Effective virtual learning environments: The students’ perspective

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Background
In 2020 and 2021 we co-led two research projects, one centring on students’ experiences of lockdown, the other on academic staff experiences of lockdown. Both explored which aspects of online teaching staff and students wanted to carry with them back to campus teaching. Pertinent to the current article, we discovered two things: first, that our students have extremely varied educational experiences, which can be explained by the fact that they often take modules across several departments in the Faculty; and second, that the virtual learning environment (VLE) was absolutely key to their experiences and what they wanted to see improved and used more/better in the future.

From a staff point of view, we therefore wanted to design a project for 2022-3 that would have the potential to significantly impact how teaching staff use UCL’s VLE, Moodle. We opted for a student-staff partnership model, which would bring several advantages to the project: it would ensure broad student representation and thus centre the students’ voices and perspectives; and by enabling students to discuss their experiences with their peers, we would also be able to access experiences and viewpoints which might otherwise have gone unnoticed.

Student-staff partnership
ChangeMakers is UCL’s flagship initiative to support students and staff working in partnership to improve the student experience, usually through small-scale enhancement projects. Student-staff partnerships play a crucial role in shaping education by combining student voice, ideas and action alongside the expertise and perspectives of staff in a relationship centred around reciprocity and respect (Cook-Sather et al., 2014).

ChangeMakers projects are usually conducted at departmental or faculty level, aiming to provide greater insights into the student experience or piloting changes the project teams would like to see. Teams apply for funding and there is a panel of staff and students who review applications, give feedback and make decisions on which projects go ahead. For all projects, students are paid a stipend, and there is funding available for things like incentivising surveys and focus groups, piloting events or hosting collaborative workshops through which staff and students can work through key challenges together.

In spring 2022, we received £1200 funding from ChangeMakers to explore our proposed research. As briefly outlined, we knew we wanted to learn more about how students experience the VLE, but beside that we wanted the project to be undertaken in partnership with a range of students from the faculty.

Sending out a call for student partners led to seven students applying, and while we had initially only advertised for five roles, we were able to fund all seven. This allowed for a team of students who were at different stages of their degrees, and who represented a range of departments (Table 1).

<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>UG/PGT</th>
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<tbody>
<tr>
<td>Gabriella Linney</td>
<td>School of European Languages, Culture and Society</td>
<td>UG, 1st year</td>
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<tr>
<td>Jiatong Tu</td>
<td>Centre for Multidisciplinary and Intercultural Inquiry</td>
<td>PGT</td>
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All students were paid £150, except for Nadia who was paid £300 to act as team leader, which involved her keeping track of the progress, collating data across the team, and being responsible for a first draft of the write-up of the results.

**Designing the research project**

In the first meeting, we discussed what student-staff partnership can mean, focusing on the idea that we bring different types of lived experiences and expertise, and emphasising the importance of ensuring a voice for all of us (Gourlay, L. et al., 2021). We also discussed how we could resolve any potential conflict, informing students they could contact one of the staff involved if needed, and giving them the contact details for the Vice-Dean Education in case they felt there were issues that included the staff partners (though, luckily, no such problems arose).

We then began discussing what the project could focus on. This was a very open process with everybody contributing ideas and commenting on the ideas of others. In the end, we agreed on three connected questions:

1. What makes students want to engage with Moodle?
2. What in Moodle supports students’ learning effectively?
3. What ‘wows’ students in Moodle?

The students felt that these questions would make sense to their peers and allow for a range of answers and suggestions, which could be actioned by academic staff leading into the next academic year. We did discuss whether we would also want to know more about what students do not like about Moodle, but in the end we decided on a positive framing: as we all agreed, it is often easy to point out the flaws of a system – and we have plenty of evidence from other sources about what students dislike. However, as we wanted the research to inspire academics, we concurred that a positive framing would be more effective.

**An inclusive approach to data collection**

As staff we have an obligation to ensure we work inclusively, but it was actually the students who started conversations about how we could ensure their peers had the opportunity to participate. They suggested that we could collect data in a number of ways, even if this would make the analytical process somewhat messier. This meant that each student researcher collected data from their peers in three ways, but always working around the same questions. In the end, the research team collected data from 100 students across the faculty (Table 2).

