

SOLE Case Study Series



**Hospitality Leisure Sport and
Tourism**

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Contents

Acknowledgements	iv
Table of Figures	iv
List of Tables	iv
Executive Summary	1
1. Introduction	5
1.1 Purpose of the study.....	5
1.2 Background.....	5
1.3 Methodology	8
2. Background to the case study	9
2.1 Context of the module	9
2.1.1. Case study 9 outline	9
2.2 Profile of participants	10
2.2.1. Gender.....	10
2.2.2. Age group	10
2.2.3. Nationality/first language	11
2.2.4. Programme of study	11
3. Results	11
3.1 Learning models – explicit/implicit.....	11
3.2 Student and tutor roles, use of resources and communication	14
3.3 Motivation and confidence.....	16
3.3.1. Student preparedness and confidence in using IT	16
3.3.2. Motivation	19
3.3.3. Correlations between confidence and motivation	23
3.4 Overall student performance	27
3.5 Support for students and staff	28
3.5.1. Support for students	28
3.5.2. Support for staff	29
4. Discussion	30
4.1 What is the implicit learning model, what is the explicit learning model and what is the actual tutor and student behaviour?	30
4.2 What factors do students identify as affecting their motivation positively or negatively and can these be attributed to the VLE itself?.....	31
4.3 How much time (online and offline) do students spend working on VLE modules? What resources, including the VLE kit, are the students making use of and what patterns of use can be identified?	32
4.4 How do students choose to communicate – how, when and why – and for what purposes? How do the VLE tools support this?	33
4.5 Who is/what is the role of the tutor? What is the role of the student?	34

4.6	How do students and tutors use and perceive the various forms of support available? ..	35
5.	Conclusions	35
6.	References.....	37
	Appendix A: Abstracts of LTSN HLST Publications on eLearning	39

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Table of Figures

Figure 1: Contribution to course room discussions	16
Figure 2: Students' performance on the module	28

List of Tables

Table 1: Profile of participants by Gender	10
Table 2: Profile of participants by Age.....	10
Table 3: Profile of participants by Nationality	11
Table 4: Profile of participants by First Language	11
Table 5: Profile of participants by Programme of Study	11
Table 6: Format of interaction reported	15
Table 7: Use of VLE tools.....	15
Table 8: Levels of confidence.....	17
Table 9: Factors affecting levels of confidence	18
Table 10: Changes in confidence over the duration of the module.....	19
Table 11: General motivation	19
Table 12: Specific aspects of motivation – questionnaire 1	20
Table 13: Factors affecting specific motivation – questionnaire 1.....	21
Table 14: Specific aspects of motivation - questionnaire 2	22
Table 15: Factors affecting motivation - questionnaire 2.....	22
Table 16: Confidence - questionnaire 1	23
Table 17: Confidence - questionnaire 2	23
Table 18: Motivation - questionnaire 1	24
Table 19: Motivation - questionnaire 2	25
Table 20: Confidence and motivation - questionnaire 1	26
Table 21: Confidence and motivation - questionnaire 2.....	27

Executive Summary

This is the summary of the final report, which analyses the results of a study conducted during 2003 of a full-time and campus-based year 1 module in Business Research Methods as part of programmes in Hospitality and Tourism Management (case study 9). This case study took place in a UK University using Lotus Learning Space as the VLE platform. The research was carried out on behalf of the Learning and Teaching Support Network Hospitality Leisure Sport and Tourism) as part of the Students Online Learning Experiences (SOLE) project.

Introduction

SOLE is a project funded by the Higher Education Funding Council for England (HEFCE) via the Learning and Teaching Support Network (LTSN) Tranche 2 initiative and the Joint Information Systems Committee (JISC) to undertake an independent evaluation of students' usage of virtual learning environments (VLEs) in higher and further education. The purpose of the study is to draw out the effectiveness of VLEs in supporting different subject areas, different national agendas (such as that of widening participation) and student learning in general.

Methodology

The study methodology was based upon the evaluation framework set out in the handbook for learner-centred evaluation of computer facilitated learning projects in higher education (Philips et al., 2000). Several aspects of the research have drawn on the Critical Incident Technique pioneered by Lockwood (Gilbert and Lockwood, 1999). The approach is designed to provide an in-depth set of case studies based on course modules across a range of subjects, with a wide range of data and collection methods.

The following main primary data gathering tools were used:

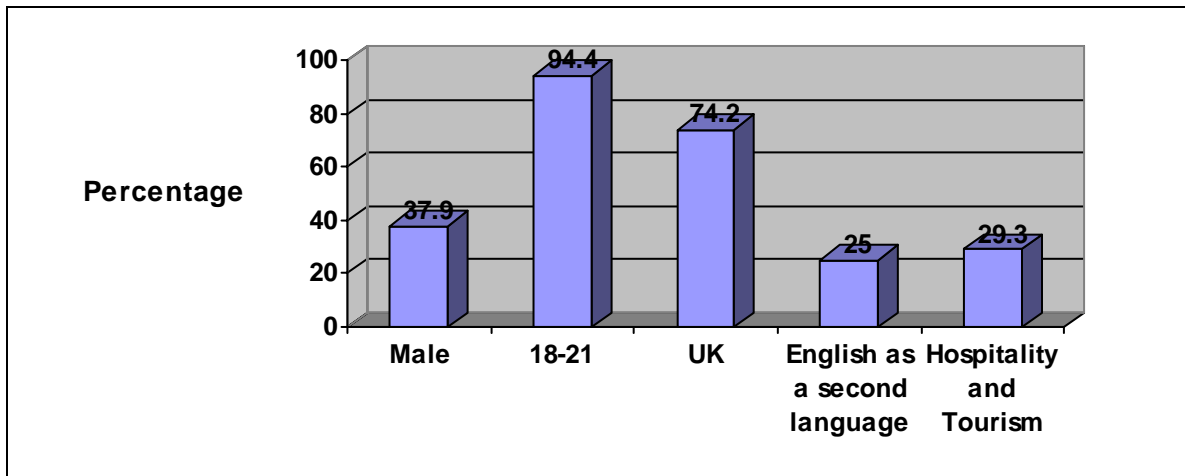
- Student questionnaires (two - one at the start of the module and one at the end)
- Student diaries (two – one in week 3 and one three weeks before the end of the module)
- Individual student interviews (at the end of the module)
- Tutor interviews (two – one at the start of the module and one at the end).

The following secondary sources were consulted:

- The teaching and learning strategy of the institution
- Details of student behaviour in the VLE (e.g. number of times logged on and activities undertaken) where available

Profile of participants

The student cohort examined is a large culturally diverse group in the first year of a series of business management programmes. As show 29.3% were student following a Hospitality and Tourism course.



Learning model

The case study showed a module in the third iteration of delivery as an online module and offered a sophisticated use of the VLE to deliver the subject with an explicitly constructivist approach, allowing the students to take a large part of the responsibility for their own learning, but supported by an experienced team of tutors in both online and face to face modes. The module was delivered using a blended approach with lectures and tutorials available in addition to the overall and group activities developed through the VLE itself. The module was delivered in this way to facilitate the variety of activities included in the teaching, including links to industry based 'external speakers' in the discussion forum, for the pedagogic reasons as well as to manage the teaching of a group of around 400 students.

Motivation and confidence

Generally students approached using the VLE in a positive light but there is no doubt that some were apprehensive and resistant to it, which could be related to a lack of confidence in its use. While confidence in using the internet, working and learning online and obtaining information from the VLE grew over the duration of the module, confidence in the subject actually declined – potentially due to the imminent onset of exams following the second survey. General motivation also fell over the module, but a strong correlation was established between confidence in the subject and motivation.

Students were positively motivated by their fellow students, their tutors, personal needs and help and support from the tutor, but found course administration, technological issues, the help and support in the VLE and the physical location as negative motivators.

There is clear evidence that female students felt less confident in using the VLE and consequently were less motivated by working online than their male counterparts. Students following programmes in hospitality and tourism also found working online less motivating and were also put off by the technological issues.

Use of communications and resources

Students made good use of the online discussion facilities within the VLE and made intensive use of the VLE especially at the start of the module. This however did not affect attendance at the lecture sessions, but attendance at tutorials was split into two groups. While the weaker students and the stronger students attended face to face tutorials, the 'average' students preferred to work online in their own time. There was still a keen interest in maintaining face to face interaction and attendance at lectures continued to be high despite PowerPoint slides with voice over being available in the VLE.

There was some division of opinion about methods of communicating in the VLE. While the tutor was happy with asynchronous communication and felt this offered positive benefits for learning and for time management, some students expressed an interest in the immediacy of real time communication through a chat room facility, which was not available using this VLE tool.

Despite the sophisticated set of communication modalities provided through the VLE, there is still considerable evidence that students still looked for personal face to face contact with their tutors and felt that the face to face element had contributed to their learning.

Roles and responsibilities

The tutors in this case strongly believed in their role as facilitators of learning and acted in this way throughout the module to encourage students to put more of their input into the learning process and give them more confidence with the subject matter. While the students did participate well in all the course room discussions and there was obvious evidence of learning taking place, whether the students understood the philosophy of the pedagogy is questionable, and whether they would have been more involved with the module if they had understood the basis of its design is also open for discussion.

Despite the explicit wish to involve the students directly in the learning, another benefit of the VLE for the tutors was to have better control over the progress of the module with a very large group and a complex teaching and assessment strategy.

The concept of 'virtual presence' was also raised in terms not only of the tutor's style of facilitating online discussions but also in terms of maintaining a level of personal intimacy with others through the electronic medium, which also extended to the idea of developing online group cohesiveness.

Support issues

Students do not automatically take to online learning and need careful introduction to the approach, not only in terms of the technological issues of access and passwords and finding your way around but also in terms of how to take part in online discussions, how to be part of an online group – indeed a whole series of skills the could form part of an online learning skill set.

Support for academics is also important recognising the commitment of time and resources that goes into developing a module in a suitable online form. As was the case with students there is a need for tutors to understand the technology of the VLE but,

perhaps more importantly, to understand and be explicit about the pedagogy of the VLE and how they intend to use it.

