TEACHING AND LEARNING



Can active learning be asynchronous? Implementing online peer review assignments in undergraduate political science and international relations courses

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Abstract

The phenomenon known as emergency eLearning saw many institutions of higher education switch from face-to-face learning to virtual or online course delivery in response to the COVID-19 pandemic. The transition posed a unique suite of challenges to instructors and students alike, especially in the case of active learning pedagogy. This article reflects on the experiences of a multi-institutional, multi-term pedagogical project that implemented peer review assignments as opportunities for asynchronous but nevertheless active learning. We shared instructor experiences through the course design and application stages of courses in International Relations and political economy, discuss the ability of peer review assignments to create active learning opportunities in online courses, and reflect on our own pedagogical development benefited from the community of practice.

Keywords Active learning \cdot Course design \cdot Online learning \cdot Pedagogy \cdot Peer review \cdot Teaching and learning

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Introduction

Active learning has been a significant driver of pedagogical innovation in political science and International Relations in recent decades, evidenced perhaps no more clearly than by the growth in disciplinary literature related to the Scholarship of Teaching and Learning (SoTL). Describing a constellation of practices rather than one specific strategy, we understand active learning to describe those pedagogical approaches that seek to have students learning by doing rather than learning by receiving information. SoTL has long demonstrated the importance of active learning for retention rates and pedagogical value, but so often approaches to active learning have been based on an in-person, synchronous classroom experience. Given the shift to online learning and the challenges posed to synchronous connectivity by shifting social responsibilities, economic hardships, and the continued impact of the digital divide on internet access, we wanted to ensure that the same benefits of active learning principles could be accessible to students regardless of internet service level. Along the way, we realized that our experience in making space for asynchronous active learning should not be limited to the COVID-19 pandemic. Although online learning has received increased attention due to its unprecedented uptick in the pandemic, online learning was growing prior to COVID-19 and will undoubtedly remain an important part of higher education in the coming years and decades. As Rebecca Glazier (2021) has argued, while the promise of online learning has been expanded and improved access, especially for non-traditional students and historically marginalized populations, the peril of online learning has been the high rates of withdrawal and failure. Glazier highlights the importance of constructing meaningful opportunities for interaction to build rapport and community in the online classroom as a means of renewing the promise of online learning while also avoiding the peril; if higher education wishes to achieve its aims of accessibility and excellence in online learning, meaningful interaction requires attention. We think that our "peer review assignment" offers one example of how active learning principles can help enrich and enhance online learning.

As three scholars still early on in our teaching careers, we did not have a wealth of online teaching experience from which to draw when confronted with emergency eLearning. In a spirit of mutual support and collaborative learning, we came together in an informal community of practice (Wenger et al 2002) to reflect on strategies to generate student activity in the online learning environment. This article is a multi-course, multi-term, multi-institutional analysis based on the experiences of three early career instructors (ECIs) and our reflection-on-practice from implementing a peer review assignment in our undergraduate political science and International Relations (IR) classes. Our reflections are based on guided journaling over a period spanning 2020 and 2021. While active learning techniques have predominantly been developed for in-person and synchronous teaching and learning, we sought to test the efficacy of peer review as one approach that enables the

¹ Elsewhere, this is sometimes called the "WFD rate" (withdrawal, failure, and D-grades).



benefits of active learning to be realized asynchronously, and online. The first section of this paper will outline active learning in the political science classroom and the challenges of online teaching both within and without the pandemic. The following section will outline our methodological approach including the development of our CoP and evolution of the assignment across multiple terms and from a multi-institutional standpoint. After that we will outline the peer review assignment itself, what it consisted of, what was expected of students, as well as some of its benefits and challenges that arose throughout the experiment. The final section will outline our key takeaways from the assignment.

Active learning in the political science classroom

As outlined above, "active learning" is not one specific strategy for classroom management, but instead describes a constellation of pedagogical approaches that seek to maximize the amount of time that students learn by doing in the classroom. Set up in opposition to passive learning systems—like the stereotypical content-delivery lecture—active learning entered into higher education pedagogy in earnest through the early 1990s (Bonwell and Eison 1991), and by the early 2000s, meta-analyses were already reaching conclusions about the clear advantages that active learning brings to student achievement (e.g., Knight and Wood 2005; Michael 2006; Prince 2004). This continues to be an active area of study within the scholarship of teaching and learning, covering a number of extensions of the earlier success-measurement efforts to discuss the adaptation of active learning for accessibility (Gin et al 2020), architectural implications of purpose-built active learning classrooms (Rands and Gansemer-Topf 2017; Murphy and Groen 2020), the scaffolding of active learning to prepare students for later experiential opportunities (Kitchen 2021) and the integration of messaging apps to open multiple communication pathways for active learning (Dahdal 2020). In his recent book Super Courses, Ken Bain (2021) reflects on the surprising effectiveness of active learning approaches—even when students express a preference for content-delivery lectures, they actually perform better on post-lesson evaluations following active learning activities like discussions or debates rather than content-delivery lectures.

