Student voices from the classroom: Concluding reflections on cultivating an environment where learning deeply matters

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ABSTRACT

The voices in this anthology thus far have largely omitted student stories about teaching and learning at McMaster. In response, this chapter is authored by current undergraduate and graduate students including recent alumni and teaching assistants who contributed to the student peer review team for the anthology, *Where Learning Deeply Matters: Reflections on the Past, Present, and Future of Teaching at McMaster University*. Our reflections in this concluding chapter—spanning issues of equity, diversity, and inclusion; student-instructor collaboration in online learning; accessibility; differential opportunities afforded to those in large enrolment programs; and integrating experiential learning into curriculum and program design—arise from personal student experiences but also amplify connections we felt with the themes discussed throughout the anthology. The urgency of our reflections, particularly as they come from underrepresented learners and teaching assistants, points towards the importance of respecting and listening to student voices. If taken into consideration, these perspectives, coupled with McMaster's ongoing work to advance equity, diversity, and inclusion and to create an enriched culture to reflect its community, will undoubtedly

guide the university towards cultivating an environment where "learning deeply matters."

KEYWORDS

accessibility, equity, experiential learning, large enrolment programs, students as partners, online learning

INTRODUCTION (BRE-ANNA)

Recognized as one of Canada's best diversity employers in the past several years, McMaster University is home to 997 full-time faculty members (McMaster University, 2022b). In the 2021/2022 academic year, McMaster attracted students from 120 countries with a total student population of over 37,000 extending across six faculties (McMaster University, 2022b). An ongoing challenge for McMaster's instructors and teaching assistants is to effectively fulfill and accommodate the needs of a diversifying student body.

The voices in this anthology have largely omitted student stories about teaching and learning at McMaster. In response, this chapter is authored by current and recent undergraduate and graduate students, including teaching assistants. We each contributed to the student peer review team for the anthology, reading and offering feedback on chapter drafts and meeting biweekly to discuss our perspectives and progress. Our reflections below amplify connections we felt with the themes discussed throughout the anthology, while extending insights through our personal experiences as students and instructors. In this way, we seek to illustrate how members of the McMaster community might engage with the chapters in this anthology to learn from each other, spark and share stories, and generate new ideas for action. We touch on the topics of equity, diversity, and inclusion; student-instructor collaboration in online learning; accessibility; differential opportunities afforded to those in large enrolment programs; and integrating experiential learning into curriculum and program design.

The urgency of our reflections, particularly as they come from underrepresented learners and teaching assistants, points towards the importance of respecting and listening to student voices for the purpose of enacting shared values and achieving favorable outcomes in the university environment. Together, we offer feasible solutions that challenge the present state of affairs in teaching and learning at McMaster. If taken into consideration, these perspectives, coupled with McMaster's ongoing work to advance equity, diversity, and inclusion and to create an enriched culture to reflect its community, will undoubtedly guide the university towards "cultivating an environment where learning deeply matters" (Paul R. MacPherson Institute for Leadership, Innovation and Excellence in Teaching, 2019, Vision section).

ADVANCING EQUITY, DIVERSITY, AND INCLUSION IN TEACHING AND LEARNING: LISTENING TO STUDENT VOICES (EMILY)

Throughout the MacPherson Institute's 50 years of existence, students have contributed their voices to emphasize equity, diversity, and inclusivity (EDI) concerns to enhance the teaching and learning environment at McMaster University. However, in more recent years, it has been evident from student outcries about injustice that universities are struggling to establish these equitable, diverse, and inclusive educational communities (see Brockbank & Hall, 2022; de Bie, Woolf, et al., 2022, in this volume). I wish to highlight several examples from this anthology that speak to how essential student voices are and have been in achieving the MacPherson Institute's goal to cultivate an innovative and diverse teaching and learning community at McMaster.