Further research

Suggestions for developing this current study through further research include:

- Factors affecting the motivation of students
- Differences between groups of students
- Designing effective online pedagogy
- Developing an online learning skill set
- Exploring the issues of virtual presence

1. Introduction

The following case study focuses on a School of Management in one UK HE institutions and represents the Hospitality Leisure Sport and Tourism LTSN input into the SOLE project. The main aim of the case study is to explore student online learning experiences using a holistic approach that draws on both qualitative and quantitative methods of data gathering. The case study is based upon a level one undergraduate module within a full-time campus-based Hospitality and Tourism programme.

1.1 Purpose of the study

SOLE is a project funded by the Higher Education Funding Council for England (HEFCE) via the Learning and Teaching Support Network (LTSN) Tranche 2 initiative and the Joint Information Systems Committee (JISC) to undertake an independent evaluation of students' usage of virtual learning environments (VLEs) in higher and further education. The purpose of the study is to draw out the effectiveness of VLEs in supporting different subject areas, different national agendas (such as that of widening participation) and student learning in general.

1.2 Background

The term virtual learning environment or VLE has been widely used over the past five years to describe online learning environments that have emerged and developed in both higher and further education in the United Kingdom. Initially these were defined and conceptualised functionally, for example as 'learning management systems that synthesise the functionality of computer-mediated communications and on-line methods of delivering course materials' (Britain & Liber, 1999). However, the definition itself has evolved alongside these learning environments and the emphasis has shifted from the technological components to a focus on how a VLE supports learning. This is demonstrated by a more recent definition from the UK Joint Information Systems Committee (JISC), which defines a VLE as 'the component(s) within an MLE that provides the 'online' interactions of various kinds, which can take place between learners and tutors, including online learning.' (JISC, 2002).

The potential of VLEs to support new ways of learning and to support the increasing heterogeneity of the student cohort is widely recognised and anticipated (DfES, 2003). Many Higher Education institutions, in order to recruit and retain a growing diverse range of students are looking to provide increasingly flexible learning opportunities (e.g. part-time, practice-based, distance) and a more supportive environment (e.g. provision of extra resources to support less able students skills etc.). There is now an increased focus on the potential of e-learning, and VLEs in particular, to deliver these objectives (DfES, 2003; HEFCE, 2003). Such objectives have been key to the explosive uptake of VLEs in the UK over the past few years and reflect the drive from government and institutions to fully exploit the potential of these new technologies. A UCISA survey (Armitage et al, 2001) reported a 7% uptake of VLEs in 1997 compared to an 81% uptake by 2001. This survey was updated in 2003 and as might be expected VLE uptake has continued to rise to 86% of returns; that is 84% of pre-91 universities; 97% of post 91 universities and 67% of HE colleges (Brown & Jenkins, 2003).

However, to date, the evaluation, subsequent support and use of VLEs has focussed on staff rather than learners. Stiles (2002) reports from a recent survey of 127 HE/FE

institutions that the vast majority of institutions have selected VLEs for one reason above all others: 'ease of use by staff'. The 2001 UCISA survey substantiated this finding: '...the focus of the impact of VLEs on institutions is on *staff* rather than *students*' and concludes that 'VLEs are widely recognised as an important component of an institutional strategy yet is poorly matched by delivery' and 'mature support mechanisms have ... yet to be comprehensively developed across the sector' (Armitage et al, 2001). However, according to the more recent UCISA survey conducted by Brown & Jenkins (2003) there is now increased recognition that VLEs are intended to support learning, rather than for example, efficiency gains and they report a pattern of consolidation across the contributing institutions which is more encouraging.

VLEs and Hospitality Leisure Sport and Tourism Higher Education

The LTSN for Hospitality Leisure Sport and Tourism covers a diverse range of programmes, with each area of study having a number of different possible approaches ranging from the scientific aspects of sports science, through the economic or social studies of tourism and leisure to the management of hospitality operations and an extensive range of alternative combinations along the way.

While there is no current quantitative assessment of the use of VLEs across the LTSN, a recent report (Haven and Botterill, 2002) has identified widespread use across the area. Twenty three responses to a qualitative survey drew on mainly from The respondents across England, Northern Ireland, Scotland and Wales, although institutions outside this network also responded. The majority of respondents were academics with experience of VLEs within the Hospitality, Leisure, Sport and Tourism subject areas, although 8 respondents were involved with VLEs at an institutional level.

They identified WebCT and Blackboard as the most commonly used VLEs within the subject areas of hospitality, leisure, sport and tourism, with involvement varying from 6 years to 18 months. The use of VLEs is for a variety of purposes, predominantly to deliver course material and module content, although some institutions are using computer-mediated conferencing. Motivations for involvement with VLEs varied, including issues of widening participation and accessibility especially at the institutional level. The importance of VLEs has obviously been recognised by The respondents, as VLEs are acknowledged within institutional strategy documents, even in institutions with no university-wide VLE at the current time.

Key objectives in the application and implementation of VLEs were enhancing the quality of teaching and the student learning experience, as well as expanding flexible learning and delivery. All The respondents provided staff training, albeit at varying levels. Few The respondents had carried out detailed assessments of staff and student reactions to the use of VLEs. However, those that had were fairly positive. At the subject level , respondents listed a range of benefits with regards to the application of VLEs, such as: accessibility, flexibility, interaction and personal reflection. Examples of current practice in relation to the use of VLEs was identified within the subject areas of: Business, Environment (Local Policy), Health and Social Science, Sport and Education.

Looking solely at the LTSN HLST's own on-line journal also shows considerable interest in and involvement with elearning. An article on aspects of elearning has appeared in every issue since its inception. Titles and abstracts of these articles can be found in Appendix A: Abstracts of LTSN HLST Publications on eLearning. However, it would appear that while the HLST academic community has shown considerable interest in

adopting VLEs in its teaching and learning practice there is still a need to explore how students perceive their experiences and compare these with the wider educational community.

This case study then forms part of a larger research project – the Students' Online Learning Experiences (SOLE) project, (<http://www.ilt.bris.ac.uk>), which was funded by the Learning and Teaching Support Network (LTSN) and the Joint Information Systems Committee (JISC). The project team consists of researchers from five different LTSN centres and covers the subject areas of Economics, Psychology, Information and Computer Science, Education and Hospitality, Leisure, Sport and Tourism. The case studies come from nine different HE and two FE institutions and include both undergraduate and postgraduate students.

When the project began in 2002, there were few, if any, studies focussing on student experiences of VLEs. Since then, a few examples have been published (Breen, 2002, Aspden et al 2003) although these have focussed primarily on one institution. Furthermore, whilst there is a growing body of evidence on individual aspects of the student experience of online learning, there has been far less research exploring the total learning experiences of students and student behaviour when learning using a VLE.

The main research questions the project aimed to address were:

- What is the implicit learning model, what is the explicit learning model and what is the actual tutor and student behaviour?
- What factors do students identify as affecting their motivation positively or negatively and can these be attributed to the VLE itself?
- How much time (online and offline) do students spend working on VLE modules?
- What resources are the students making use of and what patterns of use can be identified?
- How do students use the VLE toolkit?
- How do students choose to communicate and for what purposes? How do the VLE tools support this?
- What is the role of the tutor? What is the role of the student? How do these relate to the implicit, explicit and actual model of learning? How does it relate to student participation in the VLE?
- Is it possible to identify issues around authority, for example of knowledge, expertise and teacher-student communications, in relation to VLEs?
- How do students and tutors use and perceive the various forms of support available? How important do tutors think the support is and what is their understanding of student preferences?

It should be noted that whilst a range of different VLEs formed part of this project the intention of this research was not to compare VLEs. The main focus is to try to identify what happens when students are working within a VLE; the discourse and processes they undertake; the students' views and perceptions and identifying common factors and success indicators. It is also intended that these research questions draw on all case studies and it may therefore not be possible for a single case study to address all the questions.

1.3 Methodology

The study methodology was based upon the evaluation framework set out in the handbook for learner-centred evaluation of computer facilitated learning projects in higher education (Philips et al., 2000). Several aspects of the research have drawn on the Critical Incident Technique pioneered by Lockwood (Gilbert and Lockwood, 1999).The approach is designed to provide an in-depth set of case studies based on course modules across a range of subjects, with a wide range of data and collection methods.

The following main primary data gathering tools were used:

- Student questionnaires (two - one at the start of the module and one at the end)
- Student diaries (two – one in week 3 and one two weeks before the end of the module)
- Individual student interviews (at the end of the module)
- Tutor interviews (two – one at the start of the module and one at the end).

The following secondary sources were consulted:

- The teaching and learning strategy of the institution
- Log details of student behaviour in the VLE (e.g. number of times logged on and activities undertaken)
- Discussion board transcripts.

The data for the case study were collected between January and June 2003. The methods used followed the methods used by the entire project with the following completion rates:

Table 1: number of responses by research tool

Description	Total number of responses
	Case study 9
Number of students on module	400
Response	
Questionnaire 1	139
Questionnaire 2	60
Matched Questionnaire 1 and Questionnaire2	33
Diary 1	12
Diary 2	7
Matched Diary 1 and Diary 2	2
Tutor Interview 1	1
Tutor Interview 2	1
Student Interview	1

Student questionnaire 1 was distributed during the first lecture of the semester and achieved a 35% response rate. The second questionnaire was distributed during the final teaching week of the semester, some three weeks before the end of the module. The response rate here was only 15% due in part to the onset of the exam period following distribution of the questionnaire and the relatively low attendance at the lecture which was flagged as a revision session. In total only 8% of the respondents returned both questionnaires.

The response to the diaries was also very low, despite a number of reminders in lectures and the book tokens offered as prizes. Only two students completed both diaries. Arranging student interviews also proved problematic, with many students not showing up as arranged and other students no longer on campus at the end of the module. Arranging interviews in the autumn semester of the following academic year proved not to be feasible. No student completed both questionnaires/ diaries and was interviewed.

