Connecting students and staff for teaching and learning enquiry

The McMaster Student Partners Programme

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Introduction

McMaster University (Hamilton, Canada) defines itself as a ‘research-focused student-centered’ institution, positioning research and enquiry as essential to high-quality educational experiences (McMaster Forward with Integrity Advisory Group 2012). Initiatives across campus contribute to the realisation of this identity by providing students at all levels (undergraduate and graduate) with opportunities to engage in research within or beyond the formal curriculum. This chapter will describe and analyse one such initiative, presenting student and staff perspectives on a novel ‘student partners’ programme designed to engage students as co-enquirers in the scholarship of teaching and learning (SoTL).

The student partners programme was developed collaboratively in 2013 by McMaster’s central teaching and learning institute and the university’s undergraduate Arts & Science programme. Resonating with calls to partner with students on learning and teaching initiatives (Healey, Flint and Harrington 2014; Cook-Sather 2014) and on the scholarship of teaching and learning specifically (Werder and Otis 2010; Felten 2013), the programme now engages students from across McMaster’s campus as full members of SoTL (and other) project teams. Three times a year, students are invited to submit applications to become
involved in institute projects that interest them. All projects are vetted in advance to ensure they provide opportunities for students to contribute meaningfully to the intellectual direction of the work. They typically draw from a range of disciplinary approaches, and often involve additional partners from departments across campus. Successful applicants are subsequently paired with professional and/or academic staff and work for up to 10 hours a week on shared research. In the programme’s pilot year, 13 undergraduates participated. It has since expanded to involve more than 50 undergraduate and graduate students annually. A number of these students have presented their research at local, national and international conferences, and several have co-authored publications with staff collaborators.

Despite these successes, we remain conscious of the difficulty of developing meaningful partnerships that push against traditional hierarchies and engage students as true collaborators in teaching and learning enquiry (see also Allin 2014; Weller et al. 2013). To that end, a group of students and staff collaborated in 2014 to conduct preliminary research examining the experiences of participants in the student partners programme (Marquis et al. 2016). Following Cook-Sather (2014), this research positioned student partnership as a threshold concept for teaching and learning (Meyer and Land 2006), and examined the extent to which participating staff and students successfully crossed this boundary. We posited that this threshold had two major components: understanding partnership (i.e., coming to view staff and students as collegial collaborators in teaching and learning endeavours) and enacting it (i.e., acting on that understanding in ways that realise partnership successfully). Drawing from systematic reflections and a focus group discussion, we found that most participants either initially espoused or came to develop a strong understanding of partnership, and that student participants in particular often demonstrated new conceptions of themselves as active, collegial contributors to teaching and learning. Traversing the ‘enacting’ portion of the partnership threshold proved somewhat more difficult, however, with participants describing challenges and uncertainties connected to navigating traditional roles, balancing guidance and self-direction, and finding time to realise partnership, even while noting successes in terms of sharing power and collaborating effectively.

The present chapter builds on this initial work, providing case studies of four recent projects included in the student partners programme and using the lens of threshold concepts to explore the experiences and outcomes of these projects for staff and student participants.
Methodology

This chapter was designed and conceived collaboratively by all eight authors. The first author invited the others to participate given their extensive experiences in the programme, and we subsequently worked together to develop a reflective case study template that would allow us to explore our experiences in a systematic manner. This template stipulated broad elements to be included in each case (e.g., a brief project description, sections for the partners to detail their experiences), as well as guidelines for the approximate length of each section. Once we came to consensus on the template, the student researchers took the lead on writing the cases for projects with which they were involved, and staff partners filled in sections focused on their own experiences. Once the cases were written, we worked as a team to code and analyse them, and to consider how the broad themes arising related to the theoretical frame of threshold concepts set out in previous research on the programme (Marquis et al. 2016). Ethics clearance for this work was received from the McMaster Research Ethics Board.

Below, we present the case studies in full, followed by a discussion of key points arising from our analysis. While some of the projects described involved student or staff collaborators beyond the group involved in this chapter, we focus our reflections on our own experiences, so as to ensure we are not speaking for or misrepresenting others. Nonetheless, we would like to highlight the important contributions of these other partners to the projects detailed here.

