

# KEY FINDINGS & RECOMMENDATIONS

## PART 2: LEVELING THE PLAYING FIELD

### FINANCIAL AID FOR GRADUATE STUDENTS WITH DISABILITIES IN CANADA

*“I do need [disability funding] and my university does provide this funding but I haven't been able to manage my time well enough to apply while working on my courses.”*

*“[I] was blocked from accessing funding due to SSHRC scholarship and making ‘too much money’ to qualify for accessibility funds.”*

*“I was not eligible [for disability-related funding] because I receive a fellowship award.”*

*“Lack of transparency in information about funding sources (e.g., who is eligible, how to apply, etc.), unfriendliness and occasional hostility from financial aid staff.”*

*“Once my external funding (SSRHC) had run out, I had no option but to work, as I had no one who could “sign” on as a guarantor for a bank loan. I also maxed out the full amount of OSAP available to me.”*

#### RATIONALE

Financial aid and the financial aid landscape for graduate students with disabilities were identified as perhaps the most visible and universal issues for this population. From an academic viewpoint, the experience of graduate students with disabilities – as with all graduate students – is absolutely and necessarily driven by the relationship with their supervisor and the essential requirements of their program or field. However, many of these issues are exacerbated – even driven by – the issues surrounding accommodation, and the funding of accommodations in the graduate education setting.

The availability of and policies and practices surrounding financial aid funding has become a widespread discussion as a greater number of students with permanent disabilities enter and complete their graduate program of study. Students, Financial Aid and Disability Support Offices, faculty and university administrations nationwide struggle to meet the financial needs of our graduate student population, particularly when the complexities of financial aid in the context of student scholarships, graduate stipends, academic employment and provincial disability support programming is taken into consideration. Indeed, the importance of this issue cannot be understated, as funding and financial aid for graduate students with disabilities were continually raised as primary issues in determining student success. While many structural issues in the graduate financial aid landscape are common to all students, including students with disabilities, and while structural considerations in this landscape were disparate when master's programming was compared to doctoral and when professional-stream programs were compared to research-stream programs, it is the specific influence of disability and the intersection of disability and accessibility concerns with graduate financial aid that continually confound. While in our research, solutions to these problems were evident, none were system-wide and many relied on the commitment and creativity of individuals within institutions.

We drew on the financial aid experience of graduate students with disabilities from several sources, including the expertise of student financial aid officers, survey results from the National Graduate Experience Survey, and graduate student-specific results from a previous study assessing debt load and financial barriers faced by students with disabilities in postsecondary education in Canada (Chambers, Sukhai & Bolton, 2011). These sources of information demonstrated strong concordance in points of overlap, and painted a picture of a financial aid landscape for students with disabilities in graduate school that was very akin to the circumstances faced by their peers in the overall graduate cohort – with the exception that, as with many other findings contained in this work, disability issues often exacerbated inherent systemic barriers.

Our data demonstrated that, consistent with the overall population of graduate students, the majority of students in thesis-based programs funded their graduate education through TA/GA/RAships, whereas the majority of students in non-thesis based programs funded their education through personal savings (Figure 19). Students enrolled in PhD programs were most likely to report that financial barriers had an effect on their studies (Figure 20). For these students, leaves of absence or part-time studies were cited as the most common approach to managing these barriers (Figure 20). Students in master's programs were also likely to consider changes to their program, field or institution, or to withdrawal entirely from their program (Figure 20).

Given the nature of the Canadian financial aid system and its interaction with the graduate guaranteed funding package, many graduate students with disabilities may be unable to access disability accommodations funding. This is supported by students' citing the cost of personal purchase of accommodation as the major reason for lack of disability accommodation in the graduate setting (Figure 21). The costs of the required

accommodations are prohibitive for many students. Additional major reasons are associated with lack of eligibility for or lack of awareness of available programs at the governmental level for accommodation funding.

In more than one-third of cases, students with disabilities in graduate programs identified barriers to accessing disability-related accommodations funding at the institutional level. Indeed, only 14-16% of students indicated that they successfully obtained such funding, and only 2-4% indicated that this was in the form of an institutional disability scholarship (Figure 22).

Many students reported an a priori expectation that financial barriers may pose significant challenges to their studies. This was particularly the case for doctoral-stream students (38% of doctoral students vs. 23% of master's students answering "very much"; Figure 23). This expectation was borne out by students indicating difficulties managing the accumulated expenses of graduate education (Figure 24). While this seemed to be a larger issue for master's students than for doctoral students, this might be due to the graduate funding guarantee in place for doctoral students.

Figure 25 illustrates a summary of the factors influencing the financial aid landscape for graduate students with disabilities, based upon a synthesis of our data. While there were some disability-specific issues (e.g., disability-related leaves, provincial disability assistance and accommodation needs), most issues were shared with the overall graduate student population.

It is becoming apparent that some of the fundamental services in Canada intended to assist students in general and students with disabilities in particular, such as the Canada Student Loan Program, may in fact create barriers to student success. For a detailed discussion of these issues and the barriers faced by students with disabilities in graduate education, see the Discussion Paper on student financial aid and the attendant data presented therein (Appendix G). In particular, limits are imposed on students in reference to eligible weeks of funding while in postsecondary education. We know this is an issue; yet there are no systems in place to aid students who have exhausted their federal student loan eligibility. We recognize this is a multi-faceted issue and as such, solutions must be varied and applied at multiple levels (national, provincial and institutional) in order to support the on-going financial challenges of students with permanent disabilities.

