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Different Shoes, Same Footprints? A Cross-Disciplinary Evaluation of Students' Online Learning Experiences: Preliminary Findings from the SOLE Project

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Abstract:

This paper focuses on online learning experiences of students from a range of disciplines, drawing on and presenting outcomes from the SOLE (Students' Online Learning Experiences) project. SOLE, funded by LTSN and JISC, has undertaken evaluations of the learning experiences of students using virtual learning environments (VLEs) across five disciplines. The paper will introduce the study and present a summary of key findings on several aspects including the way in which the VLE was embedded in the pedagogy, tutor and student roles and communication issues. The paper concludes with a discussion of some emergent themes and the role of the discipline in the design and implementation of online learning experiences.

Keywords: students, learning experiences, roles, communications, virtual learning environments

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1. Introduction

This paper investigates the online learning experiences of students from a range of disciplines. It introduces the SOLE (Students' Online Learning Experiences) study, outlines the research design and aims of the project and presents an overview of the methodology. Some key findings are presented focussing on how VLEs were embedded within courses, tutor and student roles and communication issues. Some emergent themes and conclusions are then discussed and the role of the discipline in the design and implementation of online learning experiences is considered. The next stages of the SOLE project are finally outlined to signpost the reader to further reading about this project.

2. Students and virtual learning environments

The term Virtual Learning Environment or VLE has been widely used over the past five years to describe online learning environments, which have emerged and developed over that period in both higher and further education in the United Kingdom. Initially these were defined and conceptualized functionally, for example, as 'learning management systems that synthesize 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 [Managed Learning Environment] that provides the 'online' interactions of various kinds, which can take place between learners and tutors, including online learning.'[1]

The potential of VLEs to support new ways of learning and to support the increasing heterogeneity of the student cohort is widely recognized and anticipated (UK Department for Education and Skills -- 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). There is now an increased focus on the potential of e-learning, and VLEs in particular, to deliver these objectives (DfES, 2003 Higher Education Funding Council for England - HEFCE, 2003). Such objectives have been key to the explosive uptake of VLEs in the UK over the past few

[1] *JISC (2002) - Joint Information Systems Committee, Managed Learning Environment Programme: http://www.jisc.ac.uk/index.cfm?name=mle_overview*

years and reflects the drive from government and institutions to fully exploit the potential of these new technologies. An UK Universities and Colleges Information Systems Association (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-92 universities; 97% of post 92 universities and 67% of HE colleges (Brown & Jenkins, 2003).

However, to date, the evaluation, subsequent support and use of VLEs has focused on staff rather than learners. Stiles (2002) reports from a survey of 127 Higher Education (HE) and Further Education (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.

SOLE[2] was funded by the Learning and Teaching Support Network[3] and JISC within this context of increasing use of VLEs and a focus of attention on staff rather 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 behavior when learning using a VLE.

3. The SOLE Study

The SOLE study set out to investigate student experiences across five discipline areas within a range of institutions and contexts in order to gather evidence on student experiences more broadly and to investigate any discipline-dependent issues. The aim of the study was to draw out the effectiveness of VLEs in supporting different subject

[2] *SOLE -- Students' Online Learning Experiences Project: http://sole.ilrt.bris.ac.uk*

[3] *Learning and Teaching Support Network: http://www.ltsn.ac.uk*

areas, different national agendas (such as that of widening participation) and student learning in general.

The key research questions identified for investigation were agreed as follows:

- What are the implicit and explicit learning models and what is the actual tutor and student behavior?
- 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 students using and what patterns of use can be identified?
- How do students use the VLE toolkit?
- How do students choose to communicate -- how, when and why -- and for what purposes?
- What are the roles of the tutor and the student? How do these relate to the implicit, explicit 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, of expertise and teacher-student communications, in relation to VLEs?
- How do students and tutors use and perceive the various forms of support available?

Whilst a range of different VLEs were included, the intention of this research was not to compare VLEs or their functionality. The main objective was 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 the identification of common factors and success indicators.