Case study 1: Science peer-mentoring partnership

Project and partnership description

Several studies have shown a strong link between peer mentorship and undergraduate academic success, where more-experienced senior students guide less-experienced junior students on how to overcome common challenges in academia (Dennison 2010). With regard to the impact of mentorship on mentors, Colvin and Ashman (2010) found that mentor–mentee relationships can indeed have a positive impact on mentors at various levels. However, the particular role of the mentorship programme and how its structure can affect the mentorship experience has not been examined. The goal of our study was to compare and contrast the benefits and challenges faced
by mentors between a goal-driven mentorship programme structured around a university course and a second, less goal-oriented mentorship programme that was purely voluntary. Survey data were collected from the mentors of these two programmes, assessing their satisfaction with the programme, as well as their judgements on how the programme structure either helped or hindered their mentorship experiences.

This project was pursued as a partnership between staff members Lori Goff and Kris Knorr, as well as student partner Zeeshan Haqee. Our research partnership focused on the influence of the course structure on mentors’ perceptions and experiences in mentorship.

Student experience: Zeeshan’s reflection

This collaboration between myself, Lori and Kris has felt like a true partnership where every voice has had equal power on the direction of our research projects. We would meet regularly and have an open discussion on the outline of our project, short-term goals and steps to be taken to reach them, as well as any comments or criticisms of our current approach to things. We would always finish each meeting with an agreement on any tasks that needed to be done. While I would always look to my staff partners for guidance, they would always let me take the lead whenever possible, whether it came to writing abstracts or presenting at conferences. Having my own individual project has also given me a strong sense of responsibility over my work. Being the sole person involved in data analyses has put this responsibility into perspective, as the project cannot progress until I finish the tasks on my end. However, I was never left alone to troubleshoot every problem. My staff partners communicated with me during meetings and via email about project concerns as they came up, and I regularly sent updates on the status of my work. Any challenges faced are solved through discussion and brainstorming, rather than having the staff partners take full lead. This partnership has given me the chance to formulate my own research questions and problem solve with the mindset of a researcher, all while having two more-experienced researchers mentor me along the way.

Staff experience: Kris and Lori’s reflections

In this partnership, we intentionally took an approach where we invited our student partner, Zeeshan, to guide and develop the project according
to his interests within a broadly conceptualised project description. We aimed to provide him with support and encouragement to define the scope and methodologies of the research that we conducted on peer mentors’ experiences.

Early in the process, we faced some tensions and challenges with gaining momentum. The project topic was one in which we, as staff partners, had been engaged in for a couple of years. This past experience could have allowed us to drive the direction, but we consciously valued and prioritised Zeeshan's perspective in developing the project scope and direction. Rather than assuming roles as his supervisors or experts in the area of peer mentoring, we opted to adopt roles as facilitative guides. While this approach took longer to gain momentum, it was still important and worthwhile to us to have Zeeshan take on more of a leadership role in shaping the project. One of our contributions to this partnership came in the form of serving what Colvin and Ashman (2010) might refer to as ‘connecting links’ in the context of staff–student partnerships. In our context, we were able to connect Zeeshan with other students and staff engaged in peer mentoring research across campus, resulting in various additional collaborations for Zeeshan. Working with Zeeshan, as well as with other student partners with whom we have collaborated, we are continually impressed by the ideas that students bring to collaborative projects, and the interest and energy they have to bring those ideas to fruition.

Case study 2: Creativity across disciplines

Project and partnership description

In recent years, the significance of creativity has been increasingly recognised and discussed within higher education and beyond. As such, creativity is often viewed as an outcome that universities should develop in their students; however, the extent to which this objective is realised in educational practice has been called into question (Kleiman 2008). This study built upon previous work by Beth Marquis and others, which examined the importance of creativity to university instructors. It aimed to understand the ways in which creativity is positioned within undergraduate teaching across disciplines at one university by examining all 2013–2014 course syllabi at McMaster for explicit and implicit references to student creativity, using a modified version of an approach by Jackson and Shaw (2006). All partners within this phase of the project
(Beth Marquis, Alex Liu, and Kaila Radan) were involved in collecting publicly available course outlines, as well as in qualitative analysis.

Student experience: Alex’s reflection

Partnership between students and staff involves the formation of a working relationship that is reciprocal, meaning that both parties stand to gain through learning and working together. This project that I worked on with Beth met this definition through allowing for all partners to contribute to shaping the analysis and direction of the project. While working with Beth, despite being an undergraduate student in the Health Sciences, with no previous experience with research in education or pedagogy, she consistently encouraged my immersion within the project, as well as my equal input and suggestions at each stage. This consistent encouragement and support allowed me to feel comfortable enough to suggest ideas, such as creating a coding protocol that would help to ensure better inter-rater reliability between the coders.