The chapter, "I Guess I'm Not Alone in This: Exploring Racialized Students' Experiences and Perspectives of Safer Classrooms at McMaster University," vocalizes these EDI concerns within McMaster classrooms by providing responses from a qualitative focus group of 10 Black, Indigenous, and other racialized students across faculties at McMaster University (Brockbank & Hall, 2022). It is painful to read the unfiltered responses from these students who have felt vulnerable, isolated, anxious, humiliated, and unheard by their peers and professors because of their race and who have had to educate others within the classroom continually. As an individual from a marginalized group, this chapter caused me to reflect on my own undergraduate experience and how unaware I was of the negative experiences my fellow students had encountered. While I could not relate to their experiences within the classroom, I can empathize because people have likewise caused me to feel less valued than them because of my race. I am thankful for and acknowledge the bravery of these students who continually go back into these spaces, as I do not think I could mentally do so.

"I Guess I'm Not Alone in This" also addresses how reliant universities have been on students to voice their concerns even in uncomfortable and volatile situations. Reading the stories of students from this chapter begs the question, how can universities meaningfully address the systemic issues of inequities in the classroom and exclusionary teaching and learning practices? Suggestions throughout this anthology on improving the teaching and learning culture at McMaster have highlighted educating those who hold power within the classroom and university with a particular emphasis on prioritizing paid, mandatory, accessible, and equity-focused training for faculty members and teaching assistants (TAs).

For example, the McMaster Students Union (MSU) and TAs voiced their concerns over the lack of paid and required training for educators by requesting anti-oppression and professional training during the 2019 Canadian Union of Public Employees (CUPE) Local 3906 Unit 1 bargaining agreements with McMaster (Walchuk, 2022). While the MacPherson Institute has continually offered courses and programming for graduate students and teaching assistants to enhance their development of teaching skills (de Bie, Ing, et al., 2022), there has been a lack of compensation or requirement for these courses. This has sent an implicit message that TAs are not valuable, skilled laborers who should be compensated and trained as such (Roy et al.,

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2022). I feel that requiring and compensating for EDI training for all educators enables universities to take teaching seriously, creates suitable environments for students to prosper, and re-imagines a community that strives for robust inclusiveness.

The suggestion that stands out for me from "I Guess I'm Not Alone in This" is for educators to recognize, respond to, and acknowledge current events impacting students' learning beyond the classroom space. After the 2021 Atlanta spa shooting that killed eight people, six of whom were Asian women (Fausset et al., 2021), one of my professors acknowledged the horrific incident in class and allowed for a grace period on an upcoming assignment. As an Asian woman, I remember how unsafe it felt to be in my own skin during this time, but how validating it was for a professor to acknowledge how we, as students, are people outside the classroom. It was a small gesture of acknowledgment and discussion that fostered an emphasis on a supportive learning community. I wish for all educators to recognize students' shared humanity and the impact that external events have on learning as a critical part of teaching and learning environments.

Just as the events from the past few years, like the Black Lives Matter movement and calls for Truth and Reconciliation, have provoked more urgent attention to EDI concerns within our communities, students will continue to respond to contemporary events by calling for greater EDI practices within teaching and learning. The COVID-19 pandemic continues to emphasize EDI concerns through the lens of the virtual classroom and the need to address the technology gap and accessibility concerns of learning materials (Teal et al., 2022). Universities and educators are in the position to tangibly address these concerns and listen to students who, with significant burden, have been generously and desperately engaged in necessary equity work by voicing their concerns. Student voices provide a valuable reminder that "if our task is to teach the students we have, we have a responsibility to begin by listening to and respecting what they have to say" (Newton, 2001, p. 1).

INCREASING ONLINE LEARNER ENGAGEMENT THROUGH COLLABORATION (ANUSHA)

As illustrated throughout this anthology, McMaster University has expertly kept up with the changes in teaching and learning that our pandemic world has faced. In this reflection, I will highlight a few examples from the anthology of how educators at McMaster have worked to increase online learner engagement through collaboration. I will then share some of my own perspectives on further expanding collaboration by considering both the students and teachers involved in online learning, incorporating student perspectives to enhance course design and delivery, and the importance of instructors considering barriers to collaboration to enhance the comfort of those involved.

