VLE Project Case Study

Environment & Health

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Contents

Contents ..................................................................................................2
Overview .................................................................................................3
Background .............................................................................................4
Description of approach ...........................................................................7
Learning activities & tools ....................................................................8
Student profile .........................................................................................9
  Experience with computers ........................................................................9
  Experience with computers for learning ..............................................9
  Expectations towards the VLE ...........................................................10
Outcomes ................................................................................................10
  Activity statistics ...................................................................................11
  Participation in group wikis .................................................................11
  Participation in group blogs .................................................................12
  Focus group feedback ............................................................................16
  Exit survey feedback ............................................................................19
  Course instructor’s feedback ..............................................................20
  Student skills required & developed ...................................................22
  Staff skills required & developed .........................................................22
Actions for further development .........................................................23
Overview

<table>
<thead>
<tr>
<th>Title</th>
<th>Environment and Health (Autumn 2007)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedagogic theme</td>
<td>Collaborative research &amp; report writing</td>
</tr>
<tr>
<td>Keywords</td>
<td>Group work: group blog &amp; wiki tools. Peer review</td>
</tr>
<tr>
<td>Subject area</td>
<td>Environmental Health</td>
</tr>
<tr>
<td>Student level &amp; profile</td>
<td>Third year undergraduate module for Environment students (10 credits)</td>
</tr>
<tr>
<td>No. of students</td>
<td>39 Environment students, drawn from two study programmes</td>
</tr>
<tr>
<td>Key conclusions</td>
<td>1. When designing a blended module, keep things simple and spend time thinking about how the online activities relate to the lectures and the core content of the course. It is important to communicate this relationship to students - particularly the benefits of studying online. The success of the module will depend on the careful setting of student expectations and establishment of rules of engagement.</td>
</tr>
<tr>
<td></td>
<td>2. Do not overestimate the capacity of students to engage in complex study tasks based on cooperative learning processes. This is particularly challenging when dealing with students with different study backgrounds. Simplify the steps involved in completing a group task.</td>
</tr>
<tr>
<td></td>
<td>3. Do not overestimate the skills of students in using wikis to support their learning. Guidance may be required to address the technical skills that they will need in order to format and edit submissions. Effective group work will also require students to master organisational skills in allocating roles and responsibilities to team members, as well as learning competencies in critiquing peer contributions in the development of their collaborative writing task.</td>
</tr>
<tr>
<td></td>
<td>4. The delivery of feedback to students for individual and group tasks is an important motivator, but only if it is timely – enabling them to apply it to the task in hand. Providing students with a provisional mark for a piece of work can act as an incentive for them to reflect on their work and improve it. Peer review procedures can also stimulate reflection on group writing tasks.</td>
</tr>
</tbody>
</table>
Background

‘Environment and Health’ is a third year undergraduate module open to students on two different degree programmes within the Environment Department. The module introduces students to the key notions and measures of environment and health, providing an overview of current and emerging environmental exposures and their potential health effects. The module was delivered for the first time to students in the Spring term 2006-07. It has since been delivered for the second time in the Autumn term 2007-08, which provides the context for this case study report.

The module is structured around 10 lectures, 3 computer-based practicals and 3-5 seminars. Students are assessed through a closed examination (60%) and coursework (40%).

The module leader, Pierre Delmelle, developed the course from scratch. He was faced with a number of challenges in writing and delivering it – particularly in how to present the key concepts to students with very different backgrounds. Pierre was also keen to present the materials in a lively manner that reflected the dynamic and interdisciplinary nature of the subject area:

‘Environmental Health is not my research field, although I worked before in this area, I am not really researching on it, so I was a bit concerned about how to bring something lively to the students.’
Pierre identified Yorkshare as a suitable delivery tool to address these challenges:

‘Based on this context... I felt that that the VLE could help me to produce and deliver teaching material which would be suitable for students with different backgrounds and offer different approaches to the delivery of content. The adaptive release approach to the delivery of content would help me for what is a very interdisciplinary course, which is delivered to students with a very broad range of backgrounds.

Secondly, I thought that the VLE could be used to explore in a more interactive way the concepts taught in class. In the context of the course, students could dig out information and import data into the VLE and use it as a platform for exploring the subject in a targeted way with guidelines. Students would use the VLE in the practical to retrieve information, which they needed to accomplish a task.’