Although this project was already established in partnership with prior student collaborators (as opposed to one that we designed from the ground up), there was still room for my own ideas as a co-contributor to its further development. Additionally, I was able to take a lead on the coding and analysis of the course outlines, and felt comfortable in bringing any concerns or questions to Beth, or in presenting my own ideas in regard to questions that came up during our coding and analyses. Through this, both Beth and I were able to contribute towards solutions to coding uncertainties, as opposed to the staff partner taking the lead on this decision. Partnership in this project felt natural and left me feeling empowered to contribute my ideas as a student towards not just this research project, but in other projects at the institute, and throughout my undergraduate studies.

Staff experience: Beth’s reflection

Initially, I was worried about attempting a partnership approach for this project, since it was already relatively well established and the design in place before Alex and her fellow student partner joined the team. Nevertheless, they quickly rose to the challenge and became active and valued collaborators on this research. Alex, for example, developed a coding protocol that shaped and supported our analysis, and also frequently took a lead on distributing tasks and keeping us on track.
Likewise, both students raised significant questions and ideas that enhanced the work and influenced its directions throughout. The perspectives they brought to bear as current undergraduates complemented my own interpretations of the course outlines that served as our central data source. While, at times, this meant additional work to come to consensus on our coding, the result was a richer analysis that accounted for both student and staff views. The project, and I, benefited considerably from Alex and Kaila’s ideas and organisational skills.

Given that this study constituted the third phase of an ongoing research project I lead, a central challenge for me throughout was to resist assuming the position of ‘expert’, while simultaneously letting project partners know about the work done to date so it could inform our shared efforts. I am not sure I always got the balance exactly right. I was conscious of talking too much during the question and answer period of a conference presentation Alex and I gave together, for instance. Though I did not always feel on sure footing, this process itself has helped me reflect on and continue to build my partnership abilities, which I value immensely.

Case study 3: Collaborative testing in physics

Project and partnership description

During the 2015–2016 academic year, Robert Cockcroft and Sabrina Kirby began an investigation into the use of collaborative assessment in physics. Students enrolled in Rob’s first-year, two-semester physics class in McMaster’s Integrated Science Programme completed exams that included a mandatory collaborative assessment component, and were invited to participate in the pedagogical research project. The learning potential for students was expected to increase, as has been discussed in other studies. However, the question of whether or not retention of course content also increases is still largely unresolved in the literature (e.g., Leight et al. 2012; Cortwright et al. 2003) and was therefore the primary question on which we focused in this project. Both partners contributed to all stages of the project development. Together, they designed and adopted a crossover approach in which the class of approximately 60 students was divided and randomly assigned to one of two groups. In Group A, approximately one third of the students’ first-term midterm examination time was dedicated to collaborative assessment. Group B spent the entire duration of the
midterm working individually. During the second-term midterm, the groups were reversed. After completing the collaborative portion of their exam, students were invited to complete a survey to report on their experiences. All students completed three retention tests (one day, one week and six weeks following the midterm) and an end-of-term examination in each term. At the time of this writing, the project is collecting the last data and is about to start the data analysis stage, with both partners again sharing that work equally.

Student experience: Sabrina’s reflection

Working with Rob has been an extremely rewarding experience, and certainly a highlight of my undergraduate career. I feel that we have formed a genuine partnership that overcomes the traditional power dynamic between staff and students, in large part due to Rob’s willingness to treat me as his equal. When I began working with him in 2014, I had only a small amount of first-hand exposure to post-secondary physics through my own coursework, and no background in pedagogical research. Despite this knowledge gap, Rob invited my feedback at every stage of the project, from the earliest brainstorming sessions through to implementation. My relative inexperience often necessitated background reading; however, this work proved fruitful because it simultaneously provided me with a learning opportunity and developed into a literature review for our project. Though our discussions about this research were extremely informative, I never felt as though Rob was ‘instructing’ me in the traditional sense. Instead, I felt as though an expert was sharing his knowledge and inviting me to engage with him. The result was that I have always felt empowered to make meaningful contributions to the project. This project has provided me with experience in both quantitative and qualitative analysis, and exposure to research opportunities I may not have had otherwise as an undergraduate.

