e-Learning Business Research Methods

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Abstract: This paper outlines the development of a generic Business Research Methods course from a simple name in a box to a full e-Learning web based module. It highlights particular issues surrounding the nature of the discipline and the integration of a large number of cross faculty subject specific research methods courses into a single generic module. The design philosophy of the e-Learning course is then outlined and the rapid development task force event that was central to the final development is described. The paper concludes with five key reflections on the whole development process.

Keywords: e-Learning, module development, research methods

1. Introduction and background

This paper is concerned with the development of a general business research methods course, with particular emphasis on the later stages with the move to an e-Learning variant of the module. Some pre-amble is necessary however regarding the earlier developmental stages. The paper is unapologetically written from a beginner's perspective of e-Learning and specifically examines three issues that were central to this venture:

1. The generally difficulties associated with teaching business research methods to undergraduate students and the extent to which these may act as a barrier to 'e-Learning' research methods.
2. The need and difficulties associated with integrating a large number of subject specific research methods modules into a single Caledonian Business School (CBS) research methods module. This was a prerequisite before the module could be developed for e-Learning.
3. The move from a face-to-face on campus environment to a web-based off campus approach, and how this was actually developed for the web.

The background to this development was the decision by the School Board of the Caledonian Business School (CBS) in 1999 to move to a framework undergraduate degree programme. Consequently, within individual degree programmes framework modules now represent 100 credits at level one and 40 credits in the following 2 years. In the honours year (level 4 in Scotland), there is a 40 credit generic module descriptor for the final year dissertation. The full framework is illustrated in figure 1.

Year	Semester A			Semester B		
1	Organisations & the Business Environment	Economies, Markets & Enterprise	Programme Specified Module	Marketing Fundamentals	Managerial Finance	Information & Data Analysis
2	Perspectives on People at Work	Management & Organisations	Programme Specified Module (Option)	Programme Specified Module	Programme Specified Module	Programme Specified Module
3	Strategic Management	Programme Specified Module	Programme Specified Module	Research Methods	Programme Specified Module	Programme Specified Module
4	Honours Dissertation	Programme Specified Module	Programme Specified Module	Honours Dissertation	Programme Specified Module	Programme Specified Module

Figure 1: CBS framework structure (Source: CBS website - how the undergraduate framework works)

The framework was introduced on a 'roll-out' basis from academic year 2001/2 onwards, hence level 3 modules roll out in academic year 2003/4. Eight of the framework modules neatly fit into six of the academic divisions of CBS e.g. Management and Organisations and Strategic Management are the responsibility of the Division of Management. Two modules however are academic 'orphans' – Business Research Methods and the Dissertation module. This following sections outline how the first of these modules was developed from a simple name in a box to a fully operational e-Learning module.

2. Business research methods - Early module development

Early development took the form of a short life working party under the leadership of the CBS Director of Research. This consisted of five members including the author. The broad remit of the group was to write a module descriptor for validation for a single RM course that would replace all existing RM courses within CBS. The descriptor therefore had to satisfy the 'research training' needs of each academic division within CBS. The biggest problem for the group was to produce a module that would provide an appropriate balance between generic research issues, quantitative research methods and qualitative research methods.

The broad philosophy taken was to offer mini units in basic research principles as 'core' and more method driven specialisms as 'electives'. The final module descriptor therefore split the subject into eight mini units with two being core and programme boards asked to nominated three from six electives. The original units were:

- Core elements –
  - Philosophies of understanding and research
  - The research process
- Elective units –
  - Data gathering and secondary analysis
  - Interacting with people
  - Advanced qualitative techniques
  - Surveys and the survey process
  - Identifying differences
  - Identifying effects

The module was to be assessed through a written examination and a research project proposal. This latter assessment element was viewed as particularly important as it would be carried through into the dissertation at level 4.

