

Laidlaw Programme Reflective Report 2019

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Introduction:

I applied to the Laidlaw Programme because of my interest in research. I discovered my passion for science later in my academic life- I did not always want to be a researcher, or even a scientist, for that matter. Instead, I wanted to be a leader in business or politics. Once I began my science degree, leadership became less of a focus. However, I have always been interested not purely in discovery, but in using science to effect change. The Laidlaw Programme offered a unique advantage in this regard, allowing its Scholars to develop through research experience, but also through communication and leadership training. I felt that the programme would allow me to develop into the kind of researcher I hope to become- one who strives to achieve excellence, but is also able to communicate their research to benefit as many people as possible, act to change the world and learn from the expertise of others. Interdisciplinary collaboration and science communication, which were key factors in my application to the Programme, are more relevant now than when I joined the Programme. As I prepare to graduate from the Laidlaw Programme, I am able to appreciate just how fortunate I am to have participated in this unique experience, which has shaped me as a researcher and a leader.

I. Research Experience

My experience with the Laidlaw Programme didn't reflect my initial plan. Instead, many aspects changed and evolved as the project progressed. When I initially applied to the Programme, I held certain misconceptions about research, having never worked as a researcher before. Initially, I found the idea of working with a supervisor quite challenging. Due to my inexperience with research, I initially thought that I would be expected to work entirely independently, and felt uncomfortable asking my supervisor for guidance. I quickly learned that this was not the case- though it was challenging to adjust to asking for help and guidance, I realised that this is a very normal part of the supervision process. This was one of the factors that initially caused me to feel frustrated by a lack of progress in the project- I waited too long to ask for help in the initial stages. As the project progressed, I learned from this experience and found it even benefitted me. This summer, I also conducted another

research project, with a lab based in another country. Communication was difficult, given time differences and remote working, but I learned from my first summer of Laidlaw research and was able to raise issues as they arose and assert myself more confidently. Our first leadership session featured a discussion about managing the supervisor-supervisee relationship, which was so helpful, particularly at an early stage in the Programme. I would love to see this expanded on in future leadership sessions- it would be wonderful to see future Scholars benefit from the same experience.

One aspect of the supervision process that I wish I had explored is co-supervision. Though my supervisor was incredibly supportive, offering me lab resources and a grounding in the biology behind my project, I think that having a co-supervisor with a more mathematical or computational background would have also been helpful. Particularly for Scholars with interdisciplinary projects, identifying co-supervisors from fields outside their own can be challenging. This is something I would love to see emphasised as part of the Programme in future- interdisciplinary conversations were a highlight of the leadership elements of the Programme, and it would be similarly beneficial to encourage this at a research level.

II. Developing as a Leader and Communicator

Identifying Leadership Styles and Strategies

Learning about my leadership style was one of the most challenging, yet rewarding aspects of the programme. Upon joining the Programme, my understanding of leadership theory was limited. I assumed that a leader had to follow a specific formula, and part of my motivation for joining the Programme was to 'learn' the formula and, hence, become a more effective leader. However, through participation in the various leadership sessions over the course of the Programme, I learned to identify and embrace my own leadership style, instead of trying to emulate a more traditional leadership style.

The consultation organised by the Programme with Jill, the career coach, was particularly beneficial. Though the session was challenging, and forced me to focus on my own leadership challenges more than was initially comfortable, it was ultimately hugely rewarding. Jill allowed me to analyse the strengths associated with a more introverted, emotionally responsive leadership style, and recommended a book which reinforced these ideas (*Quiet: The Power of Introverts in a World that Can't Stop Talking*). This allowed me to analyse my leadership style in a new light, and view my sensitivity as a strength instead of as a weakness.

The session also equipped me with the necessary tools to deal with other leadership styles. This is particularly relevant for quieter leaders, as in meetings with leaders of different styles, there is a tendency for the loudest voices to dominate. Although I initially found it very challenging to work with louder or more dictatorial leadership styles, as my understanding of my leadership style improved, so too did my confidence in its efficacy. I learned that interjecting or asking questions, while unnatural for me, could often be helpful to ensure my ideas were discussed. However, although group work was amongst the more challenging activities initially, due to a muddle of conflicting leadership styles and voices, I grew to genuinely enjoy and learn from it. Once I understood that listening and learning from others was an integral part of my natural leadership style, I no longer felt 'forced' to interject. Instead, I learned that I work best and get the most out of my team when I listen to others, consider their areas of expertise and adjust my strategy accordingly.