For the initial delivery of the course in the Spring term (2006-07), Pierre experimented with the adaptive release tools, with the aim of releasing material to students based on their background and understanding of the course materials, enabling them to study at their own pace. Students were expected to complete a series of multiple-choice tests before and after each lecture, in which they received automated feedback on their performance. Successful completion of the tests triggered the release of new materials. Pierre intended to address questions and queries that students raised through the tests by creating additional resources or developing new tasks for them to perform. Pierre also introduced a collaborative decision-making task to the course, which involved dividing the cohort into two groups. Each group was required to work with numeric data in running a World Health Organisation statistical model, with students importing data and sharing results and then posting reports on a shared wiki site.

On reflection, neither approach was entirely successful. Students tended not to complete the tests whilst the course was being delivered, and only referred to them after the completion of the course as part of their exam revision. Students still received hard copies of the lecture notes during the class sessions, so were not motivated to attempt the tests as part of their formative learning between lectures.

The collaborative decision-making task was hampered by timetabling problems with the computer-based practical sessions, which limited the time available for student to familiarise themselves with the data before completing the task. They were unable to extract the data and upload results onto the shared wiki and then critically comment on the results from the other group.
'My understanding was that the students found the quizzes very useful (for exam revision). The use of the wiki for the group approach was less successful. My expectations were too high in terms of asking students to use a model to dig out data and then place results on a shared wiki and then critically comment on the results with other groups—there was too much numeracy. The students are from very different backgrounds and whilst some were fine, others were completely lost.'

For the second delivery of the course in the Autumn term (2007-08), Pierre therefore focussed on a new design approach, which aimed to engage students in a more active way, helping them to collaborate more effectively and build their own knowledge. This involved adjusting the group work activity and structuring it carefully, so that there were a number of clearly defined tasks to complete, involving report writing and peer feedback. He based this approach on ideas he had gleaned from a successful Biology module (Evolutionary Ecology).

Screen image from the Group Projects area of the Environment & Health module

'In the second roll-out of the module, I substantially modified the group work activity and I tried to exploit the wiki more efficiently. Instead of basing the group work on numerical problems, I asked each group to produce a draft report on a specific topic on the wiki, based on a review of the literature. Students had to choose a topic (research) and build up an integrated summary of a given topic on the wiki, which I could comment on. I then provided feedback on the reports after a given date.
They submitted the draft on the wiki and the other groups couldn’t see this. I commented on the draft on-line and then gave students a deadline to resubmit a revised version. This revised version was peer-reviewed by another group and at this stage all the reports were open to all the other groups. I moderated how students had assessed the reports.’

The peer review component of the group activity accounted for 5% of the marks for course. Pierre focused on how they reviewed another group’s draft report, and he ensured that they were given clear guidelines on how to complete a review. He also evaluated each group’s wiki report and required each group to make a short oral report in class on their findings.

Pierre also experimented again with the adaptive release approach to content, but this time focused on its use to help students solve problems with data sets. In the practical session students worked through a series of numerical problems, solving each task to get the next problem, with the problems increasing in complexity. There was a reading list for each problem, which students could use to dig out information to help solve it, and there was a quick quiz, which if they passed, they could see the next problem.

Description of approach

The blend for this module was based on lectures, practicals and seminars for the face-to-face component, and collaborative research and writing for the on-line component, with access to course materials and self-assessment quizzes.

The VLE supported the face-to-face component by:

- Providing access to course materials, including the tests for the computer-based practical sessions, which were adaptively released to groups.
- Supporting collaborative work through the development of the group research reports, which were presented on the course wiki. The draft reports were peer assessed by another group working on a different subject area. Based on this work each group would research a topic which would be covered in the exam and would also be familiar with another topic through their peer review activity. Students would thus be engaged in the critical acquisition of knowledge, rather than passively absorbing information and it would raise issues for discussion in class.

- Offering tests for self-assessment with automated feedback, to help students make links with other course materials. The quizzes for revision were not linked to a specific lecture, but designed instead to integrate different themes and help students acquire a more holistic view of the course concepts.