Active learning is well established as a pedagogical approach in the disciplines of political science and International Relations. Indeed, in their watershed collection *The New International Studies Classroom*, Lantis, Kuzma, and Boehrer suggest that the development of active learning exercises is rooted in the simulation exercises developed by IR professors in the 1950s (2000: 8). In the last two decades, disciplinary scholarship of teaching and learning has produced a wealth of insights into how political science and International Relations classrooms can integrate active learning through games (Asal 2005), debates (Lantis 2004), carousels (Murphy 2017), simulations (Asal and Blake 2006), service learning (van Assendelft 2008), crowdsourcing (Salter 2013), and beyond.

Despite the valuable and voluminous literature on active learning in political science education, we were unable to merely apply existing activities to the courses referenced in the present study. All participating courses took place under "emergency



eLearning" (Murphy 2020) conditions, as the COVID-19 pandemic forced teaching to take place remotely via online learning platforms. The courses in question were all set by university registrars as synchronous courses, yet the formal decision for courses to be synchronous did not address the many barriers to access that students in underserved and lower socioeconomic status communities experience (Sims et al 2008), and students in different time zones would be disadvantaged due to substantial time zone differences. While the work of Rebecca Glazier (2016; 2021), and others, around how to maintain connection and effectiveness when teaching virtually can support online teaching, there are nevertheless access challenges that make synchronous active learning difficult in the context of emergency eLearning.² With the onset of the pandemic, many course instructors—whether they were tenured professors or graduate students—were thrust into online teaching having very little or no training or educational development, and had to adapt rapidly. In our case, we wondered: How could we take what we know about active learning and adapt it to the most unexpected kind of online experience—one that stretched across continents and beyond the temporal constraints of synchronicity?

Methodology

This article draws on a multi-semester, multi-course, multi-institutional reflective teaching project where we implemented and reflected on a peer review assignment designed to create (cyber)space for asynchronous active learning. Originally functioning as a reflective teaching exercise within our community of practice, we set out shared online journals to guide our reflection throughout the academic year and to share suggestions for refining course design for subsequent semesters. Courses included a variety of topics in political science and International Relations, including development, political economy, politics of food, and IR theory. While originally constructed from the perspective of personal development and program evaluation, the idea of shared reflective journaling was nevertheless inspired by the approach of collaborative autoethnography. In contrast to single-voice autoethnography, where an individual reflects on past experiences and interactions in a cultural context (e.g., Winkler 2018; Heffernan 2020), collaborative autoethnography is particularly useful in the context of the scholarship of teaching and learning because it permits pedagogical reflection to reach beyond the boundaries of a single course, instructor, or institution and produce a novel collective perspective (Godbold et al 2021). We are not the first to come to collective autoethnography by accident (Guyotte and Sochacka 2016), and other communities of practice which promote and incorporate careful reflective journaling may similarly be positioned to draw collective insights from shared and different experiences.

² However, this does not mean that synchronous active learning is impossible online. For example, when students have chosen to enrol in a synchronous online course, presumably internet access issues will not be present. Alternatively, Martel et al. (2021) explain how social media can aid in adapting synchronous active learning simulations to an emergency context.



We found that collective autoethnography was especially helpful in an e-learning context for three reasons: First, with routinized, collegial interaction interfered with as a result of the pandemic, collective autoethnography helps overcome individualistic and isolating tendencies already present in academic work, but which were ratcheted up as a result of the pandemic. Second, less related to pandemic teaching conditions, collective autoethnography practiced across different institutions can counteract institutional pedagogical biases and allow for more reflexive and diverse insights. Third, while instructor reflection is an accepted and widely used methodological approach for SoTL articles, the approach has been previously criticized for issuing recommendations based on a small-N sample of a single class. Baranowski and Weir (2015) criticize these qualitative accounts as producing "show and tell" reports, and argue for experimental controls and quantitative analysis as a corrective. While we agree that the conclusions that can be drawn from single-class cases are limited, our approach recognizes the value of qualitative research that has a long history in the scholarship of teaching and learning (Healey et al. 2019), and addresses the small-N problem of a single-class case through a multi-instructor, multi-semester, multi-course, and multi-institutional study. By overcoming the small-N problem in this manner, this project demonstrates that (collaborative) qualitative research can cover a greater empirical basis than single-course instructor reflection.