I applaud McMaster's efforts to not only make online learning available but to lead innovative approaches to online learning and digital pedagogy. This is particularly seen in anthology chapters where authors discuss efforts to increase engagement in online and digital learning through collaboration. For example, in their chapter on the evolution of the online course development team at McMaster Continuing Education, Clemens et al. (2022) highlight

how they have been able to expand their online programming to reach broader learner audiences through collaboration with McMaster faculties, external industry and professional partners, and with the support of government funding. Their own internal team collaborations among subject matter experts, multimedia specialists, learning systems technologists, instructional designers, and course instructors also ensured the production and delivery of high-quality online learning experiences. Zeffiro et al. (2022) from the Sherman Centre for Digital Scholarship describe how the core value of "being collaborative by design" guides the centre's programming and approach to teaching and learning (p. 1). They prioritize collaboration between student learners, researchers, and instructors by decentering centre staff as experts and promoting the importance of learning from and with each other over mastery of technology, tools, and techniques.

While these initiatives meaningfully describe possibilities for increasing learner engagement with online learning and digital pedagogies through collaboration, I believe there are additional aspects of collaboration that are crucial to advancing online learning. First, we must consider both the students and teachers involved in online learning. Teachers play a critical role in learning (despite students sometimes forgetting this), and so I agree that their experiences of online learning are important. Yet, the over-emphasis on staff and instructor, rather than student, perspectives throughout the anthology is a critical limitation. It is my strong belief that the effects of online course development on students (e.g., on mental health, energy, grades) must be considered if we want to ensure students' overall success in academic life and personal growth.

Second, we must solicit student perspectives to inform course design and delivery. In the years I have spent in post-secondary education, I vividly remember hoping that the professors would ask about my thoughts on my learning experience. While many of my classmates were afraid to speak due to potential repercussions on their grades, I craved the opportunity to share my ideas. We were allowed to provide course feedback at the end of the year, but I often found that these feedback forms failed to ask the right questions and came too late. These missed opportunities to amplify the voices of undergraduate students made me and others like me feel unacknowledged and at times unsupported, as I was eagerly waiting to contribute to the dynamic of teaching and learning in higher education. I honestly wish someone would have asked me how I would have liked to provide this feedback to my instructors, or what I would have said. Whether you inquired now or then, my answer would remain the same: collaboration amongst students and teachers must not only be incorporated throughout the instruction of the course through group projects or creative exercises, but it should also be included in the planning of the course itself.

Third, instructors must consider possible barriers to collaboration to enhance the comfort of those involved. I would remind instructors to consider the potential discomfort that students might feel when they are required to collaborate in online learning. I avoided many online lectures and tutorials just because I would have to contribute to the discussion when I wanted to be an observer. For some reason, this was never an issue during in-person learning. I

found that I was very rarely picked to collaborate in lectures and tutorials—if I did have to speak up, it was usually on my own terms. Additionally, being in-person allowed instructors to read my body language and understand that I was uncomfortable speaking up. In rare times when I was picked even with my silent protests to remain an observer, I had the luxury of declining from avid participation and knowing the entire time that my requests had been heard. In contrast, in online learning, strong demands for participation might be followed by an awkward silence.

I do not mean to suggest that collaboration should be taken out of the online learning process altogether, but rather we must strive to find ways to make engagement and collaboration more comfortable for the parties involved. One of the ways that this can be done is by either meeting with or otherwise inviting students to share their thoughts on collaboration in an online environment. In gathering feedback, students need to know how their honest and detailed responses will directly help instructors determine how to proceed in teaching the specific course online. I also believe that enhancing the comfort of students is essential as it directly impacts their mental health. Some students might not be as familiar with technologies used in the online learning environment, which can result in tremendous anxiety, as they fear making mistakes in front of others. Instructors might consider mental health and other struggles students face in meeting the demands of an online learning environment to ensure that collaboration in online learning is meaningful and accessible.

By further incorporating these and other suggestions and investing in partnership approaches where students and staff/instructors collaborate as equal and invested partners (see discussions of McMaster's Student Partners Program in anthology chapters by de Bie, Ing et al., 2022; Marquis & Wilson, 2022), I hope that future students will have enjoyable and enriching collaborative experiences in online learning.