Staff experience: Rob’s reflection

The opportunity to work in collaboration with a student benefits both sides of the partnership as we share and learn from one another’s strengths and different perspectives. I value Sabrina’s abilities to eloquently summarise literature readings, succinctly express her opinion of
their merits and disadvantages, and comment on how each may be relevant to our own project. As Sabrina is not majoring in physics, she is able to provide a valuable non-specialist’s perspective to the physics portion of our project, and help prevent potential problems with the students in my physics class before they arise.

One challenge that we continue to face is scheduling; matching schedules between a full-time student and a postdoctoral research fellow is not straightforward. However, together we can achieve more than I can get done by myself – not simply because we have two people working on the project, but because having a student partner on a time-limited contract means that I cannot push off work until the summer, and we can hold one another accountable to deadlines which helps prioritise and motivate the work.

Because the topic of group assessment has potential benefits for many different disciplines, the project has allowed us both to collaborate with other faculties also exploring collaborative testing on campus and disseminate our work at various conferences.

Case study 4: Filmic representations of higher education

Project and partnership description

Constructions of teaching, learning and the university within the media and popular culture can exert an important influence on public understanding of higher education, which can in turn influence expectations (Giroux 2008; García 2015). Combining film studies with the scholarship of teaching and learning, this project analysed representations of higher education within 11 films released in 2014. These 11 films were in the top 100 highest grossing films of the year and/or Oscar nominees in 2015, and prominently featured institutions of higher education as a setting. The result was an examination of themes that were identified across the texts, the ways in which they interacted, and the sociopolitical ramifications of their content.

The project was a collaborative venture between one staff member (Beth Marquis) and two students (Katelyn Johnstone and Varun Puri), each equally contributing to its design with regard to scope, approach and execution. All three members viewed and analysed the texts involved. As the project developed into a cohesive manuscript, we assumed responsibility for writing individual sections based on each
partner’s interest and came to a group consensus on all major decisions regarding the paper (including but not limited to formatting, inclusion criteria for content, and final editing). Current outcomes include a manuscript submitted for publication, and an accepted proposal to present at an international conference.

Student experience: Varun’s reflection

Working in partnership on this project has been a rewarding, empowering experience. Prior to beginning our project on filmic representations of higher education I had already co-authored a published manuscript with Beth – an experience that provided me with a sense of familiarity regarding her personal approach towards partnerships.

The project was intentionally open-ended at its outset in order for us to have the opportunity to collaborate on developing its initial design. The establishment of a specific goal at the outset of the project – publishing in a peer-reviewed journal – also provided us with a shared direction. Throughout the early stages of the project, we contributed equally to the development of our methodology while meeting on a consistent, bi-weekly basis. At every point, Beth played the role of an equal participant in discussions despite her staff status, and occasionally made practical suggestions that aided the project’s feasibility, scope and outcomes.

Although I was enthusiastic about the potential of the work, I found myself with lingering concerns regarding my lack of experience in film theory at the initial stages of the project. In response, Beth was very understanding in presenting abridged versions of her lectures on basic theory. She also provided me with access to resources (including an introductory textbook) and recommended specific portions that would be helpful for this project. This initial orientation to the relevant fundamentals was the only point in the entire project in which Beth took on a role that resembled a more traditional power formation, and I felt that this was both appropriate and very helpful.

I believe that our group successfully developed a working relationship that allowed each member to contribute in a meaningful way. Most importantly, I believe that we both navigated and crossed the threshold studied in our earlier paper, and were able to create a collegial atmosphere that felt natural and consistently productive. The collaborative
nature of each stage of the project was enjoyable as each of us assumed the role of co-contributor; it reflected the respect each partner had for the others’ unique capabilities and potential.

Staff experience: Beth’s reflection

I echo Varun’s comments about the collaborative nature of this project, and the extent to which we have been able to develop a meaningful research partnership in which we are able to contribute and debate ideas. As someone who continues to struggle with when to ‘lead’ partnership experiences and when to step back, I appreciated Varun and Katelyn’s willingness to let me know when they needed more guidance or support, and I think this openness has helped to solidify our collaboration and move the project along. I also found our shared analysis and writing consistently enriching, as the ideas and insights the students contribute have offered compelling perspectives that enhanced my own thinking while clearly demonstrating the amount they have learned about filmic analysis.

One potential challenge worth noting connects to the initial lack of clarity about the project and its goals. While the nascent status of the research at the moment the team formed was key in allowing us to develop a sense of shared ownership, it did mean that we had to work quickly to build trust and establish a plan for moving forward. I’m grateful for Varun and Katelyn’s patience, flexibility and willingness to contribute during this process, which could have otherwise devolved into extended uncertainty or the assumption of a much less collaborative approach.