**Learning activities & tools**

The online component of the module included:

- Announcements: used by Pierre to post instructions and guidance on the coursework and to provide feedback to the cohort on the group tasks.

- Module Outline: description of the module including learning outcomes, assessment methods, and lecture timetable.

- Course Materials: lecture notes and links to external websites, with the ‘Mark Reviewed’ option enabled to track student progress in accessing the resources.
Group Projects: discrete areas for each topic, with reading materials, plus a group blog to prepare their report and a group wiki to write it up.

Practicals: reading and instructions for the practical sessions with tests for students to assess their own understanding.

Links: a short list of external websites for additional resources.

Calendar: confirming meeting times for lectures, seminars and practicals.

Digital Media: audio and video files presenting additional information on the key themes of the course.

Help: guidance on how to address technical problems and a forum for students to post course-related queries and problems.

**Student profile**

The entry questionnaire was completed by 36 of the 39 students at the beginning of the course.

**Experience with computers**

The entry survey results revealed that students were established users of computers for information search activities, with 83% respondents accessing information from the web on daily or almost daily basis. There was a division within the class regarding the use of communication tools. 25% of the respondents had never contributed to discussion forums or blogs. 50% of respondents rated themselves as confident or very confident in uploading files to a website, but 30% had never attempted this before.

**Experience with computers for learning**

Half of the students had previously followed a course that delivered course materials and resources online and 47% had experienced online self-assessment but online discussion was less familiar, with the majority of respondents (77%) reporting that they had not followed any courses that required the use of a discussion board.

Opinions were divided about whether the training received was adequate. More than half (61%) agreed or strongly agreed that the training was sufficient but 25% neither agreed nor disagreed and 11% disagreed.
Expectations towards the VLE

Expectations towards the use of the VLE in this module were generally positive. 61% of respondents agreed that a VLE supports ideas and experience sharing amongst students. 66% agreed that a VLE increases opportunities for discussion amongst students outside of class. Similar numbers thought that the VLE would help the instructor to be more accessible to students and increase interaction with students outside of class.

The majority of respondents (86%) agreed that a VLE provides flexibility to learners in terms of their study needs. A little over half of respondents (55%) agreed that a VLE could help them prepare well before class sessions. But there were some significant concerns: 33% feared that the VLE would increase costs to students (e.g. through additional printing) and 30% thought that the VLE would increase their workload.

Outcomes

The module was delivered for the second time in the Autumn term (2007-08), with the on-line component of the course substantially modified to incorporate the group research-writing task.

Feedback was collected from the instructor at the end of the course and from the students via an exit survey and focus group.
Activity statistics

Student log-in patterns were varied across the module, with peaks of high activity recorded at the time of practical sessions and deadlines for assessed coursework. 33% of hits occurred on Mondays – the day before the weekly lecture.

Overall visits to the site were high, with an aggregate score of over 12,000 hits.

<table>
<thead>
<tr>
<th>Number of logins</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;500</td>
<td>7</td>
</tr>
<tr>
<td>&gt;400</td>
<td>11</td>
</tr>
<tr>
<td>&gt;300</td>
<td>24</td>
</tr>
<tr>
<td>&gt;100</td>
<td>34</td>
</tr>
<tr>
<td>&gt;50</td>
<td>35</td>
</tr>
<tr>
<td>&lt;50</td>
<td>4</td>
</tr>
</tbody>
</table>

The group work area attracted the most hits, with 76% of the total (9347 hits). The practical area accounted for 14.5% of hits (1781 hits) and the course materials for 5% (630 hits).

<table>
<thead>
<tr>
<th>Course Area</th>
<th>Percentage</th>
<th>Number of hits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group Projects</td>
<td>76%</td>
<td>9347</td>
</tr>
<tr>
<td>Practicals</td>
<td>14.5%</td>
<td>1781</td>
</tr>
<tr>
<td>Course Materials</td>
<td>5.15%</td>
<td>630</td>
</tr>
<tr>
<td>Module Outline</td>
<td>1.18%</td>
<td>145</td>
</tr>
</tbody>
</table>

Participation in group wikis

Students were divided up into groups and required to work
together in preparing a report, summarising the findings of the research literature which was related to the weekly topic that they had been assigned. They were then asked to upload the report to their group wiki site.