On reflection, the module was considerably under developed at this stage, particularly in two areas. Firstly, it had been designed in an ideal world situation, and little thought given to how it would actually be delivered. Secondly, the third year of the BA Business Studies constituted an industrial placement. In order to incorporate this degree into the framework, the 'value' of this placement had been reduced from 120 credits to 80 credits. The other level three framework module, Strategic Management, had 'easily' been incorporated by requiring students to submit a 3000 word report on strategic management issues arising on their industrial placement. As regards Research Methods, this was to be done 'On the Web'. This was sufficient to resolve this particular problem and the module was subsequently validated.

As a consequence of this underdevelopment, the author submitted a proposal to one of the general CBS funds for a grant to develop the module into a fully fledged course. This was approved with the proviso that an off-campus version of the module be developed for the BA Business Studies students on placement.

The first part of the development was to redraft the original module descriptor into something that could be delivered to students, particularly in an e-Learning format. This was achieved by merging the two core mini modules into a single core element, and merging the six optional units into three elective streams – quantitative, qualitative and mixed. The author's considerable experience of undergraduate project proposal development had shown that most students undertook honours projects that were a mix of quantitative methods (particularly surveys) and qualitative methods (mainly focus groups and in-depth one-to-one interviews). This revised structure was passed by the Research Methods Subject Quality Group and is shown in Figure 2.

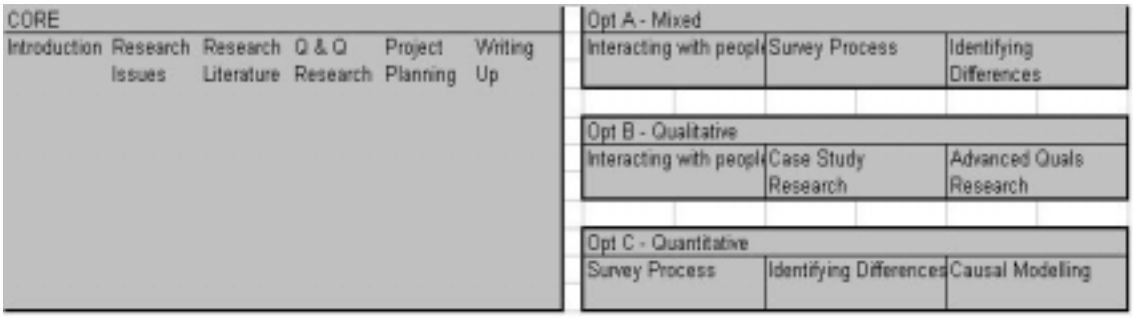

Figure 2: Revised Module Structure

This revision only required some minor tweaking of the original descriptor. Importantly however, this gave some initial thoughts on how the module would actually be delivered and thus a basis from which the on-line module could be developed. Decisively however, the module was due to be delivered to campus based students from February 2004, but from October 2003 to off-campus students. It was therefore decided to develop the off-campus version first.

3. Problems in teaching research methods

The particular challenge associated with teaching research methods to undergraduate students are well known to those involved in facilitating such modules and need to be carefully considered when developing research methods for an e-Learning delivery mode. These problems can perhaps best be summarised in the title of Benson and Blackman's 2003 article 'Can research methods ever be interesting?' and reflected in the general consensus amongst RM tutors regarding such courses. This is that the student experience can be very disorientating, particularly when faced with terms such as 'phenomenology' and 'epistemology'. There is a real danger that after undertaking such a module students can be left with the feeling of 'what was that all about?'. As such, the course has failed to stimulate much interest in the student and business research concepts are something to be avoided in the future.

Unquestionably this is partly because research methods courses cover a broad spectrum of academic disciplines and personal transferable skills that were previously unknown to the student. This usually begins with issues such as 'how do we learn?', quickly passes through weighty philosophical debates, moves on to practical skills such as literature searching, and somewhere along the way includes a course in basic statistics. The final part of this epic is to teach basic writing skills that are required in the presentation and analysis of research results. Underpinning these generic issues are four specific factors that also make teaching RM problematic.