The emerging consensus on approaches to evaluation studies of online learning focuses on the need for a variety of methods, due to the complexities and multi - faceted nature of online learning and teaching (Phillips et al, 2000). A shift towards

the Constructivist-Interpretive-Qualitative Paradigm is evident (Guba & Lincoln, 1989 and Patton, 1990), however Phillips et al (2000) argue that in most cases an "Eclectic-Mixed Methods-Pragmatic Paradigm" will be most applicable. This acknowledges that no single method can provide all the answers and that a range of approaches, using quantitative and qualitative methods together with triangulation is essential. In this study, we take a holistic approach (approaching evaluation in a range of ways in order to understand better the research questions of the study as a whole), drawing on illuminative and integrative methodologies and using a range of methods, (Parlett & Hamilton, 1977, Draper et al, 1996, Marton, Hounsell & Entwistle,1984). The study also draws upon a theoretical model of the motivational context for virtual learning (Cook & Timmis, 2002) in order to investigate the ways (if any) in which motivation is affected by students' virtual learning experiences.

A case study design was used with a range of both qualitative and quantitative data gathering techniques. In addition, secondary sources such as institutional policies in relation to e-learning were consulted. Data was collected primarily from the students; however, tutors were also interviewed and in some cases, others with a particular role in the module where appropriate. The primary data gathering tools were questionnaires, diaries, interviews, discussion board and transaction log data, and supporting documentation. In order to track changes over time, students were given a questionnaire at the start of the module and a similar one at the end. In addition, tutors were interviewed at the beginning and end of the module.

The case studies were chosen by each subject research team using agreed sampling criteria which ensured a balance of pre ('old') and post ('modern') 1992 universities. All case study sites were campus-based groups, most of which were either first or second year undergraduates, apart from Education where one group were postgraduate students. All groups had little or no previous experience with the virtual learning environment in use. Furthermore, groups were chosen where the tutor was planning to use the VLE for more than just an archive of materials as it was felt that some active use of the VLE was necessary to explore the issues involved.

The findings from the study are still being collated; they represent a large and diverse evidence base and in this paper only a subset of these will be presented. The findings presented here will focus on three of the subjects? Education (case studies 3 and 4), Psychology (case studies 5 and 6) and Economics (case studies 7 and 8). Reports from each of the five subject areas, and overall findings will be available on the SOLE Website [2] during 2004.

4. The case studies

Table 1 below provides an overview of participants and courses for each of the case studies discussed in this paper and how the VLE was embedded in these courses.

	Student numbers	*Year group*	*Course*	*VLE*	*Intended learning model*	*Intended use of VLE*
3-Education	8	Post grad	Learning & ICT	WebCT	Blended learning; half the module online. Weekly evening lecture.	Lecture notes, reading lists, structured activities linked to group online discussions.
4-Education	260	2 (B.Ed)	Professional studies	Blackboard	Year long course; blended approach.	Background course support collaborative student planning for face to face student-led seminars.
5-Psychology	80	2	Cognitive Psychology	WebCT	Lecture & workshop weekly, supported by online material, assessments and discussion.	Student preparation for lectures; weekly assessment; discussion board.
6-Psychology	175	1	Design, execution & analysis of research	Merlin	Mostly online; non-compulsory support workshops.	Email; weekly tutorial tasks and activities, links to other resources.
7-Economics	216	1	Team working in Economics	Blackboard	2 lectures only (weeks 1 & 3). Working in teams, supported by email and discussion boards. Assessed by group project.	Course information; group communication.
8-Economics	97	1	Introduction to Macro-economics	WebCT	Lectures and seminars weekly, supported by online materials and discussion.	Lecture notes; seminar problems, links to resources and discussions.

Table 1: Case study descriptions

5. How the VLE was embedded

In the case studies, VLEs were embedded in teaching in a wide variety of ways, these included course information and reading, using email through the VLE, discussion tasks, online assessment, tutorial practical activities, and group work (including with student managers). In initial interviews, tutors were asked why they intended to use the VLE in their course and what they hoped it would achieve. Responses to this question highlighted a number of reasons why the tutors chose to use a VLE in their teaching. In some studies, the perception that e-learning could be motivating and that the interactive nature of working online might be helpful appeared to be the main driver:

> "... (I'm) just trying to make it more exciting and kind of more hands on so they think about it and probably learn something at the end." Tutor -- case study 5 (Psychology)

