

Pivoting PGT dissertation provision for online learning: our response, reflections, and recommendations

Elina Koristashevskaya
University of Glasgow, UK

Stuart J. Purcell
University of Glasgow, UK

Keywords: student engagement; dissertation writing; cognitive load; Q&A sessions; Covid-19.

The challenge

As for many colleagues across academic institutions, the disruption wrought by Covid-19 presented us with a range of challenges when designing our teaching provision for the 2019-20 summer semester (Ali, 2020; Crawford et al., 2020). Our summer postgraduate taught (PGT) Dissertation Development and Writing Classes are optional and open to all PGT students in Arts and Social Sciences disciplines, typically drawing a cohort of c.200 students per session. Historically these classes have been delivered in a didactic lecture format, with hour-long, face-to-face sessions taking place on campus throughout May, June, and July. With the university closing to staff and students at the end of March in response to the pandemic, we were posed with three key challenges in pivoting this provision for online learning.

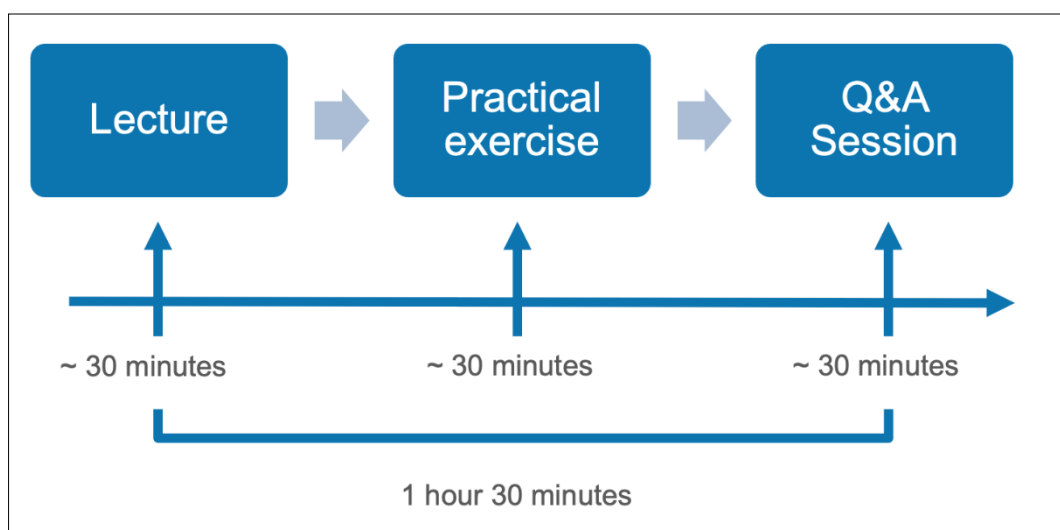
Firstly, our conversion of the didactic, hour-long lectures to an online format had to account for the distinct pedagogical requirements of online teaching (Choe et al., 2019) in terms of both content selection and delivery. We wanted to maintain an equal level of student engagement while striking a balance between the synchronous and asynchronous delivery of the classes, as well as ensuring that our new lesson plan accounted for general attention decline (Wilson and Korn 2007; Young, Robinson and Alberts, 2009) and the increased pressures of multimedia learning (Choe et al., 2019). Secondly, to cater for the size of student cohort our classes routinely draw, our new online delivery model also had

to be effective at scale without sacrificing the essential elements that have made the classes so successful and popular among PGT dissertation students in the past. And thirdly, we wanted to create additional opportunities for students to engage with the content following each class, as it became clear that the online delivery format required a different approach to the brief, open Q&A which previously concluded our in-person classes.

The response

In response to the key challenges identified above, we developed a new, three-phase delivery model for our classes: a lecture, a practical exercise, and a Q&A session. Each discrete phase was designed to last approximately 30 minutes, with the entire online session taking 1 hour and 30 minutes, replacing the hour-long, in-person lecture format (Figure 1).

Figure 1. Class structure slide inserted at the start of each session.