Leadership in Action

Although career coaching was invaluable to me in identifying the challenges and strengths associated with my leadership style, learning is no substitute for hands-on experience. One of my favourite

aspects of the Programme was the opportunity to assist Trinity Access Program (TAP) students with their own research project. As a listener and leader, working with an interdisciplinary team, with varying degrees of life experience, was an incredible experience. Initially, I was apprehensive as to how we could facilitate agreement between such different voices, especially given the topic of the project, which focused on vaccination and misinformation. However, this became one of the strengths of the project- the group's final submission involved perspectives from parents, social scientists and aspiring doctors, reflecting the group's interests and expertise. This, I found, was also one of my favourite aspects of the Programme itself- the most fruitful conversations are those that force you to challenge your own beliefs, to see an issue how someone else sees it.

The quality of the project produced by such a diverse group also reminded me of the importance of accessibility in research. The accessibility of educational institutions such as Trinity is something that can and should be championed by researchers. But this event also illustrates the importance of another form of accessibility- access to knowledge itself. Many academic research goes uncommunicated to the general public, resulting in misconceptions such as those detailed in the TAP project. Across many research disciplines (science included), academic knowledge is seen as irrelevant, dry or inaccessible to those outside of a particular niche. Yet this view excludes some of the most important research from so many. Participation in the Programme gave me hope that this is changing- hearing my peers speak with passion and eloquence about topics I had never encountered showed me how crucial it is to interact with other disciplines, as well as the general public.

Collaboration and the Laidlaw Programme

My time collaborating with other Scholars and the Access students was reflective of my experience with the Programme in general. Although collaboration was not a major part of my research experiences, the leadership and development opportunities provided by the Programme allowed me to learn from and collaborate with other Scholars. Interdisciplinary collaboration and communication was perhaps the most challenging, but also most rewarding aspect of interacting with other Scholars. Our leadership training placed a strong emphasis on learning to distil research into a form appropriate for the intended audience. Although I am used to communicating science to the general public, I was surprised to find that communicating my research to other Scholars presented a new challenge. Whenever I discussed my research with other Scholars, I was always surprised to find how we each identified areas of interest in the other's work. Although my project is biological in nature, with some intersection with clinical medicine, talking to medical Scholars allowed me to better understand the patient experience during chemotherapy. This was incredibly rewarding, as the clinical perspective is completely different from that of a researcher. In engaging with fellow Scholars from multiple disciplines, I quickly learned that when communicating, audiences often identify strongly with a particular element of the research. In this case, delving deeper into the intersections between our disciplines led to fascinating conversations.

The Programme also allowed me to consider the other crucial aspect of communication- listening to others. One exercise that was particularly insightful came in our second leadership weekend, when the Trinity's Dean of Research proposed a challenge for the Scholars. We were paired with another Scholar from a different research area, and given two minutes to explain their research. This was an exercise in active listening as much as effective communication, and I learned so much about areas I had never studied. This is particularly important for academics- one of the tendencies amongst academics is to specialise, which results in more detailed, comprehensive research, but also a tendency to isolate from other fields, or worse, dismiss them as irrelevant to their own research. While I have always been interested in interdisciplinary research, the Programme gave me first-hand experience of interactions with researchers from an incredibly diverse range of fields. I was, perhaps naively, surprised at how many questions I had for my very patient fellow Scholars, and had to quickly

adjust to being a complete beginner to their subject. The experience was ultimately hugely rewarding, as it was both humbling and fascinating to learn about new fields and discuss shared interests from different perspectives. I learned to view communicating my research as a reciprocal interaction, a chance to exchange ideas with others, rather than focusing solely on my own message.

This reflects my leadership style- I am a collaborative, encouraging leader, who leads best by responding to the skills and expertise of the group and assigning tasks accordingly. The exercises allowing me to listen and learn from other Scholars were therefore particularly helpful in helping me develop the communication skills that are so crucial for this style of leadership.

III. Personal and Future Development

Challenges in Developing as a Researcher and Leader

However, although I learned and developed through my participation in the Programme, the experience was not without its challenges. This year posed challenges to both my research and personal development. It can be particularly difficult to persevere with research when reality deviates from the original plan, as was the case this summer.

Such challenges were not limited to my research experience, however. Aspects of the leadership training were also challenging, but ultimately rewarding. One of the most interesting experiences in this regard was the voice coaching that we received. Initially, I found this uncomfortable, as the training involves breaking apart speech patterns and habits. Upon starting the Programme, interruptions and questioning were two areas I struggled with while speaking, and these sessions involved plenty of interruptions and criticisms of my speaking style. During the first session, which was conducted in a larger group, I found this style of learning extremely challenging. However, the second session, which was run virtually in smaller groups, was much more beneficial. Although it was initially unnatural and embarrassing to keep repeating myself, I was amazed by how much clearer and more engaging my message was by the end of the session. Although the experience was outside of my comfort zone, it was amazing to watch my presentation develop into something much more powerful than my initial speech. Although I learned practical tips around breathing and projection, I found that these techniques helped to enhance my confidence in myself and my message, more than anything else. The training was so beneficial on a practical level, but also in reminding me that my first impressions are often flawed- challenging experiences can be the most significant from a personal development perspective.