The peer review assignment

As we prepared to teach courses for a fully online term, we wanted to find a way to allow students to interact with one another's ideas without encountering the barriers to synchronous access created by the digital divide. Inspired by Glazier's (2016) research on the importance of building rapport between instructors and students, we saw the peer review assignment as an opportunity to have students build a sense of community by supporting one another. While prior research has discussed how online discussion forums can break down these barriers and contribute to active learning (King et al. 2021), we were interested in developing a new method that would create space for *deep engagement* on fellow students' work. This is not to deny the potential utility of discussion boards in some online circumstances—and indeed, some of the courses involved in this study incorporated discussion boards but instead a call to recognize that participating in the peer review process can be a uniquely constructive experience for students (Arsenault et al 2021; Walker et al 2021). As Andrew and Michael began to prepare for their Fall 2020 semester courses, they considered how the rich exchange of ideas present in the academic peer review process might be replicated within the context of a course. This model was particularly appealing because the engagement of peer reviewers by an academic journal occurs asynchronously vis-a-vis the author's work. If students were given the chance to reflect and respond to one another's work in a written form, then the kind of lively exchanges that were inequitably accessible in the context of emergency eLearning could be extended to all.

What our community of practice developed was a model where this peer review activity fit within a three-assessment sequence, which began with an essay proposal



and built to a final research essay, which was the most significant component of the overall course mark.³ In the essay proposal, students were expected to outline their topic, present key research question(s) or a working thesis statement, and share some of the sources they would use to support their argument. Once these proposals were submitted, they were circulated to other students in the course who would then complete a review of their peer's paper. In courses where each student completed one peer review, they would receive one set of peer review comments from a colleague; in courses where each student completed two peer reviews, they would receive two sets of peer review comments. Students were encouraged to make both substantive comments (relating to the scope/quality/relevance of the topic to the course, clarity and strength of research question(s) and argument(s)), as well as mechanical comments (relating to structure, writing quality, and use of references to peer-reviewed academic sources).⁴ The students' peer review comments were given a grade that contributed to the final course mark.

Rather than a specific target word count, the peer review assignments were introduced in terms of their function. Students were encouraged to offer sufficient feedback for the author to build toward a stronger final paper, and to demonstrate a level of engagement on their part with the paper proposal. Because essay proposals were submitted at various levels of development, some peer reviews focused on fine-tuning existing arguments, while others provided general commentary on the early sketches of colleagues' work. Since students knew that they were being evaluated on the quality of their peer reviews, they learned that while there are stronger and weaker proposals, there is always plenty of feedback to provide on each paper.

While the submission of an essay proposal, in advance of a final paper, is an established practice that encourages students to begin thinking about their final paper well ahead of the due date, the peer review activity provides two contributions to the essay proposal in isolation. First of all, while instructor feedback can be useful in the development of a topic into a final paper, the peer review process ensures that students receive feedback from a secondary source. This additional perspective can help to address deficiencies, challenges, and opportunities in the research project at the proposal stage. Secondly, because students acted as assessors, they interacted with the writing process in a different manner. Through this novel position as a critical reader, students could develop the key editing and revising skills necessary to submit high-quality term papers.

Generally, implementation of the assignment was a smooth process, though there were certain challenges. One of these, which has the potential to pose difficulties with the assignment, is the fact that it relies on students meeting deadlines, or otherwise having to be flexible with assignment dates. If students do not hand in the

⁵ While the students are not expected to be subject matter experts to the same degree as their instructors, the benefits of peer feedback to provide opportunities for interteaching has been discussed in the literature (Slagter & Scribner 2014; Murphy 2017).



³ Specific weighting of marks varied from course to course, depending on the length of the final paper. Mark breakdown can be adapted to suit the needs and level of the course.

⁴ The peer-review assignments followed the same general approach; however, slight adaptations were made to suit the unique needs of the particular course, as will be discussed a bit further below.

proposal on time, it will mean their reviewer is affected by either the amount of time they will have for the review, or they will need to be granted an extension. Similarly, if a reviewer does not complete their review by the deadline, the author of the proposal can be left waiting for the feedback on their assignment. Both of these issues are easy enough to mitigate with flexibility of deadlines, especially as the assignments were implemented around the middle of the semesters which left ample time following on for students to write the final essay.

The second major challenge emerged from unstable student enrollment. While the peer review activity occurred mid-way through the semester (well beyond the course enrollment deadline), student decisions to drop out of the class could have repercussions on ensuring the equal distribution of proposals for peer review. Similarly, some students may remain enrolled in the course but fail to complete the assignment, in which case the proposal authors may receive less overall feedback through no fault of their own. Strategies employed to mitigate this imbalance included (1) the instructor providing additional feedback to students whose peer reviewers did not complete the activity, and (2) only permitting students to participate in the peer review activity if they had previously submitted their essay proposal.