In another case study (6, Psychology), the VLE was used to help cope with increasing student numbers by integrating research methods throughout the degree programme. In this study the tutor was also inspired by her previous experience where she had used the VLE very successfully in other modules. This course was very structured and the students appreciated the support the VLE gave them:

> " I think its just the structure of it really, that it was step-by-step and you knew what you had to do" student interview -- case study 6 (Psychology)

In the first Education case study (3) a more explicit learning related objective is discernible from the tutor's comments:

> "Well -- I can't speak for the other half of the module but I am very much trying to get them to be collaborative and constructive in the way that they approach their learning and to get them to think critically about what they are doing and what they are trying to achieve with their learning and ICT.'

> "I wanted the students to know about learning and teaching ... I tried to practice what I preach ... I do feel that if ICT is to be taken as a normal teaching tool then seeing teachers as role models teaching with it is as important as teaching them about it ... 'Also the structure of the WebCT materials supported collaboration" Tutor -- case study 3 (Education)

In the second Education case study, the rationale for using a VLE was more concerned with participation. The tutor interview clearly indicated a commitment to VLEs as offering a valuable opportunity to some students for contributing to discussion in a manner that was not possible in face-to-face sessions.

In the first Economics study (7) the intention of the tutor was to use the VLE to support a workshop module by setting up group areas where each group could participate in online discussion and exchange information and files. The group as a whole only met twice at the start of the module and were then organised into teams with student managers.

> "Hopefully. They will be learning better by actually being involved ? by actual group peer pressure and learning by doing" Tutor -- case study 7 (Economics)

In case study 8, also Economics, the reason for using a VLE was less distinct and was closely allied to the overall aim to develop an overall understanding of macroec nomics:

> "So by the end of the module I don't want them to be experts in macro economics, I want them to be able to hold a basic simple conversation about what is happening, and how things are affected by basic macro economic events." case study 8 (Economics)

One of the areas where we compared data was in connection with the implicit and explicit learning models that were to be found in these studies. Biggs (1999) refers to the process of constructive alignment as an essential requirement for effective teaching. Constructive alignment can be defined as "removing inconsistencies between the curriculum taught, the teaching methods used, assessment procedures, the educational environment created and the learning objectives students are to achieve " (Armitage & O'Leary, 2003, p18). In several of the case studies, there was evidence that constructive alignment was not fully achieved. For example, in the two Economics studies, where considerable emphasis was attached to the importance of group work and discussion using the VLE, there was a very disappointing level of involvement by students. Access statistics show that in case study 7, access levels were low and 9.8% never accessed it at all, in study 8 this figure was 12.5%. This was particularly striking in case study 7 where students were supposed to communicate through the VLE and the whole group only met twice at the beginning and then worked in groups throughout the module.

In case study 5 (Psychology), the goals at the beginning by the tutor were not supported by his own views on how the course developed. His initial remarks on what pedagogical approach was intended were:

> "What I am trying to do is encourage the students to take more responsibility for themselves (...) in particular the discussion board and hopefully to answer the questions, instead of just coming and seeing me all the time." Tutor -- case study 5 (Psychology)

At the end he felt that the students had not done much work at all and had not taken the responsibility that he had hoped for.

> "I think they are finding it difficult generally to engage with anything, it's hard to tell what they are finding difficult and what they are finding easy because I am not really getting much feedback from them in terms of helping them along." Tutor -- case study 5 (Psychology)

Unfortunately there are no access statistics for this case study as it would have been useful to compare these with the tutor's perceptions. It is worth noting that this tutor's responses did not show any expectation that he should manage or support their learning experience with WebCT. His view of WebCT appears to be solely in terms of a resource:

> "WebCT itself is fine you know? I expected it do what it was going to do, it's just the students who haven't lived up to my expectations but I think that 's just a general point." Tutor -- case study 5 (Psychology)

The perceptions of roles and responsibilities when working online are critical factors in the success of using a VLE. The nature of the roles undertaken by tutors and students in our studies is examined in the next section.