STUDENT EXPERIENCES OF BARRIERS IN TEACHING AND LEARNING (ASHAEL)

In this anthology, current and former McMaster students, staff, faculty, and other affiliates/colleagues reflect on McMaster University's innovations in teaching and its future. Through these reflections, the question "what about innovations in teaching and learning as they relate to accessibility?" emerged. This is an important question to ask because in keeping with legislative requirements, McMaster University requires all faculty, staff, and students to participate in mandatory Accessibility for Ontarians with Disabilities Act (AODA) and Human Rights Code training "which provides important definitions, examples, and expectations" regarding supporting people with disabilities at McMaster (McMaster University, 2022a). And although McMaster University must submit annual AODA compliance reports to the Government of Ontario, which are available on the university's Accessibility Hub website, the activities outlined in these reports do not fully meet and respond to disabled people's needs and dreams in academia. Instead, the reports detail how the university sees itself as meeting the incredibly low bare-minimum requirements set by law. In this reflection, I will discuss the failures of accessibility in graduate studies and teaching assistant (TA) supervision and support,

particularly in the context of virtual learning and work. I will also discuss the additional emotional labour expended by the disabled individuals who experience and advocate against these failures.

When I became a graduate student at McMaster University, I was committed to (a) enhancing my research abilities, (b) producing a well-researched thesis, and (c) being a reliable avenue for information and emotional support to my students as a TA. In trying to achieve these personal goals during the 2020–2021 academic year, I found myself up against the virtually built environment created by the university during the COVID-19 pandemic that caused members of my faculty to become inaccessible to me. I came to this conclusion within the first 3 months of my 12-month program after having endured repeated dismissals of my needs and experiences as a researcher and a TA. Written (email) correspondence and verbal (Zoom) "chats" were emotionally labour intensive and exhausting as I sat for hours carefully selecting my words to adapt my everyday/lived language into "professional" and unemotional communication. I believed this to be necessary as to (a) not appear as the "angry Black woman" as I advocated for autonomy over my thesis and related research or (b) the "in need of sympathy" disabled student as I advocated for adequate TA training.

Having to advocate for autonomy over my thesis and related research put me in a position to defend my identity as a Black person in the virtually built environment, similar to the in-person classroom experiences of the study participants in the anthology chapter "'I Guess I'm Not Alone in This': Exploring Racialized Students' Experiences and Perspectives of Safer Classrooms at McMaster University" (Brockbank & Hall, 2022). The whiteness of my white faculty members was invisible to them as they suggested my Blackness not be given equal attention as my identity as a disabled person in my autoethnographic thesis. This suggestion positioned the faculty's own disability research as superior to my lived experience and to how I was going to research these experiences.

In turn, when advocating to these same faculty members for adequate TA training, they asserted that my struggles to do my job confidently and independently stemmed from my own inability to empathize with the needs of my tutorial students. For example, when I disclosed having received harassing and threatening emails from my tutorial students wanting to dispute the grades I gave them, my faculty members validated the experiences of my students being "overly stressed because of the pandemic" while simultaneously dismissing my own experiences when I described these same students using my inexperience as a TA as a reason to justify their want or need for a "better" TA. This dismissal of my needs as a TA created a failure to recognize that, as a TA with a disability, I am entitled to accommodations in this role in the same way I am entitled to academic accommodations as a student. In the anthology chapter, "Education for Education Workers: CUPE Local 3906 and the Expansion of Academic Training," Walchuk (2022) notes that the Canadian Union of Public Employees (CUPE) and its members believe that wide-scale, mandatory, accessible TA training would empower and prepare TAs for the classroom. Yet, in my own experience, the year before the mandatory TA training came into

effect, there was no provided training, and so I felt unprepared and lacked emotional support to do my job effectively.

In the virtual university, I felt that the exclusive communication between faculty and students via Zoom granted faculty and staff an "out" to dismiss student experiences. Rose (2017, citing the work of Sherry Turkle, 2015) found that an "empathy gap" exists when communication and learning online increases. Our ability "to put ourselves in another's shoes" declines as does our willingness to in turn put ourselves at risk through close involvement with others (p. 34). I worry that the virtual environment in particular may be unsafe for many students, particularly disabled and racialized students, as virtual communication may get in the way of students expressing our experiences (of harm, exclusion, lack of safety) and faculty listening, hearing, and believing us. My own efforts to self-advocate certified me as being "too critical" of the roles of my faculty members in the virtual learning environment. Ten months into my program, having seen no changes in my experiences, I decided to validate my own experiences by taking one last action. I created a list of simple actionable training recommendations for new TAs with no experience (like me) by (a) detailing my experiences as a researcher and a TA, (b) providing recommendations based on my experiences, and (c) describing why the recommendations were necessary.

