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Postgraduate Spotlights: Using a Community of Inquiry approach to enhance student engagement in geographical higher education

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Abstract

While the majority of pedagogical practice has been affected by the COVID-19 pandemic, the teaching of geographical research skills has been especially difficult with the loss of fieldwork and practical applications. Furthermore, the move to online teaching has diminished the learning communities in face-to-face classrooms. In an attempt to counteract these issues, this paper reflects on a learning activity in an undergraduate geographical research methods course, 'Postgraduate Spotlights' where two postgraduate researchers presented their specialist research methods

followed by an interactive question-and-answer session with the undergraduates. We (as postgraduates, undergraduates and teaching staff) found that the open and critical discussion in the workshop fostered a Community of Inquiry that encouraged engagement from students stimulating their curiosity about geographical research methods. Through our discussion, we demonstrate the importance of having postgraduate researchers involved in teaching, as Graduate Teaching Assistants (GTAs) given their liminal role of researcher-learner. We also emphasise the importance of letting the students lead their own learning, building a Community of Inquiry across academic stages, and creating a constructive dialogue around geographical research methods. While the reproducibility of the workshop face-to-face remains to be seen, this article emphasises the potential for applying such an approach to stimulate free-flowing discussion and ultimately promote a Community of Inquiry.

Introduction

In all teaching, it is paramount that educators combine “theoretical understanding, procedural knowledge and mastery of a range of practical skills”, and this is especially important when teaching research methods (Kilburn, Nind & Wiles, 2014: 191). The COVID-19 pandemic and resulting transition to online learning interrupted normal teaching practices and led to pedagogical improvisation (Bryson & Andres, 2020). Within geography, fieldwork is a distinctive pedagogical practice that enriches the discipline (Welch & Panelli, 2003; France & Haigh, 2018), but the pandemic significantly reconfigured the potential to undertake fieldwork activities and hindered the students’ abilities to put research methods, fieldwork, and professional practice skills and knowledge into practice (Fuller et al., 2021).

Aside from the issues online teaching has posed on research methods teaching and learning, the move to the online classroom has also exacerbated students’ declining sense of community with their peers, the teachers, and the university in general (Zhou, 2020). It has been shown that creating a sense of a university community is fostered by encouraging student participation and positive interactions in the classroom (Garrison, 2011). Garrison, Anderson and Archer (2010) suggested that optimal online learning occurs in a Community of Inquiry (CoI), where students and instructors work cohesively and collaboratively in constructing knowledge. Applications of the framework have shown that CoI encourages active questioning, and collaboration with peers and/or teachers to discuss content and enrich student learning (Cheung et al., 2020; Tan et al., 2020). In this paper, however, we suggest that the inclusion of postgraduates in

the online classroom strengthens the CoI. By “simultaneously wearing the hats of a staff member and a research student, a teacher and a learner” (Fung, 2021: 1) postgraduates, in the role of Graduate Teaching Assistants (GTAs) may act as a bridge between academia and undergraduates and facilitate stronger discussions and student learning.

In this paper, we critically reflect on the strengths of a pedagogical approach, *Postgraduate Spotlights*, which we undertook in an undergraduate geography research methods course. Postgraduate Spotlights was a discussion between graduate and undergraduate students around doctoral research projects with a specific focus on research methods and experiences in the field. Such an approach should have the following benefits as standard: (1) The exercise allowed the students to conduct their own learning through questioning the postgraduates’ research to benefit student learning; (2) Postgraduate Spotlights enhances a CoI by facilitating a strong online learning community through critical discussions; and finally, (3) it showcases the untapped potential of GTAs for enriching a strong learning community across learner stages (Clark, 2021; Dick et al., 2007; Fung, 2021).