6. Tutor and student roles

The expectation that student and tutor roles will need to evolve and move away from the traditional information and transmission approach to teaching (Prosser & Trigwell, 1999) in order to be successful in adopting a networked learning or e-learning design have been well documented (Goodyear, 2001, Jones, 2000). Armitage & O'Leary (2003) note that e-learning itself does not automatically signal role changes unless this is part of the educational philosophy underpinning the

design of the course. Goodyear (2001) describes a number of indicators for how both tutor and student roles are likely to change. These include the tutor moving from the role of an oracle and lecturer to that of a consultant, guide and resource provider; tutors becoming designers of learning experiences rather than content providers and moving from total control of the learning environment to sharing this with the student as fellow learners. In addition he notes that teacher-learner power structures might be expected to erode as students move from passive consumers to constructors of their own knowledge.

In our studies, there was a marked difference between some subject areas in the roles of tutors and students. As might be expected, in the Education case studies, learning models and approaches were more overtly constructivist/social constructivist in design and this was supported by evidence from the students and tutors regarding their roles. Students tended to see their role as active and the tutor as a facilitator and the responses of those who were interviewed showed that they are comfortable with this:

> "The tutor was the facilitator. I had to be fully active in personally carrying out tasks and making decisions. I also had to communicate when I needed help." Student interview case study 3 (Education)

In the other Education case study (4), the students emphasised being part of a group and seeing their learning as a joint responsibility:

> "Working on Blackboard also makes me feel part of the group because it is a team effort. We're also -- this is a whole year thing. It's not just made for -- this isn't an individual person. It's a group thing." Student interview -- case study 4 (Education)

Similarly during staff interviews, in particular for case study 3, tutors demonstrated their expectations that students would take more control and reported that they viewed their roles as facilitative, although also still emphasized the need to structure the activities:

> " ...different at different stages ... The first stage would be me standing up and introducing the exercise to get the aims across. ... Once the activity is started I go around and check progress ... so I was acting principally as a facilitator..." Tutor interview -- case study 3 (Education)

In these studies then, there was some evidence that using a VLE was supporting group work and more independent learning by students and that the tutors and students had adapted their own roles accordingly. Evidence of changing roles was not found to any great extent in the other case studies discussed in this paper (although as a subset of the SOLE study, these examples do not represent all the other cases).

In both the Psychology case studies, as previously noted, there was evidence of the tutor aspiring to foster independent learning and some of the role changes mentioned by Goodyear.

> "I suppose I see myself more as someone who facilitates their learning." Tutor interview -- case study 6 (Psychology)

> "...I would like them to support each other and share what they have learnt and if they have something to tell each other about...." "...What I expect is going to happen is that they are not going to do that. That they are going to continue to be over reliant on me but they need to be trained, trained to behave!" Tutor interview -- case study 5 (Psychology)

However in case study 5 (Psychology), it is also clear that the tutor has little confidence that his approach will work. It is also clear from this statement that he sees the students as quite separate to his teaching, over which he has little influence. This is also supported by other quotes, reproduced later in this section.

In Economics the two case studies presented very different learning models. In the first study where the students worked in teams, the students' responsibility for learning was acknowledged:

> "...I don't think he was traditional... this type of module is independent work... you had to meet this deadline...If you don't get it done, that's your own fault. If you ever went to him, with any problems...he was always very willing to help..." Student interview -- case study 7 (Economics)

In case study 8 (Economics), although the tutor wanted to foster more independent learning, he was viewed by the students as a strong leader who they looked up to and this was seen by them as a factor in maintaining reliance on the tutor.

> "... there were not many discussions from fellow students... the teacher had such a strong role." Student interview -- case study 8 (Economics)

Despite a wide variety of activities and learning models amongst the Economics and Psychology case studies, the evidence of any significant changes in roles and behaviour is slight. In the main the roles appear to be fairly traditional and static and many students wanted more tutor involvement. In these studies, students did not appear to be as comfortable as the Education students with working online and showed resistance to working more without direction from a tutor.