3.1 Descriptive nature of the content

The subject can be very descriptive in nature, with very little to actually 'get a hold of'. Whilst in a learning environment some of the concepts are relatively straightforward to describe, the problem is that the subject is actually very applied in nature. For example whilst general principles of good questionnaire design can be outlined, in reality each questionnaire is designed for a single purpose. This can cause a problem of relevance to the student, as relevance only comes through doing. Thus much of the learning environment is concerned with the formation of expectations as to the type of issues that may arise in the course of undertaking research rather than real world research problems.

3.2 Nature of the subject

The subject has developed from what are fairly weighty academic debates about how research should be carried out. Whilst these issues are unquestionably relevant at higher levels of academia, the relevance for undergraduate dissertation students is less apparent. Owing to the highly academic nature of the discipline, the language associated with the subject can be fairly weighty and certainly distracts from the concepts being considered. It is also the case that most business research methods have been 'adopted' from the social sciences, and as such many aspects remain considerably underdeveloped in a business discipline context. Ethnography is an excellent case in point. Few, if any, texts explain satisfactorily the relevance of this methodology to undergraduate business students. A further barrier is that there is a distinct reluctance to admit this lack of development, hence such ideas and concepts are presented as the finished article, whilst in reality they are not.

3.3 Widespread and differing views

A third problem is that everyone has an opinion and in many cases an entrenched view on what should be taught in a research methods course. This ranges from the diehard positivist to the deep-rooted constructivist and all points in between. The problem is exacerbated for the RM lecturer because the 'products' of their labours are served up across a wide range of colleagues through honours dissertation supervision. The student can therefore become further confused as project supervisors advise differently on research issues.

3.4 Lack of a really good text

Despite the high number of texts on the market, a fourth problem in teaching research methods is the lack of a really good text on the subject. Taking two of the market leaders as examples, one tends to become overly

engrossed with the language of the discipline, which makes for weighty reading and bombards the student with difficult terms. The other is overly wordy, and whilst informative is not very useful. Using the literature review as an example, it explains what it is but not why it is a good thing to do and what you actually do with it.

One of the biggest problems in developing an e-Learning form of business research methods is that the issues highlighted above are multiplied several times over when this is transferred from a campus based activity to a distance learning approach. This is because the 'human face' of research is lost and the abstractness of the discipline can potentially be reinforced. Any e-Learning form must therefore be designed to attempt to minimise any such problems. In order to obtain some ideas on how this may be achieved, the first part of the development of our own RM site was to examine existing web resources on teaching and learning materials in research methods.

4. Existing web resources on research methods

At the beginning of this exercise there was a general conception amongst staff that there was masses of material already on the web that could be employed in our own resource. In order to uncover this material, due to the high degree of cross over in all social science based research methods courses, the search was not restricted to purely business areas. Given below in Table 2 is a partial overview of five of the resources they were found and evaluated. This evaluation was undertaken from a beginner's perspective of what was believed to be important in the design of a website for e-Learning. All of the table headings are self-explanatory, but it should be noted that this review included other headings such as inter-activity and the extent to which the website created the sense of an on-line learning community.

Table 2: Evaluation of existing resources on the web – five examples

No.	Website	Type	Graphics	Comment
1	Carter McNamara's Basic Research Methods	On-line book	Basic html	Content is brief, and lacks depth. Is described as a library of resources, but is effectively a very short on-line book.
2	Bill Trochim's Center for Social Research	On-line resource	Good	Colleagues at other institutions have commented upon the extensive nature of this resource. For our own purposes however, i.e. a fully off-campus e-Learning course, whilst the breadth and depth would appear to be appropriate, the content is introductory and supplemental. May be useful however in a blend learning approach.
3	Internet for Social Research Methods	On-line tutorial	Good	This site is limited in scope as it is mainly concerned with information retrieval skills. Whilst 'billed' as an on-line tutorial, the approach taken is more consistent with a strictly distance learning approach. Does however contain some useful links to on-line material.
4	T Wilson's Electronic Resources for Information Research Methods	Resource library	Fair	This is an extensive source for on line reading materials on many aspects of the different types of research methods and methodologies that are employed within the business disciplines. In terms of developing our own resource, this provided useful access to supporting materials but provided little in terms of 'e-Learning' i.e. lacked interactivity.
5	Saunders et al, Research Methods for Business Students, 3/e	Textbook Support Site	None	Despite being referred to on the front cover, this website was very disappointing. Consultation with the publisher's representative however, revealed that this is the major aspect of the text that is to be further developed.