2. Background to the case study

Originally, the case studies for the SOLE study were chosen to represent different study areas, with one covering hospitality and tourism with a business management bias and the other coming from the performance aspects of sport. Unfortunately, the latter case study did not come to a successful fruition and despite attempts to replace the case study it proved impossible in the time constraints of the overall study, although it is proposed to pursue further case studies within ambit of the LTSN HLST outside the remit of the SOLE study.

2.1 Context of the module

Case study 9 is based in the management school of a research-led university in England. The module - Introduction to Business Research Methods - is a second semester module common to all first year level one undergraduate full time students across all management programmes delivered in the School. This includes students studying generic business management and retail management degrees as well as those following programmes in tourism and hospitality. In total some 400 students took this module.

2.1.1. Case study 9 outline

Module name	Business Research Methods
Length	Spring semester – 12 weeks taught, 3 weeks revision and examinations
Credits	10
No of. students on module	400
VLE	Lotus Learning Space
Aim	Develop student's skills in: identifying the sources of secondary data relevant to a particular business research question; collecting primary data to satisfy a business research requirement; analysing the data collected or retrieved and presenting their findings in a coherent manner
Learning Outcomes	On successful completion of this module the students will be able to: <ul style="list-style-type: none"> • Retrieve business data both from the library and online sources, including statistical data • Design a simple questionnaire or structured interview to solve a specific business research problem

	<ul style="list-style-type: none"> • Suggest an appropriate sample for data collection • Analyse the data using simple statistics with an appropriate computer package • Interpret and present the findings taking account of the limitations of the research method
Teaching and Learning Methods	<p>One hour lecture per week</p> <p>One hour small group tutorial in computer laboratory working on Learning Space and associated activities</p> <p>VLE activities - lecture notes, recorded lectures, tutorial practical activities, data sets, links to real-life data, regular assessed discussion forums, group work development areas, industry forums hosted by external industry specialists</p>
Assessment	<p>Discussion forums</p> <p>Group based case study on data collection and analysis</p> <p>Examination</p>

2.2 Profile of participants

The following tables illustrate the profile of the students responding to the survey questionnaires. In all cases these percentages are representative of the distribution of the normal population for the School. They are also generally representative of the distribution for the subject area as a whole, except that this School has a higher than normal percentage of international students and combines the study of hospitality and tourism with the study of retail and general business management.

2.2.1. Gender

Table 1: Profile of participants by Gender

	Frequency	Percent	Valid percent
Male	61	36.7	37.9
Female	100	60.2	62.1
Missing	5	3.0	
Total	166	100	

2.2.2. Age group

Table 2: Profile of participants by Age

	Frequency	Percent	Valid percent
Under 18	2	1.2	1.3
18-21	151	91.0	94.4
Over 21	7	4.2	4.4
Missing	6	96.4	
Total	166	100	

2.2.3. Nationality/first language

Table 3: Profile of participants by Nationality

	Frequency	Percent	Valid percent
UK	118	71.1	74.2
Non-UK	41	24.7	25.8
Missing	7	3.6	
Total	166	100	

Table 4: Profile of participants by First Language

	Frequency	Percent	Valid percent
English	120	72.3	75.0
Not English	40	24.1	25.0
Missing	6	3.6	
Total	166	100	

2.2.4. Programme of study

Table 5: Profile of participants by Programme of Study

	Frequency	Percent	Valid percent
Business Management	100	60.2	63.7
Retail Management	11	6.6	7.0
International Hospitality Management	22	13.3	14.0
International Hospitality & Tourism Management	6	3.6	3.8
Management and Tourism	18	10.8	11.5
Missing	9	5.4	
Total	166	100	

3. Results

3.1 Learning models – explicit/implicit

The module outline given to the students shows that the module consists of a one hour lecture in each of the twelve taught weeks, an optional one hour tutorial held in a computer laboratory each week and participation in the VLE. As part of the blended approach, the VLE holds lecture notes, recorded lectures, tutorial practical activities, data sets, links to real-life data, regularly assess discussion forums and group ‘work development’ areas. In addition the VLE also hosts a number of ‘industry forums’ hosted by industry specialists external to the University. A group project and presentation, participation in online discussions and a final examination covering the analytical methods assess the students.

The learning outcomes outlined in the module document state that on successful completion of this module the students will be able to:

- Retrieve business data both from the library and online sources, including statistical data
- Design a simple questionnaire or structured interview to solve a specific business research problem

- Suggest an appropriate sample for data collection
- Analyse the data using simple statistics with an appropriate computer package
- Interpret and present the findings taking account of the limitations of the research method

In addition the module aims to develop transferable skills including communication and presentation, report writing, group skills and planning and management of learning.

Specifically the content includes secondary data retrieval strategies, research design, clarifying goals, setting parameters, formulating and organising questions, coding questions for analysis, measures of location and dispersion, sampling techniques and sampling error, confidence limits, interpretation of results, including limitations and organising and presenting results.

It can be seen that the students are made aware through the documentation that the module will involve working online through the VLE and that the learning activities are split between lecture, tutorial and VLE work with a heavy emphasis on online working. Indeed, it could be argued that as the lectures are available online (through PowerPoint presentations with recorded sound) as well as the lecture notes and as the tutorials are optional, students could engage with the module almost exclusively online.

The following extracts from an article written about the module by the module tutor and from the interview illustrate the learning models used.

“While we see the skills and methods associated with research as a vital part of the curriculum, our students sometimes see things differently and motivation can be a problem. In addition to this, the module learning outcomes require that a large and diverse “input” population somehow be converted into a single “output” population that can demonstrate a skills set to a relatively consistent standard. The problem is easily modelled as a top-level “Input/Process/Output” system, but as is common with such theoretical representations, it is quite another matter to translate the theoretical notion into teaching and learning practice.

In attempting to do so, we are able to specify certain characteristics of the desired output as learning outcomes and demonstrable skills. However, we have a significant lack of control over many characteristics of the input population, such as the size of the class, the previous experience of our students, learning styles, cultural diversity and motivation - in fact many of those attributes that enrich teaching and learning!

Given that we have such limited control over our input, how then can we hope to design our process? The complexity of the learning process itself forces us to turn our attention to educational theory, but educational practice also requires a realistic appraisal of resources. At a time of increasing student numbers and limited funding, we considered the notion of “mass customisation” of teaching and learning through the adoption of technology to produce a Virtual Learning Environment (VLE) in which learners construct their own learning experience. Our University’s commitment to technology in the development of teaching and learning and the School’s growing expertise in using technology to support

distance convinced us that there was much to gain from using this experience to support campus-based courses.

So it was that three years ago we set ourselves the task of redesigning the BRM module to enhance the learning experience for our students while making the best use of the School's resources.

We turned to the constructivist learning theories that are seen by many as providing a suitable design framework for developing learning environments. The emphasis on participation is a dominant feature of constructivism. We depend upon student participation not just for ensuring learning outcomes, but also to further our understanding of learning environments as development progresses.

The BRM VLE was built using Lotus Learning Space - a proprietary Lotus Notes application developed to provide a VLE solution that satisfies both corporate and academic requirements. The choice of technology in our case was solely a matter of organisational platform - UniS committed resources to providing a centrally supported service for adoption across the University. Although Learning Space offered many advantages, it also presented us with challenges. For example, constructivism requires that the student be brought into the centre of the learning experience in a way that relies less upon instructional design strategies and more on immersion into the virtual learning environment itself. This is important as many researchers see the degree of virtuality as being directly related to the application of multimedia in the learning environment (for example, Hedberg & Alexander, 1996). In other words, the greater the application of multimedia, the higher the degree of 'virtuality' and the more likely that the student is moved from the periphery of the learning situation to the centre. Here again there is a forced separation of theory and practice. How many of us have access to the sophisticated immersive media technologies that can create a virtual world? If we see the degree of virtuality offered within a technology as a continuum, then Learning Space is definitely at the lower end.

The solution for us was to seek creative ways of developing a VLE that appeals to students but doesn't depend upon the application of multimedia technologies. Turning to the strengths of Learning Space gave us our lead. The communication module (the Course Room) that allows for asynchronous discussion across time and place organised within a number of communication modalities such as one-to-one, one-to-many, many-to-one and many-to-many seemed a good place to start. How could we use this feature to create a new learning experience for our students that would intrinsically interest them so that they would be drawn into the discussions and from there further into the VLE itself? Well, the clue came from the students.

Much of our assessment at level 1 is organised around group activities, for sound pedagogical reasons. Student evaluation fairly consistently cites the logistical problems in managing group work as a source of frustration. Here then was an opportunity to offer the students a solution - a virtual group space that was private, accessible 24/7 and could provide not just a discussion forum, but also a place to exchange work-in-progress between all members of the group.

Having found what we believed would be our "hook", we looked for other ways of exploiting the communication potential of our VLE. Clearly the Course Room would play a crucial role in the learning process by providing a platform for discussion around the curriculum topics, but how could we ensure that the students would participate? We decided upon a two-pronged strategy - the "stick" and the "carrot"!

The "stick" solution seemed fairly obvious - build it into the assessment, but just how to do this effectively did require much more thought. We considered many aspects - the mark weighting, the assessment criteria and, indeed, what did we actually want to assess? We realised that we needed to encourage the students not only to contribute, but also to read. Hence part of the assessment design is built around the discussions so that students can choose a particular topic (that they may or may not have contributed to), and summarise it. It is worth noting here that the course tutors can use the discussions very effectively to further develop key issues or to correct misunderstandings.

The "carrot" proved much more elusive. While we believed that the virtual group space would certainly attract our students into the VLE for the purpose of assignment development (and this is confirmed in practice), we wanted to give them an incentive to engage fully with all of the material within the VLE. Again we were guided by theory. Real-world relevance is seen as an essential aspect of the constructivist approach, so why not bring the real world into our VLE? Certainly the technology could provide the platform - all we needed was the people. Our School has a lively alumni society, with many graduates holding key positions within the tourism and hospitality industry across the world and here we found what we were looking for. Not only have we recruited five industry experts into our VLE, but we have also been given access to current organisational data across a number of domains and set real-world business problems to solve. The students have welcomed this expansion of the learning network and we can confidently report this case study as a successful application of technology that provides students with a variety of access and material that is not possible in conventional course delivery." (- tutor interview)

It can be seen that the module team - the module leader, one associate lecturer supporting tutorial delivery, one associate lecturer supporting online discussion (from Paris), one teaching assistant supporting online activities and discussions and five industry based discussion participants - have developed over time a sophisticated approach to module delivery and have carefully considered the learning approach to achieve the learning outcomes and to respond to identified best practice.