Ultimately, my experiences with research and leadership training reminded me of my resilience, as well as of the importance of challenges to personal and professional development. Although the project was challenging, it helped me identify my strengths, including my ability to persevere. I learned to accept the ever-evolving nature of a research project- the research proposal is not necessarily translated exactly into a final project. In some ways, though 2020 was a particularly challenging year to complete an independent research project, it provided a perfect example of this. Initially, I was frustrated that my plans had been disrupted, but upon reflection, I began to acknowledge all of the experiences the Programme has brought me. This was apparent when reviewing my Personal Development Plan, initially completed last year. I have learned so many of the new skills I had hoped to develop, from hard skills such as coding and mathematical analysis to 'soft' skills such as communication, adaptability and resilience. Some of these skills have been honed through the structured activities of the Programme, be they research or leadership-oriented. However, the greatest development has come from the chance to reflect on these activities, and put my new-found knowledge into practice outside of the Programme. In this way, though my research has taken a

different course than I initially anticipated, I am so grateful for all that I have learned and achieved as a Laidlaw Scholar, on both a personal and professional level.

Future Personal and Professional Development

During my time as a Laidlaw Scholar, I have identified so many areas of leadership that I hope to continue to develop. As the most impactful experiences as part of the Programme involved the intersection of different research areas, I hope to continue to develop as a leader that listens to and learns from other researchers. This is particularly relevant during the current crisis, as successful leaders at this time are those that acknowledge the gaps in their own knowledge and respect the expertise of others. In addition to continuing to develop my listening skills, I also hope to continue to develop as a science communicator. This is another area of leadership that is particularly crucial at the moment, as we all seek accurate, yet easily-intelligible scientific information. Participation in the Laidlaw Programme has allowed me to see the importance of clear cross-disciplinary communication and has inspired me to put these principles into practice as I move to the next stage of my academic career.

These experiences illustrate that, although the Programme consists of research and leadership training, the two cannot be separated. I am at my most effective as a leader when I remember the sense of curiosity and wonder that inspires me as a researcher. This is, in my opinion, one of the Programme's greatest strengths, and it would be wonderful to see it extended outside of the conversations I had with my peers in Trinity. For example, the subject-specific discussion threads on the Network, while providing the potential for specific advice, could be used as a template for more general threads or rooms, where Scholars from different disciplines could discuss a similar topic from different perspectives. This is particularly relevant at the moment, where the expertise of scientists, medics, historians and others allows us to better understand the pandemic and its implications. Similarly, I think the potential for Laidlaw Scholars to discuss their research in more open platforms would be an invaluable experience. Events that involve Scholars pitching their research in a short presentation to the general public would be hugely beneficial, as, based on my experiences with science communication, interacting with the public can be quite different from communication within the Scholars' Network. I hope to continue to be actively involved with the Programme after I graduate, particularly in a role that encourages communication both within and outside of the Network.

My experience as a Laidlaw Scholar will shape my future not only as a researcher and leader, but also as a person. I hoped, when applying to the Programme, that I would gain the necessary research experience to prepare me for postgraduate study, but also that I would develop as a collaborator and leader. As I reflect on my experience with the Programme, I am so grateful that this has been the case. The Laidlaw Programme's commitment to integrate leadership and research training has changed how I view myself. It has allowed me to grow in confidence as a communicator, gain skills and overcome challenges as a researcher and ultimately prepared me for a career in research more than a research-only programme could. I once saw these traits as an added bonus, enhancing the research experience, but as I reflect on my experiences as a Laidlaw Scholar, I see that they have been integral to the research experiences. Many research programmes, whether at an undergraduate or postgraduate level, focus only on the most visible aspects of research, such as publication, lab work or academic writing. However, the Laidlaw Programme understands the value of empathy, communication and leadership in research, not at the expense of academic excellence, but to its benefit. Before participating in the Programme, I had experience writing and researching, but no understanding of how I lead best, or how crucial this is as a researcher. In this way, despite the skills I have gained as a Scholar, it is the change in perspective that is perhaps most valuable as I begin to pursue a career in academia.

Conclusions

My experience as part of the Programme, while giving me valuable research experience, has also impacted my personal development immeasurably. I learned to embrace my leadership style and become a more effective communicator. However, one of the most important things I learned was the importance of collaboration- whether with a supervisor, fellow researchers (across many disciplines) or with the general public. I hope to take this with me as I advance in my career and strive to be a researcher that understands the importance of ethical leadership. I believe that researchers have a platform, within and outside of the institutions that support them. As experts in a field, they can and should strive to make research more accessible, both to prospective students and the general public. The conversations I have had as a Laidlaw Scholar, both with fellow Scholars and others, have inspired me to continue to pursue interdisciplinary open research, even as I advance in my career and begin to specialise. The Programme has given me a renewed sense of purpose to do so not just as a researcher, but as a leader who advocates for change in her field and beyond.