REFLECTIVE ESSAY

Compassion, flexibility, and partnership in the midst of a global pandemic

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Our Students as Partners Program (SaPP) project took place throughout a global health pandemic that shook post-secondary institutions to their core. The COVID-19 pandemic disproportionately affected post-secondary students (Cao et al., 2020; Liang et al., 2020; Patterson et al., 2021) and created pedagogical challenges that most instructors had never imagined (Ramirez, 2020; Weinhandl et al., 2021). Despite many challenges, our student-faculty partnership resulted in a compassionate, flexible, and student-centered learning environment. This project helped both student and faculty partners endure a challenging time and provided a fun, engaging, and pedagogically sound learning experience where all students felt welcomed and connected.

BACKGROUND AND CONTEXT

This SaPP project took place at Carleton University where the student and faculty partners were members of the Department of Neuroscience. At the time of this project, Dr. Zachary Patterson was a new instructor for the Department of Neuroscience, Dr. Kim Hellemans was a senior instructor in the Department of Neuroscience and the departmental chair, Izzy Munevar-Pelton had just completed her second year of the Neuroscience and Biology Combined Honours program, and Anika Olsen-Neill had just finished her second year of the Neuroscience and Mental Health program.

When we began this project, the world was still in the "before." We had committed to the project prior to the COVID-19 pandemic with an aim of improving our two introductory neuroscience courses. At that time, Izzy and Anika approached Kim and Zach with an idea to apply for a SaPP project to co-develop a suite of creative assessments suitable for the Carleton University OnLine (CUOL) course model. As an aside, the CUOL model consists of a traditional in-person classroom where the lectures are simultaneously recorded and broadcast live or are made available via streaming to remote students. This model provides flexibility for students to register for classes that may not fit with their timetable, for students who may be working full time and attending class at night/weekends, for students with disabilities, or for distance students to learn remotely. This model of course delivery typically attracts many students (e.g., 400–500 students) who are diverse in terms of their background knowledge, academic

interests, and university experiences, creating a unique pedagogical challenge. Because the CUOL model allows students to download and watch lectures at their leisure, it is not uncommon to see students procrastinate or disconnect with these courses, and the online sections tend to have higher proportions of students who earn a D or an F or withdraw from the course (DFW rates).

Given the nature of these courses, our original inspiration for the SaPP project was to co-create engaging learning activities and assessments to provide students with new platforms to showcase their knowledge. We were interested in developing new experiential learning opportunities to help keep our students engaged with the material (Galoyan & Talafian, 2019), despite the challenges of this delivery model. Of course, once March 2020 arrived, the pandemic forced academic institutions to close their doors, and we found ourselves focused on a completely online course delivery model. We realized that, with a fully online semester, our students would be subjected to a whole new realm of learning, and we as instructors would face new barriers to engaging students. Like everyone else at that time, our team was concerned when the pandemic hit as we were all uncertain of what was to come—should we still go ahead with the project? Do any of us have the capacity to deal with this right now? How long will this pandemic last? Izzy and Anika were quick to highlight their experiences and challenges with the abrupt transition to online learning, while Kim and Zach were finding out first-hand how difficult it was to engage with students online. We all had unique situations and challenges that we were dealing with. As students, Izzy was feeling discombobulated without a rigid schedule as most courses became asynchronous and time management became crucial, and Anika felt disengaged from her courses and found it difficult to learn content in the face of final exams. As faculty members, Zach was wondering how the transition to online teaching would impact his early career progression, while Kim was leading our department through unchartered waters as chair, while also trying to strike a sustainable work-life balance with young children at home.

We decided to push forward and approached the project as an opportunity to help our fellow student and faculty colleagues through a difficult time. Our team became increasingly aware of the challenges of learning remotely (e.g., access to wi-fi, time zones, access to adequate learning environments, etc.), and our focus shifted to developing assessments and activities in such a way as to not disadvantage any students, to the best of our ability. It was in this context that we viewed our project as equity-focused: we wanted to ensure that, despite differences in remote learning environments, all students had equal access to succeeding in our courses. Furthermore, it was now not only imperative to deliver pedagogically sound materials that would engage students in their learning, but also to provide opportunities for students to engage with each other and feel connected to the neuroscience community they were entering.

THE PROCESS: COMMUNICATION WAS KEY

Our approach was guided by three fundamental principles: we wanted to ensure that even in the context of the pandemic, our students were able to (a) engage meaningfully with the course, (b) engage with each other, and (c) engage with the broader Carleton University neuroscience community. We aimed to incorporate collaborative projects and virtual spaces so that, even in times of social isolation, students had an opportunity to engage in active learning

with one another. We felt that this was particularly important for our first-year students given that their introduction to university would be entirely online.