Furthermore, solutions must reflect principles of creativity and collaboration, and include advocacy, professional development, fundraising initiatives, and changes to policies and practices. Multiple stakeholders in the postsecondary education landscape need to be engaged in order to ensure the appropriate evolution of solutions. A role for all exists in this issue – national professional organizations like the Canadian Association of Student Financial Aid Administrators, as well as the national student federations, can be engaged in advocacy at the federal and provincial levels around changes to financial aid policy and practices. Meanwhile, university development offices

can fundraise for institutional financial aid programming and accessibility funding for graduate students with disabilities.

*“Information about disability-related funding was difficult to find, even from disability services. Financial aid office rarely responded to inquiries and often had no answers (even about non-disability related funding). Looking back, I can see I was not given the right information and so ended up paying more than I needed to.”*

*“I was not initially told that my institution made funding available to people registered with disability services. When I did find out (not from the disability services office), I found the application process confusing and was directed to several different offices over the course of several weeks...”*

*“Deemed ineligible for bursaries because I did not qualify for FULL student loan (criterion for bursary application). Did not receive a full student loan because I work part-time; couldn't afford to quit my position because of the medical benefits and having already advocated for accommodation in that position.”*

*“Applied but not eligible for student loans; disability-related funding at my institution requires the student to be eligible for student loans in order to receive funding.”*

## RECOMMENDATION 8: DEVELOP FINANCIAL AID POLICIES TO HELP REMOVE BARRIERS FOR GRADUATE STUDENTS

Recognizing the spectrum of financial aid challenges faced by graduate students with disabilities, we recommend the development of policies, practices and resources aimed at ameliorating financial barriers to graduate education. Specifically, we recommend that:

- a. Advocacy be undertaken to improve access to the Canada Student Loan Program (CSLP) for students with disabilities to seek funding for the length of their graduate program of study, by recognizing the different characteristics of our master's and doctoral student populations and providing funding options to meet their unique needs;
- b. Advocacy be undertaken to seek exceptions regarding leaves of absence greater than the CSLP standard in cases of disability-related circumstances outside of the student's control;
- c. Advocacy by undertaken to increase proactive loan forgiveness methods and programs for graduate students with disabilities;

- d. Advocacy be undertaken to create policy measures within provincial financial aid systems that recognize the different characteristics of our master's and PhD student populations and provide funding options to meet their unique needs, with an emphasis on reducing the financial gap for graduate students with disabilities;
- e. Advocacy be undertaken for university fundraising activity to support targeted internal funding (e.g., disability scholarships) for graduate students with disabilities, leading to the reduction of the financial gap for graduate students with disabilities;
- f. An institutional framework be created whereby students with disabilities can access dedicated internal funds to defray their accommodation and extraordinary costs associated with their graduate programs;
- g. Advocacy with scholarship-granting agencies and foundations be undertaken to increase the number and value of awards available to graduate students with disabilities;
- h. Policies and practices around institutional graduate funding packages include disability-related considerations (e.g., leaves, academic employment, funding for disability related accommodations to travel to academic conferences), where applicable;
- i. Students with permanent disabilities be eligible for tuition reduction at the graduate level based on working capacity percentages, while maintaining full-time status and thus being able to hold awards, bursaries and working opportunities;
- j. Institutions offer up-front and continual financial planning opportunities for graduate students with disabilities to ensure successful initiation, continuation and completion of their program of study;
- k. Creativity and collaboration are treated as essential principles in meeting the needs of graduate students with permanent disabilities. Developing and adopting a collaborative approach to student funding would ensure success and make the best use of available sources of funding;
- l. An accessible, national database of scholarship, fellowship and financial aid opportunities and resources for graduate students with disabilities be developed and maintained;
- m. Professional development opportunities for financial aid staff be provided at relevant regional and national meetings (e.g., CASFAA annual conferences) around the experiences of graduate students in general and graduate students with disabilities in particular;

- n. Professional development opportunities be provided for financial aid staff at the institutional level around the experiences of graduate students in general and graduate students with disabilities in particular; and
- o. Financial fluency of students with disabilities transitioning from undergraduate to graduate education be improved through educational efforts and transitional resource guides.

## GRANTING AGENCY INVOLVEMENT IN FUNDING FOR DISABILITY-RELATED ACCOMMODATIONS

*“Very competitive for grants and faculty not receptive to the extra help needed by students with disabilities”*

*“There is nowhere in the OGS application to explain my disability – which affected my marks mid-undergraduate studies. As a result I am likely not eligible.”*

*“The structure of applying for grants is a major barrier for people with learning disabilities.”*

*“The application forms were not accessible (complicated pdf files that were not screen reader compatible) and I needed to ask for help from family/friends.”*

## RATIONALE

Students with disabilities compete successfully for tri-council (Figure 26), external (Figure 27) and institutional (internal) (Figure 28) scholarships and awards. In most cases, these are tuition or stipend support awards. Those from SSHRC, NSERC and CIHR, as well as some major external foundation awards, include research allowances, which theoretically provide funding for technology support or professional development opportunities. In the current funding climate, these research allowances can also be used accommodation funding. However, this use prevents the student from using the research allowance for its intended purposes and may (unintentionally) exclude the student from opportunities available to their peers.