Although only five examples are listed above, these include virtually all aspects and all the limitations of freely accessible RM resources on the web. All have a tendency to be simple (and short) on-line books or lack the required depth and breadth of material for an undergraduate RM course. As a result, the usefulness of these resources ranged from none to limited. What came out of this process was the identification of some materials that

could be used to provide off-campus students access to supplementary reading. No quick fixes or even catalysts however were provided from this exercise with regard to actual e-Learning and no further progress made towards development of our own resource.

5. Design philosophy of the e-Learning component

One of the advantages of the lack of appropriate web materials was that when it came to designing our own website the development team could start with an uninhibited view of what we wished to achieve from it. The development team were also very aware that for our own resource we did not wish to create something that was simply a case of electronic page turning (Forsyth, 2001). A further advantage at this stage was that GCU has adopted the Blackboard virtual learning environment. Armed with the knowledge of a few simple commands therefore, actually 'putting it on the web' was not a major issue.

In terms of the overall philosophy of the design of the e-Learning form of this module, an important element was the structure of the Business Studies degree at GCU for which this variant was specifically aimed. Unusually in Scotland, this degree is offered as a single honours only. In practical terms, all students must complete four years and undertake a final year honours project to receive any degree. In the design of the off campus module therefore, traditional on-campus approaches were discarded and a fresh approach applied, with the only requirement that these met the learning outcomes of the module descriptor.

Given the problems listed above in teaching research methods to undergraduate students, a very simple approach was adopted. Rather than beginning with the usual 'what is research' and weighty philosophical arguments about research issues, the nature of reality and so on, a problem based approach was taken. The overall course design philosophy is shown in figure 3.