My decision to do this echoed the anthology chapter by Brockbank and Hall (2022), which highlights how much work/burden is laid on students, particularly those from equity-deserving groups, to advocate and make changes to improve teaching and learning. Despite having already shared this list with my faculty members within the first 3 months of my program, this time I had the support of another faculty member to advocate for me by appealing to their colleagues as someone who had those same experiences themselves when they were a TA. This faculty member was able to make connections between the emotional labour I endured at the present time and the emotional labour they themselves endured in the past. I found this situation disappointing because my advocacy as a racialized disabled student was only heard after a non-racialized nondisabled faculty member affirmed and supported my experiences and recommendations. Like the stories of access work in the anthology chapter "40+ Years Enhancing Disabled Student Learning Experiences at McMaster University" (de Bie, Woolf, et al., 2022), my experience as a TA and the experience of the faculty member who advocated for me are mutually dependent on McMaster University doing more and doing better to enhance teaching and learning when members call existing practices into question for undue and avoidable harm.

When we think about accessibility in the virtual learning environment, we must also think about accessibility and disability inclusion with regards to graduate student and TA supervision. The virtual environment can pose barriers to communication—for equity-deserving students to express their needs and be heard by faculty members. McMaster University's mission states (in part) that the school is "committed to creativity, innovation, and excellence" in teaching, research, and scholarship (McMaster University, 2022c). When students like myself make critical recommendations for the improvement of teaching and learning, we are actively

contributing to McMaster's mission. Rather than dismissing our feedback, educators should take our experiences and perspectives seriously. They must acknowledge and seek to mitigate the additional emotional labour of students, particularly those who are racialized and/or disabled, in advocating for change.

ENSURING EQUIVALENT EXPERIENCES FOR STUDENTS IN SMALL AND LARGE PROGRAMS (JASMIN)

This anthology speaks to many important topics in teaching and learning, such as accessible education, student success, interdisciplinary programs, experiential learning, and more. These themes and several chapters on small enrolment programs (e.g., Daniel & Rangachari, 2022; Luo & Shan, 2022; Marquis & Wilson, 2022; Symons et al., 2022) encouraged me to think about my own program and the experiences of students like me in large enrolment programs.

Large enrolment classes are often the norm in post-secondary school, especially in large programs. But how do these large class sizes affect students? Well, for one, it is difficult for students in large classes to build individual relationships with their professors (Beichner et al., 2007). Professors are not able to meet the demand of being as accessible as possible to all students simply because there are not enough professors to respond to the needs of every student. As explained by Marquis and Wilson (2022) in the anthology chapter, "Beyond Combining Two Cultures: The Arts & Science Program at 40," in small programs, educators and students are able to build a professional and personal relationship due to small class and program sizes.

This lack of relationship development in large classes and programs is a problem because student interactions with educators are essential for student performance and achievement (Beichner et al., 2007). Some scholars even observe that large classes are specifically used to weed out first-year students as it is perceived that these students will be unsuccessful in university if they cannot pass a class where they receive limited attention by the professor (Talbot et al., 2015). Whether classes are unfortunately large because of limited allocated resources or intentionally large to encourage attrition, large classes can fail to support student success, reduce the diversity of the student population, and result in the loss of valuable perspectives and ideas that are essential for education and learning (Patitsas et al., 2016).

I have personally faced constraints that have blocked my access to professors. For example, in larger classes, due to the volume of students requiring assistance, when I would reach out to professors for help, they would be slow to respond or reach out to me too late when assistance was no longer needed. Or, the more common instance, professors have asked my class to direct questions towards the TAs to minimize email traffic. Although TAs are helpful, they are not a sufficient replacement for a relationship with a professor.

