



Evaluation of UCL Capstone assessments, 2020

**Jason Davies, Associate Professor
(Teaching), Jesper Hansen, Lecturer
(Teaching), Abbie King (Strategic Project
Manager) and students,
Gift Kalua and
Alex Drijver-Ludlam**

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UCL Capstone 2020

Evaluation of UCL staff and student experiences of capstone assessment in 2019-2020 and their thoughts and opinions about future capstone assessment at UCL

1. Executive summary

In 2020, UCL [publicly announced](#) it was replacing all first-year undergraduate assessment with a 'capstone' as an emergency response to the COVID pandemic. Capstone assessment can be defined as assessment that synthesises learning from several modules or, as was the case for this emergency capstone, an entire programme. This report documents staff and student experiences of that capstone and, based on these experiences, considers broadly how a future version might (or might not) work. The research presented here was undertaken by UCL Arena staff and UCL students and represents the views of 18 staff and 62 students from across the institution.

1.1 Capstone as appropriate emergency response

Both staff and students agreed that it was a positive move by UCL to make a clear decision amidst great uncertainty and worldwide disruption. There is also generous understanding for the difficult position that decision-makers were in. Staff are generally more positive about the capstone than students, whose experiences are very varied, with a majority of negative experiences. Some of the reasons why **staff** were **positive** about the capstone:

- It alleviated pressure on staff;
- It allowed staff to focus their time on students other than first-years;
- To the surprise of some staff, the capstone allowed students to engage in unexpectedly meaningful tasks even at a time of great disruption.

Staff also reported some **negative** experiences, such as:

- Concern that already completed assessment (and often feedback) was disregarded;
- Summer assessment tasks having already been finalised (meaning that the capstone was seen as extra and unnecessary work);
- The complexities arising from being accountable to external accreditation bodies;
- Disproportionate increases in workload for small numbers of staff, with decreases for the majority;

- Concern that students would miss out on important learning from not doing exams (such as revision and exam experience).

Students' experiences were often linked closely to the **level of support** they were (or were not) given by their department. Where communication was clear (e.g. the capstone task explained by staff, Moodle support created, one-to-ones or small group Q&As offered), students reported much more **positive** experiences than in places where these were lacking. This is not a great surprise; students inevitably rely on a number of mechanisms and orientation points to navigate their university life, and assessment is a critical part of that process. Because the capstone was an unfamiliar genre, some students report having felt very unsure about what was expected from them which increased their anxiety at an already difficult time.

Students experienced the capstone as positive in places where it was seen as challenging but manageable and where **expectations were made clear**. Students did not, on the whole, indicate a preference for assessment that simply appeared easy, and those who had a positive experience often link this to a capstone that allowed them to **apply their knowledge and skills to a holistic task** that tied their first year together. Students were also positive about having an option to engage with the consequences of COVID in their capstones which they were free to choose, or not.

Students often felt most **disappointment** about the capstone where they felt it did not represent the effort they had put in throughout the year, such as the discarding of almost or recently completed (and often already marked) assessments, and also due to only having 'pass' or 'fail' on their transcript. They often reported that this seemed **inadequate to represent their learning** across the entire year.

Students who received no or very **limited feedback** on their capstones were very critical of this. Since they did not receive a mark (other than pass or fail), they felt they had little idea about how they were faring in terms of progression.

Students also expressed **concern** that the cancellation of other types of assessment (particularly exams) meant they had missed out on learning; they framed this both in terms of *knowledge* (where revision for assessment was seen as a driver to make students revisit modular knowledge) and also in terms of *experience* of assessment types which will be used again in future years, where they will carry more weighting.

1.2 Key recommendations for any future emergency assessment

- Ensure expectations are communicated clearly and effectively to students as early as possible. This should include guidance about the genre and scope of topics;

- Facilitate peer discussion to clarify expectations and explore possibilities of an unfamiliar assessment;
- Make the assessment meaningful in a disciplinary sense and allow for deep engagement from students. This has to be balanced with the overall aspiration of reducing stress and pressure on students;
- Consider including both core disciplinary and reflective elements as these will allow students to apply their knowledge and skills as well as reflect on their progression. This approach bridges the assessment activity to subsequent years, and it can help make conversations with relevant tutors more meaningful;
- Provide feedback on students' submissions, preferably with a personalised element rather than solely generic or group feedback.

1.3 A future capstone

Both **students and staff** expressed interest in a form of assessment **synthesising learning** across more than one module. **Students** were interested in assessment that allows them to **engage with current issues**, and which allows them to apply their modular understanding to something bigger and in a **more holistic way**. However, some (who were positive in theory) struggled to see how this would be possible in their disciplines.

Staff saw **many benefits** to capstone assessment. They often expressed views that it could be an antidote to modular fragmentation of learning, and that this type of assessment allowed for more mature and **authentic responses** from students. Some staff saw the capstone as an **effective transition** to the second year, where a reflective element could lead to constructive conversations between students and tutors (both personal and academic) about what to focus on and develop next –in other words, as a chance for holistic feedback. Others saw the capstone as anticipating the final-year dissertation, thus giving the first year a more scholarly feel.

Some of the **pitfalls** that **students and staff** pointed to were:

- Lack of alignment with year two activities (particularly in relation to exams);
- Lack of familiarity with the genre, affecting both students and staff;
- Meeting the requirements of external accreditation bodies;
- Finding a fit with existing UCL regulations;
- Consequences for students who fail a capstone if it carried a significant assessment weight.

1.4 Key recommendations for a future capstone

- Any capstone should be integrated into the students' learning and aligned explicitly with programme aims rather than simply being an extra piece of assessment;
- As capstones will be a new genre to most staff and students, its introduction must be carefully scaffolded, and there must be plenty of support available to students;
- Offset any consequent lack of familiarity with other forms of assessment (particularly exams);
- Retain the option of some stand-alone modular assessment alongside a capstone.

2. Researching the UCL Capstone

2.1 Background and aims

In March 2020, when it became obvious that COVID and lockdown were causing unavoidable and large-scale disruption, UCL took the decision to replace all first-year assessment with a single piece of assessment, a 'capstone'. While UCL stipulated an overall framework, the specifics and design were delegated to departments and faculties. In practice, this meant that students across UCL experienced very different types of capstones. It was marked only as pass/fail with clear guidance that only very weak responses should fail. Furthermore, there was no requirement that staff should provide feedback on capstone submissions, though some chose to do so.

While the idea of holistic and synthetic assessment is part of UCL's [Connected Curriculum](#) framework, this was not something that had hitherto been stipulated across the institution, and, as such, it was new to most staff and students. The decision was made to alleviate stress and pressure for staff and students by avoiding the need to sit and mark the usual exams, which would have had to be conducted online without time for proper testing of the key digital infrastructure.

As students finished their capstones and staff assessed them, it became clear that this dramatic change to normal assessment practice had had a significant impact on staff as well as students, both in terms of their experiences of the capstone, but also in terms of attitudes towards this type of assessment. This evaluative project therefore has two overarching aims: to understand staff and student experiences of the emergency capstone of 2020; and to

understand staff and student attitudes towards potential future capstone assessment.

2.2 Research questions

The team worked with distinct but overlapping sets of questions for staff and students.

How did students experience the capstone?

- As a response to COVID, lockdown and related disruption;
- In terms of alignment to their learning in their first year;
- As a reflection of their learning;
- In terms of setting them up successfully for their second year.

How did educators (in the broadest sense) experience the capstone?

- As a response to COVID, lockdown and related disruption;
- In terms of alignment to learning for first years;
- As a reflection of student learning;
- As a step on their students' learning journey.

We also asked all participants open questions about their thoughts on implementing a capstone in the future as part of assessment.

2.3 Ethics

The research falls under UCL Arena's ethics approval, number 12385/001. All participants were given an information sheet at the point of signing up, and this was flagged for their attention again at the start of the focus groups/interviews with time for questions. All participants were sent an informed consent form which was completed and returned electronically. To ensure the anonymity of staff and students, all participants have been given an identifier which aligns with their 'School' affiliation.

At the time of conducting this research, UCL's eleven faculties were divided into four Schools:

- SLMS – Brain Sciences; Medical Sciences; Life Sciences; Population Health Sciences.
- BEAMS – Built Environment (The Bartlett); Engineering Sciences; Mathematical and Physical Sciences.
- SLASH – School of Laws; Arts and Humanities; Social and Historical Sciences.
- Institute of Education.

2.4 The research team

The core researchers on the project comprise two members of staff from UCL Arena Centre (Jesper Hansen and Abbie King) and two student interns (Gift Kalua and Alex Drijver-Ludlam). Jason Davies (UCL Arena Centre) acted as a further collaborator, helping devise interview questions, conducting half of the staff interviews and contributing to this report.

The team were supported by an advisory group comprising senior members of UCL to ensure insights from the project will inform future assessment policy at UCL: Deborah Gill (interim Vice Provost, Education & Student Experience), Derfel Owen (then Director of Education Services and Transformation), Helen Matthews (Director of Academic Services) and Sam Smidt (Director of UCL Arena Centre). The advisory group were not involved in the data analysis and did not at any time have access to the data.

For any communication relating to this report or the research behind it, please contact Jesper Hansen (j.hansen@ucl.ac.uk).