A final challenge to consider is the variability in the strength and quality of essay reviews. Some students received a great deal of high quality, and constructive, feedback from which to build on for their final paper, whereas others received either minimal feedback or feedback that was not particularly useful. Unfortunately, the quality of feedback received was not necessarily proportionate to the quality of feedback offered. Relatedly, students wrote papers on a variety of disparate subject matter, which meant that a student researching a niche topic would not necessarily receive feedback from a colleague familiar with the topic. The instructor feedback offered on the essay proposal could act as a supplement to peer reviews that were unfairly critical, complimentary, or of low quality.

While this section has provided an overview of our experiences in administering and assessing peer review assignments over a series of terms at different levels, Table 1 distills our advice for other instructors interested in administering a peer review assignment in their courses. Because the inclusion of a new assignment into a course requires some pre-term organization, we break our advice into three sections: considerations before the term, before the peer review, and after the peer review. A common theme running throughout the life cycle of the peer review assignment is the centrality of clarity to success in implementing a pedagogical innovation.

Lessons learned

Based on our multi-instructor, multi-term, multi-institutional instructor reflection, the peer review exercise revealed different ways in which asynchronous learning promoted information retention and improved student abilities to relay knowledge. Principally, our experience demonstrates that peer reviews promote writing and time management skills. All three course instructors noted how the peer review exercise encouraged students to pay more careful attention to their writing, which facilitated critical thinking development. It also provided important opportunities for students



Table 1 Considerations for Implementing a Peer Review Assignment

Considerations for Implementing a Peer Review Assignment

Before the term

Select an assignment that will serve as the basis of a peer review

Peer review can be especially beneficial experiences for students when the comments received through the process can be implemented in future stages of a project or future projects encompassing similar success criteria

For example, we had students conduct the peer review based on essay proposals submitted at midterm. This allowed students to incorporate the peer review feedback into their essay-writing process

Consider expectations and develop a rubric

How will students be evaluated in the peer review assignment? What quantitative or qualitative categories will define student success in providing peer review commentary? Providing peer review feedback can take different forms, including checkboxes with summary comments, a question set to add responses, or a free-form response

For example, three courses in our sample asked students to provide comments on the work and suggestions for next steps, while two courses also included an expectation that students justify a mark based on the essay proposal rubric

Consider how the assignments will be distributed?

Students may benefit more from receiving comments from two peers, but this involves a tradeoff as each student would have to provide comments on two peers' proposals. The assignment is less onerous when students only provide comments on one paper, but there is also less benefit to the students

Papers may be distributed through more intentional (e.g., balancing prior student achievement to that point of the term, or by assigning papers of interest to students) or less intentional schemes (e.g., alphabetical, random, order of assignment submission)

Before the peer review

Discuss the importance of peer review within academia and industry, and outline the key expectations of the peer review

Demonstrating the actionable benefit of the exercise can help to build intrinsic motivation (in addition to the weaker grade-related extrinsic motivation (Bain 2021))

Encourage students to share the kind of feedback that they would find useful (concrete, constructive, collegial)

One of the instructors involved in the project shared an example of a strong peer review with the class to help students

After the peer review

Distribute anonymized peer reviews to the students who authored the assignments

If objectionable comments are made in the review, these can be removed by the instructor or teaching assistant out of care for the students receiving comments

Allocate discussion time for a full-class or group-level debrief to share what students learned through the peer review process

to develop communicative skills through constructive feedback. At a broader pedagogical level, our second lesson learned from the peer review activity was that active learning can be done asynchronously.

We observed that the peer review process improved writing skills in at least two ways. On the one hand, the reflective process enabled students to identify common issues often made in undergraduate papers. While this is something that professors are always trying to communicate to students, far too often we know that students



leave assignments until the last minute and therefore lack time for adequate editing and revision. The peer review, then, helped students pay more careful attention to typographical and syntactical problems by moving the big-picture planning earlier in the term. With students able to see the errors they made and knowing these were the same they pointed out in *other* papers, they began to broadly report that they much more clearly understood the need to finish assignments early so they could review them with fresh eyes (and ideally have a colleague, friend, or family member review them) as well as to ensure they were submitting more polished pieces.