> "They still see it very much as I'm the tutor and they are the students, what they go on there for is to find out what I have put on for them not to share things around or discuss things." Tutor interview -- case study 5 (Psychology)

> "I would say that one of the problems, I mean the discussion board is really good and everything but [the tutor] said we should try and use that instead of coming to see him...but I would like to see him more----I thought it would be another aid, but its like a substitute" Student interview -- case study 5 (Psychology)

The tutor in case study 6 (Psychology) adopted an independent learning model and the course allowed opportunities for both group work and individual tasks. However student responses seem to indicate that it was still the face-to-face support they received from the tutor that was central to their confidence in their work. Some of the students interviewed also wanted more face- to- face contact and tutor support as shown here:

> "If you went to the lectures/workshops [tutor] is always there to ask questions so I thought that was good. If you didn't go to the lectures I'd imagine it would be a bit harder to communicate with her because it would all be through email." Student interview -- case study 6 (Psychology)

Jones (1999) observed that those involved in teaching using networked learning environments (or VLEs) tended to share a common educational philosophy, which emphasised the importance of collaborative learning, made links between the literature and their practice and were sensitive to the need to adopt different learning styles and approaches. Students in our Education studies, who are likely to have studied constructivism and social constructivism as part of their course, were perhaps in a better position to recognise and adapt to new roles than the students in the other case studies.

7. Communication issues

In all the case studies, students reported a very strong appreciation for having course information online and "all in one place". This was by far the most well reported benefit of using a virtual learning environment and yet all the tutors in these studies wanted to promote some form of communication through the VLE and a variety of communication tools were in use. Whilst online discussion fora and other communication tools were included in the design of several of the courses in the studies, it was noticeable from student interviews and responses that students often failed to see the relevance or benefit of these.

An exception to this is the first of the Education studies, where students did not appear to have any difficulties communicating online with fellow students and saw it as a positive experience:

> "When I put my own work online I got the reply from others. They shared their ideas and opinions toward my work which are quite valuable." Student interview -- case study 3 (Education).

> "We planned a lesson on contour lines, as a group and pasted it to the bulletin board." Student interview -- case study 3 (Education).

However it should be noted that case study 3 (Education) students were postgraduates and a very small group so undertaking discussion and collaboration within this group might be expected to be successful. Students in case study 4 (Education), where numbers were very high (260 in the cohort) were happy with the principle, but had not really got into two-way communication during the course:

> "...I don't think that the online discussions- people have really used them as much as they could have done this year. And you have got the same people going on every time just to put things on. It's too easy to just sit back, read it like I do and not actually write anything." Student interview -- case study 4 (Education).

> "...I only agree with the on-line discussions are a good thing way to learn in this module because I mean I haven't used them a lot so I don't really know about how good they really are.' Case study 4 -- student interview (Education).

Similarly the students in the Economics case studies, where again the numbers of

students in the groups were very large (97, 216) reported difficulties with communications and discussions. In both studies, the online communications were not well used. In case study 7, usage was significantly higher amongst the female students. In case study 8, whilst overall participation was low, amongst those whose first language was not English, usage was significantly higher than the rest of the group and as the quote below shows, this group clearly appreciated having written communication:

> '... I think almost everything was easier with WebCT, because my mother language is Finnish...so it is much easier to read everything and get new information.' Student interview -- case study 8 (Economics).

In case study 7 (Economics), with such a strong emphasis on group work, communications were critical to the success of the module. The tutor had intended to set up group areas for each individual group which would allow easy group email, a group discussion board, file exchange and group chat but found the task too time consuming as each student needed to be added in individually, and abandoned the idea-

> " I suppose I expected more of a discussion. You're supposed to be able to use a discussion, but nobody ever uses it." Student interview -- case study 7 (Economics)

Any communication via the VLE was only through the email facility, which was little used (Blackboard does not keep a record of email for students or tutors to return to or keep track of). In some cases communications broke down:

> "... I think the tutor expected everybody would be able to log on and check their emails and keep contact regularly. The situation... I was not happy. I emailed them about five times and then they didn't even contact me..." Student interview -- case study 7 (Economics)

This student was a student manager of one group and became so frustrated that she resigned and undertook an individual assignment. However, others commented about the usefulness of using email via Blackboard:

> "Blackboard is useful, basically... Basically, you've got your group, you can e-mail your group members, just- with the names, and it provides various data from one another- say having a group meeting.' Student interview -- case study 7 (Economics).

Some of the psychology students also raised concerns about the nature of the online environment:

> "The discussion board is a bit impersonal really. It could answer your question fair enough but then, you know, there's always something else it might not clarify it completely and you might feel a bit silly having to write to him again saying you don't understand it." Student interview -- case study 5 (Psychology).