2.5 Student-staff partnership

Student-staff partnership has been crucial to the design of the research. Involving students as research partners has meant that our approach to data collection and subsequent analysis is viewed through the lens of current UCL students as well as staff. The student perspective is particularly salient for this project since the capstone assessment was a unique event; this meant that it was not possible to rely on an established body of research that might otherwise have informed the enquiry.

Having students involved meant that their experiences informed and added nuance to the knowledge and approaches of the staff researchers. The fact that the students were an undergraduate (Gift had undertaken a capstone assessment himself) and a postgraduate means they have direct experience with the situation being researched, as well as broader knowledge of student life.

2.6 Capstone assessments in Higher Education: Selected literature

Capstone assessment is usually linked to:

- Integration and synthesis of knowledge and skills;
- Transition from university to work or postgraduate studies;
- Developing reflective practice;
- Enabling closure.

Taking these in sequence, compartmentalisation of learning (typically through modularisation) has led to frequent calls for some kind of opportunity for synthesis to offset fragmentation. For instance, the 1998 Boyer Commission's seventh recommendation was that all undergraduate education should 'culminate with a capstone experience' (Boyer Commission, 1998, p. 27) which would benefit students from all disciplinary backgrounds, though the actual 'nature of the experience will vary widely' (p. 27). Many other similar calls and initiatives have followed; in practice, however, capstone assessment is still most common in US and Australasian universities, whereas UK universities mostly rely on final-year dissertations (Healey, 2014) and UCL is no exception.

Not surprisingly, assessments referred to as 'capstones' tend to be linked to the final or penultimate year of study, with the majority of scholarship and discussion treating it as the culmination of an undergraduate degree. In most cases it is seen as a single project or dissertation at the end of the degree, often supported by smaller projects throughout the degree (sometimes called 'cornerstones' (Ward, 2013)). Traditional dissertations in particular are usually linked to a particular genre (the research paper) and, to some extent, a career aligned with an academic track; they prepare students to conduct research and present their findings in ways clearly defined and established by their discipline.

However, there are useful distinctions to be made between a capstone and more traditional end-of-degree assessments; Thomas, Wong and Li (2014) argue that 'the capstone is best conceived as an integrated study experience over a four-year curriculum' (p. 592). This view moves the idea of a capstone away from being mainly a *type of assessment* to being more of an *approach to assessment*.

Capstones, in contrast to traditional end-of-degree assessments, are usually designed to establish a more deliberate link with and transition into the students' next phase, whatever that is. Thus the idea of transition is frequently emphasised:

An effective capstone experience supports transition through consolidating students' lifelong learning skills, such as resilience, self-confidence and self-efficacy, as the foundation for their future professional and personal lives. (McNamara et al., 2011, p. 5, quoted in Lee and Loton, 2017, p. 136)

This type of assessment has been shown to have a positive impact on student learning and engagement, particularly those who were previously less engaged (Healey, 2014); Jones, Lewis and Payne (2020) see this as 'enhanc[ing] the student learning experience by increasing ownership of their education and enabling them to decide what they want to achieve.'

Healey (2021) gives examples of capstones where students have contributed knowledge to a website, done journalistic work, engaged in community sector work placements, linked up with industry, produced artefacts and creative

work alongside extended essays, films, cartoons and music, taken part in consultancy projects, worked to communicate their knowledge to pupils in local schools, and many more.

‘Opportunities for reflection’ and ‘providing a sense of completion or closure’ (e.g. Thomas, Wong and Li, 2014, p. 587) are also repeated benefits of (or at least claims for) a capstone assessment.

We have not, however, identified literature that explores the idea of a capstone in relation to assessment *early* in the degree, as UCL’s emergency capstone set out to do. What we do find in some scholarship is a more diffused focus, usually centred on thinking about assessment at a programme level and therefore seeking to align assessment throughout the degree rather than just at the end.

At UCL, this thinking is central to the Connected Curriculum framework, and Fung (2017) discusses examples such as showcase portfolios and capstone projects as assessments that allow students ‘to draw on and apply learning from across all dimensions of their studies to a complex, multi-faceted task, problem or challenge’ (p. 58). However, UCL had not previously mandated this kind of assessment, and application of these principles has been far from universal.

Much of this programme-level thinking takes its starting point in graduate attributes and links these to assessment (e.g. O’Neill, 2010), while others take what they term a ‘programme-focused’ or ‘integrative’ view of assessment. These approaches all seem to originate from the same concern that underlies calls for synthesis – that modularisation has fragmented students’ learning. Knight (2000) argues that ‘systems thinking and programme-wide planning have fallen victim to choice and the proliferation of modules, electives and pathways’ (p. 239; see also Jessop, McNab and Gubby 2012, Jessop, Hakim and Gibbs, 2014, Jessop and Tomas, 2017; McConlogue, 2020).

‘Programme-focused assessment’ is therefore an attempt to counter this fragmentation and ‘is specifically designed to address stage, or programme-level learning outcomes that bring together the subject knowledge and skills to meet the programme aims’ (Lees, 2015, p. 1).

The project ‘Programme Assessment Strategies’, which ran from 2009 to 2012, deserves a brief mention here as it outlines concrete approaches to programme assessment at a number of UK universities (Hartley and Whitfield, 2012). The process at Northumbria University can be used to illustrate the fundamental ideas:

All modules are assessed with reference to the programme learning outcomes [...] There are no separate module learning outcomes. This means that the focus is always on the important and key outcomes of the programme overall. However each module uses the programme learning outcomes with a different balance or emphasis. There is a mapping of programme learning outcomes indicating where and with

how much weighting each outcome occurs across the modules. (McDowell, 2012, p. 4; see also Osgerby, Jennings and Bonathan, 2018)

McDowell also uses the term 'synoptic' to describe this approach to assessment, though the term is not defined there and seems to be used synonymously with 'programme-level assessment'. McConlogue (2020, p. 56) does define the term, as follows:

Synoptic assessment combines knowledge and skills from two or more modules and allows students to demonstrate their understanding of a topic. Synoptic assessments span several modules in a programme and require students to synthesise learning from these modules, to recognise links between modules and to apply learning to real-world problems.

As Timmerman and Dijkstra (2017, p. 1170) put it:

[R]ecent discourse about what constitutes good assessment of performance has led experts to state, that assessment requires a programmatic approach consisting of a deliberate and arranged set of assessment activities.

The literature reviewed in this report aligns with that claim but, apart from final-year dissertations and capstones, we have found little evidence that taking a programme-level approach to assessment is widespread in practice; our review indicates that it is still under-explored and under-utilised.

2.7 Methodology

In order to address the research questions we collected in-depth data via semi-structured interviews and focus groups, conducted online via Zoom. This enabled us to explore topics in detail and understand better why staff and students had experienced what they had, and what had shaped their opinions. Before commencing data collection, separate pilot interviews were conducted with a member of staff and a student. The insights from this were used to refine the staff and student interview/focus group schedules, but the data was not included in any further analysis.

The data collection was carried out between January and April 2021 and the analysis was conducted during the summer of 2021.

2.8 Finding interviewees

For both staff and students, we sent out a call for participants through suitable channels (for example for students via the weekly student newsletter and through established channels within their departments, and for staff via a weekly newsletter and emails from Faculty Tutors).

Participants self-selected for the study, but we closely monitored sign-ups from each of UCL's Schools so to ensure a range of voices were heard from different disciplines. Further targeted communications were sent out to students in faculties with lower uptake for the focus groups. Students were offered an incentive of a £10 Waterstones voucher to participate, sent to them electronically after the focus group.

2.9 Data collection method

2.9.1 Students

For students, focus groups were preferred, to facilitate shared reflection and discussion, and allowing students to compare and contextualise their experiences. Furthermore, it enabled students to remind each other of aspects that they found significant. The semi-structured approach ensured that students could raise and discuss issues and experiences that were important to them while ensuring a reasonable degree of parity between the focus groups.

Students were also given the option of an individual interview if they preferred. This decision was made to ensure that students who were not comfortable with speaking in a group, or whose experiences were of a confidential nature, would also be heard; quotations from these students have the suffix 'i' (e.g. 'BEAMS Student 5i').

To ensure broad representation across UCL and seeking parity of experience based on disciplinary conventions, we organised three focus groups per School for students, a total of 9 in all (IOE students were grouped with SLASH). 56 students participated in these, and 6 opted for an individual interview, with the number of students in any one focus group ranging from 3 to 9 students. Each focus group was conducted by two people from the overall team of three (one staff researcher and two student interns). Interviewers were allocated based on mutual availability. All faculties and UCL Schools were represented, although there were more participants from SLASH & IOE than from the others (see Table 1).

| UCL School | Number of student attendees |
|-------------|-----------------------------|
| SLMS | 15 |
| BEAMS | 19 |
| SLASH & IOE | 27 |

Table 1: Student attendees per School (focus group or interview)

Prior to the focus groups, students were asked to engage in a short task via [Mentimeter](#), an online tool that collects responses from participants, and asked to submit three words to summarise their experience of the capstone assessment. This task was only sent to focus group participants and, of those 56 students, 55 contributed.

The purpose of this activity was threefold:

- To encourage students to think back to their capstone tasks, which had happened almost 9 months previously. They were also asked to look back over their own capstone assessment as part of the task;
- To gain a rudimentary but overall impression of their experiences;
- To use as a prompt for discussion during the focus groups where needed.

