usual assessment strategies employed at UCD to generate an entirely different learning experience for students drawing on both face-to-face and online interaction. Though the term blended learning is more often used to signify mixed methods of delivery, incorporating online and face-to-face interactions, we believe it has broader application. In particular, we see blended learning as a collaborative approach that involves students, tutors and teachers across a range of delivery media. In this way, our understanding of blended learning extends beyond the media used to incorporate all aspects of, and inputs into, the learning process. The results of our evaluation would suggest that this approach has paid significant dividends and has gone a substantial way towards addressing many of the problematic issues in relation

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to the first year at university. We believe that our module re-design has helped shift the experience 'from a passive-centred approach to a transactional collaborative approach' (Garrison and Vaughan, 2008, p. 144) and helped to create and enhance the institutional vision of the university as a growing community of enquiry.

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