> "..in a way if you did want to say something to someone then your ID shows up so you can't just say anything. Quite a lot of people argue through the email thing on (the VLE) and I don't get involved because its printing your name and everything." Student interview -- case study 6 (Psychology)

Its printed nature and a concern over privacy may indicate that these students were either not very familiar with working online or not well briefed on how to address these concerns.

8. Emerging themes

To conclude this paper, some of the key themes that are have emerged from this brief review of some of the early findings from SOLE will now be discussed.

8.1 How can tutors achieve a greater alignment between implicit and explicit learning models?

There are a number of examples amongst these case studies where the implicit and explicit learning models were not aligned due to factors such as the underlying perception that students were passive recipients rather than partners in the learning experience. Equally, a mismatch between aspirations and the actual design of the module by tutors was seen as a contributor and students' continuing perceived need for face-to-face tutor involvement and leadership. It could therefore be argued that Biggs' concept of constructive alignment should be extended to suit the needs of the online environment and to include the students' needs and objectives.

8.2 How can we define and achieve successful participation in online communication?

Our initial findings suggest that participation in online communications remains a significant problem, which in many cases, affected student (and tutor) motivation

and the intended learning model. It was evident that in some cases online dialogue (in contrast to information retrieval) was loosely managed by tutors and was seen as more aspirational than intentional. Students also reported some lack of understanding of the role of online discussions and in some cases even discussion itself was seen as irrelevant:

> "...I think this module is just about learning something that is related to the module, but there's no need [for] any discussion on something." Case study 8 -- student interview (Economics).

The need for a well developed induction and staged introduction to e-learning and online communication in particular has been clearly demonstrated in Gilly Salmon's five stage model (2000) but may still not be systematically applied or sufficiently in depth to prepare students adequately. However, it should be noted that Salmon's model focused on distance learning and as these case studies were all campus-based it may suggest that a different approach is required. Further examination of the data to examine the relationship between these concerns and induction, design and management issues will now be undertaken. In addition an in depth discourse analysis has been completed using discussion board data from one of the studies to investigate the nature of the dialogue and discourse when using a discussion board at a micro level and the findings from this study will be drawn on in further investigating this area. This report will be also published on the SOLE website[2].

8.3 Are the roles of the tutor and students changing? Are the power dynamics between tutors and students changing?

Our initial findings indicate that tutors and students may be adopting limited changes of role but students still look to tutors for leadership. These role changes were most strongly in evidence in the Education studies, where student awareness of the theoretical principles and educational purposes underpinning a learning activity is likely to be much stronger. It could be argued, therefore, that in preparing both staff and students for learning with VLEs there needs to be more explicit tutoring in these theoretical principles and that students may need to be given more explicit guidance on how the different types of support and roles fit together to meet their needs. In order to investigate these preliminary findings in more depth, the SOLE data (in particular the critical incidents reports which made up a large part of the student and tutor interviews) is currently being re-analysed and triangulated across all the studies to look for further illumination on roles and relationships.

8.4 Are there discipline dependent issues, which are emerging from these studies?

With the exception of the Education studies, the students described here, appeared to be primarily concerned with the organizational aspects of VLEs -- how it affected their ability to learn rather than the nature and quality of the learning experiences they had. They see the benefits in terms of how it will help them manage rather than learn. In addition, there were many examples, in particular, amongst the Economics students where the processes indigenous to their subject were shown to be uppermost in students' minds when considering learning. Therefore although engaged in group work throughout the module, the students in case study 7 (Economics) saw this activity in terms of its contribution to their subject knowledge not to the effectiveness of their learning per se. This is also demonstrated by the quote above about the utility of discussion. It is also worth noting that of all the student groups who took part in the study, it was only students in case study 6, studying Psychology research methods who contributed in any great numbers to the requirement to fill in two activity diaries as part of the study. Whilst there is no direct explanation for this, it would appear to be explained by the alignment of this activity to the work in which these students were already engaged.

Although there is some evidence that students in different disciplines may have different needs and may behave differently to an extent and that the subject or discipline itself may need to be approached differently, most of the issues that have emerged so far from SOLE are cross-cutting and relevant across all the disciplines.