Table 3 shows the percentage of page modifications per student per group to the group wiki. The figures suggest that some groups shared out the work more evenly than others. However, the statistics should be interpreted with caution, as feedback suggests that some students worked together face-to-face, with only one person actually editing the wiki. In this context, all activity would be attributed in these figures to the single editor, with the collaborative (face-to-face) dimension to the group work not reflected in the statistics for the wiki page modifications.

<table>
<thead>
<tr>
<th>Group</th>
<th>S</th>
<th>S</th>
<th>S</th>
<th>S</th>
<th>S</th>
<th>tutor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>70%</td>
<td>16%</td>
<td>4%</td>
<td>-</td>
<td>-</td>
<td>9%</td>
</tr>
<tr>
<td>Group 2</td>
<td>42%</td>
<td>28%</td>
<td>19%</td>
<td>3%</td>
<td>-</td>
<td>8%</td>
</tr>
<tr>
<td>Group 3</td>
<td>38%</td>
<td>35%</td>
<td>22%</td>
<td>0%</td>
<td>-</td>
<td>5%</td>
</tr>
<tr>
<td>Group 4A</td>
<td>69%</td>
<td>4%</td>
<td>3%</td>
<td>-</td>
<td>-</td>
<td>21%</td>
</tr>
<tr>
<td>Group 4B</td>
<td>80%</td>
<td>13%</td>
<td>4%</td>
<td>1%</td>
<td>-</td>
<td>1%</td>
</tr>
<tr>
<td>Group 5</td>
<td>46%</td>
<td>45%</td>
<td>5%</td>
<td>1%</td>
<td>-</td>
<td>3%</td>
</tr>
<tr>
<td>Group 6</td>
<td>89%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>-</td>
<td>9%</td>
</tr>
<tr>
<td>Group 7</td>
<td>39%</td>
<td>38%</td>
<td>5%</td>
<td>4%</td>
<td>-</td>
<td>14%</td>
</tr>
<tr>
<td>Group 8</td>
<td>21%</td>
<td>12%</td>
<td>11%</td>
<td>6%</td>
<td>2%</td>
<td>48%</td>
</tr>
</tbody>
</table>

### Participation in group blogs

Each group was also given a blog tool to coordinate the research and writing activities. Groups used the blog to varying degrees, with the number of posts per group ranging from 1 to 37. Again, the figures should be interpreted with caution, as students were not required to use the blog tool to coordinate their work. Students also used other channels of communication including email and Facebook.
The modes of communication via the blog are analysed below.

**Table 4:** Classification of blog posts.

<table>
<thead>
<tr>
<th>Group</th>
<th>Progress Update</th>
<th>Organisation</th>
<th>Feedback</th>
<th>Info</th>
<th>Social</th>
<th>Questions</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Group 2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Group 3</td>
<td>13</td>
<td>12</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>5</td>
<td>34</td>
</tr>
<tr>
<td>Group 4A</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Group 4B</td>
<td>14</td>
<td>6</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>22</td>
</tr>
<tr>
<td>Group 5</td>
<td>14</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>4</td>
<td>22</td>
</tr>
<tr>
<td>Group 6</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Group 7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Group 8</td>
<td>8</td>
<td>13</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>37</td>
</tr>
<tr>
<td>Total</td>
<td>51</td>
<td>43</td>
<td>8</td>
<td>11</td>
<td>6</td>
<td>14</td>
<td>133</td>
</tr>
</tbody>
</table>

**Categories:**

**Progress Update:** Update by the student about what they have done and work that is still to be completed.

**Example**

‘Hi guys I’ve made a new page and started the revised integrated paper, if you want to have a look at it and then add your parts but make it flow, I thought we could introduce the problems associated with this topic as case studies and some of the information in bullet point form, I’m changing my diagram so that it makes it easier to digest.’
Organisation: Organisation of group work. Discussion of the division of work and of arrangements to meet.

Example

‘Hey guys, What we have got so far looks good. I do think we need to share the work out more fairly for the monday deadline though, cos I did spend a lot more time on last task and the difference between the papers is quite substantial. What do we suggest we do? I am quite happy to start covering paper 5 but, maybe laura and i can cover paper 5 and 6 together since we live together? Let me know what u guys think?’