In the research-stream graduate environment – particularly in the context of science, technology, engineering and mathematics (STEM)-based research labs – the accommodation requirements for graduate students with disabilities can be intensive. These accommodations can range from custom technological solutions to the provision of alternative format materials, to human technical assistance; from physical modifications to the laboratory environment to interfacing specialized data analysis software packages with accessibility software (e.g., text-to-speech engines and screen magnification tools). While it is true that there are currently few graduate students with disabilities in STEM programs involving lab-based research and fieldwork, the lack of awareness around and funding for accessibility solutions and accommodations acts as a significant self-reinforcing barrier in this context.

The systemic barriers to the participation of students with disabilities in STEM programs inclusive of lab environments and other practice spaces at any level of postsecondary, including graduate programs, have been documented elsewhere, as have potential solutions to those challenges (c.f., Sukhai et al., 2014a; 2014b; see these papers and their attendant resource guides online at [www.accessiblecampus.ca](http://www.accessiblecampus.ca)). To date, however, the availability of accommodation funding has been strongly institution-dependent, and in many cases tied to the student's eligibility for national or provincial student financial aid. There are no national programs in Canada, for example, that fund accommodations expenses in a needs-based manner through any of the major granting agencies. Furthermore, the community service provider agencies for persons with disabilities, which function as charitable foundations, are not in a position to provide such support either. In our research, we became aware of potentially useful models in the United States – for example, through the National Institute of Health and the National Science Foundation – for disability-related accommodation funding, available through separate funding pools and dedicated application processes.

Furthermore, while current scholarship and fellowship application processes through the major national granting agencies (CIHR, NSERC and SSHRC) permit the inclusion of disability-related information as part of the candidate's responses to questions, to do so limits the candidate's ability to highlight other relevant details of their work or career aspirations. To that end, a simple first step in ensuring equitable consideration of persons with disabilities applying for these scholarship and fellowship programs would be to review and evaluate the application forms, processes and eligibility guidelines to ensure the accessibility of these materials to persons with disabilities, and the equitable provision of information by the candidate, such that candidates with disabilities are not inadvertently penalized for the disclosure of relevant disability-related information in their applications.

Finally, it is worth noting that, although postdoctoral fellows and early-career researchers with disabilities were not explicitly considered in the Taskforce's research – and indeed, the numbers of postdoctoral fellows and early-career researchers with disabilities, particularly in STEM disciplines, are anecdotally reported to be exceedingly small – many of the Taskforce's recommendations (in particular those around funding of disability-related accommodations) are relevant and applicable to this cohort. Indeed,

the systemic barriers facing persons with disabilities choosing to move beyond their doctoral studies into postdoctoral research and beyond are significantly greater in scope, with concomitantly fewer institutional resources deployed in support. We will return to this issue later in this report (see Recommendation 18).

## RECOMMENDATION 9: ESTABLISH NATIONAL FUNDING FOR DISABILITY-RELATED ACCOMMODATIONS IN GRADUATE EDUCATION

Recognizing that there are systemic challenges to the creation and implementation of accommodation frameworks for graduate students with disabilities, particularly in research-stream programs, due to the cost factor associated with human resources assistance, retrofits to the laboratory environment, access to and provision of alternative formats, etc.; and further recognizing that these barriers to supports extend beyond graduate school into early-career research and tenure-track faculty settings, we recommend that national granting agencies (specifically, SSHRC, NSERC, CIHR and CFI) research and establish appropriate funding sources and mechanisms to provide centralized national disability accommodation funding for researchers. Specifically, we recommend that:

- a. Granting agencies establish a dedicated equipment/infrastructure accommodation fund for graduate students and early-career researchers working in laboratory environments; and
- b. Granting agencies establish mechanisms for disability accommodations funding (including human resources assistance and alternative format provision/access) that can be applied for on a needs basis, and arise from a separate funding stream than operations grants, or discretionary or research allowance funding sources.

## RECOMMENDATION 10: REVIEW EXISTING POLICIES TO ENSURE THE ACCESSIBILITY OF EXISTING TRI-COUNCIL AND CHARITABLE FOUNDATIONS FUNDING AND SCHOLARSHIP PROGRAMS

Recognizing that the Tri-Council (SSHRC, NSERC and the CIHR) provides significant funding through scholarships, fellowships and awards to graduate students and early-career researchers, and that charitable foundations provide a major secondary source of funds in some fields; and also recognizing that access to these funds is a significant marker of success for all students, we recommend that funding agencies undertake reviews of their practices and policies to ensure accessibility and full inclusion of students with disabilities.



Specifically, federal granting agencies (SSHRC, NSERC and CIHR), as well as scholarship/fellowship granting charitable foundations, should examine funding and application policies and practices to ensure accessibility for graduate students, postdoctoral fellows and faculty with disabilities, including demographic collection methods, application accessibility, equity of information provision, availability of dedicated accommodation funding, and policies around research load, time to completion and leaves.