We did not refer to the Mentimeter task during the focus groups but it proved useful for the researchers when managing the discussions. For example, if particular voices dominated about certain aspects of the capstone, but we knew from the Mentimeter activity that other views were held within the group, we were able to deliberately create opportunities for those voices to come forward in the conversation.

2.9.2 Staff

For staff, individual semi-structured interviews were preferred as this allowed them to articulate their reasoning in detail, contextualise their observations, and in that way give a nuanced picture of their experiences and understanding. This also allowed them to centre some of the experiences that they felt were particular to their department or faculty. Some staff had worked on the capstone with one or two colleagues, and in these cases we allowed them to be interviewed in small groups of twos or threes.

A total of 15 interviews were conducted: 13 with individual staff, one with two staff and one with three staff (18 participants in total). All Schools were represented, though there were more participants from BEAMS than from the others (see Table 2).

| <u>UCL School</u> | <u>Number of interviews</u> |
|-------------------|-----------------------------|
| SLMS | 3 |
| BEAMS | 7 |
| SLASH | 3 |
| IOE | 2 |

Table 2: Staff interviews per School

Two staff members of the research team shared these interviews between them. The allocation was based on each researcher's availability and there was no attempt to match the researcher with particular staff. As both members of staff have worked at UCL for a substantial period of time, they often knew the people interviewed. Both interviewers have reviewed all transcripts, and they found no evidence of the insider-nature leading to problems during the interviews, and no issues were raised in this regard by participants at any point before, during or after the interviews.

All staff and student interviews and focus groups were conducted in Zoom. Each was automatically transcribed using Otter.ai and, apart from two staff who requested their raw un-anonymised data not be shared with the entire team, then manually corrected by the student interns.

2.10 Data analysis method

All data was analysed following the steps laid out for reflexive thematic analysis (reflexive TA): immersion in the data (close reading of transcripts) and initial development of codes, i.e. a systematization of the observations; organising codes into themes, refining, revising and naming them; and writing up the analysis (Braun and Clarke, 2016, pp. 195-202).

The research team met together throughout the process to discuss ideas and observations at each stage in an inductive and iterative process.

3. Findings

Our discussion of the data has been divided into two parts relating to our over-arching aims. Part A documents the experiences of staff and students of the capstone as an emergency response during the COVID-19 pandemic. Part B then explores possible directions for a future capstone based on the experiences and reflections of the participants.

There was a significant amount of overlap between the emerging themes for the staff and students for part A, and as such we have blended our presentation of the results to enrich the discussion. Due to the nature of their expertise and the ways in which they were able to discuss assessment practice, however, student and staff experiences, opinions and reflections have been presented separately in part B.

3.1 Part A: Capstone assessment as an emergency response

3.1.1 A successful emergency response?

Of the 18 staff members who participated in this research, all but one considered that the capstone was a suitable response given the circumstances, and there is general agreement amongst staff that it was mostly a positive experience for staff and students. Within this positive spectrum, however, there was considerable difference, ranging from lukewarm responses such as 'it was the least worst solution' (BEAMS Staff 5) to more positive expressions such as 'I think it was a good response in that particular instance' (SLASH Staff 16) and 'I thought it was a good response for the first years; I thought it was really positive, as a way of dealing with the emergency response' (SLMS Staff 17).

Likewise, many students expressed a view that 'it was a good response at the time' (SLASH Student 2) and they 'felt quite good about it' (BEAMS Student 9) because the capstone helped them cope during the lockdown rather than adding to the pressure and uncertainty.

However, students in the focus groups also expressed a lot of disappointment and confusion. A key aspect was whether students had already completed a significant amount of assessment prior to the introduction of the capstone. Many students also felt the capstone was an insubstantial representation of their first year, were disappointed with the pass/fail grading and noted the lack of any or substantial feedback on their tasks. They felt this limited the capstone's learning opportunities.

While most staff were positive, a range of concerns were raised. Both SLMS Staff 2 and BEAMS Staff 13 felt, for instance, that the capstone was not suitable for their departments and that it was 'geared perhaps toward departments who would typically do the bulk of their summative assessments at the end of the session' (BEAMS Staff 13). This was seen as being in opposition to departments like theirs which rely more on continuous assessment. This also seems to have been the reason for one staff participant being fundamentally unhappy with the capstone. They explained that they felt it was 'dumped' on them and echo the comment above that it 'didn't really fit with our programme-level assessment structure' (SLMS Staff 2). They both also commented specifically on how they would have preferred to make a decision that better fitted their existing structures:

[W]e would have liked the option to retain the grades our students had earned in a formal capacity. (BEAMS Staff 13)

I think it would have been better to cancel the term two/three exams and allow them just to submit their coursework, which of course wouldn't have required any additional online logistical support. It would have allowed our students to complete the work that they'd already started. And it would have allowed us to give them feedback on that coursework, which would have given them feedback to allow them to improve and progress into year two. (SLMS Staff 2)

This does not mean, however, that staff participants from contexts where they have organised assessment this way generally disliked the capstone. BEAMS Staff 13 mentioned, for instance, that despite the fact that they would have preferred another model, they actually liked the capstone 'because the work produced by students was commented on by all three markers as being generally really high standard' and that 'the externals were very complimentary about the capstone.' Another example of this is BEAMS Staff 9, who mentioned how 'we had modules where it's continuous assessment and where all the work has been submitted' but still concluded that 'I think it was fine under the circumstances'.

3.1.2 Reduced staff and student stress/workload

Looking back on events almost a year after they unfolded, staff still remembered the uncertainty and difficulty of the situation. One reminded us that this was 'March 2020, everything was going crazy' (IOE Staff 11) and another linked this to the impact on staff at the time:

[T]he thing that justified [the capstone], to be honest, was the staff pressure. And what this mainly did was to liberate a little bit of staff space, so they could focus more on the second and third years and master's students. (SLASH Staff 16)

Students used a range of words to describe their first year and the impact of the lockdown including: 'disrupted', 'ruined', 'uncertain' and 'unknown'. There was a sense through the repeated mention of relief that the capstone managed to alleviate some of these negative feelings:

I was just really relieved when the capstone assignment was announced, because they significantly reduced the workload for us. (BEAMS Student 16)

Another student articulated the response as providing 'a bit of a breather' (SLMS Student 5) amongst all the uncertainty. Some students also reflected on the response relative to their peers at other universities, who were often continuing with their planned assessments and summer exams, and expressed relief that the capstone did not put them under that same pressure:

I was seeing my friends continuing to study and it was very, very stressful for them because they still had the pressure of exams but adding to that they had also the pressure of the unknown and not being certain of how it was going to work. (SLASH Student 7)

This sense of relief extended to concerns around health and housing relating to the pandemic – with many students having to either self-isolate or relocate at short notice – and the potential for students to suffer from poor mental health during this time:

I think a lot of people's mental health suffered during lockdown, especially at the beginning [...] I think having actual exams would be so stressful. (BEAMS Student 2)

I was definitely quite relieved, because they obviously cancelled a lot of the assessments at the end of term two. And that was around the time when I was having to move out of my flat. (SLMS Student 13)

The capstone was also a low-tech solution, meaning that it was unaffected:

'by whether you had Wi-Fi on a particular day, whether you had internet [...] or] power on a particular day' (BEAMS Student 1)

Many of the staff participants similarly used a variant of the term 'relief' when describing how they and their colleagues responded to the announcement

that the capstone would replace all first-year assessment, because it removed a large amount of work in one fell swoop:

I felt it relieved stress, definitely. Mainly because it's a lot easier to mark. (SLASH Staff 18)

So there was a moment of relief that went, oh good, I don't have to worry about [assessment of first-year module]. (SLMS Staff 3)

There were many features of the capstone assessment that reduced workload and stress that students seemed to appreciate in the emergency period. For example, the capstone task itself relieved stress as it was considered easier than usual exams or coursework, particularly given that, for most, it was a small piece of work with a long time frame for completion:

We had to write up to 1000 words [...] and, in a way, it reduced the pressure of it, because they were telling us it's not an enormous deal. (SLASH Student 7)

The time frame was good. I think we were given something like two to three months, it was something like 10 weeks, which was really long. And I think that was really good. Because even if you started a month late, you could easily do it. (BEAMS Student 1)

I didn't find that I was stressed out or anything like that because we were given so much time, which I guess made it sort of enjoyable in the end. (SLMS Student 12)

The simplification of workload was not the only source of relief. The pass/fail assessment of the capstone also reduced the risks and uncertainties of first-year assessment for students:

The fact that it was pass/fail, it meant I didn't have to really worry about am I going to get into year two, my mark, or anything like that. (BEAMS Student 2)

A small number of students also felt the capstone provided a sense of closure (SLASH Student 2) to a very disrupted first year and a few students reminded us how abrupt and sudden that end felt for them:

I felt like it was a nice, sensitive way of wrapping up the year. (SLASH Student 27i)

There were some students who had capstone tasks that were directly related to the pandemic or other current events. In these instances, students explained that to apply their learning to real-life scenarios was valued. For example, one student 'felt this sort of interaction between the pandemic and what I've learned and the whole year' (SLASH Student 4). Another student presented their task as almost an antidote to the lockdown:

The papers were fresh, they were just published because just everyday new papers which I think was important and more interesting when you're locked in your bedroom. (SLMS Student 4)

Where students experienced these kinds of capstones, they described being inspired and motivated by their assignments, using words such as 'excited', 'enjoyed' and 'interested'.