On the other hand, the authors concurred that the peer review process encourages improved writing skills on a more substantive or structural level. Peer review feedback included comments on the quality of research, clarity of overall argument, paper structure, and the quality of evidence being used in supporting the central thesis. This practice facilitated student-led cognitive development, as these types of criticisms allow students to grapple with core questions of any research project in ways that are not typical of many undergraduate learning experiences. By pointing out an abundance of non-academic references, or an overreliance on outdated citations, or lack of peer-reviewed evidence on a subject when plenty exists—all of which are key issues that we see repeatedly on student assignments—the peer review assignment provided a novel angle from which to communicate the importance of taking a deeper dive in the paper-writing process.

Another benefit of this assignment is that students received far more feedback on their proposals compared to the feedback normally provided by professors. Peer review assignments reduce the burden on professors and already overworked and underpaid teaching fellows, as there was less one-on-one time needed to explain to students how they could improve their analysis. While there was a wide range of both the quantity and quality of feedback, on average students received roughly one page of notes.

As a result of the peer review activity, we noticed that students were more cognizant of structural components within their research project. Peer feedback allowed otherwise existing issues with assignments to appear at a lower rate by the time the final research assignment was turned in. They were not, however, eliminated and in some cases certain students still made some of the same errors that they had themselves made on the proposal, even in cases where they had successfully pointed those issues out to others. Often it was clear that efforts had been made to improve on these but there remained work to be done.

Finally, it is worth pointing out that the peer review assignment provided students with an opportunity to work on time management abilities. Students were generally given a few weeks to provide feedback to their peers, but it was important for students to finish their research assignments on time to allow for their peers to engage with their writing in a meaningful way. The assignment presented a useful and dialectical, pedagogical avenue in showing the importance of finishing work early in order to ensure there is adequate time for review.

One of the more interesting aspects of the peer review activity was that it demonstrated how active learning can occur asynchronously. As opposed to active

⁶ We found this dynamic to be reminiscent of crowdsourcing feedback and interteaching observed in inclass discussions (e.g., Murphy 2017).



learning that takes place synchronously in the classroom (whether it be digital or in-person) through immediate response in group or classroom discussion, the peer review's asynchronous form of learning offers other opportunities for participation. In the regular course of action, feedback from course instructors allows students to receive information passively. By including peer review as an assignment that students participate in, instead of being passive readers, they become active authors of knowledge who dynamically influence the trajectory of their peer's research. The assignment required students to participate and respond to research being conducted by their peers, which necessitated a reflexive response, despite this active process occurring on their own time. Moreover, due to the pandemic, students engaged with their peers' assignments in an online setting.

In comparison with other online asynchronous activities, we felt that the peer review activity was much more dynamic. Whereas critical reading reflections, discussion board forums, and other asynchronous learning activities allow students to explain their opinions and display knowledge in more isolated ways, a peer review assignment encourages students to actively learn by contributing to one another's learning journeys. Peer reviews provide opportunities for students to consider different viewpoints, refine and clarify different positions, and construct more fine-tuned arguments in ways that are hard to replicate in other assignments. This style of learning is more dialectical in nature, allowing students to integrate criticism—some of which is more oppositional or contradictory in nature, other parts are more complementary and meant to allow students to better elucidate their reasoning and argumentation—in ways conducive to building writing and critical thinking skills.

Conclusion

It is safe to say that we all hope for a world where the pandemic is soon behind us, and emergency eLearning is a reality long forgotten. However, given the substantial institutional investments made into online teaching, it is also likely that the post-pandemic academy will include many remote learning opportunities. To this end, it is our hope that we can draw on these pandemic teaching experiences in a manner that contributes constructively to future teaching and learning. Whether online or in-person, integrating opportunities for asynchronous active learning can permit students to learn by doing on their own time. Our experiences with the peer review assignment in a variety of undergraduate courses and course levels suggests that this assignment could be adapted to the unique needs of different courses, whether in-person, remote synchronous, or remote asynchronous.

Finally, we would like to reflect on our experience through this collaborative autoethnography as a research methodology in the scholarship of teaching and learning. As discussed above and more broadly in the disciplinary SoTL literature, instructor reflection has become a commonly employed methodology for SoTL articles. While it contributes a great deal in terms of sharing practical insights into innovative teaching practices, we recognize that the traditional single-course model can lead to small-N limitations. While others have argued that extending through time can allow for a larger sample from which to draw quantitative conclusions, we believe that



there is a great value to be added by expanding the sample in multiple directions. Our multi-term, multi-instructor, multi-institution study permits not only a larger sample—thereby averting the most severe small-N limitations—but also a collaborative process for thinking through experiences and building scholarly community. The continued development of multi-institutional teams to test innovative teaching practices has a lot to offer in terms of creating opportunities for large(r)-N qualitative research projects.

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