However as stated earlier, this article is an introduction to the SOLE study and a presentation of some early themes and findings. The issues raised here will be revisited and reconsidered in the light of additional evidence and our conclusions, full reports and summaries will be posted regularly on the SOLE website[2] from now on.

References

Armitage, S, Brown, T, Jenkins, M: (2001) Management and implementation of Virtual Learning Environments: A UCISA funded survey, available at <http://www.ucisa.ac.uk/groups/tlig/vle/index_html> -- last accessed 18 December 2003.

Armitage, S.& O'Leary, R. (2003) e-Learning Series No 4: A Guide For Learning Technologists. York. Learning and Teaching Support Network.

Aspden, E. Helm, P. Thorpe, L. (2003) "e-learning and the Learners' Experience: Ways of Evaluation and Preliminary Findings" ALT-C 2003 "Communities of Practice" 8-10 September 2003 Association of Learning Technology England, Sheffield.

Biggs, J.B. (1999) Teaching for Quality Learning at University. Buckingham: Society for Research into Higher Education & Open University Press.

Breen, R. (2002) Student attitudes towards the use of WebCT in teaching and learning.
<http://www.brookes.ac.uk/mediaworkshop/brookesvirtual/files/BVReportPt3.pdf>
-- last accessed 18 December 2003.

Britain, S. & Liber, O. (1999) A Framework for Pedagogical Evaluation of Virtual Learning Environments <http://www.jtap.ac.uk/reports/htm/jtap-041.html> -- last accessed 18 December 2003.

Brown, T. & Jenkins, M (2003) VLE Surveys: A longitudinal perspective between March 2001 and March 2003 for Higher Education in the United Kingdom. A UCISA funded survey, available at
<http://www.ucisa.ac.uk/groups/tlig/vle/index_html> -- last accessed 18 December 2003.

Cook, J. Timmis, S. (2002) Towards a theory of student motivation in virtual learning. Proceedings of ALTC 2002 Conference, Sunderland. Association of Learning Technology.

DfES (2003) Towards a Unified e-learning Strategy <http://www.dfes.gov.uk/consultations2/16/> -- last accessed 18 December 2003.

Draper, S.W. Henderson, F.P., Brown, M.I., & McAteer, E. (1996) 'Integrative evaluation: an emerging role for classroom studies of CAL' Computers and Education. 26 (1-3):pp. 17-3.

Goodyear, P., (2001), Effective networked learning in higher education: notes and guidelines, available at <http://csalt.lancs.ac.uk/jisc/advice.htm> -- last accessed 16 January 2004
Guba, E. G., & Lincoln, Y. S. (1989). Fourth Generation Evaluation. Newbury Park, CA: SAGE Publications.

Jones, C. (1999) "From the sage on the stage to what exactly? Description and the place of the moderator in co-operative and collaborative learning.". ALT-J, The Association for Learning Technology Journal. 1999. Vol 7 No2 pp 27 - 36.

Marton, F., Hounsell, D. & Entwistle, N. (1984). The Experience of Learning. Edinburgh: Scottish Academic Press.

Parlett, M & Hamilton, D (1977) 'Evaluation as Illumination' in Parlett, M & Dearden, G. (eds) Introduction to Illuminative Evaluation: Studies in Higher Education. Pacific Soundings.

Patton, M. Q. (1990). Qualitative Evaluation and Research Methods. (2nd ed.). Newbury Park, CA: SAGE.

Phillips R. (ed), Bain J., McNaught C., Rice M., Tripp D.(2000) Handbook for learner-centred evaluation of computer facilitated learning projects in higher education. Murdoch University, Australia
<http://wwwtlc1.murdoch.edu.au/projects/cutsd99/> -- last accessed 18 December 2003.

Prosser, M. & Trigwell, K.(1999) Understanding Learning and Teaching: The Experience in Higher Education. Buckingham: Society for Research in Higher Education and Open University Press.

Salmon, G (2000) 'E-Moderating: The Key to Teaching and Learning Online.' Kogan Page, London.

Stiles, M. (2002) Staying on track: why are we using technology in teaching? JISC Inform, Spring 2002 issue.