Postgraduate Spotlights

The Postgraduate Spotlights workshop was undertaken as part of an undergraduate-level course focusing on research methodology and design in preparation for their final year of independent research projects. ‘Methods for Academic Research’ at the Faculty of Spatial Science, University of Groningen invites the students to design, run, and write up

their own small group research projects and reflect upon various quantitative and qualitative human geography research methods, including interviews, questionnaires, and Geographical Information Systems (GIS). The course aims to teach students to collect and analyse quantitative and qualitative data, and report and discuss their findings in a research paper. As such, the intended learning outcomes include the ability to identify and describe different types of data collection and analysis, and their ethical considerations. 'Methods for Academic Research' is primarily taught through a mix of lectures (~100 students) and multiple small group classes/seminars (~20 students) led by one of the five supervisors on the course. Prior to the pandemic, the course was solely conducted face-to-face with approximately sixty-eight contact hours over the ten-week course, with eighteen hours of lectures and fifty hours of supervision and consultation.

In the course evaluation for 2020, the students commented that: "*we need to be exposed to the multitude of qualitative approaches*" and crucially, "*I would like to hear more about research done in the faculty*". Thus, the teaching exercise was inspired, and redesigned as an improvement on the previous attempt considering multiple qualitative approaches and research projects in the faculty. The workshop was conducted in a lecture slot towards the beginning of the course when the students were learning about different research methods. The class was attended by approximately 70 undergraduate students, a lecturer, and two postgraduate researchers. A similar exercise was conducted in 2020 with a postdoctoral researcher on the conduct of mixed methods (namely GPS tracking and interviews) but this did not achieve the anticipated interaction from the students.

In the workshop, Lowe and Venema took part in an online panel discussion on their research methods instead of a teacher-led lecture. Lowe and Venema (Henceforth referred to as GTAs) gave a five-to-ten-minute presentation on their current research reflecting upon their methods (participatory methods and ethnography, respectively) and their strengths and weaknesses. Following each presentation, there was an open dialogue between the undergraduates and postgraduates for fifteen-to-twenty minutes chaired by Osborne (lecturer). The undergraduate students asked questions or posed discussion points orally or via the online classroom's 'chat' function. The questions from the students were plentiful and focused on topics including research ethics, practical issues, and doing doctoral research. Each session on the postgraduate research topic lasted for approximately twenty-five minutes. The workshop was designed to be relatively informal with the short teacher- and researcher-led aspect followed by an interactive and student-led question and answer session.

To complement the feedback from the course evaluation forms, we conducted a short questionnaire of open questions asking what they liked and disliked about the workshop, what they had learnt, and how it could be improved in the future. A Google Form was shared with the course cohort, with eight detailed responses. To qualify this feedback, two small focus group discussions were conducted with the postgraduates and undergraduates respectively. Ten undergraduates were invited to contribute to the latter focus group discussion and Aarnink, Boekhout and Leman (undergraduates, hereinafter UG) attended. They were asked a series of questions about the workshop, such as the positives, negatives, and

implications for teaching and their perceptions on doing research in the future. The focus group discussion was approximately 45 minutes long and allowed the undergraduates to critically reflect on the workshop. Osborne, the lecturer, did not attend the focus group discussions and Lowe and Venema (GTAs) led the focus group discussion, which further emphasised the role Postgraduates as GTAs have in bridging the gap between academics and students. Initially, it was not the intention to include the UGs as authors, but their insights from the focus group discussions justified shared authorship. We also considered that extending the authorship to them would be a continuation and promotion of the principles of the Community of Inquiry and reflect our understanding that learning and academia should be inclusive and collaborative.

Postgraduate and undergraduate reflections

‘Methods For Academic Research’ primarily focuses on interviews and questionnaires as geographical research methods. The feedback in the student evaluation forms from the previous academic year demonstrated concern over the perceived lack of methodological breadth and creativity with the suggestion that: “*students [were] being actively discouraged from using their own creative skills*”. By introducing the students to research methods they were unfamiliar with, the methodological content discussed in Postgraduate Spotlights was enriching: “*we don’t see these other methods in other courses. So, it’s nice to get to know them*” (Boekhout, UG). Methodological multifariousness “remains the backbone of [...] human geography” (Davies & Dwyer, 2007: 257), but, crucially, the teaching of research

methods is widely recognised as a way for students to understand how knowledge is established while enhancing their skills for ‘lifelong learning’ and increasing their employability (Welch & Panelli, 2003).