We began by systematically working through each topic covered in both introductory neuroscience courses and—based on Bloom's Taxonomy—developing learning objectives for each lecture. This initial step required an investment of time up front, so that all project members were on the same page, and helped set the stage for the entire project. We ironed out any ambiguities related to the project and calmed some of the nerves the student partners had entering this project—we shared some laughs, lamented the challenges of developing quality learning objectives, and ultimately started to build a team identity.

Through this process, we identified threshold concepts in each course wherein students have historically struggled (e.g., the action potential, adaptive vs. innate immune system, etc.) and applied the principles of "decoding the disciplines" to better unpack that knowledge (Middendorf & Pace, 2004). Here, the student partners provided invaluable insight in identifying threshold concepts and why (from a student's perspective) these were considered troublesome knowledge—that is, knowledge that is conceptually difficult or foreign to students (Perkins, 1999). The student partners were quick to develop strategies that the faculty partners could use to enhance learning around these concepts.

Our team met weekly over Zoom to brainstorm ways to engage our students and develop activities and assignments to assess the learning objectives we developed. Each week, we would debrief on the overall progress of the project, define our immediate next steps, and distribute action items for the week ahead. Between weekly meetings, our team would research pedagogical approaches to experiential learning, come up with ideas that could work in our courses, and begin designing the pedagogical tools. Communication within our team was consistent and open, albeit challenging. Having a safe space to brainstorm freely and bounce ideas off each other was invaluable to the success of our project. The opportunity to connect with familiar faces during times of social isolation was refreshing and provided a sense of consistency amid unpredictable times. That being said, it took us some time to get comfortable with our new modes of communication. The experience of working on a collaborative project in a remote world was new, and we felt the void of no longer being able to connect in person. We missed the opportunities to informally check in with each other, chat about little details, ask questions, or bounce ideas back and forth—whether it was passing each other in the hallway or informally huddling on campus. Slowly but surely our online meetings developed a sense of normalcy and became one of the highlights of our weeks. In retrospect, making the effort to connect regularly over Zoom helped build a sense of community and allowed us to keep our project on track.

The development of case-based assignments was a highlight of this SaPP project. It was the perfect opportunity to apply several key concepts. During our researching of pedagogical practices, we came across many case studies, and we thought having something similar would be an engaging and fun opportunity for students to apply their knowledge. We found that we could create a case study with a "choose-your-own-adventure" structure using Google Forms. This approach to case-based assignments met so many of our needs. Not only was it a fun and engaging way to demonstrate knowledge of course materials, but it was also accessible since

students only needed access to the internet and a free Google account—no fancy software required.

IMPLEMENTATION: THE NEED FOR FEEDBACK AND FLEXIBILITY

All materials developed throughout this project were implemented in our virtual classrooms during the Fall semester of 2020. Considering the power of receiving evaluative student feedback on improving teaching practices (Brinko, 1993; Huxham et al., 2017), the faculty partners communicated to students registered in their courses that we were open and eager to receive feedback on the course design and learning materials. By inviting and encouraging student feedback early in the semester, there was a sense of ownership for students enrolled in the courses. We recognized the importance of having faculty members explicitly welcome student feedback—it helped foster a culture of trust and mutual respect between students and faculty members. In doing so, we gained valuable insight into what activities were working and those that were not, and above all, how the experiential learning opportunities fit together across the semester. As it turned out, the sheer number of learning activities and assignments was overwhelming our students. Alongside the transition to online learning, there was a collective shift to multiple assignments and quizzes for each course (as opposed to one or two midterms and a final exam), and with most of our students taking five introductory science classes (i.e., biology, chemistry, physics, calculus, and neuroscience), this quickly became overwhelming. With many of our first-year students having little to no university experience and with the abrupt implementation of many new learning activities and assignments—in our courses and others—the transition to an online and isolating environment proved difficult. Unknowingly and unintentionally, we had created an environment where our students were too overwhelmed to keep up with their entire course load, and it was having a negative impact.

We had collectively seen the impact that the global pandemic and the shift to online learning was having on students. We did not want to overburden our students, but we also wanted to preserve some of the key learning materials and experiential learning opportunities we had developed. Together, we deliberated on where we could make changes on the fly and identified assignments and activities that we felt were the most and least critical for student learning. Moreover, we consciously approached this as an opportunity to reflect on our courses in the context of a student's full course load and as an opportunity to demonstrate compassion and flexibility to our students in a difficult time.

In the end, we decided to adopt a flexible approach to the course assessments wherein students could drop their lowest three of nine assignment grades. This approach allowed us to reduce the workload for students by giving them an opportunity to skip assignments when needed, while also keeping many of the experiential learning activities we had worked so hard to develop. As it turned out, this approach allowed students to pick and choose assignments that aligned with their strengths and ultimately maximized their chances of success in these courses. By listening to student feedback and making changes to our courses, we believe that we empowered our students' voices and helped give them a sense of ownership over their education. We also believe that in demonstrating our willingness to listen and make changes, our students felt a sense of accountability in completing their assessments on time. Others

have also shown that taking a more democratic approach to negotiating deadlines has a positive impact on student motivation and academic success (Buckman, 2021).