## MENTAL HEALTH IN GRADUATE EDUCATION

*“My university does not have funding for students with mental health disabilities.”*

*“I have needed to alter my working schedule with some other students and this has created tension. I haven't wanted to give a description of my diagnosis to them as previous discussion that only lightly touched on the subject of anxiety-related issues has elicited a negative response. I fear being told to "suck it up, we're all stressed" or something along those lines. They do not seem sympathetic to the difference between daily stresses and dealing with anxiety-related illnesses.”*

## RATIONALE

Despite the greater awareness surrounding mental health in recent years, it is still an issue that is often plagued with stigma. Too often mental health is only thought about once a problem arises, as opposed to proactively thinking about mental well-being. Mental health is something that can affect all students, not just those with diagnosed disabilities.

Graduate education is a high-pressure environment. Students who choose to pursue graduate education feel a different sort of pressure than undergraduates, one associated with the culture of academic training and the requirement for productivity in graduate and postdoctoral training environments. Students feel pressure to compete against their peers and to succeed in the labour market. This can be a very difficult time in one's life, as they must find a balance between mental well-being and succeeding in what they have set out to do. It is often the time in which mental illnesses can become evident.

For students with diagnosed mental illnesses, waiting list times across the country can make it difficult to get the needed help quickly. Trial and error may be needed to find the most efficacious type and dosage of medication to ease symptoms.

Treatment effects, which can be short or long term, can leave students unable to focus, concentrate, or complete tasks as required. Issues can develop for a variety of reasons, all of which students must navigate while attempting to succeed within their program.

Regardless, all students face various stressors that can negatively affect their mental well-being. Stressors that students may face in graduate education include but are not limited to: the effort involved in establishing a professional identity and brand; attempting to achieve a “school-work-community-life” balance in post-secondary education; the stress of competition with one’s peers for grades, scholarships, etc.; the effort invested in choosing one’s career path and launching one’s career; the effort invested in self-promotion; building and maintaining relationships with faculty members, especially – particularly, in graduate school, with one’s thesis advisory committee and thesis supervisor; coping with perfectionism; interacting with one’s peers; getting adequate sleep; and dealing with the culture of post-secondary education – particularly, again, at the graduate level, with research culture and the environment of graduate school.

Life stressors may also play a role in the student’s mental well-being, as it is often very difficult to compartmentalize and separate academic from non-academic stress. The student may have to deal with the stress of being on their own, away from family, friends or a support network; wrapped up in this is the potential for culture shock if the student has come to a new city or country. The student may have stress from family situations or from social isolation as well, or from other life events.

Students with disabilities entering and proceeding through graduate education have an additional series of stresses to cope with, associated with their disability, which can lead to an increased feeling of pressure and greater potential for decreased mental well-being. Specifically, students with disabilities may be prone to “impostor” syndrome – a feeling of inadequacy or of not belonging in graduate studies. Students may feel significant pressure because of the sense that they are alone as persons with disabilities in their fields, departments, or institutions. Related to that, students may feel stress in being trailblazers.

Transition points (for example, undergraduate to graduate student; master’s to PhD; teaching assistant to novice instructor; PhD candidate to postdoctoral scholar; graduate student to expert in your field) in a student’s training are especially problematic, as each transition point brings with it new responsibilities, new environments, and potentially new accommodations as well as new or reinforced systemic attitudes (University of Waterloo, Centre for Teaching Excellence).

At various points in their training, students with disabilities will have to consider whether or not to disclose to peers, be they group members, lab mates, or colleagues on fieldwork assignments; to their students and trainees, when they are in teaching and leadership roles; or to their thesis supervisors, at any level of training. Students with disabilities must also factor into their thought process the notion that the disability services staff alone may not be able to be of help, and other subject matter experts may

need to be engaged. Although none of this will happen without the student's permission, it is important for faculty and service providers to understand the stress that this places on the student, whose natural instinct may often be to say as little as possible about their disability to as few people as possible. This is particularly true for students with diagnosed psychiatric disabilities, for whom a self-advocacy-based model of accommodation and engagement in education has been reported to be ineffective.

We recognize the irony inherent in our advocacy for collaboration and cooperation as a way to break down barriers for graduate students with disabilities, as the work required to follow this approach can itself become a source of stress for students. However, it is worthwhile to point out that having a successful education experience requires the full participation of the student, irrespective of disability.

Many college and university campuses have prepared mental health strategies and plans in order to promote stress management and well-being among the student, faculty and staff populations. While it is up to the individual student to determine what works best for them, most strategies involve taking time away from the lab or classroom setting, though what works for an individual varies greatly. There may also be cases where the student is unable to make these decisions for themselves.

It is important to remember that mental health supports on campus and in the community are available, and it may be necessary to avail oneself of them. Indeed, talking through one's concerns with a trained therapist may be beneficial, even if employing other strategies to enhance well-being.

Maintaining mental health and well-being and dealing with mental illnesses in the face of challenging and stressful environments, such as those found in graduate education, is ultimately a matter of balance and maintaining perspective and putting the supports and tools in place to allow the student to succeed to the best of their ability. It is important to remember why we choose to engage in graduate studies and what benefit we hope to derive from it, but it is important to put that in perspective and not to sacrifice well-being, balance or the people and activities we enjoy in order to see that one goal to completion. Ensuring that the stigma around mental health continues to be reduced requires collaborative, open and early conversations around mental health could help decrease the stigma around disclosing.

Based on the student commentary from the National Graduate Experience Survey, we synthesized the major considerations that can influence mental health for graduate students with disabilities. These include the interface among disability, the academic environment and well-being. In all students with disabilities (inclusive of those without diagnosed mental health conditions), these are exacerbated by systemic barriers that are magnified by disability considerations (Figure 29).