3.2 Student and tutor roles, use of resources and communication

All participants in each case study were asked to complete two diaries - one at the beginning and one at the end of the module - with each diary lasting for one week. Each time a participant engaged in any type of activity related to the module they were asked to record the type of activity, the format of the activity and how long the activity lasted. In using the VLE, participants were asked to note the specific area or tool they were using.

Diaries were distributed to record activity for week 3 and week 13 of the module. Unfortunately, despite the large size of the student group and the reminders and encouragement given by the module tutors and the researcher the response rate for the diaries was disappointing with only 12 returned for the first week and seven for the second week. Only two respondents completed diaries for both weeks. Given this low response rate, the results from this part of the study can only be seen as indicative and only a limited amount of detailed analysis has been conducted.

The average time spent working on the module from diary 1 was 276 minutes per person per week, of which an average of 128 minutes (46%) was spent online and 148 minutes (54%) was spent offline. By the stage in the module that diary 2 was completed, the average time spent on the module was 176 minutes per person per week, with 91 minutes (52%) being spent online and 85 minutes (48%) being spent offline. The shortest time spent in a week was recorded at 45 minutes and the longest at 1315 minutes. There is some consistency here in the view that over the period of the module students have moved to spending increasing amounts of time online.

The table below shows the percentage of participants reporting using each format during the module.

Table 6: Format of interaction reported

Format	Diary 1	Diary 2
VLE	100	71.4
Other electronic	33.3	42.8
Face to face	100	42.8
Paper	33.3	71.4
Other	8.3	0.0

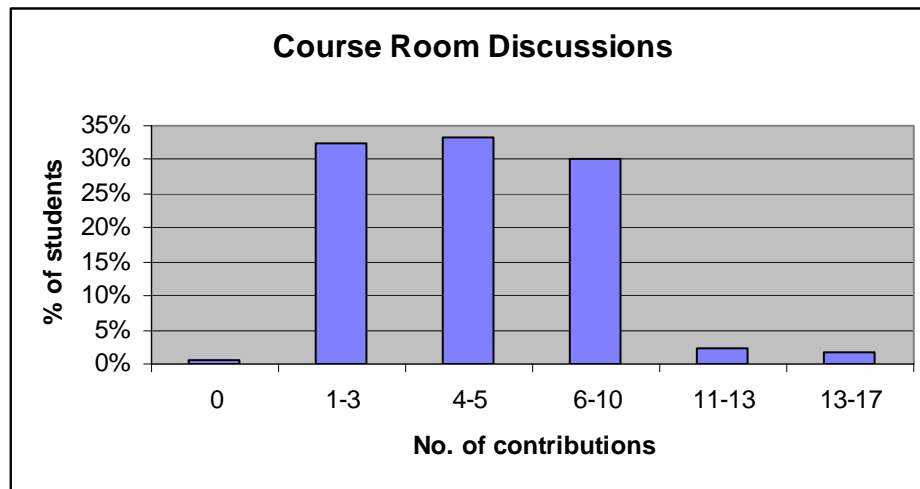
Again this would seem consistent with the weeks the data were collected. In week 3 students were new to the module and the VLE and would be expected to visit the VLE as well as attending lectures and tutorials for face-to-face activities. By week 13, VLE has reduced slightly and face-to-face activity had declined considerably with paper based activity on the increase as final assessments were being submitted and revision was undertaken.

Table 7: Use of VLE tools

Tool	Diary 1	Diary 2
Course room / discussion	91.6	71.4
Media Centre	8.3	0.0
Schedule	33.3	33.3

The Lotus Learning Space environment discourages the use of the media centre which is used merely to deposit materials that will be accessed normally either through the course room or the schedule. The course room forms the only tool for communication between students and tutors allowing both private and public conversations on a one to one and one to many or many to one or many to many basis. As it offers such flexibility in communication and group participation it is not surprising that it is the most commonly used tool.

Figure 1: Contribution to course room discussions



Although there is limited information here it can be seen that with most participation through the course room and in group discussion activities, students would seem to be participating more in high interactivity comprehension, analysis and evaluation levels in the taxonomy than in low interactivity knowledge based activities. There is a greater tendency to high interactivity toward the end of the module.

Another interesting effect on participation was noted by the tutor during the evaluation interview. She reported that, after the first few weeks when most students attended tutorial sessions, there was a bi-polarity in tutorial attendance where the weaker students and the strongest students attended, while the average students tended to work through the VLE on their own outside specified tutorial times. The stronger students attended the tutorials to be given extra challenges and to dig deeper into the activities and data sources, while the weaker students were attending to have face to face support directly on hand for consultation and 'hand-holding'. The average students appeared to feel that the VLE provided them with sufficient information and guidance to be able to complete the tasks without needing face to face interaction and to rely on electronic communication if they needed help.

3.3 Motivation and confidence.

3.3.1. Student preparedness and confidence in using IT

In addition to questions about levels of confidence and motivation, a series of open ended questions were asked to elicit the students' feelings of readiness to undertake the module using the VLE.

Only six out of the total of 139 respondents had any previous experience of using Lotus Learning Space. The time spent previously ranged from 30 hours to 2 hours with a median value of five and a half hours.

Asked if there were aspects of the module that they were looking forward to only 34 responded positively. The most common aspect that students were looking forward to were discussions and group work - being online and seeing what other people had to say including the industrial participants as well as using a new way of learning were seen as positive features.

Only 14 respondents mentioned aspects of the module they were not looking forward to. These revolved mainly around aspects of assessment but also featured the technological aspects of the VLE.

When asked if they had any concerns about working with Lotus Learning Space, only 25 students responded that they had. The concerns here were quite wide ranging and moved from the content of the module - dealing with numbers and maths - to a lack of face to face interaction. Some concerns about the navigation of the site and others not using it correctly were also expressed along with a need for more tutorial time.

In the interview with the tutor after the end of the module, attendance at tutorial was discussed. There was a tendency for two types of students to attend the optional tutorial sessions. One group were the very keen and confident students who were looking for additional challenges and the other group were the weaker students who were looking for additional support. It would appear that the 'average' student did not attend the tutorials and used the online activities and support as the basis for their learning.

Students were asked what if any introduction to working with the VLE they had had. In fact, all students were given a one-hour briefing in the first lecture of the module and had the opportunity of attending the regular tutorial sessions for a more hands-on experience. While the majority of responses acknowledge this level of introduction, there are still some who claim to have had no introduction or a very brief introduction and yet others who had a 'good introduction in the lectures - although self explanatory.

Students were asked a series of questions about their levels of confidence in using the Internet, the VLE itself and the module they were studying using a five point Likert type scale from very confident to no confidence. The questions were repeated in both questionnaires to identify if there were changes in the levels of confidence over the duration of the module.

Table 8: Levels of confidence

How confident are you about	No	Very confident	Confident	Some confidence	Little confidence	No confidence
Using the internet?	1	35.3	51.1	13.7		
	2	42.4	45.8	11.9		
Working and learning online?	1	8.6	43.9	41.0	5.8	0.7
	2	18.3	38.3	33.3	8.3	1.7
Finding your way around in the VLE?	1	8.8	40.9	39.4	10.2	0.7
	2	10.0	41.7	28.3	18.3	1.7
Obtaining information via the VLE?	1	5.8	28.3	50	15.9	
	2	5.0	28.3	45.0	20.0	1.7
Taking part in online discussions?	1	12.2	42.4	32.4	12.9	
	2	3.3	36.7	41.7	15.0	3.3
The subject you are studying in this module?	1	2.9	35.3	51.1	7.9	2.9
	2	8.3	25.0	35.0	26.7	5.0

Statistical tests (ttests or anovas as appropriate on the mean confidence levels) were conducted to identify what factors may be having an effect on the confidence levels

expressed in both questionnaire 1 and 2. The summary results are shown in the following table.

Table 9: Factors affecting levels of confidence

	No	Gender	Nationality	English	HLST
Using the internet?	1	y	y	y	y
	2	y			
Working and learning online?	1	y	y	y	y
	2	y	y	y	
Finding your way around in the VLE?	1	y	y	y	y
	2	y		y	y
Obtaining information via the VLE?	1				y
	2				
Taking part in online discussions?	1	y	y		
	2				
The subject you are studying in this module?	1	y	y		
	2	y			y

For those items indicated, gender had a statistically significant effect on the mean confidence levels shown. In all cases, males expressed a higher level of confidence than females. This difference was largely carried through from the beginning to the end of the module.

For those items indicated, nationality had a statistically significant effect on the mean confidence levels shown. In all cases, UK nationals expressed a higher level of confidence than non-UK nationals. This difference was only shown at the beginning of the module and had largely disappeared at the end of the module, only leaving the difference in confidence of working and learning online as statistically significant.

The differences evident from nationality are carried forward into English as a first language, with those for whom English is a second language being significantly less confident to start in areas to do with the Internet and using the VLE but again these differences had largely disappeared by the end of the module.

As not all students taking part in the module were taking programmes in hospitality or tourism, this group has also been separated for analysis. Perhaps surprisingly, differences were to be found in four out of six areas at the start of the module but in only two areas at the end of the module. In all areas the hospitality and tourism students were significantly less confident than the general business and retail management students.

Given the small numbers in the groups identified by previous use and age group, it is not surprising that there are no statistically significant effects to be found here.

In order to take account of changes over time, only those respondents to both questionnaires were included in the statistical tests at this point. Using a paired sample ttest, the following table shows the significant differences that were found.