Some students explained that their department gave them a choice of task or question where one was related to the pandemic and the other not, which they considered a sensitive approach.

In the next section, we will turn to experiences relating to stress, which for staff was mostly related to an increase rather than decrease in their workload.

3.1.3 Increase to staff workload

The sense of general relief about reduced staff workload was not universal: some of the people who ended up setting the capstone report a significant increase in their work:

So it was [a relief] for a lot of my colleagues who then didn't have any marking in the summer term. Of course it lightened their load. But for me, it added considerably to my load. (SLMS Staff 17)

Two staff participants in particular who had responsibility for their departmental capstone said it was hard and exhausting; this seems to be linked to a lack of support around them:

You were left a little bit to sink or swim. (SLMS Staff 3)

If I'm perfectly honest, it was very, very difficult. (SLMS Staff 17)

Both of these were linked to a lack of support from senior staff, something that was exacerbated for SLMS Staff 17, who had to liaise with their accreditation body:

I felt very much like my hands are tied here. And that was frustrating. I, to be quite honest, I wished that someone more senior than me would have [...] put in a case for some programs to be able to derogate from the capstone. (SLMS Staff 17)

While only expressed by one staff participant, we think it is important to note this feeling of powerlessness, particularly as it relates to a situation where rules and regulations were outside of UCL's control.

There were a range of other factors that meant workload was not in practice reduced: the fact that exams had already been prepared (BEAMS Staff 7); the additional resources and workshops that staff had to prepare for students

(SLMS Staff 2); and very significant problems with Moodle, particularly the timing of the annual 'Moodle Snapshot' (copying and archiving) and the organisation of markers within Moodle (BEAMS Staff 5).

Overall, our data shows that while most staff experienced a decrease in workload and stress due to the introduction of the capstone, at times a smaller number of staff had to pick up a lot of extra work, sometimes leading to increased stress and frustration. Only staff participants from two departments reported an overall increase of workload. Here, as was often the case with other aspects, it was often a question of whether the capstone happened to be aligned with existing arrangements (such as the marking process spanning the Snapshot).

3.1.4 Student confusion and stress

The student data revealed that although there was this initial sense of great relief amongst students when the announcement was made, it quite quickly gave way to a sense of confusion. This was usually due to the unfamiliarity of capstone assessments:

It's been quite confused in the beginning because they just told us that exams are gonna be cancelled and replaced by the capstone assessment. But for weeks they didn't really specify what we had to do. So everyone was just leaving home and had no idea what to do now. So we didn't even know if we should revise or not and, especially the beginning first weeks, they were quite confusing. (SLMS Student 8)

It wasn't very neatly put together. It was all over the place, and we'd get lots of different information [...] [I]t wasn't one email with all the info, it was little bits here and there, which made it feel really messy and uncoordinated. (BEAMS Student 9)

In a number of departments, the term 'capstone' caused problems as it was new to both staff and students. BEAMS Staff 14 reminds us that:

[Capstone assessment] might be a phrase that in educational circles we might be able to draw something from. I'm not sure it meant a lot to the students, and I think there was a, just the unfamiliarity of it was what caused most of the concern. (BEAMS Staff 14)

Another staff participant had similar experiences and suggests that a potential future capstone be called something different, such as 'first-year project' (IOE Staff 11).

Students often felt departments were slow to give further details and, when they did, the information often either lacked clarity or contradicted itself over time:

They said that it was not an essay so I didn't write it like an essay but then my feedback said it should have been more like an essay so that was really confusing. (SLASH Student 2)

Some students, however, did appreciate that departments were themselves trying to work through the details:

It looked like everyone was confused and they really were just trying to do the best they could. (SLASH Student 20)

At times there were contradictory messages; although some departments provided plenty of reassurance that the capstone had been implemented to reduce pressure on students and help them progress to year two given the circumstances, this message was at odds with the usual expectations for assessment:

[T]hey unofficially said to us, if you hand in anything you will pass. And then it was this weird mix of them wanting us to actually hand in something good or not? So, it being really unclear whether – do you want us to perform well on this? Or do you actually just not care? (SLASH Student 16)

You could have written possibly the worst essay you've ever written, and you still got the same result as if you've put all of your heart into the essay. (SLASH Student 24i)

Students also felt the messaging was contradictory to their understanding of the purpose of assessment and its role in ascertaining the extent of their learning:

I remember one thing that bothered me a bit because it was announced that you don't have to struggle that much and it's not hard to pass. So I felt that it was just telling us [it] isn't that important, even though it was supposed to [...] be the weight of eight modules. (SLMS Student 10)

There was also a minority of students for whom the capstone assessment was a stressful experience. This was largely because their task was challenging and/or in a format with which they were unfamiliar:

We ended up with something that felt quite complex that we had to do by ourselves. (BEAMS Student 13)

It was hard because it is something that I've never done before. [...] [I]t wasn't as clear, as you know, like, if it were exams and all that. We would have really detailed instructions, and we would prepare for it (SLASH Student 26i)

It's pretty worrying, to be honest, because compiling all those modules that you have learned in a single paper [...] the level of difficulty is

much more higher compared to [...] in-classroom exams. (BEAMS Student 8)

Support from departments appears to have been crucial in helping students to overcome their confusion about what a capstone is and understand what was expected from them. Where departments put on sessions and provided resources for the capstone, students report feeling more confident to tackle this new form of assessment and it helped students grasp the altered expectations compared with their normal assessments:

[My department] held a lot of sessions [...] so I feel like that made me a bit more confident and then, when I was attempting to write my capstone. I think I really enjoyed writing my capstone. (SLASH Student 4)

[Staff] gave us a lot of pointers, they even gave us ideas, because it was such a broad question [...] so I think at that point, it was dealt with quite good. (SLASH Student 6)

Bit by bit there came a lot of information, and actually, a lot of help as well, because we had to apply one concept from every module to the [broader topic]. So they gave us suggestions of what we could take if we have no idea. So that was quite helpful. (SLMS Student 8)

Zoom meetings, online forums and one-to-one communication with tutors were emphasised in most focus groups where students felt they had adequate support, and this seems to correlate with how comfortable students felt with tackling the capstone at the time.

However, many students indicated that they would have appreciated more help from departments, particularly given this was a new style of assessment, that often the tasks were quite open and, in some cases, required students to start developing new skills such as reading academic papers or developing critical arguments. Where students did not get this sort of support, the feeling of confusion and lack of clarity persisted, and they felt they were left to 'figure it out' (SLASH Student 15i) for themselves and that they were 'working in the dark' (BEAMS Student 17). This seems to have led students to be more critical of their capstone experience and we found that those students were less likely to see any value in the capstone assessment, suggesting the difficulties they experienced obscured the learning or purpose of their tasks.

Some students expressed a sense of solidarity within the focus groups and with their peers, and they suggested that where departmental support was lacking, they were able to turn to their peers for support and guidance:

[W]hen the question first came out, there were 180 people talking about it, picking it apart. And in my own friendship groups, we spoke about it to discuss ideas, so I feel really like the support and being able to navigate that came from my peers. (SLASH Student 25i)

I think it was pretty much 100%, in my case, just go on the WhatsApp chat, ask my friends, or look in textbooks, or my notes. (BEAMS-student1)

We were as a class, we're 120. So we were discussing at 120 on a group chat in deciding, okay, so for the sake of coherence, we're all going to do the same, interpret this the same way...we're quite tight-knit. And usually when someone's struggling, we help out. (BEAMS Student 19i)

This finding suggests that peer support was an important coping strategy for some students in navigating the capstone assessment and wider pandemic context. Potential future capstones may therefore benefit from encouraging and developing such a support network in conjunction with ensuring sufficient departmental support and assessment feedback.

3.1.5 Student disappointment

Alongside the relief and confusion, the data also reveals a strong sense of disappointment for many students. This was particularly true for those who had already put a significant amount of work into other forms of assessment, some of which they had received grades for. Students felt that cancelling previous assessments left them feeling that the work they had already done was 'a waste of my time' (SLMS Student 5); 'that all that effort I had put in before had been ignored' (BEAMS Student 5); and that there was 'a lot of work that went down the drain' (SLASH Student 20). As another student puts it:

I've got an entire portfolio next to me over here. That's 50 sheets of work that legitimately means nothing. (BEAMS Student 13)

There was a feeling amongst this group of students that more could have been done to incorporate or acknowledge their previous effort. For example, they felt that deadlines could have been extended, and that there could have been opportunity to carry over grades, especially if they felt that they had performed well.