*"There is so much that needs to be done in terms of protecting and assisting graduate students with mental illnesses as a disability and so little available. I was shocked that*

*the disability services worker I spoke to had never had to work with a student in my position (graduate school with mental illness) and that there were few existing "accommodations" available in their system. I have certainly received more support in regard to my studies from outside my institution (doctors) and from my supervisor than anywhere else. I only recently registered with the formal office and the accommodations they have instituted have already been ignored. I sincerely hope that it is better elsewhere in Canada."*

## RECOMMENDATION 11: DEVELOP MENTAL HEALTH SUPPORTS AND POLICIES FOR GRADUATE STUDENTS

Recognizing that mental health issues are of significant concern in the graduate education environment, we recommend the establishment of policies, practices and resources designed to support students with mental health disabilities. Specifically, we recommend that:

- a. Institutions develop policies and procedures to support exceptions for leaves of absence greater than the institutional standard for disability-related circumstances outside of the student's control;
- b. New faculty member orientations, as well as ongoing offerings through relevant university offices (e.g., centres for teaching and learning, faculty conferences, etc.), include training and resource materials around mental health, and the student-supervisor relationship;
- c. Institutions develop policies and procedures to foster open and up-front dialogue with students with respect to systemic and evolving issues that may contribute negatively to mental health disabilities in graduate education;
- d. Institutions establish a staff/faculty position with expertise in mental health and wellness to assist faculties of graduate studies, to work with academic units and departments to ensure that students with mental health disabilities are treated equitably across disciplines, and to ensure uniform application of relevant policies and practices;
- e. Institutions periodically review policies and practices surrounding mental health to ensure that they remain up-to-date with current relevant research findings;
- f. The creation of safe spaces in which people feel comfortable discussing mental health issues in recognition of the fact that students hold myriad responsibilities and encounter unique demands in graduate school that can have an impact on their mental health;

- g. The development of a toolkit for students with disabilities transitioning to graduate education, to educate them on issues relevant to disclosure of mental health in the graduate setting; and
- h. A follow-up effort addressing institutional best practices and resources around mental health in graduate education be established.

*“More research and attention is needed for students experiencing mental health issues in graduate studies and needing accommodations as a result. Approximately 5% of students have psychiatric disabilities, we are a significant portion of the population, but very little attention is paid to us in terms of our experience or accommodations that can be put in place for us.”*

## UNIVERSAL DESIGN PRINCIPLES IN GRADUATE EDUCATION

*“My graduate program was very accommodating for students with all types of learning needs – there were no midterms or exams, and professors, the registrar and field placement staff dealt with issues directly with me, without needing 'confirmation' and without being defensive and rigid. Professors were all very open to students completing work in alternative formats and with alternative timelines. This was VERY helpful to me, and saved me a lot of anxiety and time and going back-and-forth. It made me feel like an adult professional negotiating with other professionals, rather than a child or a burden on the system that caused problems and was not normal and was getting a 'free handout' (how I felt in my undergraduate program, and when having to access disability services.”*

## RATIONALE

This section will outline several principles that may serve as a benchmark when universally designing graduate education environments. The principles that will be discussed evolved from an examination of the perspectives of graduate students with disabilities regarding the factors that contributed to their success in graduate school. The principles that will be highlighted were also derived from our discussions with faculty, professionals working in student services and other stakeholders who assist graduate students with disabilities.

The principles to be discussed are as follows:

- a. Flexibility: relates to the capacity of a graduate education environment to respond to the diverse abilities and needs of students with disabilities
- b. Dynamism: focuses on the ability of graduate programs and environments to adapt to students' changing needs and circumstances, whether they be academic or personal in nature
- c. Collaboration: Stakeholders working together and communicating openly with one another to ensure that students are well-supported and their needs met
- d. Fostering positive relationships: relates to interactions between peers as well as to interactions between faculty and students
- e. Does not contravene academic rigor: pertains to the balance that must be achieved between meeting the needs of students without compromising the integrity of a graduate program or institution in doing so
- f. Encompasses the many faces of a graduate student: recognizes the ways in which graduate education is distinct from undergraduate education and takes into consideration the myriad responsibilities students adopt in graduate school as part of their education

## Overview

In graduate education, individualized accommodation (also known as personalized accommodation) of students with disabilities is the norm. This approach involves the provision of supports and services based on the abilities and needs of each person. While individualized accommodation may seem like the best practice, it is often costly, time-consuming (Pavri, 2010) and retroactive (Harrison, 2006). A lack of accommodation can then impact the learning and attainment of students who depend on supports and services to sustain their studies. Moreover, personalized accommodation relies on students disclosing their respective accommodation needs, typically through provision of a medical diagnosis of their disability(ies). Disclosure can be a difficult and complex decision for many students who fear the stigma attached to a label of disability. The dilemma surrounding disability disclosure can be particularly prominent at the graduate level, where competence and autonomy are not only highly regarded but also traits that graduate students are expected to possess (Council of Ontario Universities, n.d.). Students might be worried that disclosing a disability will lead to their being treated differently, or they may feel that disclosing is not necessary (American Psychological Association, 2009). The concern associated with disclosure may be heightened for graduate students with invisible disabilities compared to graduate students with visible disabilities because they have to choose whether or not they reveal their disabilities (Côté, 2009).