COMPASSION AND FLEXIBILITY IN THE CLASSROOM

Before the pandemic, compassion and flexibility were values that we believed were important to ensure the mental health and wellness of our students and academic success in our courses. These values became more important as the stress of the pandemic sunk in and we made the transition to online learning. Compassion and flexibility were at the forefront of this SaPP project. The assignments we developed gave students the opportunity to practice (with lower risk) and further their understanding in preparation for more formal summative assessments. This approach provided many checkpoints for students throughout the semester and allowed students to build confidence in their abilities and knowledge of the course content. Recognizing that many of our students did not live in the same time zone and no longer had the same access to equitable learning environments (e.g., quiet space to study in the library, access to reliable internet, etc.), we adopted flexible due dates, as well as the opportunity to remove their lowest assignment grades. We believe this approach makes academic success more accessible to a larger number of diverse students. Furthermore, by having the flexibility of dropping their lowest marks, students can simply drop an assignment and move on in the course unscathed. In support of this approach, the DFW rates from previous terms dropped from ~20% to ~6%. While we have not systematically tested this approach, the fact that far fewer students failed, received a D, or withdrew from our courses in the middle of a global pandemic suggests that our compassionate and flexible approach paid off in retaining students in our courses.

A common belief is that being compassionate and flexible in higher education means that the course will be too easy for students. We disagree with this philosophy; based on our recent experience, we believe that a compassionate and flexible approach serves to strengthen the students' trust in us as educators and their appreciation for learning the course content. This approach also provides students with a better chance of success in the long run, as the way course material was assessed helped to better consolidate the information. We feel that fostering a student community with compassion will only contribute to a new generation of citizen scholars who will uphold similar values.

DEALING WITH (CONSTRUCTIVE) CRITICISM

From a student's perspective, having the opportunity to work with professors provided a new point of view of the thought and work that goes into developing course content. We saw firsthand the challenges of developing pedagogically sound learning materials for a large and diverse group of students who are learning through different means in the middle of a pandemic.

From the faculty members' perspective, the SaPP project provided dedicated time and space to reflect on our own teaching practices and philosophies. Through discussions with our student partners, we were able to re-think pedagogical best practices in the context of our own courses and refresh outdated learning materials. In this regard, the student perspective at

every stage of our project really helped bridge the gap between students and faculty, and ultimately helped produce learning materials that were fun and engaging for current students.

We embarked on this SaPP project with good intentions: to develop new and engaging teaching materials to help student learning that are accessible to a wide range of students learning in a remote environment and to foster a sense of connection and inclusion in our virtual classrooms. However, new ideas do not always translate into practice as intended, and therefore tuning in to student feedback and monitoring student progress closely is important. Throughout the semester we received both positive and negative feedback. One of our lessons learned throughout this project is that constructive criticism, while usually helpful in many ways, is not always easy to hear! For example, Zach received a comment from a student that the assignments were "childish and unhelpful." Receiving this kind of criticism was new to us as student partners, and we (Izzy and Anika) felt extremely disappointed when we read that comment; we felt like our goal to help students by providing active learning opportunities had failed. As students, we hadn't experienced giving or receiving much feedback prior to this project. However, we also recognized the experience of student partnership was an opportunity to learn and consider different perspectives. By getting together as a team and thinking critically about the feedback received, we were able to highlight key aspects of the learning materials that worked well and others that did not, allowing us to make constructive (and nearly real-time) decisions about how to improve our courses for the present and the future.

SUMMARY

Overall, our SaPP project throughout a year of uncertainty, worry, and change allowed us to experience a sense of community with each other and develop content that was not only unique, but also highly engaging. Our compassionate and flexible approach reaped several benefits: it provided students with an equitable opportunity to learn and master the content; it reduced the burden of care on instructors such that students were less likely to request informal accommodations; and ultimately, it improved student success.

NOTE ON CONTRIBUTOR/S

Izzy Munevar-Pelton *is a 4th year undergraduate student in the B.Sc. - Neuroscience & Biology combined Honours program at Carleton University. After her undergraduate degree, Izzy plans on completing a Master's program in Counselling Psychology.*

Anika Olsen-Neill *is a 4th year undergraduate student in the B.Sc. – Neuroscience & Mental Health program at Carleton University. Anika is planning on completing a Graduate Diploma in Health Science, Technology and Policy following her undergraduate degree.*

Kim Hellemans *is a teaching professor and the Associate Dean of Science (Recruitment and Retention) at Carleton University. Dr. Hellemans has received several prestigious awards for her passion and dedication to university teaching. Outside of the classroom, she's the co-host of the popular podcast, Minding the Brain.*

Zachary Patterson *is a teaching professor in the Department of Neuroscience at Carleton University. Dr. Patterson is interested in substance use and addiction and how substance use impacts the mental health and academic success of post-secondary students.*

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