This was also picked up by staff, who reported that students expressed initial disappointment when they were informed that all first-year assessments were replaced with a single capstone. This disappointment was mainly related to the loss of already completed assessments:

Have we just lost all of that? Was it for nothing? (BEAMS Staff 13)

Not surprisingly, this seems to have been a particular issue in places where students had already begun a significant portion of their assessment:

They [the students] were undertaking different pieces of coursework assessment at the time, which they'd already begun a good chunk of the

way through writing those assessments, and then to be told that they're not going to count for the year one. I think the students felt that that was unjustifiable. (SLMS Staff 2)

Our students were really quite pissed off. (SLASH Staff 16)

The feeling of wasted effort also related to how far the capstone represented their first year of learning. Many students felt that large portions of their programme 'didn't count at all' (BEAMS Student 5) as they were either not incorporated into the capstone or there was not sufficient space – and therefore depth – given to all the modules they had covered:

[E]verything else that we'd done until then [...] of coursework, which was a lot of work anyways, was actually cancelled [inaudible] and replaced by this one capstone. (SLMS Student 1)

I was very frustrated that everything in first year just came to one question per module. And it was 3000 words. (BEAMS Student 1)

This was also mentioned by one of the staff participants, who added that students felt stressed at the beginning because of the pressure of having the entire first year assessed by a single piece of work:

I know that before [the students had completed the capstone], they were quite stressed because they felt this is one or zero, binary mark, I fail or I pass [...] [Afterwards] some of them [said] that they enjoyed [it]. (BEAMS Staff 12)

Both students and staff express this as an issue mostly for students who had put in a lot of effort throughout the year and obtained good marks in their prior assessments:

It might be quite unfair to others who worked really hard for that module, and then it's not assessed at all. (SLMS Student 2)

Some of them, particularly I would say the hardest working students, were really quite disappointed. (SLASH Staff 16)

It is important to remember, though, that 'the severity of the pandemic was only emerging as we went along' (SLASH Staff 16) and nobody really had any clear picture of what was happening when UCL made their decision. As another staff participant explains about the student reception of the capstone: 'I think that they understood this is meant to make your life easier' (SLMS Staff 17).

The student data supports that perception, even for those students who expressed great disappointment about the cancelling of their previous assessment. There was a general consensus in the focus groups that the capstone was a better option for *all* because 'not everyone had that option to succeed' (BEAMS Student 5) due to the rapidly changing and uncertain

circumstances that students were facing. One of the students who expressed disappointment in the cancelled assessments did also acknowledge, as a result of the discussion, that at the time the impact of the pandemic led them to have very low levels of motivation for their work and the capstone helped with that since it did not require too much of them.

3.1.6 Feedback on capstone tasks

For students, the lack of quality or personalised feedback (or sometimes any feedback at all) on their capstones was an extensive and significant area of disappointment and frustration, with the majority of students in every focus group reporting that they received very little feedback. This ranged from students explaining that they 'didn't get feedback, like, at all' (SLMS Student 14) to it being 'just three sentences' (SLASH Student 4) or that they:

received a general feedback on what was good and what wasn't, which wasn't helpful really, I would have much preferred to be given individual feedback. (BEAMS Student 1)

Some also reported receiving feedback a long time after their capstone (up to six months).

Students suggested that the lack of quality or personalised feedback had implications on their progression which therefore ties in with themes of student disappointment and preparation for year two:

[B]ecause we didn't get feedback, I don't really know what I need to work on. I don't know what I got right and what I got wrong. I still don't really know how I did in first year. (BEAMS Student 2)

Many of the staff interviewed also had strong feelings about UCL's decision not to require staff to provide feedback:

[T]here was an initial thing that suggested you could get away with just giving them pass/fail and not really giving them very much information, and we felt it was particularly important that students really did get some significant feedback on this. (SLASH Staff 16)

One staff participant explains how they pushed back against this decision which they saw as fundamentally wrong:

I fought back against that and I [said] the centre was wrong and that actually whoever said that got it wrong because the academic manual is clear that any piece of summative assessment needs feedback. I've always been very much of the opinion that that is the only point of any form of assessment. (BEAMS Staff 14)

Most staff interviewed explained that they gave students some kind of feedback, either model answers and general feedback or some kind of more

personal feedback. In some of the more reflective capstones, this almost became a dialogue with the students:

[W]e would respond very personally. So somebody said, 'oh I had this bad time that I overcame'; it was, 'oh, that's really interesting, thanks for telling us about that', all that kind of stuff. So we did quite a lot of personal responses, which takes some time, but obviously it wasn't that onerous. (IOE Staff 11)

In this way, some staff also managed to address the problem raised above that students did not get as much feedback on their assessments as they would usually get:

I did promise them to give them formative feedback that they could take forward to explain to them, this is the part where I can see you've understood the concept of the module. And this is where I can see you may not have fully understood it. (IOE Staff 8)

This ties in with the benefits of a reflective capstone (discussed below) in getting to know the students and understanding their experiences of year one. However, these efforts were not universal: there were also several staff participants who reported not giving any feedback at all, or giving very limited and general comments.

From the staff interviews, it is difficult to draw any conclusions: for some it seemed normal and unproblematic not to provide much (or any) feedback but to others this was a fundamentally flawed approach:

If you're going to say, 'we're going to remove all your assessments and we're all going to base this on a single thing', for God's sake give them some feedback on it. (SLASH Staff 16)

Students, on the other hand, were unequivocal in the view that the decision not to provide feedback was detrimental to their learning and their confidence in progressing to year two.

3.1.7 Assessment of learning

When talking to staff about whether the capstone had succeeded in assessing relevant programme-level learning outcomes, the general feeling was that it did to some extent, and that this was acceptable due to the situation, but that it would have been problematic under normal circumstances. Staff recognise that the nature of the situation called for a light piece of assessment, and that this, rather than the capstone itself, was responsible for many of the shortcomings:

I think it could have [assessed the learning outcomes]: we didn't do that because it was pass/fail. (SLASH Staff 16)

Another participant talks very enthusiastically about all the positive things they achieved with their capstone ('these made us cry, these made us laugh, they were so rich!'), but, when asked about the actual programme learning outcomes adds:

I don't think that [i.e. their reflective capstone] quite showcases those particular learning outcomes that we'd want them to get from each module. I think for the pandemic, it was fantastic. (IOE Staff 11)

Many students expressed the view that their capstone task was a 'watered-down' version of their coursework and used terms like 'vague', 'broad' and 'simple' to describe what they were asked to do. Although students did appreciate the fact that the capstone alleviated their workload during a difficult time, they also saw it as problematic to their learning and development:

[I]t was very simple, very generic, just reflecting on what we'd done in the last year, what we could improve [...] it was so simple that I can't imagine that many people needed it. (SLASH Student 23)

I didn't feel like my capstone was particularly useful at all, and it was slightly irrelevant and I'm not really sure what it proved that I was able to do. I probably could have written it without going to uni and had done just as well in it. (SLMS Student 12)

It was more like, I'll just do it, because you're gonna pass anyway [...] so in terms of rigorousness, I don't think it was testing us effectively on our first-year knowledge. (BEAMS Student 1)

Students also expressed concern that their capstone tasks did not enable them to sufficiently represent all of their first year learning. They felt this was both problematic in terms of their progression to year two but also somehow invalidated the effort they had put into any modules that were not part of the capstone:

I realised it didn't really represent my studies [...] I can only write maybe 400-500 words on an entire year's worth of information. So it really felt like I couldn't really give all that I could, what I knew and show what I learned over the years, so I don't know how useful that was as an assessment. (SLASH Student 5)

I think I didn't gain that much knowledge, content-wise, and I can't really remember anything from the first year, just because none of the learning was reinforced in my capstone assessment. (SLMS Student 12)

It was our host department that gave us the capstone, so it focused on only on one third of our degree, and then we had to choose one topic from one of our modules. So I ended up writing my capstone assessment on [inaudible] during COVID which was really, really interesting, but it did not reflect at all my year. (SLASH Student 7)

However, some staff explained that they do not see this as a problem with the capstone; they argued instead that specific knowledge/skills would be assessed within the modules themselves, and that the capstone should not try to assess all the learning outcomes:

[The capstone] was really focusing on the core of our degree and not thinking about all the individual modules [...] So, no it doesn't assess all of the learning outcomes from the first year. And it never would. (SLMS Staff 3)

A number of students also felt that the capstone offered a different kind of learning opportunity to other kinds of assessment in that there was freedom within it, and that was where the real benefit was:

I loved it, doing it, actually a lot more [than exams]. I loved all the research and that it was so broad. (SLASH Student 12)

I felt that I was allowed to think more, have more freedom to do what I wanted, and I found it really enjoyable. (SLASH Student 11)

I also had a really interesting question. And it was about global challenges faced today so it felt super relevant and it allowed me to explore different themes that I wouldn't normally explore through my subjects. That's helped me, I think, decide what sort of direction I want to take my degree. (SLMS Student 8)

And the question, although it didn't cover the whole module, because it's – all modules are very big – the question that they chose for us was a very broad question and we could go in different directions. And even though it's one question, we could still explore different avenues within that module. So I quite liked it in that sense. (SLMS Student 3)

Some staff participants felt that the capstone could potentially be better at assessing relevant learning outcomes than their normal assessment:

[I]n our courses there's too much learning of substantive information. And that sometimes crowds out the thinking about how it all fits together, and I thought the capstone was a good antidote to that cause it made them, instead of racing to get down all this information, they tried to think a little bit about how it fit together. (SLASH Staff 18)

Capstones, then, do not always necessarily need to cover the breadth of learning across the year as long as there is depth across core content or it is positioned to allow students freedom to pause, to explore and to apply their learning in a way that other assessment types do not always allow for.

3.1.8 Preparation for year two

Most of our staff participants talked about two areas where students lost out when the capstone was introduced: an experiential aspect (experiencing and learning about assessments in the discipline); and a knowledge aspect (revision, lack of feedback) which we will take in sequence. These two areas were also echoed in the student data.