Feedback on Group Work: Comments from group members on the work in the wiki to date.

Example

‘That’s brilliant, I like the question too!’

Information Sharing: Exchange of research findings and summary material for inclusion in the report.
Example

‘Guys, I’ve finished writing the answer to the exam question. So if you want to have a look at it/change it before we stick it on the wiki, here it is.’

Social: Social messaging between group members, not related to the task.

Based on the message classifications and frequencies, it appears that the group blogs were mostly used by students to divide up the workload; update each other about their progress in allocated tasks and to arrange face to face meetings to coordinate the initial writing task. However, some groups returned to the blog after their initial submission to discuss how they could improve their report, building on feedback that they had received from the course instructor and comments received from a peer group. For example, Group 4A used the feedback to address presentation and content issues in their final report:

‘Ok, so we have some good feedback. Below, I have just broken it down into specific things that each of us will need to do, and then some general stuff that we all need to discuss together.

The relationship between human and ecosystem health is a complicated one, primarily because of the definition of ecosystem health units. Assuming that it refers to the degree to which an ecosystem’s functioning as defined by anthropogenic attributes, a healthy ecosystem is one which is either free from anthropogenic stressors (e.g. industrial pollution) or one which is inversely related to them. Because human health depends on a variety of factors (e.g. the presence of a strong social network), it is difficult to classify that there is a strong direct relationship between ecosystem and human health. However, it is undeniable that we depend on ecosystem services to provide all the basic resources vital to our life (e.g. clean water). Therefore, it is apparent that ecosystem health degradation (i.e. the reduction of an ecosystem’s capacity to deliver its services) may lead to the deterioration of human health.

For example, the destruction of tropical rainforests due to an increasing demand for timber and for agriculture has resulted in the loss of the habitats of a number of species, including many that are of medical or economic importance. The loss of these species has had a direct impact on human health, as many of them are used in traditional medicines or have other ecological services that are essential for human health. For example, the loss of rainforests in the Amazon region has led to the decreased availability of traditional remedies used by indigenous communities to treat a variety of illnesses, including infections and chronic diseases.

Those of us that have done tables - try and present the info in a more easy to read way - I think I'm going to take out the table all together, and maybe do it as separate subheadings with short paragraphs instead so its easier to read.
I think the separate sections need to be shorter, so we can write a more comprehensive introduction covering the whole topic - maybe including things like RR factors, and exposure info?

"You could emphasize that serious concerns are expressed about the role of air pollution (and in particular particulate matter, PM) in inducing and exacerbating CVDs, as well as lung cancer." - Annabel, Laura and possibly myself should have a look at the European Environment Agency website and see how this can help us highlight the importance of each health area.

"What does relative risk (RR) mean? Can you compare the RR values for cancer in relation to exposure from selected environmental pollutants? What are fine particles? What is incidence? What is prevalence? Is occupational exposure relevant here? You should now be able to provide a bit more details on your subject area." - Ok, so i guess this is for all of us - we should read through what we have written and adapt it now we know more. But not make it too complicated - remember people are going to want to be able to understand these easily! (e.g. Laura, maybe you can include some info on the CA study we learnt about the other day

Have a look at the other articles Pierre is going to post, and make our bits better :)

The peer review feedback therefore appeared to have some impact in stimulating reflection on the group report, encouraging students to review what they had written in their initial submissions.

**Focus group feedback**

Five students took part in the focus group. Students found that the VLE communication tools – announcements, wikis and blogs – had to become part of their daily study routine. This did not happen immediately with some students forgetting to log in and some being frustrated when they left blog posts that nobody read.

'It is sometimes quite difficult to use the blog. You could write a message – “Shall we meet up tomorrow?” – but there would be no guarantee that people would read it. We check email regularly but not always the blog.’

'The problem is that we are not used to using the VLE. It’s another tool and we already have tools.’

The introduction of the VLE for the first time indeed ran counter to study practices on the programmes that students were following, which confused them at first:
However, as the course progressed, students made greater use of the VLE, logging in most frequently in the 2 to 3 days before deadlines for the submission of work to correspond with peers and the course instructor and to submit and amend work. The wiki and blog were appreciated by most students as useful tools to share work and findings:

‘The VLE was a nice way of handing in work. It was a good space – everyone put everything in the same place. It was useful to share media and good web links. It was really good as a share point.’