Table 10: Changes in confidence over the duration of the module

n=33	No	Mean	Std. deviation	Correlation	Sig
Using the internet?	1	.9375	0.61892	0.466*	.018*
	2	1.2188	0.60824		
Working and learning online?	1	.3333	0.77728	0.667*	.010*
	2	.6364	0.78335		
Finding your way around in the VLE?	1	.3438	0.70066	0.384*	1.000
	2	.3438	0.86544		
Obtaining information via the VLE?	1	.1875	0.78030		.721
	2	.2500	0.80322		
Taking part in online discussions?	1	.2424	0.75126	0.404*	1.000
	2	.2424	0.83030		
The subject you are studying in this module?	1	.1515	0.75503	0.484*	.182
	2	-0.0606	0.96629		

*significant at the 95% level

This table shows some interesting results.

- In all but one case - obtaining information via the VLE - the correlations between before and after scores were significant and positive i.e. those who had high confidence at the start had high confidence at the end. In the case of obtaining information the correlation was positive but not significant.
- In three cases, confidence levels showed a positive improvement from the beginning to the end, but only two of these were significant - using the internet and working and learning online.
- In two cases no improvement in confidence was recorded - finding your way around in the VLE and taking part in online discussions - although the standard deviation increased suggesting a greater variation in confidence levels.
- In one case - the subject you are studying in this module - the level of confidence decreased, although this was not statistically significant. This may have been affected by the timing of the second survey, in the week before the final examination.

3.3.2. Motivation

Participants were asked a series of questions concerning motivation over the two questionnaires. In both questionnaires, students were asked to rate their general level of motivation toward the module on a 10 point scale from unmotivated to highly motivated. This is referred to as general motivation.

In questionnaire 1 seven specific motivation questions were asked with responses on a five point Likert scale from 'strongly agree' to 'strongly disagree'. In questionnaire 2, participants were given a list of 12 factors and asked to rate each in terms of its impact on their motivation. These responses were either positive, negative or neither.

Table 11: General motivation

n=33	No	Mean	Std. deviation	Correlation	Sig
General motivation	1	6.1515	1.25303	.529*	.000
	2	4.8485	2.01744		

*significant at the 95% level

The results here suggest that the general level of motivation has declined over the duration of the module while the standard deviation has widened significantly. The results for the specific motivation questions are shown in the table below.

Table 12: Specific aspects of motivation – questionnaire 1

	Strongly agree	Agree	Neither agree nor disagree	Dis-agree	Strongly disagree
The most important thing is getting good marks in the assessment	37.7	53.6	8.0	0.7	0.0
I am really worried that I may not do well in this module	6.6	36.5	32.8	22.6	1.5
I am interested in the subject matter of this module	1.4	37.7	41.3	15.9	3.6
I am doing this module to help achieve my personal goals	3.6	29.9	37.2	26.3	2.9
I am good at this subject and expect to do well	0.0	21.0	62.3	15.9	0.7
It's important to do better than others in the group	5.8	20.3	39.1	28.3	6.5
I am only doing this module because I need the credits	10.9	33.3	23.2	23.2	9.4

Ranking of the motivation questions by the percentage of participants agreeing or strongly agreeing is as follows: The most important thing is getting good marks in the assessment (91.3%), I am only doing this module because I need the credits (44.9%), I am really worried that I may not do well in this module (43.1%), I am interested in the subject matter of this module (39.1%), I am doing this module to help achieve my personal goals (33.5%), It's important to do better than others in the group (26.1%), I am good at this subject and expect to do well (21%). But ranking according to the mean motivation score shows a slightly different positioning as follows: The most important thing is getting good marks in the assessment (1.28), I am really worried that I may not do well in this module (0.24), I am interested in the subject matter of this module (0.17), I am only doing this module because I need the credits (0.13), I am doing this module to help achieve my personal goals (0.05), I am good at this subject and expect to do well (0.04), It's important to do better than others in the group (-0.09). One key difference is that it shows that overall doing better than others in the group has a small but negative score showing a negative reaction to this statement. Perhaps somewhat surprising is the high score achieved by the statement of only doing the module to obtain the credits, which outperforms an interest in the subject and fear of doing badly.

Table 13: Factors affecting specific motivation – questionnaire 1

	Gender	Nationality	English	HLST
The most important thing is getting good marks in the assessment	y	y	y	y
I am really worried that I may not do well in this module		y	y	y
I am interested in the subject matter of this module		y		
I am doing this module to help achieve my personal goals	y	y	y	
I am good at this subject and expect to do well	y			y
It's important to do better than others in the group		y	y	y
I am only doing this module because I need the credits			y	

y = significant at the 95% level

For those items indicated, gender had a statistically significant effect on the mean motivation levels shown. In all cases, males expressed a higher level of motivation than females.

For those items indicated, nationality had a statistically significant effect on the mean motivation levels shown. In all cases except for getting good marks in the assessment, non-UK nationals expressed a higher level of agreement with the motivation statements than UK nationals.

In two statements - The most important thing is getting good marks in the assessment and I am only doing this module because I need the credits - those students with English as a second language had lower levels of agreement with the statements, while for the other statements indicated they had a significantly higher level of agreement.

As not all students taking part in the module were taking programmes in hospitality or tourism, this group has also been separated for analysis. On statement 2 - I am really worried that I may not do well in this module - HLST students showed a higher level of agreement than non-HLST students, while on the other statements indicated they showed a significantly lower level of agreement.

Given the small numbers in the groups identified by previous use and age group, it is not surprising that there are no statistically significant effects to be found here.

In questionnaire 2 the participants were asked to identify if a series of specific issues had affected their motivation in a positive way, a negative way or neither. The results for this set of questions are shown below. The table has been sorted in rank order of the mean score in order to show those factors, which had the strongest positive and negative effects.

Table 14: Specific aspects of motivation - questionnaire 2

Factor	Negative	Neither	Positive	Mean score
Fellow students	16.7	16.7	66.7	0.5000
Tutor	18.3	16.7	65.0	0.4667
Personal needs	18.3	23.3	58.3	0.4000
Help and support from the tutor	26.7	23.3	50.0	0.2333
Access to a computer	33.3	21.7	45.0	0.1167
Working online	38.3	13.3	48.3	0.1000
Communicating online	40.0	18.3	41.7	0.0167
Physical location	43.3	20.0	36.7	-0.0667
Help and support from the VLE	46.7	20.0	33.3	-0.1333
Technological issues	46.7	20.0	33.3	-0.1333
Course administration / regulations	41.7	35.0	23.3	-0.1833

The table suggests that the biggest motivating factors were other students, closely followed by the tutor and personal needs. The most demotivating factors were course administration and regulations followed by technological issues and help and support from the VLE. Physical location also recorded an overall negative score.

Table 15: Factors affecting motivation - questionnaire 2

	Gender	Nationality	English	HLST
Fellow students				y
Tutor				
Personal needs				
Help and support from the tutor				
Access to a computer				
Working online	y			y
Communicating online				
Physical location				
Help and support from the VLE				
Technological issues				y
Course administration / regulations				

The table above highlights a number of interesting results from an analysis of the subgroups within the sample. It is interesting, for example, that there are no differences in motivating between non UK and UK students and similarly those for whom English is a second language.

In terms of gender, only one factor was significant. While male students found working online to be a positive motivating factor, it proved to be a negative factor for female students.

In terms of programme of study, working online was a positive motivator for the general and retail students but was negative for HLST students. Similarly HLST students found their fellow students to be less of a positive motivating factor than their colleagues on other degree programmes and HLST students found the technological issues more of a turn off than their colleagues who generally saw them as positive.

While the sample sizes at this point were quite small, there does seem to be an indication here of an interesting area for further research to inform practice.

3.3.3. Correlations between confidence and motivation

The following series of tables explores the relationships between specific items related to student confidence and motivating factors in order to identify any patterns that might emerge. Only those relationships, which are statistically significant at the 99% level or above, are shown.

Table 16: Confidence - questionnaire 1

How confident are you about	Using the internet?	Working and learning online?	Finding your way around in the VLE?	Obtaining information via the VLE?	Taking part in online discussions?	The subject you are studying in this module?
Using the internet?						
Working and learning online?	y					
Finding your way around in the VLE?	y	y				
Obtaining information via the VLE?	y	y	y			
Taking part in online discussions?	y	y	y	y		
The subject you are studying in this module?	y	y	y	y	y	

Table 17: Confidence - questionnaire 2

How confident are you about	Using the internet?	Working and learning online?	Finding your way around in the VLE?	Obtaining information via the VLE?	Taking part in online discussions?	The subject you are studying in this module?
Using the internet?						
Working and learning online?	y					
Finding your way around in the VLE?	y	y				
Obtaining information via the VLE?	y	y	y			
Taking part in online discussions?	y	y	y	y		
The subject you are studying in this module?	y*	y	y	y	y	

*at the 95% level

These two tables show that there is a strong relationship between levels of confidence in the Internet, in the use of the VLE and the subject matter of the module, both at the start and at the end of the module. A student who feels confident working on the Internet is likely to feel confident using the VLE and confident of their ability in the subject content of the module.

Table 18: Motivation - questionnaire 1

	The most important thing is getting good marks in the assessment	I am really worried that I may not do well in this module	I am interested in the subject matter of this module	I am doing this module to help achieve my personal goals	I am good at this subject and expect to do well	It's important to do better than others in the group	I am only doing this module because I need the credits
The most important thing is getting good marks in the assessment							
I am really worried that I may not do well in this module							
I am interested in the subject matter of this module							
I am doing this module to help achieve my personal goals			y				
I am good at this subject and expect to do well		-y		y			
It's important to do better than others in the group					Y		
I am only doing this module because I need the credits	y		-y	-y			
General motivation			y	y			y

There is a negative correlation here between being 'really worried about not doing well in the module' and being good at the subject and expecting to do well. This would be expected. Only doing this module for the credits also has a negative correlation with being interested in the subject and doing the module to achieve personal goals. Again this would be as expected. It is perhaps less expected that only three items have a positive correlation with overall motivation. These are being interested in the subject, doing it for your personal goals and doing it simply for the credits.