Firstly, the experiential aspect: because year one is weighted much lower than subsequent years, the first year traditionally becomes, in effect, 'a training year' for taking exams (SLMS Staff 2):

[T]hey'll be doing normal exams for the first time, and there's always an experiential benefit from doing something twice [...] [I]t's easier to do second-year exams cause you've done first-year exams. (SLASH Staff 18)

[T]hey felt underprepared for their assessments, because effectively they felt they hadn't had enough practice in their first year. For example, they haven't taken any exams. So they're really nervous about exams, because that's going to be a new thing for them this year. (BEAMS Staff 13)

This was a prevalent concern expressed by students in the focus groups. They used terms like 'fear' and 'worry' when talking about their second-year exams due to having lost the opportunity to practice university-level exams, and to do that at a time when exams counted for less. This applied both in terms of the weighting of their first year but also in that they felt exams were scaffolded to build them up to 'harder' exams in subsequent years:

[T]he exam bit is a real concern at this point. It's really scary actually that we will have to do [an exam] for the first time that it's worth everything. (SLASH Student 26i)

I've no idea how well I'd do in, in an exam situation where I actually have to sit down. So I'm really dreading the summer exams. (BEAMS Student 9)

This concern goes beyond exams. Students also felt they had not developed the skills needed to construct university-level written work, to tackle practical assessments or to practice technical skills:

I think I've spent most of like the second year learning how to critically write an essay, where I think more of that should have been done during the first year and assessed in the capstone. (SLMS Student 6)

I haven't done an essay for ages just because of the nature of the stuff I've done, and if we'd have had to do an essay and got some proper feedback last year – which we usually would have done – then I'd have kind of been more comfortable. (BEAMS Student 11)

However, some students did feel their capstone enabled them to develop some skills that would be useful in the second year, for instance when their capstone tasks had students applying their knowledge. This helped them develop skills such as reading academic papers, developing and constructing arguments, and designing research projects.

The second drawback of the emergency capstone in this category was that students were not afforded the opportunity to revise content in the way they would have for an exam. Both staff and students considered this to be an area of concern, with one student quite honestly telling us:

And that's a student [failing]. But until you have an exam, you don't revise [...] That's a [failing], I guess. And so I feel a bit bad because I haven't trained in [certain topics] as much as I would have if I had had an exam. (SLMS Student 4)

This sentiment was echoed by the majority of the students in the focus groups. Students felt exams were particularly well-placed for enabling them to revise material because they were specific, focused on just one module, and exams forced them to cover a wider range of content:

I don't feel like I actually learned anything from first year because I never went through that revision process or consolidated anything. Which admittedly, I could have done. And then also, it felt like a lot of people did no work in first year and I personally felt like I did quite a lot of work and then at the end of it that was not shown in any way. (SLMS Student 11)

Staff also reminded us of the lost learning as a result of cancelling year one exams:

[A] lot of learning actually happens in that act [revision] and we cancelled that [...] I think there was a danger of a learning loss in that sense. (SLASH Staff 6)

Another student made the point that exams are when students go back to their learning from lectures and until then they are really just trying to keep up:

In the lectures I was only ever just really trying to not get behind. And I think that was quite a shame, because I never revised on my own when I didn't have an exam. (SLASH Student 16)

Students reported that this lack of a structured opportunity to revise has had an impact on them in their second year. Many students report feeling lost in their second-year modules and having forgotten much of their first year.

Although the majority of students felt the capstone did not enable that deep revision of content, there were a few who felt their capstone task did afford that opportunity:

I feel like it did encourage me to look back to my lecture materials too. So that I can kind of relate both capstone and what I've learned in first year together. So it did encourage me to revise some of the stuff I've learned so that this element is quite nice. (SLMS Student 2)

A bit of every module was included into this particular capstone, which was really good. And, in fact, you could branch out to something that you haven't done before, which was also really quite good. (SLASH Student 12)

This certainly signals that a capstone assessment does have the potential to ensure this revision of content can still happen and would be worth exploring further.

Overall, this serves as a useful reminder that there are certain mechanisms and orientation points in place at university that students have come to rely on in order to help them understand and make sense of their learning and wider experience. The ways in which assessments enable students to engage with their learning is a crucial part of that.

The points above were linked to progression by some staff, who explained that one or two students in their department had passed the capstone who might ordinarily not have progressed to year two, and that these students needed someone to keep track of them. Of the ones interviewees mentioned, usually one had adapted well but another was struggling, but it was impossible to tell how much this was due to the ongoing lockdown and isolation.

Many students in the focus groups also picked up on a further point, namely that they felt they did not have the knowledge that lecturers expected them to have in the second year, which they partly attribute to the disruption and lack of contact-time in year one, but also due to not having had exams:

I feel that our lecturers started the year like they did for the previous year. I don't think they took into account the fact that we had quite an abrupt end to our first year. (SLASH Student 2)

We have to start from the beginning because we haven't learned [...] first year properly, which is a bit annoying, because [lecturers] expect the same amount of knowledge of us when we haven't done it in first year. Well, we have but, of course, but you learn it by doing the coursework, and if you don't do the coursework, then you probably don't know as much as you would have. (BEAMS Student 7)

Some students also felt that staff have not fully recognised or appreciated the disruption students experienced and that no allowances or adaptations in their second year have been made in response to what happened.

3.1.9 Factors beyond UCL

The interactions staff had with accrediting bodies as a result of changing to a capstone assessment were mixed. While some staff reported it caused a considerable amount of stress, other participants had much more positive conversations which made the process smoother:

[B]oth accrediting bodies got in touch shortly after lockdown. To be fair, they've both been incredibly supportive, but effectively to say we understand you're under a lot of pressure, and you've had to make a lot of changes. Can you provide us with the details of what it is you changed? (BEAMS Staff 13)

In this case, the programme was already fully mapped to the accrediting body's requirements in a complex matrix, which made tracking the requirements fairly straightforward.

Another example of the importance of accreditation is similarly positive, and it shows how the capstone was used to address some of the values associated with the accreditation:

I was quite keen that the capstone should do something to address their accreditation values. (SLASH Staff 16)

Factoring in external accreditation requirements clearly has the potential to cause stress for staff. It is also mostly outside the control of UCL, and it is therefore an area that should both be considered in a future emergency situation and if capstone assessment is considered at UCL for the future.

Besides accreditation, a number of our staff participants mentioned areas outside of UCL's control that were impacted by the capstone: summer internships (which rely on marks to differentiate students competitively) and year abroad (obviously also affected directly by the pandemic). This was also picked up by students who noted that it was very difficult for them to differentiate how well they had done in relation to other students, as already noted by staff, which made securing those internships and year abroad placements challenging:

So, some of the primary problems I faced after capstone was that things that I wanted to apply to in second year and even now, I don't have any grades. I don't have any form of academic representation from my first year. (BEAMS Student 1)

It is a bit frustrating having a transcript which is completely blank for the first year. And I don't know, it doesn't really confirm that we even really did anything in the first year. (SLMS Student 12)

Our data does not go into detail with these areas, but they, as well as other similar areas, would need careful consideration in any future capstone proposal.

3.2 Part B: Future capstone assessment at UCL

In this part we consider the ideas from staff and students separately due to the very different ways they spoke about the longer-term potential of capstones as a form of assessment in the first year.

3.2.1 Student ideas and perspectives

As part of the focus groups, students were asked to comment on whether their capstones helped them reflect on their year-one learning, moving the discussion beyond the capstone as an emergency response and asking them to consider it as a piece of assessment in its own right. Students were able to think about and reflect on both the benefits and limitations of this type of assessment based on their own experience of the capstone and hearing the experiences of others.

3.2.1.1 Synthesising learning

Many students expressed interest in the idea of a capstone which involved synthesising knowledge from modules across the year:

I thought our [capstone task] was really good, because [...] you had to design your own project, basically. So you had to understand, you know, what kind of theoretical principles, the practical side [...] how to look at the history of the place, which was all different parts of different modules that we had. I thought it was really great and there was opportunity for you to focus more or less on different areas. (SLASH Student 12)

It was definitely interesting to see how all the modules could be linked to one thing. (BEAMS Student 19i)

The difficulty of linking learning together was something that a small number of students identified as being a limitation of exams focussed narrowly on specific modules:

[The capstone] also allowed me to make links between the modules that I don't think I would have done if I'd been studying for exams where everything is separated per module. (SLMS Student 11)

Where the capstone tasks were felt to have both the depth and scope to look across the year, there is plenty of evidence in our data that students appreciated it, describing their capstones as 'comprehensive' (SLMS Student 4), of their being able to relate their learning more broadly and it being a good way to summarise their learning across the year. Having this breadth of coverage meant that the capstone felt like a meaningful application of their first-year learning.

However, as discussed in the previous section, not many students felt that their capstone managed to do this sufficiently as an emergency response, often because it was too broad or vague. This meant that there was a fair amount of scepticism about how exactly this kind of overview and synthesis of their learning could be achieved. As a result, although felt to be a nice idea in principle, quite a few students did not feel it was feasible in their own disciplines mostly because they were too practical, heavily maths-based or there was no way they could see the capstone being able to draw together that knowledge in a meaningful way. Some students also felt that existing assessment types – particularly projects that had both the practical lab-based element alongside lab reports – were a better form of assessment for their discipline and there was no need for a capstone. These sentiments seem particularly prevalent in the BEAMS grouping (Maths & Physical Sciences, Engineering and the Bartlett).