Beyond the learning outcomes of the class, these discussions inspired the undergraduates to use different methods in their (future) research: *“It made me feel more open-minded about the style of research that I could do in my bachelor’s [sic.] project - having the opportunity to try different methods is quite exciting”* (Leman, UG). However, in the questionnaire students suggested that they would have liked to try the methods themselves, with one student saying: *“I find it easier to understand something if I do it over just hearing about it”*. While the workshop was largely well-received, this comment emphasises that students want to be a part of the learning process and get hands-on experience with the methods.

Unfortunately, the students were unable to ‘learn by doing’ (Van Loon, 2019) due to the restrictions from the pandemic, yet they were encouraged to shape the discussion the way they wanted, through the question and answer session: *“It was nice to have a space to ask you questions [...] often lectures can be quite one-sided and especially with online learning it’s very difficult to interact”* ([Leman, UG). The interactive question and answer session allowed for critical discussion in a friendly and informal setting. Aarnink, Boekhout and Leman (UGs) stressed that the presence of postgraduate students in the discussion helped ‘bridge the gap’ for students and enrich their learning: *“Sometimes you just don’t quite understand something and sometimes the teachers (...) can dismiss it quite snootily and having a space where there are PhD students talking to you about their*

research really helps in bridging the gap” (Leman, UG).

The presence of postgraduates may have promoted and enriched a learning environment where critical discussion was encouraged. In particular Lowe and Venema (GTAs) may have enhanced the social and cognitive presences in the Col framework (Figure 1) as extremely receptive and approachable figures in the classroom. Not only did the students feel more welcome to speak freely, but also encouraged student collaboration: *“It was a benefit from online teaching that sometimes when you do put a question in the chat, then your fellow students would just answer it for you... I think all the students were really willing to help each other out, so that was nice”* (Aarnink, UG). Thus, emphasising that the inclusive setting of the workshop also fostered collaboration between students and enhanced their social presence in the class.

Beyond developing a knowledge of geographical research methods in a student-led classroom, the workshop provided a specific example of the methods used in the field at a time when fieldwork was difficult (Fuller et al., 2021). This makes an insightful change for the undergraduates, who suggested that their education was essentially reading around examples of perceived perfect research; by showcasing ongoing research they saw that research is often messy (e.g. Harrowell, Davies & Disney, 2018) and *“it’s okay to make mistakes in research”* (questionnaire response). This open account about the issues faced in doctoral research not only built trust between the postgraduates and the undergraduates, thus enriching the Col, but contributes to Welsh and Panelli’s (2003) call for a comprehensive approach to the teaching of research within geography; namely, an

appreciation and knowledge of the challenges and options facing geographers as they investigate social worlds.

Limitations & Future Considerations

Although the exercise facilitated a CoI, the online nature of the workshop had its limitations especially around the use of the online classroom's chat function. Whilst the chat function is *"less intimidating than it is to put your hand up in front of the whole auditorium"* (Leman, UG), it was stressed that the chat function can lead to breaks in the flow of discussion, but also misunderstandings. Boekhout (UG) explained how their question was misinterpreted in the class and due to the longer time it takes to type and receive a response they could not rephrase the question before the discussion moved on.

Additionally, this temporal difference between the typed question and given answer meant that there were occasional awkward pauses in the discussion which were filled by a conversation between the lecturer and the postgraduates: *"The chat function sort of slowed the chat and it felt like we were watching a [conversation] between PhD students"* (questionnaire response). Conversely, one student acknowledged the difficulties of teaching online and felt that *"It was nice to have a role. Much better than just listening to a lecture"* (questionnaire response). So, while the online nature of the workshop had its limitations, it was perceived as an improvement over other online teaching experiences.