Table 19: Motivation - questionnaire 2

	Personal needs	Fellow students	Tutor	Course administration / regulations	Physical location	Help & support from the tutor	Help & support from the VLE	Working online	Communicating online	Access to a computer	Technological issues
Personal needs											
Fellow students	y										
Tutor	y	y									
Course administration / regulations											
Physical location											
Help and support from the tutor			y								
Help and support from the VLE				y							
Working online											
Communicating online						y		y			
Access to a computer	y					y					
Technological issues								y	y	y	
General motivation	y	y					y			y	

The relationships here also seem to follow a predictable pattern. Factors at a human interaction level seem to cluster around personal needs, the tutor and fellow students and include help and support from the tutor. There are also a series of technological factors that cluster around the technology, working and communicating online and help and support from the VLE. These are also linked to computer access. General motivation is only shown here as linked to personal needs, fellow students, help and support from the VLE and computer access.

Table 20: Confidence and motivation - questionnaire 1

How confident are you about	The most important thing is getting good marks in the assessment	I am really worried that I may not do well in this module	I am interested in the subject matter of this module	I am doing this module to help achieve my personal goals	I am good at this subject and expect to do well	It's important to do better than others in the group	I am only doing this module because I need the credits	General motivation
Using the internet?	y	-y			y			
Working and learning online?	y	-y			y			
Finding your way around in the VLE?		-y			y			y
Obtaining information via the VLE?		-y			y			
Taking part in online discussions?	y				y			
The subject you are studying in this module?		-y	y	y	y		-y	y

At the beginning of the module, general motivation is linked confidence in the subject being studied and to confidence in finding the way around the VLE. Some early concerns were expressed about navigating in the VLE and this may had a detrimental effect on overall initial motivation.

Table 21: Confidence and motivation - questionnaire 2

How confident are you about	Personal needs	Fellow students	Tutor	Course administration / regulations	Physical location	Help & support from the tutor	Help & support from the VLE	Working online	Communicating online	Access to a computer	Technological issues	General motivation
Using the internet?								y				
Working and learning online?								y				
Finding your way around in the VLE?									y			
Obtaining information via the VLE?	y				y					y		
Taking part in online discussions?								y	y	y		
The subject you are studying in this module?	y				y					y		y

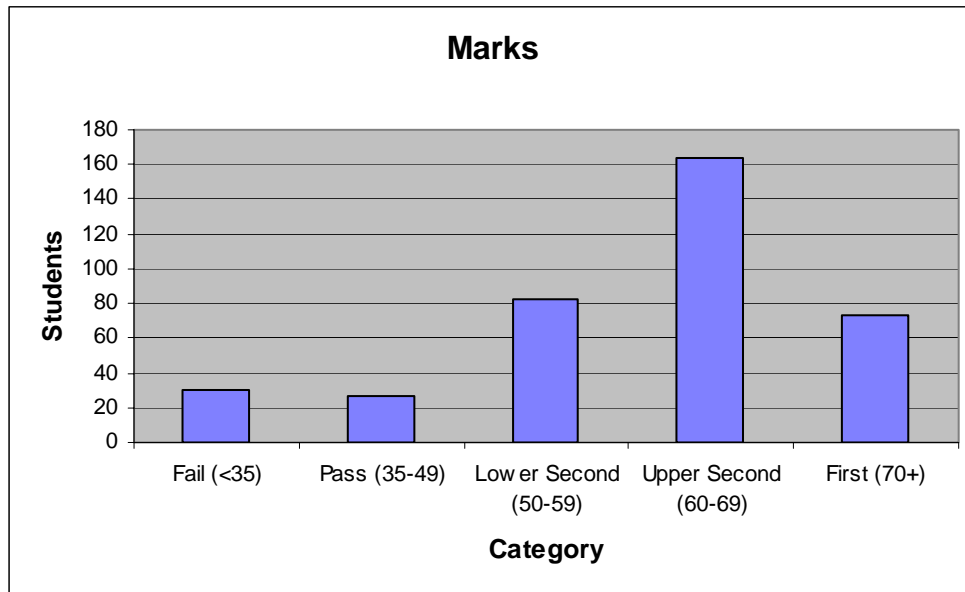
At the end of the module, general motivation is linked only to confidence in the subject being studied. The link here suggests that as students face the final assessment for the module and lack confidence in the subject matter, this may be having a detrimental effect on overall motivation.

3.4 Overall student performance

The diagram shown below provides a summary of the performance of students as measured by their final conflated mark all elements of assessment used in the module. The pattern shows the expected reasonably normal distribution of marks but skewed toward the higher end of the mark range, suggesting a generally high level of achievement.

Among the students who failed the module, there was a high correlation between poor performance and non participation in course room discussions. Those students who did not participate failed. There were no students who did not participate who gained a pass mark. In a subject such as this, with a mathematical / statistical component, there might be an expectation that students with a reasonable mathematical ability could be able to pass the module with little input required other than from lectures. The limited evidence provided here does not support this assertion. It is perhaps more likely that these were students who had some concerns about their grasp of the subject that did not recognise the benefits they would receive from participation.

Figure 2: Students' performance on the module



3.5 Support for students and staff

3.5.1. Support for students

All students were provided with three possible initial introductions to working with the VLE. In the first week, a one-hour lecture was given by a colleague from the Centre for Learning Development – a central university service charged inter alia with the development of learning technologies within the University strategy. In the same week, the first one-hour tutorial was devoted to using the VLE and finding a way around the system. There was also an on-line tutorial explaining how to use the system within the module itself on the VLE.

However, in the questionnaire where students were asked to report on the introduction, if any, that they were provided with, there was a rather confused message, ranging from “a thorough walk through of all the functions etc. with practice exercises to grasp it” to a surprisingly high number of “none”! Many students mentioned the lecture and rather more mentioned the tutorial session, but only a small number mentioned both and very few found the on-line system.

The first questionnaire asked students to comment on the support that they expected to be available. Their responses were predominantly based around assistance from the academic staff teaching on the module. Access to this support was identified as through the lecture and tutorial sessions face to face but also through on-line support through the VLE. While some students mentioned both face to face and on-line contact, a number only believed that on-line or email support was available. Other types of support identified were from other students, from visiting lecturers, on-line resources, and from technical support staff. One student commented that “you are able to contact anyone if you have a problem anytime”.

In the second questionnaire, students were asked to identify what support had been available to them during the module. Once again the most frequent comment was support from the tutors. As before there was a split in perceptions of whether that support was face to face, or on-line or both. The level of support provided also showed a difference ranging from “very little - tutor was available at times” through to “the tutor helped a lot”. Other providers of support mentioned were lab technicians, on-line discussions with other students, but perhaps surprisingly the industry based contributors to the discussion forums were not seen as providing support and only very limited mention was made of the help facilities as part of the software.

3.5.2. Support for staff

The University has recognised learning technology as a central element of its overall teaching and learning strategy and as such has put considerable resources, both human and technological, into its development. The lecturer concerned with the design and delivery of this module recognised that the university strategies for supporting technology for innovation in teaching and learning had been a big factor in providing the support, in addition to a lot of support and encouragement from within the School. Indeed, there was recognition that without support from the centre and the School the development of the module in the VLE would probably not have happened.

There was some concern expressed that support was required because once some staff start to use the VLE then this “...raises the game for other modules”. If this process forces the tutor to think about what they are doing and to redesign their course then this has to be good.

During the module excellent support was received from the technicians. An interesting innovation was to include the technicians as part of the course team in the VLE. This was done to ensure that they recognise how important their role is and the value of what they do and to stress that it really is a team effort.

On a different issue of support, an issue was raised about the vulnerability of running a course on a VLE where all actions are visible and recorded for posterity. This means that any mistakes that might be made are in the public domain. Staff therefore have to have trust that this will not be ‘used against them’ in some way and this might cause some problems for some people.

4. Discussion

The case study reported here goes some way to answering the SOLE study's main research questions:

4.1 What is the implicit learning model, what is the explicit learning model and what is the actual tutor and student behaviour?

This module was in its third iteration of delivery as an on-line module and so had developed considerably from its initial design to the one discussed here. From the outset there was a clear decision to pursue a constructivist approach, where an eclectic mix of students, in terms of nationality, academic background, programmes of study and interests, were encouraged to structure their own learning by creating their own case studies, selecting their own data for analysis and facilitate this through group specific discussion areas in addition to whole group discussion available on general topics.

An interesting incident from the module provides some insight into how this worked in practice. One aspect of the module was a series of industry forums discussing particular industry problems introduced by 'visiting' industrialists. One girl decided that these fora were of no value and used one of the tools in the discussion area to establish a survey among all students to support her view. The tutors decided not to intervene in this process but entered into the debate that ensued about the industry problems. In doing this, however, they also looked at the survey questions that the students had established and realised that the questions were ambiguous and would not produce a reliable result. After further discussion about the survey design, establishing some valuable learning points along the way, the survey was conducted and the industry forums were strongly supported by the student body. Indeed the girl who had raised the issue in the first place became one of their strongest advocates.

Some comments from the student interviews on completion of the module are also interesting.

"the group work was different ... people had to link up to do it ... there was a lot of work outside it (the VLE) ... the group work had to be more organised than others ... it really worked making sure that everything was in order and everything that was required"

The students' comments here do not seem to suggest that the VLE played an enormous part in a learning model that was partly based on group discussion and activities. They found the group work stimulating and involving. From the tutor's perspective, however, this design for delivery to around 400 students would simply not be possible without the use of the VLE.

"I simply couldn't teach a large group without it ... it has made the approach possible ... I couldn't connect all these people in any other way ... to develop their own case study material but to keep control over what they are doing gives them the confidence and allows me to draw back as they develop more knowledge ... but it all needs to be planned in advance".

In the second questionnaire, students were asked what had contributed most to their learning and the overwhelming response here was the interaction through the course discussion rooms and the group aspects of the work.

A final word from a student.

“ we learnt a lot in general ... it didn't force us together ... people voluntarily came together”

4.2 What factors do students identify as affecting their motivation positively or negatively and can these be attributed to the VLE itself?

Over the duration of the module, the general level of motivation of all students dropped from 5.8 to 4.7. More specifically for those students completing both questionnaires, it dropped from 6.2 to 4.8. This was significant at the 99% level using a paired samples ttest. The question to be answered is whether this drop in motivation can be attributed to the use of the VLE.