3.2.1.2 Reflective vs Applied

Students also reflected on what type of task would enable them to synthesise knowledge across the first year. Students tended to have a better experience in terms of both their enjoyment of the task and the quality of learning when they were able to apply their learning to a real-world problem:

I think that that was quite clever in that it forced me to take what I'd learnt and apply it to a contemporary example and that allowed me to think more critically, so I think the question itself was quite well done. (SLASH Student 6)

I felt really excited and so, because obviously I was applying my knowledge to current events which I really enjoyed writing about and I feel like it [...] encouraged me [...] to watch the news and read the news a bit more. (SLASH Student 4)

[I]t made me think on my feet, I would say. Because it – so, for my capstone they asked us how notions from our courses can help during the pandemic, so how can some stuff that we learned be applicable to the situation right now, so it was very relevant to what was happening, and it kind of made us think about things and how to solve problems. (SLMS Student 9)

I think there definitely could have been more of that to not just think about what the equation is, or how to show that the question is true, but actually apply it. (BEAMS Student 9)

Where students were able to apply their learning to a contemporary issue it had a host of additional benefits to their learning. For example, some students particularly appreciated the fact that their capstones asked them to interpret and apply what they had been learning, rather than just repeating it back

through their assessments. They also felt it provided an opportunity to read more widely and explore their own interests:

[I]t's quite nice to be able to focus [my capstone assignment] in a way that I wanted and how I had interpreted what I learned rather than just, kind of, here's what I learnt step by step, but more how I've used that. (SLASH Student 5)

The capstone helped for many transferable skills: reading papers, coding, data analysis, all that stuff. So that was good. (SLMS Student 4)

It also helped students see the relevance of what they were learning in relation to the real world, which could otherwise feel quite abstract:

The problem with us in Engineering, it's like you learned something, and you're not really sure how you're going to use that in real life. So that's definitely something that was interesting. (BEAMS Student 19i)

This was not without its challenges for some students, especially where they were applying their learning to a whole new area that they were unfamiliar with, such as linking their learning to UCL's Grand Challenges:

So they expected us to link our modules to [UCL's Grand Challenges] and, to be honest, a lot of us, we hadn't had any discussion on these challenges and distinct agenda. And the [UCL Grand Challenges] website also had quite limited information. So it was kind of confusing to go to something absolutely new and try to link that to different modules. (SLASH Student 20)

Another student in Life Sciences described elements of their capstone task that introduced new concepts which required a lot of extra reading as 'dizzying' (SLMS Student 4), which suggests that capstone projects (or any kind of programme-level assessment) need careful scaffolding.

Reflective tasks, in contrast, were in general considered by students as suitable for an emergency response, but felt not to be appropriate as a full, stand-alone assessment. Largely this seems to be because students did not consider reflection as being rigorous enough. Some students felt their capstone tasks were more comparable with personal statements for their university applications than assessment:

I prefer having specific, rather than kind of having reflection-type, questions [...] because of the nature of my degree, it's a lot about applying the [subject knowledge]. (SLASH Student 25i)

I don't think [the capstone was] that helpful, because it is really just a personal reflection. (SLASH Student 20)

Other students could not see the value in reflection and struggled to see how it could be done in their own subjects:

I don't think it's possible to successfully tie them all together because they usually look very different in nature, between the modules and what you learn in them so they usually don't tie together well at all. So I wouldn't recommend it, I can't see any potential in having a sort of reflective tie-together task. (BEAMS Student 9)

A minority of students did, however, recognise the value of reflective work to their learning:

I quite like organising my thoughts like that in a kind of reflective way [...] I think it's a really important thing to get into the habit of doing. Instead of just moving forward towards grades and improvement [...] it's quite nice to see where you were then and see how you've progressed since then. (SLASH Student 27i)

I think what they did, which was good, was they introduced a reflection element into the piece. So that was part of our grading. So I think that did make you take a step back and actually think about what we've sort of done. (SLMS Student 16i)

However, there were indications that reflection is more effective when it casts a broad synthetic net:

My capstone was specifically on [...] one very small part of our course, one module. So I don't think it really allowed us to properly reflect [...] we had to focus on one module which I think was, although fairly interesting, not particularly useful in terms of reflection. (BEAMS Student 10)

There is therefore evidence even in our small data set that reflection is not automatically valuable: it needs thoughtful design.

3.2.1.3 An opportunity to explore

Some students really liked being able to choose and focus their capstones on their areas of personal or current interest, or to begin to shape their academic journeys:

We could literally choose whichever part of the [module], which is good because it accommodated everyone's likes. (SLASH Student 12)

I really enjoyed the fact that we could do something specific that really interested us. (SLASH Student 7)

[S]o the questions were quite vague and I think some people didn't enjoy that, because some people rather have a checklist of what to include. But I think with having a vague question, it gives everyone an opportunity to explore different avenues. (SLMS Student 3)

[W]e needed to conduct research and we could choose the topic, we could do any research we wanted. So I, I wrote basically a proposal in some – in an area that I was really interested in. So that's why I found it interesting. (SLMS Student10)

So I think the capstone could have been an opportunity maybe [...] rather than solving problems – which we got to do in tutorials, and where we received guidance on how to solve the problems – I think it would be more beneficial to have it be more of like a conceptual project, or maybe trying to break down assumptions in [fundamental concepts of the discipline]. That would help to create a solid base for year two. (BEAMS Student 15)

Some students, though, did also reflect that there is a danger of choosing an 'easy' option or something that will not particularly help them develop, which suggests that there needs to be support and guidance to help students choose topics/questions that will help their development. However, students also felt that even if the topic they chose did not ultimately end up being one they enjoyed or had interest in, this chance to explore and try things out was important learning in its own right:

I think the value of adding a capstone in some places is that you can both link things, and also push the barrier a little bit to discover whether you love or hate something, but either way, it helps you. (SLMS Student 5)

This idea of being able to 'try things out' was really valued where the capstone permitted. It was something that students perhaps had not had an opportunity to do previously:

I really had time to develop myself thanks to the capstone. I had time to look into things that I would have never done any time in my life apart from if I had taken a gap year or something, but it was really a great opportunity for personal growth. (SLASH Student 7)

[W]e could go in different directions. And even though it's one question, we could still explore different avenues within that module. So I quite liked it in that sense. (SLMS Student 3)

It also gives you that, I don't know, way of testing yourself, putting some risk into it and seeing what else to explore. (SLASH Student 11)

Students seem to appreciate it when this exploration helped them develop skills or explore knowledge/concepts that would be useful in their second year or when it amounted to being a more authentic assessment that helped prepare them for future careers:

I actually did like the fact that the capstone forced me to read a lot of papers. Because I found in first year we didn't really read many scientific papers, not in any detail anyway, and I didn't really understand how they worked or anything. Whereas having that time to get used to the format has really been helpful in year two. (SLMS Student 4)

I think it prepared me well for how to approach a dissertation, because it's really helping me now with doing initial research and what to look for, how to plan it. (SLASH Student 11)

I can only imagine that it would help people, or not help but just be a more realistic application of like your education, rather than an exam [...] which isn't going to be a situation you come into in most people's jobs. (BEAMS Student 11)

There was some interesting debate between students whether the purpose of a capstone in year one should be to prepare students for year two. While many considered this could be a useful aspect of a capstone, some felt that it might lead to an unnecessary narrowing rather than a broadening or exploration of subjects:

Defining a capstone based on what you want in a future is dangerous because no one knows what you want to study. (SLMS Student 4)

Two students reflected that the pass/fail element enabled them to really embrace this exploratory nature of a capstone. It took the focus and pressure away from their grade and performance in their assessment:

It was pass or fail and so it allowed people to take more risks, and explore things without having to constantly think about, well, what do they want to see from me? And what will get me a first? (SLASH Student 9)

[I] ended up doing something I was really proud with and I probably wouldn't have done it if it had been graded normally. (SLASH Student 11)

While the pass/fail grading was unpopular with the majority of students, it could be considered in conjunction with other fully graded assessments

and/or proper feedback on the capstone, as these, rather than the capstone grade, would then help students gauge the level they are working at.

3.2.2 Staff ideas and perspectives

In the interviews, staff participants were asked to reflect not only on their experiences of capstone as an emergency response but also on whether this type of assessment would be desirable and feasible in their contexts. In a couple of cases, these two aspects became linked as participants talked about ways in which the emergency capstone had been successful and how this had made them and their colleagues consider this type of assessment:

[I]t forced us down to an avenue that we might not have explored otherwise. And I can now see some advantages to having done that and we will do it again this year. (SLMS Staff 3)

There was a mind shift – you know, trying to think of something that was relevant to the whole year. (SLASH Staff 16)

Other colleagues talked about the impact of their specific capstone and how it had certain desirable strengths. When looking across the interviews, two interconnected themes emerge: not just the academic benefits of the capstone, but also the affective.

The diverse comments from our participants suggest that a capstone could take a number of different forms and that it is flexible enough to work in a range of academic contexts. In a highly modular structure like UCL's, it can act to counterbalance fragmentation by helping students see the bigger picture right from the beginning of year one, rather than that being exclusively a feature of later assessment such as final-year projects and dissertations:

[O]ne of the feedbacks from students is that they don't see a holistic view of the different modules. So they had this opportunity to look at what they have learned and how they link with each other. (BEAMS Staff 4)

This was seen by several participants as much more academically suitable, not least for staff who mark the work, and a key step in students' academic journey. The image of students who traditionally 'regurgitate' what they are taught is replaced with one where '[e]very single one of these was different; they all did something original.' (SLASH Staff 16)

There is also a clear indication that the capstone can provide personal satisfaction for the students, and that it can motivate and engage them in

much more meaningful ways than standard coursework or exams. Different variants of words like 'maturity', 'grown up', '[their] own interests', 'empowered' and 'worthwhile' came up in many of the interviews, showing the profound impact that a capstone can have.