‘The wiki was quite good. Everyone could put their work up there.’

Groups also benefited from the peer review process which had been built into the group work activity, requiring each group to comment on another group’s report:

‘Everyone writes the same things in the feedback. It is good to see it though.’

‘It encourages you to look at your own report. You look critically at others and then think more deeply about your own. You look at another subject area…’

Regular feedback from Pierre was also greatly appreciated:

‘I have never had feedback like that. It was continuous and it is easier to get if it is on the VLE.’

‘I didn’t have to email (for him to check the report) – he usually checked it, looking at it at set times for our group’

However there were some frustrations related to the technical functionality of the tools. Students complained that pasting text from Word into a wiki was often unsuccessful as formatting is disrupted and graphs could also not be easily pasted into the wiki. Students were also frustrated when they could not edit because another student was editing at the same time. Students did not necessarily use the wiki as expected. One student reported:
‘Separate work was put up for each person, and then the report was put together, combining it into a meaningful document. Some work was put up and one person assembled it.’

There was conflict in at least one group which might have been alleviated by increased awareness of the existence of a wiki history:

‘We spent hours on it, then one person changed it (the report). There were group politics over changing the content. We weren’t aware of the page history option, and we were stressed about losing text.’

This suggests that students require greater support and training in using the collaborative tools, and would also benefit from guidance on how to manage the group-work in terms of establishing roles and responsibilities.
Exit survey feedback

14 students completed the exit survey, which invited them to reflect on their expectations to the VLE based on their experiences following the course.

Table 5: Selection of results from the entry and exit surveys.

<table>
<thead>
<tr>
<th></th>
<th>SA (%)</th>
<th>A (%)</th>
<th>N (%)</th>
<th>D (%)</th>
<th>SD (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A VLE supports ideas and experience sharing amongst students</td>
<td>57</td>
<td>14.3</td>
<td>14.3</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>50</td>
<td>30.6</td>
<td>2.8</td>
<td>0</td>
</tr>
<tr>
<td>A VLE increases interaction levels between students on the course outside of class</td>
<td>0</td>
<td>50</td>
<td>14.3</td>
<td>28.6</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>11.1</td>
<td>47.2</td>
<td>27.8</td>
<td>8.3</td>
<td>5.6</td>
</tr>
<tr>
<td>A VLE increases interaction levels between the course instructor and students outside of class</td>
<td>21.4</td>
<td>50</td>
<td>14.3</td>
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</tr>
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<td>47.2</td>
<td>33.3</td>
<td>2.8</td>
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</tr>
<tr>
<td>A VLE provides flexibility to learners in terms of their study needs</td>
<td>21.4</td>
<td>57</td>
<td>4.3</td>
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<tr>
<td></td>
<td>19.4</td>
<td>63.9</td>
<td>13.9</td>
<td>2.8</td>
<td>0</td>
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<tr>
<td>A VLE helps the instructor to respond to individual learning needs</td>
<td>14.3</td>
<td>64</td>
<td>7</td>
<td>14.3</td>
<td>0</td>
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<tr>
<td></td>
<td>8.33</td>
<td>38.9</td>
<td>38.9</td>
<td>2.8</td>
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<tr>
<td>A VLE enables instructors to provide a wider variety of learning resources for students</td>
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<td>78.6</td>
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<td>16.7</td>
<td>41.7</td>
<td>38.9</td>
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</tbody>
</table>

Exit survey results shown first, entry survey results in *italics*.

SA: Strongly    A: Agree    N: Neutral    D: Disagree    SD: Strongly Disagree

The survey responses indicate that student particularly appreciated contact with and feedback from the course instructor. 71% of respondents agreed that the VLE increases interaction levels between students and lecturer outside of class. Communication between students was also supported via the VLE.
‘Tutors could check the work we did regularly and provide rapid feedback.’

There was also broad agreement that the VLE helped the course instructor to both provide a wider variety of learning materials and to respond to individual learning needs.

‘Various resources could be posted online and all the lecture material was available in one place.’