Universal Design (UD) is geared towards creating barrier-free environments for everyone. Consequently, it is often promoted as a panacea to the challenges of

individualized accommodation. UD is intended to ensure that products and environments are “usable by all people, to the greatest extent possible, without the need for adaptation or specialized design” (The Center for Universal Design, 1997). Derived from UD are Universal Design for Learning, also known as UDL (Rose & Meyer, 2002), which is focused on ways of displaying knowledge and skill acquisition; and, Universal Design of Instruction (UDI), which is described as “an approach to course design that seeks to create an appropriate learning environment for all students, including those with disabilities” (Shaw, 2011, p. 21). While research has been done on the benefits of UDL and UDI to undergraduate students, the meaning and impact of Universal Design in graduate education has yet to be considered beyond the traditional classroom setting. In order for Universal Design to be relevant, responsive and beneficial to graduate students with disabilities and all students more broadly, we must examine the principles of effective UD in graduate education. This paper will outline several principles that may serve as a benchmark when universally designing graduate education environments. The principles that will be discussed evolved from an examination of the perspectives of graduate students with disabilities regarding the factors that contributed to their success in graduate school. The principles that will be highlighted were also derived from our discussions with faculty, professionals working in student services, and other stakeholders who assist graduate students with disabilities. While the focus here is on graduate students with disabilities, it is vital to recognize that Universal Design can enhance the university experience for all graduate students, not only those with disabilities. It should also be noted that the Universal Design principles that we propose herein do not exist in tension with or supersede personalized accommodation. Instead, it is hoped that their identification will serve to facilitate enhanced supports for graduate students with disabilities.

## Flexibility

Flexibility relates to the capacity of a graduate education environment to respond to the diverse abilities and needs of students with disabilities. Personalized accommodation in graduate education, although intended to be specific to the individual, can in many instances consist of a limited repertoire of generic supports. These supports may be dependent on the availability of resources and make assumptions about the individual's needs based on what is traditionally provided to students with disabilities in other circumstances (e.g., undergraduate education), such as being afforded additional time to complete exams. On the other hand, Universal Design ensures that supports and services are embedded in the environment proactively, *before* students encounter struggles, potentially reducing the need for accommodation. In this way, a universally accessible graduate education environment will recognize that a student's program, needs and circumstances can evolve naturally, and not rely heavily on potentially ineffective, generic supports if and when challenges arise. Moreover, while the behaviours, needs and expectations of students may be similar in some respects, Universally Designed environments strive to encompass the diversity of program requirements that graduate students must meet and roles they must fulfil at the master's and PhD level.

## Dynamism

Individualized accommodations tend to be provided reactively (Morgan & Houghton, 2011). Additionally, the services and supports available to students can vary greatly in their quality and scope from one area and even campus to the next (Stodden & Conway, 2003). It is also important to note that some students' disabilities may be unpredictable in nature (Brown, 2008) with regard to the ways in which they affect students' health, learning, engagement and daily living. For example, a student may find it much harder to maintain consistent attendance in the winter than the summer months. Additional needs or challenges can emerge as students grow more immersed in their programs and/or students find that previously utilized modes of coping and management are ineffective. Some students could be impacted, either positively or negatively, if their disabilities are progressive in nature, the work in which they are engaged changes or advances (such as from taking courses to thesis writing) or new technology becomes available for use in their respective programs. McEwan and Downie (2013) suggest that students with mental health-related disabilities do not respond favourably to a self-advocacy based model of support.

## Collaboration

While individualized accommodation typically centres on discussion between a student and a disability support advisor, a Universally Designed approach might favour teamwork. This could consist of the student, his or her supervisor and professors, anyone whom the student wishes to bring in and anyone who needs to be involved on the individual's behalf. It is true that, particularly given the complexity of graduate programming, the engagement of multiple stakeholders may be more conducive to fully understanding the student's needs and determining how best to address them. As a result, Universally Designed graduate environments would be collaborative, continually evolving to meet the needs of students and their programs. This involves recognition of the fact that students' needs may vary depending on what is being asked of them at different points in time and how their personal circumstances develop and evolve.

## Fostering positive relationships

Although helpful, requesting personalized accommodations can cause students to feel stigmatized and sometimes isolated. These accommodations may also create barriers to the establishment of strong peer and faculty/student relationships. There is the potential for students with disabilities to feel isolated from peers because they require accommodations that other students do not. Faculty may also develop misconceptions of a student when accommodations are being provided (Burgstahler, 2003), before they have really had an opportunity to become acquainted with that individual's strengths and challenges beyond what is written on paper. A Universally Designed graduate education environment would cater to students' differences by allowing them to demonstrate learning and knowledge and participate in the environment in ways that align with their personal strengths. It would also ensure that they are naturally well supported without drawing unnecessary attention to their needs.



This may help students with disabilities feel more comfortable in social interactions and also free faculty to get to know students as unique individuals rather than their disability(ies).