In departments where they worked with reflective capstones, staff experienced a connection with students that they had not had before, and this became part of a conversation that continued into the second year, touching on personal aspects (such as belonging and wellbeing) as well as academic aspects (such as skills and knowledge):

[O]bviously in a normal academic paper, you're not necessarily revealing yourself like that [as a student ...] yet with this, it can almost be seen as an opportunity for them to ask for help or ask for input. (IOE Staff 11)

However, there were also critical voices, and as we will discuss, even participants who were mostly positive about capstone assessment had reservations about their providing it in future.

Some participants mentioned that they are already using some type of synoptic assessment, such as week-long projects and scenarios. In these contexts there was little or no desire for a centrally imposed capstone, unless it can be adapted to work within the existing assessment framework, and there was some concern that it might even take away from their already successful projects; teamwork was mentioned, for instance, as an area that might be less successfully cultivated by a capstone.

The most significant area that many participants mentioned when discussing a potential capstone is modular assessment, and the message was very clear – they would not want the capstone to replace all current assessment:

I'd want there to be for each course sort of a summative-type smaller assessment, whether it's only a multiple-choice test, but something that's making them sit and revise for all of those subject areas. And then think about their whole degree in terms of a capstone. (SLMS Staff 3)

Setting aside for now those who rejected the idea of a capstone, participants vary in their preferences about the weighting of a potential capstone, from around 10% to 50% of all first-year assessment. This attitude, that the introduction of a single piece of first-year assessment would cause concerns and difficulties, was expressed, for instance, by a participant who was particularly nervous about meeting the requirements of their accrediting bodies. However, when considering a smaller weighting and it not being the

only piece of first-year assessment, they were much more positive:

I think if it was that sort of proportion [50%], that would allow us to ensure that students have sufficient foundational knowledge across a range of things. (SLMS Staff 17)

Even one of the participants who talked very enthusiastically and warmly about the capstone, and who is on-board with the thinking behind it, warned that 'I don't think it would be good to impose it'. (SLASH Staff 16)

So while modular assessment was seen as very important, many of our participants saw ways to address this, and most suggested that a balance could be achieved. Another structural issue that would make the introduction of a capstone difficult is the number of colleagues who remain wedded to a modular approach to assessment, which one participant describes as 'compartmented' (BEAMS Staff 15):

I feel that some of them [colleagues] might feel they were losing their assessment, and they would have designed it in order to meet the objectives for that particular course. (IOE Staff 11)

[T]here'll be some people who think their module is so important that it has to be assessed. (IOE Staff 8)

[T]here will be some resistance and I know some colleagues in some modules are extremely resistant to any reduction [in their modules' assessment] they say it's all vital. (SLASH Staff 18)

Our data does not provide any solutions to these issues, but it shows that there is an appetite for more synoptic assessment among a large number of colleagues, along with some resistance. While only two of our staff interviewees strongly opposed a future capstone, we want to ensure their voices are included here as it is likely that they represent attitudes held by other UCL staff:

I don't think that we would knowingly replace any of our assessments with something like the capstone. (BEAMS Staff 13)

I would not want a capstone to be the standard first year assessment. I'm very clear about that. I don't think it does the job. (BEAMS Staff 5)

In the final section, we discuss how some colleagues saw UCL regulations and systems as significant barriers to any kind of synoptic assessment.

3.2.2.1 Academic regulations

Some participants explained how they had tried thinking about more synoptic assessment but experienced push back from UCL regulatory bodies. Some of the sceptical voices saw this as a fundamental problem with the modular system, which they think is too rigid:

[T]he 15-credit sort of mechanisms of how we evaluate modules and things like that, if we could liberate that a little bit, I think our colleagues in the [department] would actually work quite well with that approach and be quite interested in it [...] If it could be offered as a creative option and there were mechanisms to it, we might well do it, and I think there are certainly some of my colleagues that would be quite excited about exploring that possibility. (SLASH Staff 16)

Another colleague explained how they had previously explored alternatives to the standard credit-bearing modules and encountered major barriers:

I do think there's sometimes a disconnect between what UCL says about innovation and assessment, the fantastic ideas that are suggested [...] and the regulations and allowing us to do this. So for example, why can't we have five credits across each year? (IOE Staff 11)

Many who thought aloud in the interview about how a future capstone might work positioned it alongside or within a modular structure (for instance, 'taking' 10% of each represented module's credit) or sitting beyond the credit structure altogether, and how this would be problematic under the current regulations:

Portico can't handle it, computer says no. (BEAMS Staff 14)

[I]t is technically really hard to see how you do this and how you fit it in. (SLASH Staff 6)

It was, moreover, frequently recognised that the regulatory and modular structure was the result of several years' sustained effort and that attempts to make fundamental changes to the modular system at this point would not be universally welcomed.

From the interviews it is clear that some staff have already had negative experiences where UCL rules and systems made it impossible for them to do what they wanted, and this is often related to previous attempts to introduce

some kind of synoptic assessment. There are concerns about the level of freedom and flexibility needed for this at a programme level and the systems in place more centrally. However, there is also a feeling that if these barriers could be overcome, synoptic assessment such as a capstone would be welcome:

I think if we could actually design programmes where there were the systems and the regulations to support that sort of integration between areas towards a coherent piece of assessment, you know, there's all sorts of possibilities become opened up by that. (BEAMS Staff 14)

4. Concluding thoughts

It is not surprising that our findings after interviewing staff and students from across UCL point in many different directions. Based on our analysis, however, we have identified several key areas for consideration, both in terms of future emergency assessment and when considering capstone assessment more generally. These have been summarised as key findings and recommendations in the Executive Summary above.

4.1 Emergency capstone

Overall, our data shows that both staff and students were relieved that UCL made a clear decision at a time of uncertainty. Even where there was disagreement with the actual decision, there was appreciation that it was difficult to know exactly what was going to happen at the early stages of the COVID pandemic, and understanding of the difficulty faced by those having to make tough and swift decisions. The intention of the decision, reducing staff and student stress, was also widely recognised and valued.

Students' experiences were varied, with a majority of our interviewees reporting some negative experiences. Students point to factors such as poor communication about what was expected of them, disappointment over lost learning opportunities, and frustration that they did not receive any (or only very limited) feedback on their submission. They were often anxious about coming years, feeling they did not know what is expected of them or where they stood in regards to their learning. Future exams were singled out as a particular worry after students missed the experience of relatively low-stakes first-year exams.

In contrast, where the capstone was challenging but manageable, and expectations were communicated clearly within a framework of support (via

Moodle, online meetings and Q&As), students had much more positive experiences.

Staff were positive overall about the emergency capstone, which they saw as alleviating stress and pressure on staff and students. This allowed them to focus on second- and final-year students, master's students and research students. Several staff expressed surprise at how well the capstone was able to assess students, noting the academic maturity and holistic nature of the students' submissions. Negative comments were mostly linked to the extra work for individuals designing the capstone, issues around external accreditation, and programmes where students had already done a significant amount of work (and where the remaining assessment had already been planned). In these instances, the capstone was not successful at reducing the staff workload but rather increased it. Some staff were concerned, like the students, about the missed learning opportunities and lack of experience doing exams.

The key recommendations tackle many of these issues and many could be solved or reduced – they are not inherently part of a capstone assessment and some raise the possibility of wider changes (for example, should 'familiarity with exams' be a critical aspect of a degree?) Clarity of communication and chances to verify students have understood what is required of them are also far from insurmountable, should people consider adopting this kind of assessment.

4.2 Future capstone

Both students and staff expressed an interest in the ideas underpinning capstone assessment. Students were positive about the prospect of being able to engage with current issues and applying their modular knowledge and skills to something bigger in a more holistic way. However, many of them also expressed doubt that this would work in their particular disciplinary context.

Staff saw many benefits to capstone assessment, not least as a potential antidote to modular fragmentation of learning and assessment. For them, the capstone allows for more mature and authentic responses from students, which is part of their academic progression. As such, a capstone can successfully act as a bridge to year two as well as other types of assessment such as the final-year project or dissertation. Staff made it very clear that they want to retain some degree of modular assessment to complement any capstone.

Students and staff voiced a range of concerns that should be considered carefully: the unpredictable value attributed to a reflective piece of work; lack of alignment with year two (particularly in relation to exams); how there would

have to be support in place for both staff and students, as this type of assessment would be new to both groups; how to satisfy the requirements of external accreditation bodies; UCL regulations; and what would happen to students who fail the capstone since it could become a critical point of failure

To sum up then, many of the reservations or criticisms were focussed more on an emergency situation rather than all being inherent to a capstone assessment. A capstone offers some powerful, even unique, pedagogical benefits but must be designed to fit within and alongside existing structures for assessment rather than displacing them. Some of the issues to be worked through are logistical (e.g. models for communicating with students) and others are regulatory (what regulations would be needed to create harmony with the modular structure).

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