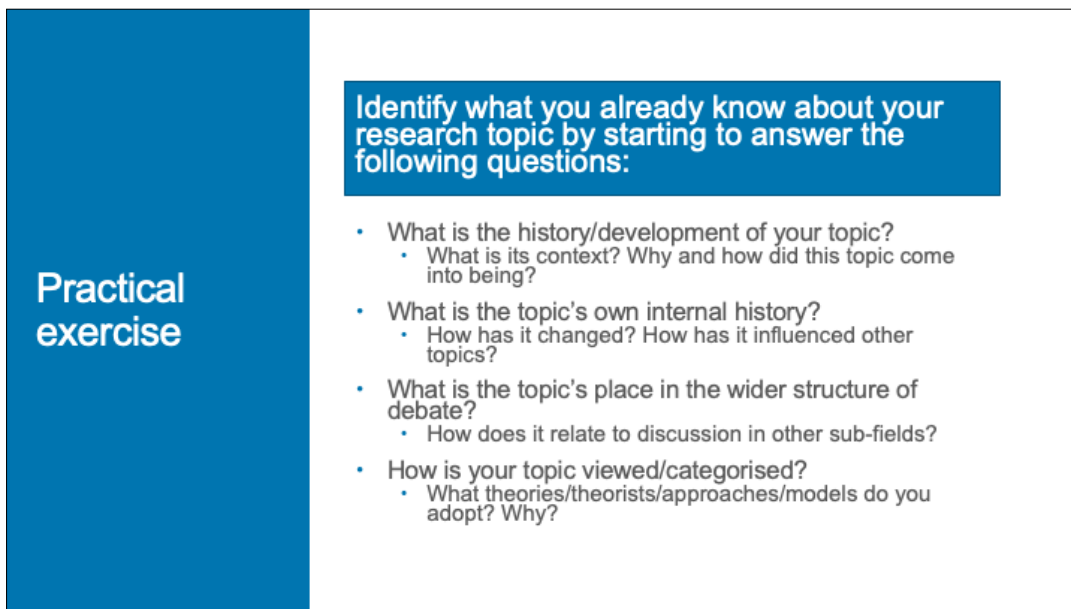


This approach aimed to reduce the cognitive load of online delivery by streamlining each phase of the session to fulfil distinct roles of the learning process, allowing us to design 'learning tasks' that correspond to different 'cognitive' activities (Leppink, 2017, p.387). While the lecture component encompassed the key content we wanted to communicate to the students, the practical exercise and Q&A components represented the kind of

cognitive 'rehearsal' activities that help ensure the retention of key content in longer-term memory (Atkinson and Shiffrin, 1968).

The exercises focused on the key stage of the dissertation covered in the lecture, such as formulating a research question (Figure 2) or interrogating an abstract (Figure 3). To avoid any 'extraneous cognitive load (ECL)' that did not contribute to this learning activity (Leppink, 2017, p.386), the Effective Learning Advisers (ELAs) delivering the class turned off their cameras and microphones during the exercise phase, leaving the instructions on screen and allowing students to work independently on the tasks.

Figure 2. Practical exercise for Session 1.1: understanding your research topic and formalising your research question.



Practical exercise

Identify what you already know about your research topic by starting to answer the following questions:

- What is the history/development of your topic?
 - What is its context? Why and how did this topic come into being?
- What is the topic's own internal history?
 - How has it changed? How has it influenced other topics?
- What is the topic's place in the wider structure of debate?
 - How does it relate to discussion in other sub-fields?
- How is your topic viewed/categorised?
 - What theories/theorists/approaches/models do you adopt? Why?

Figure 3. Practical exercise for Session 2.1: critical research as a process.

Practical scoping exercise

1. Find a range of articles potentially related to your research/topic/question using the library website
2. Check the keywords (or title) to make sure it looks to be within your scope, i.e. **scan** the article
 - If it *does not* look to be within your scope, why not?
 - If it *does* look to be within your scope, why?
3. Interrogate the abstract to ascertain whether you need to read the article more intensively, i.e. **skim** the article
 - What parts of the abstract *tell* you whether or not your need to read the article more intensively?

In addition to providing rehearsal activities to aid knowledge retention, the exercises also functioned as 'guiding questions' (Traver, 1998) that 'help students review learning content, check their comprehension, [and] stimulate critical thinking' (Thai, De Wever and Valcke, 2017, p.116). In the final phase of the session, students used Zoom's chat function to submit questions arising from both the lecture and practical exercise, which were answered live by the ELAs in dialogue with the students. Students engaging with the classes asynchronously via the recorded lecture components and practical exercises posted on Moodle could also benefit from the Q&A component by posting their questions in our weekly Q&A forum for ELAs to answer. In both cases, the format allowed for students to receive feedback either immediately or shortly after attempting the questions, which has been reported as 'critical' to achieving 'higher learning performance' (Thai, De Wever and Valcke, 2017, p.116).

These Q&A sessions have perhaps best demonstrated the success of the model, exceeding our expectations on all accounts. The volume and range of questions from students consistently reflected both their attentiveness in class and their understanding of the material, while the practical exercise encouraged students to put their learning into practice and reflect on the lecture content, thus allowing them to make the most of the Q&A component.