A lack of relationships with my professors made me feel like the classic metaphor of being "just a number" in university. I also felt "less than" students with these personal

connections and disengaged and unsupported in my academic work when I could not communicate with the professor. Some of my friends in smaller programs were able to build relationships with professors. They mentioned being able to hear about opportunities first, feeling supported in a hectic environment, and learning about resources that are provided by the school. These are all benefits that I wish I could have secured by building a network with professors in my program.

Student-run mentorship programs are another way to find supports in a large enrolment program. During my second year at McMaster, I heard about a mentorship program from a friend and was able to gain access to an upper-year student who I could reach out to for support in navigating my academic program. Unfortunately, there were some questions that my mentor could not help me with. For example, I was really interested in learning more about research opportunities that were available in the program or school, but my mentor was not well versed in this area and could not provide me with any advice. Another example is getting help navigating my program by speaking about different courses and pathways. My mentor could only speak about her own journey and past courses. Building a relationship with a professor can also help students access reference letters and opportunities outside the classroom such as information about resources, a job, or a referral to other professors. Luckily, I was able to build some relationships with professors during my time at McMaster through participation in smaller classes where it was easier to get connected to them and engage in conversation.

In my experience, another inequity in large programs is access to experiential learning opportunities where students get hands-on experience, build hard and soft skills, and create a network (Johnson, 2007). Often access goes hand in hand with building relationships with educators who gatekeep these positions (e.g., lab positions, thesis options). While other experiential learning not connected to a professor, such as research practicums and co-ops, are technically available for all students to pursue, it can be difficult for students in larger programs to obtain these positions—either because the positions are reserved for students in elite programs who require these experiences to graduate or because there are fewer supports for us to secure these positions.

Research confirms that there are inequities in support for students to find placements, with some students receiving direct resources from placement coordinators (e.g., organizations that the school is affiliated with, a list of employers, etc.) (Coll & Eames, 2000). Others go through the search process alone and have to look for positions outside of their department or faculty. Personally, in my required courses, I received general information on the basics of how to reach out to secure positions and how to build a resume, but I did not receive the personalized supports that some of my peers did in smaller programs. For example, in smaller programs, professors would check in with students on a weekly basis regarding securing positions or offer a list of faculty members who were accepting students for lab positions. I would have found it helpful to have a clear list or direction on how to find these positions, instead of the current course of action where I spent hours researching on the internet trying to

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find labs that may suit my interests. Overall, further career resources will help me navigate my program and take a step towards my future.

In terms of enhancing the quality of student experiences in large enrolment programs, I offer the following recommendations. One way to enhance student support is by having mentorship services coordinated at the program level to ensure all students starting in first year know about resources available to them. While students have played an important role in mitigating gaps in the university, responding to student learning and career needs should be the responsibility of the university, not left to chance by student-run initiatives. For example, I would have found it helpful to be part of a program like the Student Success Centre's Archway Program, described in the anthology chapter by Beaudette et al. (2022). This program is better resourced than student-led mentorship programs and offers a student mentor-mentee style as well as assigns a Student Affairs professional to each mentee. The Archway mentors are trained students who provide academic resources for student success, host events, and help students navigate their first year at McMaster. If more university-led mentorship occurred around campus, more students could become aware of available resources and gain comfort with post-secondary school as it could seem less intimidating. Mentorship programs need to be widespread, accessible, well-known, and revised based on student feedback.

Additionally, to enhance the overall student experience, programs with a large student enrolment need to have a comparably large faculty complement to lessen the individual workload and ensure adequate resources for student-faculty interactions. I hope that in the future, students in larger programs will feel they have had equal opportunity to develop beneficial relationships with professors and have gained an equivalent educational experience to their peers in small enrolment programs.

INTEGRATING APPLIED AND EXPERIENTIAL LEARNING INTO CURRICULUM AND PROGRAM DESIGN (AMI)

McMaster students enter university with ambitious future aspirations. Most students who I, as a science major, speak to are hoping to attend medical or graduate school. When I started university in 2019, I believed my education at "Canada's most research-intensive university" (Dillon, 2019) would prepare me for graduate school. Now in my third year, I am no longer interested in pursuing graduate studies and plan to work instead. But I feel completely unprepared for the workforce I will be entering a year from now. I regularly observe these feelings of uncertainty among other students who are likewise unsure of their future career options. Society sells us the idea that a university degree will make us competent and employable, yet we do not know where to start. By integrating flexibility (using co-op options) and applied learning into curriculum and program design, McMaster students can begin exploring real-world applications while in school.