‘Quizzes and calculations were possible to compound understanding and the lecture notes and supplementary stuff is always available to you. I think that the VLE helped the course content to be continued outside of the lecture setting. Since additional material was available online and “news”from the instructor was also posted, the course seemed more up to date and continuous.’

Opinion was more divided over communicating with peers via the VLE. While a large proportion (71%) of respondents agreed or strongly agreed that the VLE supported sharing ideas and experience between students, opinion was less conclusive with regard to interaction levels between students.

‘Group work easier when face-to-face: VLE discourages meetings and can make coordination/organisation of effort harder; time consuming awaiting responses from e-messages.’

‘Some members of the group did not use a computer very often and therefore did not log on the VLE to see times of meetings and put their work up. This caused delays in getting things finished. It was easier to meet up and sort it face-to-face.’

I personally prefer discussing ideas face to face and believe a discourse between team members prompts more ideas than online ‘chat’.

**Course instructor’s feedback**

For the Autumn term (2007-08) course, Pierre significantly revised the group activity, so that students worked in groups via the wiki to produce a draft report on an area of the literature. Pierre provided feedback after a certain date, and after revisions, the wikis were opened to peer review. This literature based rather than numerical exercise was more successful than the original group activity:
Students must understand that the VLE-based material really is part of the course. It is just like the lecture handouts – if they don’t do everything, they won’t get the information they need to prepare for the exam. The challenge is the need to explain that the VLE and class material are related.

This process can begin when students are introduced to the VLE. Pierre encountered some resistance from students when he spent the first face-to-face session introducing the VLE, with some students even dropping the module. Pierre suggests a more gradual introduction to the online element, making the rationale for its use clear from the beginning.

Pierre still feels he will need to be clearer about the requirements in order for the activities to work as well as they can:

‘I must be stricter with the rules for the practical session to work. Students have to engage with the course and come to the lectures. I have spoon fed them, but they need to turn up to the lectures. Otherwise on this VLE exercise I have to write up all the information that they need. If they had all attended the lectures it would be easier for me.’

Incentives for participation were also important. The peer review component carried 5% of the marks and this helped students focus on the task.

‘Even the worst group came up with a good review for another group. A shame they didn’t apply their comments to themselves! Educationally, it was very rewarding.’

Pierre recognised that instructor feedback was an important motivator for students:

‘If you keep students waiting too long (for feedback) the momentum is lost. Students put a deadline when they want to know. If you reply quickly, they will keep going. If you give them a (provisional) mark, then it is an incentive for them to improve.’
Overall, Pierre found the use of the VLE to support his module very valuable. Although, a certain amount of time was needed for planning and facilitating the activities, Pierre felt the benefits warranted the time spent:

'It is not a question of the time taken to support the VLE, but what you get out of it: if it creates a learning situation that you can’t generate otherwise. It forces you to think.'

Student skills required & developed

Feedback from students suggests that the VLE can make a significant contribution to learning, but its impact would be enhanced if it were introduced earlier within a study programme. Some students struggled at the outset with the technical skills in using the wiki tool in managing the editing process, formatting reports and some groups were unaware of the Page History feature, which led to unnecessary discussions about ‘losing text’ in the writing process. They also struggled with the group management skills in allocating roles and responsibilities to group members.

'We had to assign work and get someone to edit the report. By the 3rd year we should be able to do this. We need more group work though so that we can learn by experience.’

Through the group task however, students acquired skills in peer review, offering critical and constructive comments on each others’ work, prompting reflection of the requirements of the task that also benefited their own work.

Staff skills required & developed

Pierre did not find Yorkshare technically difficult to use. He made use of the E-Learning Development Team for ad hoc support and queries and found the team helpful and quick to respond. However, Pierre did not find configuration of the wiki tool intuitive – it took time to learn how to grant access to wiki pages and to manage differentiated access - and he acknowledged the need to attend formal training about this.

Pierre also developed skills in designing a blended module, and online facilitation.
Actions for further development

Pierre plans to develop the module further for the next academic year. In response to feedback received, he aims to fix the turn-around time for feedback on students’ work. In addition, Pierre intends to improve the accessibility of his materials and to make more use of the capacity to link with library resources.