As we move forward to conducting classes online, it is important to reflect on the positionality of the teachers since both the postgraduate researchers and lecturers are

relatively early in their careers and are relatively young. The literature suggests that a strength of including postgraduates in the classroom is that it enhances the connection between teachers and students (Fung, 2021; Muzaka, 2009). This perhaps implies that the exercise may not be replicable with senior academics: *“Sometimes when the teachers are much older, it can create a sort of teacher-student dynamic rather than a collection of equals, I think”* (Leman, UG). However, postgraduates often have much less teaching experience than their senior counterparts, and may not deliver the content as effectively, for example: *“it felt a bit scattered. But that may have been due to inexperience or nerves or anything like that, on behalf of [the postgraduates]”* (questionnaire response). Thus, we believe a mixed-career stage panel would be extremely effective in future classes but stress the importance of including postgraduates in masterclasses for establishing a strong Col.

Discussion & Conclusion

This paper shows how Postgraduate Spotlights encourage students to consider different methods and think outside traditional ‘textbook’ approaches (Kilburn, Nind & Wiles, 2014) and engage the students with ongoing research in the department. This made the workshop more rewarding for students as they could learn what mistakes are made, why they occur, and how experienced researchers choose to overcome them. Encouraging the undergraduate students to lead the questioning in the class also helped to stimulate social and cognitive presence in the classroom, emphasising that students can direct their learning (Garrison, Anderson & Archer, 2010). Indeed, we have shown how this open

discussion encouraged a critical and informative dialogue around geographical research methods in a time when fieldwork was impossible. Crucially, however, Postgraduate Spotlights epitomises the collaborative constructivist underpinnings of the Col framework (Swan, Garrison & Richardson, 2009) since the presence of the GTAs enhanced the learning community as a result of their liminal role as a researcher-learner (Fung, 2021; Muzaka, 2009).

However, the reproducibility of the Postgraduate Spotlights remains to be seen, especially with different members and groups in academia, and in the face-to-face classroom. While Col is primarily applied in the online classroom, it is possible to deploy it effectively face-to-face (Warner, 2016). Thus, there is promise that creating a similar learning community will be possible and stimulate more free-flowing discussion between presenters and the students. The feedback from the students, however, suggests that the loss of the online classrooms chat function may be exclusionary for quieter students, perhaps suggesting the need for a hybrid set-up in future iterations. Additionally, our reflections suggested including a greater variety of academics in future workshops with mid- to late-career academics bringing their extensive experience in research methods to the discussion. We suggest that including senior researchers will enrich the taught content of the class and alongside the presence of postgraduates, with their approachability and relatability (Muzaka, 2009), will only enrich the Col underpinning this teaching practice.

Postgraduate Spotlights highlights three lessons to take forward in the teaching of geographical methods and future iterations of this workshop. Firstly, postgraduate research-led

teaching creates an approachable and less intimidating understanding of geographical research, providing undergraduates with an insight into how research is done in the real world. Secondly, giving the undergraduates the space to lead their learning enables them to critique research and shape what and how they want to learn. Thirdly, the presence of postgraduates in the workshop fostered the CoI and enriched student learning and connections to their peers and the university. Postgraduate Spotlights, therefore, not only encourages student learning around geographical methods and critical thinking in research conduct but also demonstrates how postgraduates enrich Communities of Inquiry in the classroom.

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Figures

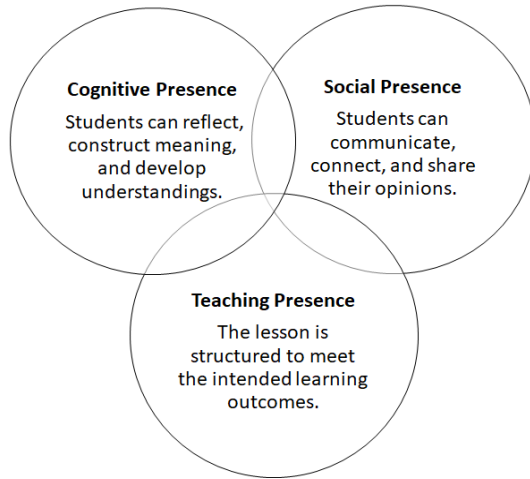


Figure 1: Community of Inquiry framework's presences (after Garrison, 2011 and Tan et al., 2020).