Many programs at McMaster stand by the traditional lecture-exam format that has been used in higher education for decades. The lecture-exam style is outdated, as it contains a gap: the time between lectures and assessment is left up to students to learn independently

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(Fleisig, 2022; Luckie et al., 2012). In this gap, many of us spend countless hours writing notes from a textbook, answering practice questions, or going through flashcards. Since assessments are typically multiple-choice exams, students use rote memorization and surface learning strategies to prepare (Barnard et al., 2021; Scouller, 1998). The time students spend on surface learning would be better spent on applied learning, which would enhance the student learning experience and help us gain transferable skills by solving legitimate problems (Fleisig, 2022), thereby enabling us to leave university ready to design solutions and create a brighter world.

The anthology offers several examples of how professors have started to notice students' needs and are trying to incorporate applied learning into their courses and programs (Daniel & Rangachari, 2022; Fleisig, 2022; Srinivasan, 2022). When designing the biology-pharmacology co-op program, professors recognized that some students prefer a different learning style than lectures and exams (Daniel & Rangachari, 2022). I can relate to the sentiments shared by co-op students. Like them, I have always felt out of place in large lectures while passively absorbing information. However, most courses in my program have large classes, follow a traditional lecture-exam format, lack applied learning, and do not produce transferable skills. I have had to go out of my way to enrol in courses in the humanities, interdisciplinary science, and engineering departments for more interactive learning opportunities. One of my most memorable experiences was in a human communication course where I learned about persuasion, conflict resolution, and networking by creating an educational infomercial, resolving a group conflict, and creating a LinkedIn profile. I read the entire textbook for this course; yet, it did not feel tedious because I could see the value of using the information in the real world. During the pandemic, I also took a seminar course in health science with only 18 students. I enjoyed interacting with all the students in group discussions, especially after completing entire online courses without ever interacting with a single person in the class. Unfortunately, my options for open elective courses like these are limited. I wish such courses were more readily available to students inside and outside my program.

In another example from this anthology, Fleisig (2022), a McMaster professor teaching engineering design, recognized the need to go beyond pen-and-paper "application" assignments by using hands-on learning. In addition to applying knowledge, students created tangible solutions that could be implemented by a real-life client, an industry expert. I remember a related experience in a science communication course where we worked on a community-engaged project partnered with the City of Hamilton. Engaging with classmates, the professor, and municipal workers to solve a problem was one of my most insightful learning experiences at McMaster. In this project, I learned how to use data visualization software and create infographics to make municipal service data understandable to the general public. On a similar note, some of my favourite courses have been taught by part-time professors who are practicing consultants in leadership management or public relations. Their ability to share real-world experiences while teaching meant we constantly got to see how theory is directly applied, starting in lectures! Since the content felt relevant and meaningful, I was more engaged in the course, which enhanced my learning.

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Taking this a step further, other engineering professors integrate ethics, sustainability, and social responsibility into foundational engineering courses rather than teaching these as separate courses (Srinivasan, 2022). Using human-centric components and real-world case studies, students become aware of the decisions they will have to make and the consequences in the real world and build their moral reasoning, public speaking, and argumentation skills. So, students are not just designing solutions: they are designing *human-centric* solutions! As a psychology major, I would have loved to have opportunities to discuss and debate ethical issues in applied psychology rather than only passively learning about unethical studies done by past researchers. Reflecting on bad examples is necessary. But students also need to experience what decision-making is like to appreciate why it is so challenging and develop critical thinking skills.