In questionnaire 2, students were asked to rate a series of factors affecting their motivation as either positive or negative. The top four motivating factors, with over 50% recording them as positive, were fellow students, the tutor, personal needs and help and support from the tutor. These would not appear to be linked directly to the VLE. The four negative motivators in decreasing order of importance were course administration, technological issues, help and support from the VLE and physical location. As the tutorials were located in computer rooms in order to use the VLE, this might have had an adverse effect, although there was a major problem with the lecture theatre which would probably have been more significant. It would appear that at least two of these factors could be attributed directly to the VLE.

The aspects of working on-line and communicating on-line both recorded as positive motivators. However, female students and indeed students studying hospitality and tourism found working on-line a negative motivator as opposed to male students and those studying general and retail management. Hospitality and tourism students also found technological issues more of a demotivator than their colleagues on other courses and found their fellow students less of a motivator. There is evidence here that the VLE has brought about some reduction in the motivation of some groups of students but has had a positive effect on the motivation of others.

Clear links were identified between levels of confidence about aspects of the module and levels of motivation. At the beginning of the module general motivation was strongly correlated with both finding your way around in the VLE and confidence in the subject being studied. At the end of the module however it was only confidence in the subject that had a significant correlation with general motivation.

In addition, it was found that there was a strong inter-correlation between all the confidence factors. Students who were confident about using the internet tended to feel confident about working and learning on-line, the subject being studied and so on. This was evident both at the beginning and end of the module. Confidence was also affected by gender, nationality and programme. Female students were generally less confident than their male colleagues about using the internet, working and learning online, finding your way around in the VLE and the subject of the module both at the beginning and at the end. While they were less confident in talking part in online discussions at the beginning of the module there was no significant difference by the end. The differences apparent due to nationality and first language had also largely disappeared by the end of the module, as had those due to the programme of study, although hospitality and

tourism students were less confident about the subject being studied at the end than at the beginning.

The limited evidence from the interviews with students and tutors at the end of the module did highlight some frustration with the working of the VLE, particularly in managing discussion threads with a very large group and the particular software being used.

To return to the question posed in the first paragraph, it can be argued that the drop in motivation, for the majority of students, could not be attributed to the VLE but to a lack of confidence in the subject as a whole, probably due to the impending final examination when the second survey was completed. However, there were significant groups of students for whom the VLE did bring about some motivational issues, in particular for female students and for those taking programmes in hospitality and tourism. It would appear that these students had lower levels of confidence in the technology as a whole and this has had a consequent effect on their confidence with the subject material and their overall level of motivation.

4.3 How much time (online and offline) do students spend working on VLE modules? What resources, including the VLE kit, are the students making use of and what patterns of use can be identified?

Few student diaries were completed during this study so an accurate picture of time spent online and offline cannot be given. Unfortunately, the particular VLE used did not provide easy access to tracking data through the system.

In the early stages of the module, the average time spent working on the module was 276 minutes per person per week, with an average of 128 minutes (46%) spent online and 148 minutes (54%) spent offline. By the later stages of the module, the average time spent was somewhat lower at 176 minutes per person per week, with 91 minutes (52%) spent online and 85 minutes (48%) spent offline.

At the start of the module, everybody who responded was using the VLE, but this had dropped to less than three quarters by the latter stages of the module, while paper based modes of learning were used infrequently at the start but had risen to over 70% by the end. This is consistent with the weeks the data were collected. In week 3 students were new to the module and the VLE and would be expected to visit the VLE as well as attending lectures and tutorials as face to face activities. By week 13, the VLE has reduced slightly and face to face activity had declined considerably with paper based activity on the increase as final assessments were being submitted and revision was undertaken.

Due to the nature of the particular VLE being used for this module, the course room where all on-line communication and discussions take place was the most widely used area of the VLE. Access to resources and key activities was through the course schedule or the course room and there was little need to visit the media centre, which acted almost exclusively as a simple file store.

4.4 How do students choose to communicate – how, when and why – and for what purposes? How do the VLE tools support this?

Table 6 listed the pattern of communication use from the completed diaries. This showed a fairly balanced profile across four forms of communication: the VLE, other electronic communication i.e. email, paper, and face to face. While the VLE and face to face were used by all students at the start of the module, this had dropped by the end of the module. Both other electronic communication and paper grew over the period of the module with paper based being used by over 70% of students at the end when revision was being done in preparation for examinations.

In the first questionnaire students were asked what aspects of the module they were looking forward to and electronic discussions with other students and tutors featured strongly in these responses. However, responses from interviews and from records in the VLE suggest that this was not as positive as had been expected. There would seem to be at least two reasons for this. First, that the particular VLE – Lotus Learning Space - does not have a well designed discussion forum and following threads in the discussion and finding particular contributions is not as easy as it could be. Second, when there are only a small number of contributions to a particular discussion thread, this can have a demotivating effect on participation. This is particularly true at the start of using the VLE when students are less familiar with its use. This can generate a negatively reinforcing cycle.

There is some diversion of opinion between students and tutors about the benefits of synchronous v. asynchronous communication. From a student perspective –

“it should be a chat room rather than asynchronously ... set it up like that ... let people battle it out there and then ... not just post submissions”.

Chat rooms style communications would certainly be more immediate and perhaps more motivating but there are potential problems with encouraging thoughtful contributions, recording the ensuing dialogue and maintenance of control. From a tutor perspective -

“(asynchronous communication) you’ve got to be on top of things and action things but you manage your own time and have much more control over how you do things ... you can plan it better ... but you do have to respond quickly”.

In Lotus Learning Space there are no facilities for setting up live chat rooms, communication could only happen asynchronously.

From the tutor perspective communication within the VLE can have very positive benefits, particularly when dealing with a large group and when a lot of the learning activities are discussion based.

“Communication in the VLE is really interesting ... when you have over a hundred students in a normal class you lose the intimacy with the students ... you lose track of who they are. Using the VLE for the first time it came back ... you lose the visual cues but have lots of other information to go on ... you could actually see the learning taking place through the discussions”

Certainly for this module the central hub of communications – and learning – was the course room where the capabilities of the VLE were put to the test. Involving around 400 students in plenary discussions, then splitting the cohort into many different groups each with their own private discussion area and linking them with tutors both in the UK and mainland Europe as well as participants from industry, placed considerable pressure on the technology but, although it was difficult to set up, it was very reliable in operation.

Despite this very sophisticated set of communication modalities provided through the VLE, there is still considerable evidence that students still looked for personal face to face contact with their tutors and felt that the face to face element had contributed to their learning.

4.5 Who is/what is the role of the tutor? What is the role of the student?

It is obvious from the discussions of the design of this module and the way the way the module has been delivered that the tutor has a clear view that it is based on a constructivist approach. The tutor is conscious of a change in her role.

“it should be much more collaborative ... having more student input into the learning process gives them the confidence to challenge more, which is good ... you are more aware of the students body as a whole and can regain intimacy with the cohort. There have been no negative impacts for me of from the student perspective ... but they wouldn't want it to replace me!”

There is less evidence as to whether the students see this change of role. Certainly their strong participation in the course room discussions, their willingness to challenge assumptions – for example the student who set up the survey on industry forums – and their overall performance on the module would seem to indicate that they have engaged well. Whether the students understand the philosophy of the pedagogy is questionable, and whether they would be more involved with the module if they understood the basis of its design is also open for interpretation. Perhaps being explicit about the learning model in use also means being open with the students.

It is easy for students to misinterpret a tutor's intentions. In this module the tutor spent some considerable time adding voice commentary to the PowerPoint lecture slides and placing them in the media centre for students who missed the lecture or who wanted to review it during revisions could access it at any time. This proved to be very popular, particularly with overseas students. It also had very little effect on attendance at lectures as might have been expected. However, student feedback was not totally positive. There was a feeling that having the PowerPoint slides and lecture notes on the system made the lectures themselves feel like a waste of time – even if they were well attended. There was now no need to make notes and no demands made to keep up with the flow of the lecture so that there were only limited memories of the lecture at all. As a face to face experience, there was a feeling that an opportunity for interaction had been lost.

Despite the tutor's willingness to relinquish authority and responsibility to the students, there was also a feeling that using the VLE help to maintain (or indeed restore) control of the learning that was especially important with a large group.

“I am now even more confident in using the VLE ... indeed I couldn't see teaching a large group without it ... there is a whole sense of control that you absolutely know what is going on ... there isn't another way with a large group to keep such a close track.”

There is also some indication that the experience of the VLE is bringing about not a change of role but the emergence of new roles through the idea of 'virtual presence'.

This appears in three ways in this case study. First, there is the presence created by the different tutors in the course room discussions. The nature of their communication, the type of words and phrasing that they use and the time that they engage with the discussions have all contributed to a particular virtual style. This in turn has affected the way that students respond to the different tutors. Second, there is the concept of cohort intimacy. This appeared strongly in one of the tutor's comments about her feelings of being more involved and more intimate with a large cohort, a feeling that she had lost when class sizes had climbed over 100 students. Third, there is the concept of a virtual group. One student raised the issue of whether you can feel part of a group when you are sat as an individual at a computer screen. His feeling was that you could feel part of a group as long as there was a lot of interaction. Certainly personal experience of supporting a group of distance learning students who formed a very cohesive and mutually supportive group through purely electronic interaction would support this view.

4.6 How do students and tutors use and perceive the various forms of support available?

How important do tutors think support is and what is their understanding of student preferences?

From the student perspective there was a certain amount of, perhaps unexpected, reticence and concern about learning through the VLE. This may have been due to the low levels of confidence that students felt about gathering information on line and through the VLE, taking part in online discussions and so on. There is perhaps an expectation that students who have grown up with the internet and computer games will automatically adapt easily to online learning.

This is especially evident in online discussions where the ideas of online asynchronous discussion threads and how to use them for the best advantage are not as straightforward as might be expected and are certainly not immediately obvious. There is a need to facilitate quite closely the early discussions so that students get the hang of things correctly at the start and build up their confidence and effectiveness. This in turn leads to the whole concept of a set of online study skills, which need to be developed if VLEs are to be used to best advantage.