Discussion

Each of these cases gives the sense that partnerships between students and staff can be both beneficial and challenging. As successful partnerships between students and staff develop, a movement from uncertainty toward transformation often occurs, suggesting there is a threshold through which the partners pass (Cook-Sather 2014; Marquis et al. 2016). As indicated in our previous research (Marquis et al. 2016), partnership requires difficult negotiations of understanding and identity that unfold as partners attempt to navigate and cross the partnership threshold.
First, in that previous research, partners developed new *understandings* of their own roles and began to see themselves as active, valued collaborators in specific teaching and learning initiatives and teaching and learning more broadly. The cases described above likewise indicate shared perspectives on partnerships, resonating with what has been discussed in the literature (e.g., Cook-Sather, Bovill and Felten 2014). For example, the cases indicate that partners largely had a sense that successful partnerships were grounded in a sense of shared responsibility, collaboration, mutual work and collective benefit.

Second, the partners in the pilot study faced challenges in applying their new perspectives or understandings of partnership as they embarked on the ‘process of developing and enacting collegial, reciprocal relationships’ (Marquis et al. 2016: 8). While many of these challenges were discussed within the cases above, there is evidence of some positive processes and outcomes that helped the partners with some of these issues, specifically with navigating the power dynamics within the relationship and finding ways to enable meaningful and equal inclusion of both student and staff voices.

Navigating power dynamics

Each of the cases described the negotiation and navigation of power dynamics in some way. Kris and Lori chose not to drive the project, but ‘consciously valued and prioritised Zeeshan’s perspective in developing the project scope and direction’ and Zeeshan recognised that he was encouraged to take the lead whenever possible [Case 1]. Despite having no experience in pedagogy, Alex felt encouraged to be immersed in the project and provided equal contributions throughout, taking the lead during some stages [Case 2]. Sabrina described a ‘genuine partnership that overcame the traditional power dynamic between staff and students, in large part due to Rob’s willingness to treat [her] as an equal’ and noted her ability to provide feedback at every stage of the project, from brainstorming to implementation [Case 3]. Varun described the development of shared direction for the project where each member assumed the role of co-contributor and respected the other partners’ unique capabilities and potential, regardless of their role [Case 4]. In each case, the partners were faced with and overcame some of the challenges in navigating their traditional roles and power dynamics to form genuine partnerships.
Enabling meaningful and equal inclusion of student and staff voices

While not inextricable from the concept of power in relationships, the process and outcomes of enabling equal inclusion of each partner’s voice emerged as a particularly important theme from the case descriptions. For example, Zeeshan described the collaboration with his staff partners as feeling ‘like a true partnership where every voice in the partnership has equal power on the direction of [the] research projects’ [Case 1]. Beth similarly described developing ‘a meaningful research partnership in which [each partner is] able to contribute and debate ideas,’ and noted the ideas contributed by Varun and Katelyn ‘enhanced [her] own thinking’ [Case 4]. Such comments suggest a degree of success in meaningfully enacting partnership, despite the challenges attached to this portion of the threshold.

We acknowledge that the four cases discussed here may not be representative of all projects included in the student partners programme; many others have likely struggled more emphatically with enacting partnership and remained in the liminal state. Nonetheless, we focus on these four comparatively successful examples to illustrate the potential of such work and to highlight strategies for navigating the challenges of partnership that might be useful to others.

Moving towards success

Successfully navigating the challenges of embracing non-traditional roles in partnership became possible when all partners first recognised issues around power and inclusion of voices. Partners then need to be willing to behave in ways that reflect their shared understandings of power and inclusion. Strategies to do so are exemplified in the case descriptions. Students and staff met regularly and engaged in conversations and discussions frequently. Some of the cases refer to the importance of developing a strong working relationship early on that is grounded in mutual respect and recognition of the unique contributions of each partner. In these cases, staff partners purposefully refrained from taking on a supervisory role and elected to be a facilitative guide and a contributing member of the team. They encouraged students to take a lead role on a variety of aspects of the project, especially in the early stages of shaping the vision, direction and scope, even though this may contribute to an initial lack of clarity. The practicalities around
time and scheduling need to be considered when forming a partnership, so that all participating partners have equal opportunities to meet and engage in discussions, and position the partnership for success. While we have made progress in enacting partnerships, it continues to be challenging, yet rewarding, work.