<table>
<thead>
<tr>
<th>Method of data collection</th>
<th>Number of responses</th>
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<tbody>
<tr>
<td>Online questionnaire</td>
<td>33</td>
</tr>
<tr>
<td>Short interviews</td>
<td>45</td>
</tr>
<tr>
<td>Focus groups</td>
<td>22</td>
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The questions asked varied somewhat, but generally they focused on:

1. What comes to mind when you think of a good/excellent Moodle site?
2. What types of Moodle activities do you find most useful in supporting your learning?
3. What kind of Moodle structure works best for you (divided by week, topic, theme etc.)?
4. Can you name a module code or title where Moodle has been used particularly well?

Each student collected data and analysed it independently. Question 1 was analysed thematically; questions 2 and 3 by ranking the responses; and responses to question 4 were used to compile a list of modules for later analysis (not included in this research). Once each student had completed their analysis, they met as a group to discuss their findings. The results of that meeting form the basis for the findings and recommendations outlined in the next section.

**Findings and recommendations**

The data contained an incredible amount of detail that cannot be included here, but, somewhat surprisingly, the students all identified two main trends. We will group the first findings under the heading ‘clarity’ and the second one under ‘appetite for activities’.
Clarity
The most significant finding from our study is that students seek ‘clarity’ in their modules in the VLE. However, this does not mean they desire uniformity. They do not, for instance, explicitly request an institutional, faculty or even departmental template for the VLE. Rather, they want the modules’ VLE to be internally coherent and clear. This is important as this means individual tutors can, to an extent, add their own personal touch to the VLE, be creative and innovative, without fearing that students cannot navigate it.

So, what did students mean by clarity? Four areas were often mentioned when this was discussed:

1. Well-organised structure
2. Consistency
3. Sign-posting
4. Accessibility.

Some examples of what this might mean are:

- Everything on a module page should be deliberate and of use to the current student cohort (i.e. legacy documents should be removed or located in specific places and marked appropriately)
- If organising VLE by week, include calendar dates in titles along with Week 1, Reading Week, etc.
- Use consistent naming conventions for all documents. Avoid default strings of numbers
- Ensure assessment details and in-boxes are clearly signposted, and are not hidden in weekly content, e.g. by using a specific Assessment section, prominent at the top of the page
- Make the module handbook clearly available in the VLE, and ensure it is up to date
- Ensure files and activities are meaningful and accessible.

While some students did mention that accessibility was important for people with disabilities, others saw accessible practices as important to all students. Ensuring files were stored in an accessible format, for instance, allowed them to work with them as they preferred: highlighting PDFs, having papers read out loud, watching videos at different speeds, turning the volume down and utilising subtitles, were all mentioned.

One area that was often touched upon when discussing clarity and consistency was digital reading lists. Students mentioned that these were useful when used appropriately. To address the problems that some students mentioned when discussing reading lists, the student and staff researchers came up with a list of recommendations for staff responsible for this area:

- Use the institutional online reading list tool to ensure students access the correct versions of resources, and to keep the library informed of current module requirements and use statistics
- Use links to university databases, rather than downloading papers and uploading the PDFs
- Mark reading and resources as core/essential and optional/further as appropriate
- Work with a subject librarian to check the accessibility of essential PDFs and documents in your course, and ensure the most appropriate versions are used.

The overall plea for ‘clarity’ encompasses all these elements: students do not necessarily use the language of accessibility, or inclusive design, but they repeatedly seek understanding around the course contents. Knowing the intention around the inclusion of a paper, for example, allows them to plan how to interact with it. There may be elements of the shift to ‘Emergency Remote Teaching’ which exacerbated this need for additional explanation and context. It is worth remembering that for some courses in the Faculty, this required an extremely rapid move to VLE use that neither academics nor students had had significant experience with. However, with the use of the VLE firmly cemented into Faculty practice, prioritising the intentionality of resources and the meaningful flow of the presentation of the course is undoubtedly in the interests of students and academics alike (Cronin, 2022).

Appetite for activities
We should acknowledge that this area of our study was less uniform than the previous section. Students had very different experiences with activities in Moodle, and sometimes from the questionnaires it was not clear whether a student was writing about having experienced an activity or about the potential benefit of experiencing it in the future. With this caveat, our data did suggest some patterns.

The most useful finding was that students generally expressed a lot of interest in activities, something that was particularly clear in the interviews and focus groups. The types of activities students thought interesting were varied but included glossaries, flashcards, forums for ‘burning questions’, peer-to-peer forums, quizzes and, indeed, almost all possible types of activity in the locale of Moodle.