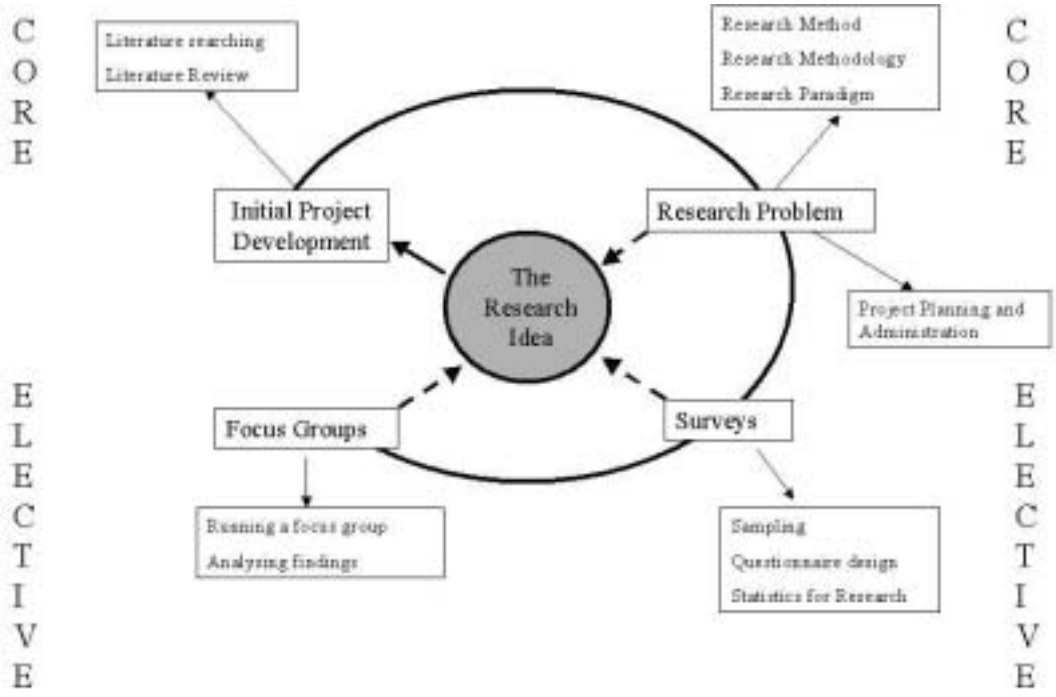

Figure 3: Course design philosophy

The more observant will notice that this is not really a Business Research Methods course but rather Dissertation Research in the Business Disciplines i.e. project based business research. As this (a) was designed for a single honours degree, (b) met the learning outcomes of the Business Research Methods module, and (c) was educationally believed to be the best approach to delivering the discipline, this difference in emphasis was not envisaged as being a major problem.

At the core of the design is the research idea. Students are required at a very early stage to come up with a research idea. Around this are then based the various concepts involved in undertaking business research. Such a design fits in very well with both the 'e-tivity' approach to web based learning (Salmon, 2002), and

Benson and Blackman's (2003) model of teaching research methods around a practical approach.

The general design philosophy was to begin with fairly accessible ideas. Hence the student begins with their own very simple research idea. From this derives the type of literature to be searched and reviewed, the research method/methodology to be employed, the limitations of this research (i.e. the research paradigm) and the methods of analysis to be employed. It is in principle a progressive approach to which are attached concepts as and when these are required. Therefore, each piece of newly constructed knowledge is actively built on previous knowledge (Lauzon, 2000). Hence a student that begins with a research idea such as 'what was the impact of the introduction of free bus travel for senior citizens in Scotland', produces a research proposal at the end of the module outlining 'a positivistic case study of free bus travel for senior citizens in Scotland based upon a quota sampled F-2-F survey analysed using SPSS'. This sounds very simple, but the 'leap' from one to the other is considerable. This was bridged by setting relatively short assessments throughout the course that would enable the student to slowly assemble all of the required elements of a research proposal.

6. RDTF and the cross-disciplinary design team

Development of the e-Learning module centred upon a Rapid Development Task Force (RDTF) event, employing the Carpe Diem Methodology (Lennon and Roberts, 2003), which took place over two days. This consisted of the development team working in conjunction with support staff in IT and Information Resources staff and was led by GCU's Visiting Professor in e-Learning, Dr Gilly Salmon, supported by Dr Gillian Roberts, CBS Research Fellow in e-Learning. Dr Roberts had been heavily involved in the earlier stages of development of the on line form of the module.

The RDTF event was very much a 'hands on' exercise with the team having direct access to IT facilities and all on line resources. The process began with the agreement of a mission statement for the aims of the whole RDTF event. The final wording was that we would create an on-line resource that would provide:

"An interesting and rewarding journey though the landscape of research methods that are commonly applied in business contexts".

Although a bit overly grandiose for the author's taste, the mission statement did communicate the sentiments of what we were seeking to achieve. Three main themes were identified as being of underlying importance to achieving this aim, which were that any learning resources to be created should be rewarding, stimulating and fun. Given the problems outlined beforehand in teaching research methods, this was particularly challenging and, as it transpired, not always attainable. It was useful however in giving some direction to the whole process.