#### Does not contravene academic or professional rigor

Academic rigor and professional competence are highlighted by higher education institutions as two of the cornerstones of high-quality graduate programs and schools (e.g., Ryerson University's Master of Professional Communication program). In principle, admissions criteria and program requirements are designed to safeguard academic and professional rigor. In practice, these strict admissions requirements may be a barrier to entry for many prospective students (some with disabilities) because their skills and experiences do not fit the traditional mould of what constitutes a capable student (Cross, 1981). Additionally, students who are admitted to programs may be stymied by rigid program requirements that do not take into account the difficulties they encounter in satisfying such requirements because of their disabilities. A Universally Designed graduate environment would maintain the academic and professional rigor of these programs but recognize that this can be demonstrated and fulfilled in different ways. Furthermore, UD could support graduate students with disabilities to satisfy program requirements by preserving the overarching competencies associated with these requirements but allowing students to tackle them in a way that reflects their different abilities and strengths.

#### Encompasses the many faces of a graduate student

The role of a graduate student is markedly different from that of an undergraduate. In spite of this, individualized accommodations typically focus on campus-based instruction, which involves assignment and exam-based forms of assessments. Depending on a graduate student's program, however, he or she may wish (or be required) to complete course and/or lab work; serve as a teaching assistant; undertake research; complete fieldwork or a practicum; and participate in professional development opportunities. Students may also engage in volunteerism or extra-curricular service, such as student associations or academic councils (which may consist of both on-campus and off-campus duties), in order to:

- a. Contribute to the betterment of their respective universities or the wider community;
- b. Augment their skills and knowledge base;
- c. Improve their preparedness for future employment; and
- d. Increase their competitiveness when applying for research grants and scholarships.

Additionally, students at the PhD level must take and pass a candidacy exam before they are permitted to conduct their thesis research, a stipulation that does not exist at any other level. It is also necessary to recognize that being a graduate student often involves travelling for conferences and presentations. Consequently, a Universally Designed environment would be multi-faceted, with people being able to take advantage of supports and services that are embedded within the various areas that comprise their programs and lives as graduate students. This would allow graduate students with disabilities the level of flexibility they need to be successful without having to compromise their responsibilities, quality of life or personal standards of achievement.

## Summary

Although complex, it is crucial that we consider the nature of Universal Design in graduate education when designing courses, determining program requirements, recruiting students, and designing supports and services. Traditional modes of accommodation, while well intentioned, are insufficient to fully meet the needs of graduate students with disabilities. In this way, the purpose of Universally Designed graduate environments is neither to ignore nor to force disclosure of differences. On the contrary, its goal is to foster an overall culture in which students feel comfortable disclosing their differences, if they wish to do so, without fear of recrimination or misjudgement. It must also be stressed that Universal Design does not preclude the provision of individualized accommodation if needed. In fact, individualized accommodations may still exist even with environments being Universally Designed in circumstances where they better equip students to complete their degrees. Thus, in order to be successful, the development of Universally Designed graduate education environments must be multi-layered, paralleling the nuances of graduate student life.

Finally, it is clear that for Universally Designed graduate education environments to truly be universal, they must not only be usable by all students but also serve as the product of continuous, collaboratively-oriented, in-depth discussion and debate between all graduate education stakeholders. While certainly challenging to implement, this kind of teamwork highlights not only the position of students in graduate school but also the value and importance of voices in graduate education coming together to fuel positive change at the level of policy and practice.

*“They don’t label me as a disabled student and isolate me from the rest of the class, which is nice. I go there to learn, and they appreciate what I have to contribute to lectures and discussions.”*

*“Most of the faculty is very understanding and respectful. There are a few professors that have been very intimidating about this and I have not felt comfortable expressing my challenges with them because of this.”*

*“The faculty members do not seem to respect my needs. They state that because*

*'things' are ok for all the other students they see no problems and these 'things' they should be fine for me too. I understand I am the only student in my department who has disabilities."*

## RECOMMENDATION 12: ENCOURAGE UNIVERSAL DESIGN IN GRADUATE EDUCATION

Recognizing the inherent personalization of graduate programming and the challenges around defining universal design principles for graduate education, we recommend the adoption of a set of consensus “success factor” principles arising from Universal Design concepts to foster the enhancement of the graduate student experience for not only students with disabilities on campus, but for all students. Specifically, we recommend that:

- a. Principles of program design be adopted that incorporate flexibility and clarity around essential requirements, so that students can demonstrate mastery of essential requirements to the extent needed, but in a way that reflects their strengths; and
- b. Policies and procedures be developed to foster collaboration/communication between stakeholders (e.g., students, faculty, DSOs, etc.) so that students are well-supported to manage any challenges that may arise over the course of their studies, whether related to a disability or other personal circumstances.

## STUDENT NARRATIVES

### RATIONALE

Campaigns around accessibility, which have been run by postsecondary campuses and other agencies, have often focused on highlighting students with disabilities specifically, in the context of their accomplishments. However, they do not often place those students in the context of their peers or cohort. While these types of campaigns call significant attention to issues of accessibility and disability, they can do so by inadvertently projecting a “student as hero” trope. This interpretation can have negative repercussions within the general population and within the disability community

at large, as they can lead to a misperception of the highlighted students as “super people.”

It is, however, worthwhile to note that in the foreseeable future, as students with disabilities continue to be under-represented in many disciplines at the graduate level – indeed, as many students with disabilities are in the position of being “trailblazers” (first in their fields) –it remains important to provide a commentary on these students’ successes in order to alleviate or eliminate the barriers preventing other students with disabilities from engaging in those disciplines. It is especially important, however, to recognize that the accomplishments of these students ought to be highlighted in the context of and alongside those of their peers.