Recommendations

The feedback gathered from PGT dissertation students following our online pivot was overwhelmingly positive, with 95% of the 116 respondents stating that the classes were 'useful' or 'very useful'. This encouraging result confirmed that our approach to online delivery had not reduced the quality of our provision, which was further evidenced by the consistently high attendance and engagement levels throughout the classes. However, despite this positive feedback, we wanted to continue building on our initial online delivery model to more effectively utilise the unique potential of the online format.

For example, we expanded the Q&A component, which we now run as a live panel session that is recorded alongside the lecture sessions. A further change was to allow students to post their questions anonymously in advance of the Q&A, which has been shown to promote engagement from students less likely to engage in in-person lectures (Rabe-Hemp, Woollen and Humiston, 2009). The most notable change, however, was the move to a 'panel' format, with multiple ELAs and teaching assistants taking part in each Q&A to discuss the topics and questions raised by the students. The panel format makes for a more engaging recording, as well as creating a more informal atmosphere to encourage questions from students in the live class. While elements of this approach could be replicated in in-person teaching, the ability for students to submit questions anonymously and to have multiple speakers take part in the live panel without having to be physically present draws on the unique capabilities of online delivery. Consequently, our final recommendation is to move forward by drawing on the strengths of the online delivery format, rather than focusing on replicating in-person teaching online.

References

- Ali, W. (2020) 'Online and remote learning in higher education institutes: a necessity in light of COVID-19 pandemic, *Higher Education Studies*, 10(3), p.16.
<https://doi.org/10.5539/hes.v10n3p16>.
- Atkinson, R. and Shiffrin, R. (1968) 'Human memory: a proposed system and its control processes', in Spence, K. and Spence, J. (eds.) *The psychology of learning and*

motivation: advances in research and theory, Vol. 2. New York: Academic Press, pp.89-195. [https://doi.org/10.1016/S0079-7421\(08\)60422-3](https://doi.org/10.1016/S0079-7421(08)60422-3).

Choe, R. C., Scuric, Z., Eshkol, E., Cruser, S., Arndt, A., Cox, R., Toma, S. P., Shapiro, C., Levis-Fitzgerald, M., Barnes, G. and Crosbie, R. H. (2019) 'Student satisfaction and learning outcomes in asynchronous online lecture videos', *CBE—Life Sciences Education*, 18(4), ar55. <https://doi.org/10.1187/cbe.18-08-0171>.

Crawford, J., Butler-Henderson, K., Rudolph, J., Malkawi, B., Glowatz, M., Burton, R., Magni, P. A. and Lam, S. (2020) 'COVID-19: 20 countries' higher education intra-period digital pedagogy responses', *Journal of Applied Learning and Teaching*, 3(1), pp.9-28. <https://doi.org/10.37074/jalt.2020.3.1.7>.

Leppink, J. (2017) 'Cognitive load theory: practical implications and an important challenge', *Journal of Taibah University Medical Sciences*, 12(5), pp.385-391. <https://doi.org/10.1016/j.jtumed.2017.05.003>.

Rabe-Hemp, C., Woollen, S. and Humiston, G. S. (2009) 'A comparative analysis of student engagement, learning, and satisfaction in lecture hall and online learning settings', *Quarterly Review of Distance Education*, 10(2), pp.207-218, pp.250-252.

Thai, N. T. T., De Wever, B. and Valcke, M. (2017) 'The impact of a flipped classroom design on learning performance in higher education: looking for the best "blend" of lectures and guiding questions with feedback', *Computers & Education*, 107, pp.113-126. <https://doi.org/10.1016/j.compedu.2017.01.003>.

Traver, R. (1998) 'What is a good guiding question?' *Educational Leadership*, 55(6), pp.70-73.

Wilson, K. and Korn, J. H. (2007) 'Attention during lectures: beyond ten minutes', *Teaching of Psychology*, 34(2), pp.85-89. <https://doi.org/10.1080/00986280701291291>.

Young, M. S., Robinson, S. and Alberts, P. (2009) 'Students pay attention! Combating the vigilance decrement to improve learning during lectures', *Active Learning in Higher Education*, 10(1), pp.41-55. <https://doi.org/10.1177/1469787408100194>.

Author details

Elina Koristashevskaya is the Effective Learning Adviser for the College of Social Sciences at the University of Glasgow. She has developed and delivered courses in academic writing and development for undergraduate and postgraduate students, including a comprehensive dissertation writing programme. Her research experience includes academic enhancement, assessment and feedback practice, technology enhanced learning, and corpus linguistics.

Stuart J. Purcell is the Effective Learning Adviser for the College of Arts at the University of Glasgow. He currently lectures on most degrees across the college and has developed and delivered a range of academic writing and research courses for both Undergraduate and Postgraduate students. His research experience includes academic development, criticality, literature, and media studies.