Finally, as professors in the biology-pharmacology co-op program discovered, work environments bring out qualities in students that one may never observe in a "stifling classroom" (Daniel & Rangachari, 2022). In co-op placements, students demonstrate their knowledge, build their network, and gain transferable skills, which offer a competitive edge when entering the workforce. I believe having co-op experiences would have helped me feel more confident in my job search. But instead, I have had to seek these experiences elsewhere, like through volunteering, where I explored my interests in education as a tutor, mentor, and afterschool program facilitator working with diverse students like newcomers, refugees, and those with reading and learning disabilities. I got to apply what I have learned about perception, language, and childhood psychopathology to better serve these students and discover potential careers like speech-language pathology. Though I am very grateful for experiences like these, balancing everything with a full course load was incredibly difficult. As a result, I eventually burned out, and I have had to step back from many of my extracurricular commitments since then. I was also privileged to gain experience through volunteering, which would not be feasible for students who have to work while in university. Some of my friends work twenty hours a week with a full course load, consequently harming their grades and well-being. Having designated co-op terms would reduce some of the stress of trying to gain experience and income elsewhere during the semester. Rather than juggling everything at once, my friends in co-op programs at other universities can focus on one aspect at a time: learning during the semester and working during the co-op term. Co-op opportunities should be accessible for a broader range of programs at McMaster.

Overall, my experience at McMaster has been similar to the traditional university experience: lots of large lectures, memorizing for exams, and writing essays, which provide little room for application. After learning more about experiential initiatives in other faculties and departments, I am optimistic that McMaster is progressing forward. I trust that future students will have more diverse experiences to choose from, helping create a positive learning experience.

CONCLUSION (RAPHAELA & ALISE)

Owusu, B., Dhanoa, J., Hylton, A., Ing, E., Mappanasingam, A., Patel, A., Pavlakos, R., & de Bie, A. (2022). Student voices from the classroom: Concluding reflections on cultivating an environment where learning deeply matters. In A. de Bie & C. A. Grisé (Eds.), *Where learning deeply matters: Reflections on the past, present, and future of teaching at McMaster University* (Chapter 26). Paul R. MacPherson Institute for Leadership, Innovation and Excellence in Teaching, McMaster University.

McMaster University has been at the forefront of thousands of students' educational journeys since its founding in 1887. We hope and anticipate that many of these have been positive and rewarding experiences, aligned with McMaster's commitment to teaching excellence and quality of education. Yet, the strength of this anthology lies in its willingness to not just highlight the positive aspects, achievements, and milestones in teaching and learning at McMaster over the past 50 years, but to also identify gaps and areas for positive change. In this chapter alone, echoing those throughout the anthology, students from underrepresented groups call on the university to do better by specifically highlighting steps it might take.

Our co-authors encourage academic departments to ensure that a variety of learning options—such as small interactive classes, experiential learning, paid co-op opportunities, community engagement, and the sharing of real-world experiences by industry experts—are available so that all students across small and large enrolment programs gain equitable access to student-professor relationships and future employment and postgraduate opportunities. While we nod to the important win of paid anti-oppression and teacher training for TAs, in the years ahead we will likely also learn that 5 training hours, and only 2 hours focused on anti-oppression, are not enough, and that we can continue to do better.

In their reflections in this chapter, student partners call for educators to seek better ways of responding to and addressing the traumatizing experiences of Black, Indigenous, and racialized students in the classroom; acknowledging the impact of local and global events on students' learning experiences; and relieving the burden placed on students from equity-deserving groups to advocate for our communities and systemic change within the institution and beyond. Educators need to be accessible to students and supportive of student learning goals. This must include empathetic and responsive communication, particularly when using virtual platforms that create an empathy gap and when students are communicating experiences of harm, lack of safety, and accommodation needs. Educators can additionally create opportunities for meaningful collaboration with students in course design and delivery that support positive mental health. Throughout the chapter, our coauthors have offered several examples of how professors have successfully incorporated these ideas and the impact these efforts have had.

By embracing student advocacy as an important contribution to the university's mission of innovation and excellence and by implementing these and other student-centred changes, we can positively shape the future of education at McMaster towards an environment where "learning deeply matters" (Paul R. MacPherson Institute for Leadership, Innovation and Excellence in Teaching, 2019, "Vision" section).

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and graduate student learning, from course instruction and course design to mentorship and establishing community outreach initiatives for undergraduate learners.

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