The data show that students who had little experience of the activities were keen to be exposed to them, and those who had experienced them in their modules mostly found them helpful and motivating. No student found them annoying, superficial or antithetical to their discipline, as long as they were optional and an extra part of their studies, supplementing core readings and multimedia resources. This suggests that staff should consider implementing some varied digital activities in their modules, even if they only serve to reinforce surface learning.

Of particular note is the way students discussed the Quiz activity in Moodle. In formative assessment, where final scores did not actively contribute to grades, students found quizzes useful, and even fun. When used for summative assessment, however, students tended to dislike them, citing a sense of pressure and anxiety. Whilst our data can’t be said to offer a complete picture of the student view of this modality, it offers one of several clear examples that any activity held in the VLE must be appropriately scaffolded, and suggests that further research into the student experience of the Quiz both as formative and summative exercise would be a useful endeavour.
Conclusion of findings
What we find interesting about our findings and recommendations is that they are not necessarily particularly difficult to implement, and, if followed, they would target key areas that students care about. Whilst some time would have to be pre-emptively dedicated to implementation to achieve this clarity and consistency, once a basic template for the module is in place, it should be relatively straightforward to maintain. These findings are consistent with many across digital education showing that strategic, up-front investment of time offers long-term benefits for both students and staff. However, this ‘spike’ in workload needs to be appropriately scaffolded into academic workload, further emphasising the need for this type of robust, student-focused justification (Gregory and Lodge, 2015).

Reflections on the student-staff partnership
This article is not about student-staff partnerships per se, but we wanted to add a section where we reflected on this aspect as it was central to the project. From a staff point of view, working with students was an advantage right from the beginning: students took responsibility and were very engaged in shaping the project. This was particularly clear when we began working on the questions for the research, which they piloted before refining them, ensuring the use of language was clear to them and their peers. Owing to the nature of this project, the student researchers were also able to draw on their own experiences and their own ideas; there was no attempt to separate the data and the researchers’ own experiences. While this can be seen as a weakness in some cases – for instance in terms of making it difficult to quantify the results – for a project like this we believe it was rather a strength which gave space to the voices of all students participating.

Once findings were collected, we held a further focus group meeting with our researchers, encouraging them to draw on these experiences and reflect further on the conversations they had whilst carrying out their research. While our staff roles are centred on the professional language of teaching and learning, and digital education, the student voices were very directly related to personal experience, and rarely made use of the theoretical language and structures used to discuss these areas institutionally. This focus group helped us to ensure that our resulting recommendations were sufficiently grounded in both our students’ voice and robust digital pedagogies.

Two of the students volunteered to present the research at the RAISE conference (Researching, Advancing and Inspiring Student Engagement) in 2022. Their participation, which was funded by the Faculty, was a key milestone for both students as this was the first time they presented at an academic conference. One of the two, who is interested in pursuing a PhD, described this as a ‘fulfilling and empowering experience to continue and pursue my goals as a student and professional’. She also reflected on how ‘Students as Producers’ (a term used at the University of Lincoln) chimed with her own experience of working as part of UCL ChangeMakers, and how this experience has made her think about how staff and students can work collaboratively to ‘form student communities to enhance engagement’.

Consequences of the research for academic practice and faculty development
The timing of this research meant that the data was relevant and actionable for the start of the academic year 2022/23. With our students having discussed Moodle at the level of individual modules, we were able to pinpoint Module Leads, a recognised role at UCL, as those we might best address, not only with the results of the research but with suggestions for the implementation of our recommendations.

The first of these sessions took in a student-led presentation of our results. This enabled the FLTL to directly address the recommendations arising, and allowed for the creation of a blog containing recordings of the presentation, and links to further resource and support. The clarity of the results, and the fact that they were consistent with our previous research projects, allows us to align our practices and set clear goals for our colleagues. Our intention is not to limit their creativity and content in the VLE, but to maximise its visibility and effective use.

These are also what we see as important take-home messages for colleagues at other universities. While we all use different VLEs, we share similar ambitions for how our colleagues could use them and how our students interact with them. Students do not want sameness, but they do want to be able to navigate a space that is set up in a way that supports them and their learning journeys. They are also curious, and interested, and want us to try out the options that exist in the VLE, giving them opportunities for exciting and creative digital interactions in teaching, learning and assessment.

References
Abbi Shaw (Abigail.shaw@ucl.ac.uk) is the Faculty Learning Technology Lead (Arts and Humanities), Jesper Hansen is the Faculty Arena Fellow (Arts and Humanities), Marta Ramio Comalat is a student in the Department of English, and Nadia Golotchoglu is a student of Politics, Sociology and East European Studies, all at University College London.