We then agreed the pedagogical approach to be taken in development of the on line course. This was to base the design of the on-line course around four main principles. The first was that the tutor's role would be minimal. Specifically, it would be to briefly introduce each particular topic that would act as the 'spark' to each discussion. The tutor would also summarise and outline the learning points arising out of any student discussion that followed i.e. e-moderate (Salmon, 2003). Secondly, where possible we would use existing web links that had already been identified prior to the RDTF event by the development team. For example, these could be used as a 'spark' to begin a discussion. Thirdly, student input would be used to develop themes and concepts. This would be done through discussion groups/boards, where students would be asked to respond to the 'spark' and comment upon other participants contributions to the topic. Fourthly, and perhaps over-ambitiously, multimedia would be used to add visual interest and exploit technologies such as mobile phones to which students already had access.

These prime resources would be supported by a single core text that students would be required to purchase, links to GCU electronic journal articles, and the provision of digitised forms of key works and supplementary readings through the HERON service.

After this was agreed, the team clarified the role that the VLE, i.e. Blackboard, would play in the development of the on line course. These were that Blackboard would be used to:

- upload multiple files
- create chat and discussion boards
- use course statistics to monitor issues such as user participation

- link to existing resources
- access on-line tutorials
- potentially link Blackboard to software analyst products such as SPSS, SNAP and Nudist

The last of these proved problematic, both in terms of the technical issues involved and the coverage of a 'site' licence. It was therefore decided that all such activities should be designed around software packages that students would have relatively easy access to, such as Microsoft Excel. Another possibility was the use of a research methods text that came packaged with the student version of SPSS. The text however was American and, despite offering a ready made solution to this particular problem, was not suitable for our own course.

Also problematic was the digitising of additional references that could be made available to off campus students. Access to these resources are governed by the Copyright Licensing Agreement (CLA), hence this required careful consideration of the appropriate chapter to use in a given text, as the CLA specifies that only one chapter may be used per text i.e. the same conditions apply to on-line support as apply to hard copy learning packs.

Having outlined these fundamental principles, the event then centred around development of the three elective units that were to be included in this particular variant of the module. These were: Interacting with People, The Survey Process and Identifying Differences. Team members worked in pairs along with technical support staff to develop these units. Firstly, a storyboard was constructed that broadly outlined the on-line activities that were required to achieve the particular aims of the unit. The types of assessment that would be required to test the student's knowledge of this material were then outlined. It was found that a single assessment was all that was required for each unit.

Once the development team had outlined the broad framework for each unit, these were then passed to IT staff who set up the actual unit on Blackboard. Some of the learning activities required development after the RDTF event, however this progressed rapidly and were then easily set up on Blackboard.

An important observation about the actual development team was that it emerged in the process of the exercise that two of the members of the team would not be involved in teaching any aspects of the module. This runs contrary to Evans and Taylor (1996) and Murray and Savin-Baden (2000) views that most of the teaching team should be involved in the development and planning of any new course. The problem appears to be that such events are driven primarily by short term priorities, where development comes before delivery. As mentioned, this particular problem was overcome by working in 'pairs', hence at least one member of the pair would be a part of the teaching team.

The RDTF was unquestionably an extremely useful exercise, but perhaps did not run as smoothly as it should have done. The main problem arose out of a lack of academic responsibility for this module and module development not being equated with module teaching. Both factors come down to the issue of ownership – ownership of the module and ownership of the learning resources to be developed.

Despite these difficulties, the event did achieve its objectives, as it rapidly progressed the e-Learning form of the module to its final completion. In its final form, the study of research methods on line was divided into seven different topic headings, which are:

- Choosing and developing a research topic
- Developing a research strategy
- Initial thoughts on collecting research data
- Project organisation and administration
- Interacting with people
- Surveys
- Identifying differences

The final stage was to bring in 'reality checkers'. Essentially this group was made up of colleagues and research students who went through the various units of the course to check for ease of use, legibility, ease of understanding etc. Several minor points arose out of this, such as fully integrating some of the course materials, but these were easily correctable.