From the tutor's perspective, there was a clear recognition of the need for technical support as an integral part of the learning team but an even greater recognition that there is a need for pedagogic support in the development of the teaching and learning approach to be used and that that has some serious resource implications. There is a suggestion here that a central provision would be the most efficient use of those resources.

5. Conclusions

This case study has demonstrated that students motivation to learning is affected by a whole range of things and that these may well change depending on the subject being studied and the ways in which the teaching and learning of that subject are addressed. There is no doubt that some of the factors can be attributed to online learning and by the use of a VLE and that this can have a positive effect on students. However, there are aspects of a VLE that students can find frustrating or demotivating, which may well be linked to their confidence in approaching on line learning.

There is no doubt that these motivating and demotivating factors and the confidence that may well underpin them are different for different groups of students. There is clear evidence in this case, for example, that female students find online learning more daunting, have less confidence in using it and find aspects of the VLE more demotivating. There is also some evidence here that students following programmes in hospitality and tourism also have similar feelings toward online learning.

There is also evidence here, however, that the positive features of online learning can be enhanced by the careful design of the teaching approach and by the judicious use of particular tools and techniques. It is important to recognise that just because a module is delivered using a VLE as an online learning experience this in itself is not enough to provide students with the motivation and confidence they need to succeed. As with any form of teaching, online learning needs to be very carefully designed and managed. Pedagogy takes precedence over technology.

There is also evidence that as confidence seems to play an important role in student motivation that more time should be devoted to developing an online learning skill set for students so that they can be better prepared for this form of learning experience and that that may well include some understanding of the underlying pedagogic approach.

This study also highlights the need for further research in the area, in particular in developing the approaches that will make best use of online learning but also to explore further why particular groups of students may find online learning more difficult. The concept of 'virtual presence' would also seem to be a fruitful area for further study both in terms of the tutor's role in the learning and the importance of influence and intimacy but also from the students' perspective of establishing their own individual online 'personality' and the formation of cohesive online groups. For the LTSN in Hospitality Leisure Sport and Tourism there is a need to establish why students following hospitality and tourism courses might struggle more with online courses.

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Appendix A: Abstracts of LTSN HLST Publications on eLearning

Haven C and Botterill D, 2002, Pedagogic Research Project Report Virtual Learning Environments in Hospitality, Leisure, Tourism & Sport: A Review, LTSN Hospitality Leisure Sport and Tourism: Oxford, September 2002

Executive Summary

Twenty-three individuals responded to the qualitative survey on virtual learning environments (VLEs) mainly from The respondents across England, Northern Ireland, Scotland and Wales, although institutions outside this network also responded. The majority of respondents were academics with experience of VLEs within the Hospitality, Leisure, Sport and Tourism subject areas, although 8 respondents were involved with VLEs at an institutional level. Respondents were split primarily into 2 groups: subject-specific and institutional. A third group was formed using respondents from other subject areas who displayed evidence of current practice in the application of VLEs.

WebCT and Blackboard are the most commonly used VLEs within the subject areas of hospitality, leisure, sport and tourism. Two The respondents have not yet implemented a university-wide VLE. The length of time that institutions had been using VLEs varied from 6 years to 18 months.

VLEs are currently being used for a variety of purposes, predominantly to deliver course material and module content, although some institutions are using computer-mediated conferencing. Motivations for involvement with VLEs varied and few at subject level mentioned widening participation and accessibility, although those at institutional level, who tended to have a more strategic overview, mentioned these. At institutional levels, Learning and Teaching Committees/Boards are heavily involved in the VLE decision making process. The importance of VLEs has obviously been recognised by The respondents, as VLEs are acknowledged within institutional strategy documents, even in institutions with no university-wide VLE at the current time. However, this recognition of importance does not correspond with target setting.

Key objectives in the application and implementation of VLEs were enhancing the quality of teaching and the student learning experience, as well as expanding flexible learning and delivery. All The respondents provided staff training, albeit at varying levels. However, training needs investment if VLEs are to have any impact on the enhancement of teaching quality and learning experiences, as there are new skills to learn and a completely different way of teaching.

Few The respondents had carried out detailed assessments of staff and student reactions to the use of VLEs. However, those that had were fairly positive. Subject-specific respondents listed a range of benefits with regards to the application of VLEs, such as: accessibility, flexibility, interaction and personal reflection. There is an explicit need to concentrate on learning processes and the pedagogy of using VLEs rather than the technology. Examples of current practice in relation to the use of VLEs was identified within the subject areas of: Business, Environment (Local Policy), Health and Social Science, Sport and Education. There is a need to raise awareness of staff to the benefits of VLEs, but to emphasise that VLEs are only one tool in terms of learning and teaching.

VLEs need to be developed as part of the overall learning culture, in order to ensure student acceptance.

There is a call from subject specialists for the development of VLEs that can integrate students and academics from different institutions and develop participation and contributions from professional and external organisations. It is essential to ensure that all costs, including the hidden cost of time, are fully appreciated. Furthermore, students may expect more on-line support from tutors than previously, as the tutor may be seen to be more accessible.

Batey J, Web Page Implementation and Cultural Change within a First Year Undergraduate Module, *Journal of Hospitality, Leisure, Sport and Tourism Education*, Vol. 1, No. 1 www.hlst.ltsn.ac.uk/johlste

Abstract

What follows is a summary of the implementation of a web page designed to enhance and support learning within a first year undergraduate sports studies module at King Alfred's College, Winchester. The paper then moves on to discuss the potentially problematic nature of introducing learning technology into the arena of higher education, exploring this specifically through the area of resistance to cultural change. Throughout this paper cultural change will be used to refer to the changes in mindset required in higher education institutions to accommodate new learning technologies. Cultural change is not only discussed in relation to the student body. This paper contends that in order for learning technology to be successfully integrated into the higher education curriculum, and therefore enhance learning experiences, numerous barriers present amongst academic staff also need to be addressed.

The term learning technology will be used generically to incorporate all types of computer and Internet based technological change. Where research has been conducted using a specific type of learning technology appropriate terminology will be used.

Keywords: Cultural change, learning technology

Haven C and Botterill D, Virtual Learning Environments in Hospitality, Leisure, Tourism and Sport: A Review, *Journal of Hospitality, Leisure, Sport and Tourism Education*, Vol. 2, No. 1. www.hlst.ltsn.ac.uk/johlste

Abstract

This paper reports the qualitative results of a LTSN Hospitality, Leisure, Sport and Tourism pedagogic research project, which has reviewed the existing and potential exploitation of Virtual Learning Environments (VLEs) within hospitality, leisure, sport and tourism. The concepts of e-learning and VLEs as they are reflected in the generic pedagogic literature are reviewed. Extrinsic contextual factors relating to the growth of VLEs within UK higher education institutions are highlighted. A semi-structured questionnaire was used to gather data from LTSN Hospitality, Leisure, Sport and Tourism Institutional Partner representatives at subject-specific and institutional levels. The findings report variations in motivations for development and implementation of VLEs, barriers to adoption and potential areas for further development. In addition to the review of current application of VLEs, the paper contributes to the debates surrounding levels of comprehension regarding VLEs and whether virtual *learning* environments are

being created, as opposed to virtual environments. The paper concludes with recommendations for various higher education stakeholders on the further application of VLEs.

Keywords: Virtual Learning Environments (VLEs), adoption, application, objectives, pedagogy

Leung YF and Ivy M I, How Useful are Course Websites? A Study of Students' Perceptions, *Journal of Hospitality, Leisure, Sport and Tourism Education*, Vol. 2, No. 2. www.hlst.ltsn.ac.uk/johlste

Abstract

Course websites are increasingly used to augment in-class instruction in various disciplines, including the allied leisure, recreation and tourism (LRT) fields, despite the fact that their effectiveness has seldom been evaluated. This study examined 56 senior students' use and perception of a course website designed for a recreation and facility planning course at North Carolina State University. Results show that most students had computer and Internet experience. Many students used the website often, particularly those components that were directly related to their final grades. The majority of the students preferred websites for future courses, but they did not prefer web-only courses without class meetings. Implications for instructors in the LRT fields and future research are discussed.

Keywords: World Wide Web, websites, e-learning, instructional tools, student evaluation

Lominé L L, Online Learning and Teaching in Hospitality, Leisure, Sport and Tourism: Myths, Opportunities and Challenges , *Journal of Hospitality, Leisure, Sport and Tourism Education*, Vol. 1, No. 1. www.hlst.ltsn.ac.uk/johlste

Abstract

This paper identifies and confronts five key myths explaining why many academics in the fields of Hospitality, Leisure, Sport and Tourism are quite reluctant to introduce online learning and teaching activities into their courses and modules. Designing and delivering high quality online sessions, in order to support and complement rather than replace face-to-face interactions, is by no means easy: the learning curve is a steep one, and one is bound to encounter technological, pedagogical and practical problems. Yet research carried out at the University of Gloucestershire in Autumn 2001 shows that online learning and teaching is beneficial for students and tutors alike, equally in terms of Information Technology (IT) skills, innovation, flexibility and support.

Keywords: Online learning and teaching (OLT), Information Technology (IT), Computer Mediated Communication (CMC)

Sigala M, The Evolution of Internet Pedagogy: Benefits for Tourism and Hospitality Education , *Journal of Hospitality, Leisure, Sport and Tourism Education*, Vol. 1, No. 2 www.hlst.ltsn.ac.uk/johlste

Abstract

Although an increasing number of tourism and hospitality educators are incorporating the Internet into their instruction, only few are fully exploiting the Internet's capabilities to

transform and extend their pedagogical models. As it is also generally agreed that we are still in the experimental stage for creating Internet learning environments, this paper aims at reviewing and evaluating the evolution of practices in Internet pedagogy in order to identify effective e-learning models for tourism and hospitality education. As the evaluation of any form of learning should be based on a theoretical framework to allow for the interpretation of results, the pedagogical underpinnings of the e-learning models are analysed and mapped into a three-era framework of e-learning pedagogy.

Keywords: e-learning; collaboratism; constructivism; tourism; hospitality; education