7. Subsequent events

The 'development team' in the end had a fairly short working life, but nevertheless did deliver a full on line version of the Business RM module. This was completed, mainly due to the RDTF event, well in advance of the date set by CBS and some six months before the on-campus form of the module was due to be delivered. Consequently, this particular form of

the course has led the overall development of the module. One important element however had been overlooked. Whilst previous on-line courses had been delivered to either on-campus full time students or off-campus part-time students that had signed up to study, i.e. volunteers, on this occasion placement students could be best described as 'conscripts', as they had little choice in the matter. 'Conscripts' however need to be given the equipment to undertake the task that is asked of them, in this case access to (a) a computer and (b) the internet. Whilst the institution was willing to provide a limited supply of laptop computers to plug any gaps, lack of accessibility in larger numbers than had been anticipated led to the postponement of the e-Learning version of this module for at least a year. This underlines the contention by authors such as Azer (2001) and Kaufmann and Holmes (1996) that contextual factors, particularly institutional support, are important in any innovative approaches to learning.

Attention has now turned to the campus based delivery of the module to 750 students across the business school. Whilst obviously not the issue of this paper, it is worth noting that organisationally this has proved extremely difficult as the business school is simply not structured for the delivery of such a module. At the practical end however, the on campus form has been developed through a process of dialogue and discussion with colleagues across the school. As a consequence, all teaching staff now consider that students will be given an appropriate course of study in research methods that is relevant to their own subject areas. This is largely based upon a core lecture programme and subject contextualised seminars i.e. we have a set of seminar headings but tutors will use their own learning materials. Some divisions have chosen to base their seminar programmes around many of the e-Learning activities developed for the off-campus module and some of these activities are now also being used on the business school MRes programme. This should allow some feedback to be gained from the actual activities that have been developed.

As regards the off campus module, the future remains uncertain. Access is a major issue and one that had been completely underestimated by the institution. On a more positive note, next academic year part-time evening students will have to undertake this module. This will almost certainly be based around a blended approach, where on campus work will be supplemented by e-Learning activities that will be drawn from the e-Learning form of the module.

8. Points of reflection

As stated in the introduction, this paper has been written from the perspective of a beginner to e-Learning. To many therefore some of the following points of reflection may appear obvious. Some are obvious, however not always appreciated when involved in the practicalities of undertaking such projects.

Firstly, there is a large difference between the theory of 'pulling together' a cross faculty module and the practice of actually doing it. As the student numbers 'reward' system in GCU is based upon what is delivered rather than what will be delivered, it is simply not conducive to such developments,. In a cross divisional module such as our Business Research Methods, this resulted in a lack of commitment of supporting resources at all levels. This particular project however had the good fortune of a strong core of committed staff at the centre of the project.

Secondly, the use of the VLE unquestionably proved to be invaluable when actually putting the course on line. Nevertheless, this does restrict the structure of the course to a certain degree to the structure of the VLE. To an extent this can be navigated around by the use of internal links. These can be provided by technical support staff or even a very basic knowledge of html. The author's html skills for example are limited in the extreme, having been acquired from working through the NTL basic guide to html (NTL, 2004). Even such limited skills however were found to be very useful.

Reflecting on actually 'e-Learning' business research methods for on line delivery, two key issues emerged. The first was the sheer time that was required to allow students to complete the activities associated with each unit. Once completed, the course was designed to run over a twenty-five week period, however initial thoughts had been based around a 12 – 15 week timeframe. This extended timeframe is partly due to the part-time nature of the participants on this particular module. The second issue was the role of the tutor. Although we had a stated aim that this should be fairly minimal, i.e. introduce topics and summarise, the subsequent undertaking of an e-moderators course brought home the time requirement that such a 'minimal' role would require.

A final point of reflection already touched on is the issue of staff. It is worth repeating that this project had the good fortune of a strong core of committed staff at the centre of the project. These individuals brought enthusiasm and direction to the project, and made things happen through innovative approaches to research methods that space prohibits giving examples of. When undertaking any such project such as putting business research methods on line, there can be a tendency to focus on the technical issues, but the critical factor to success is undoubtedly the human aspect. People make technology work.

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