To highlight the achievements of graduate students is fundamental to ensuring that students from all backgrounds are well-represented in graduate school. By identifying accomplishments both academic and extracurricular, institutions serve not only to celebrate their students but also to illuminate the diversity that exists on higher education campuses across Canada. This may in turn foster a stronger sense of community within institutions by encouraging greater respect for differences concurrently with appreciation of similarities. It is with this in mind that we recommend that institutions and national associations incorporate people with disabilities as well as people without disabilities into their campaigns spotlighting student achievement. The purpose of adopting such an approach is to recognize the valuable contributions that graduate students with disabilities make to academia and the broader community while also emphasizing the necessity of inclusion. Moreover, we must stress the importance of ensuring balance by refraining from the creation of disability-specific promotional campaigns that may be counterintuitive, segregating graduate students with disabilities from their peers without disabilities. It is hoped that by including more students with disabilities in their promotional campaigns, institutions and national associations can help to increase representation of graduate students with disabilities via the recognition of their current presence in graduate school and the demonstration of what is possible when students’ needs are met fully.

*“Sometimes it’s difficult to have to engage in self-advocacy all of the time. It would be nice to have peer support on campus.”*

*“...graduate school culture seems to presume the absence of disability-related issues among its members.”*

*“I wish my Department had more training on how to deal with invisible/learning disabilities.”*

## RECOMMENDATION 13: RECOGNIZE STUDENT SUCCESS

Recognizing the value of highlighting academic achievements of students with disabilities in sensitive and appropriate ways, we recommend that institutions and relevant national associations consider methods by which their promotional campaigns around academic achievements in graduate studies may be designed to be inclusive of and enhance participation and success of students with disabilities.

### THE POSTDOCTORATE AS A FUTURE DIRECTION FOR GRADUATE STUDENTS WITH DISABILITIES

#### RATIONALE

Many graduate students – particularly those contemplating the academic route – will move from their PhDs into roles as postdoctoral scholars. While the postdoctoral training environment in many disciplines shares similarities with that of doctoral education, there are several crucial systemic differences, the most notable of these being the status of the postdoctoral scholar as a non-student trainee. Postdoctoral scholars are retained by individual supervisors and are often paid out of supervisors' grants or from fellowship awards that they succeed in winning. Postdoctoral scholars do not pay tuition and are thus not students, making them ineligible to access most if not all student services on campus. In the context of disability, these differences become crucial in forming barriers to entry and/or participation in the postdoctorate.

The questions of “who pays” and “who provides” when applied to the issue of disability accommodations for postdoctoral scholars with disabilities are essential. Postdoctoral scholars are not eligible to access financial aid programs for students and cannot avail themselves of the disability services offices on campus. Unless classified as employees by the institution – which is not guaranteed across the higher education landscape – postdoctoral scholars are unable to access the support systems put in place for employees with disabilities. Finally, individual supervisors, absent creative and flexible long-term planning, may be unable or unwilling to cover accommodation costs through research grants, particularly if it is perceived that they are expensive and their limited resources could be best deployed in other areas to greater effect.

Taken together, these issues form a barrier that may seem impenetrable to graduate students with disabilities attempting to find a postdoctoral appointment and navigate this transition, and can add significant stress at a point when the student is better served preparing for their thesis and final oral examination. These issues may also explain the significant drop off in the estimated population of postdoctoral scholars with disabilities. In our research, we sought to evaluate the incidence of disability-related concerns identified to postdoctoral training offices across the United States and Canada, as a proxy for estimating the demographics of the population of postdoctoral scholars with disabilities. Our efforts yielded very few returns, as postdoctoral training offices were generally unaware of any disability-related issues – and those issues that

did come to their attention were associated with stress, wellness and mental health, in the absence of a pre-existing diagnosis. Thus, while we identified mental health first aid and mental wellbeing resources as being important to deliver to postdoctoral scholars and postdoctoral training offices, we could not identify a defined population of postdoctoral scholars with disabilities.

It should be noted that there are a small number of success stories of postdoctoral scholars with disabilities who have merited profiles in various professional society and higher education venues. These success stories can be used to gain a sense of what can be done today to foster access to and participation in the postdoctorate for graduate students with disabilities who are seeking to pursue this option. Indeed, the discussion points raised by this report, in the context of the student-supervisor relationship, disclosure, essential requirements, alternative format provision, and the accommodation framework in particular, are significant and relevant to the postdoctoral training experience, as are the challenges identified around systematic provision of accommodations funding through granting mechanisms.

Solutions to these issues are both systemic and local, both strategic and granular. Making the appropriate resources around mentorship of persons with disabilities and accommodation available to researchers seeking to accept postdoctoral scholars as part of their research groups, for example, is synonymous with our recommendation to provide the same resources to graduate faculty, and can be accomplished conjointly. Likewise, providing transition planning resources to graduate students with disabilities considering the postdoctorate is straightforward in the context of the implementation of the recommendations contained in this report. Engaging the higher education landscape and the granting agencies in discussions around eliminating accommodations funding barriers for postdoctoral scholars is more challenging, particularly in the current absence of hard data around cost projections, return on investment, and outcomes for postdoctoral scholars with disabilities.

## RECOMMENDATION 14: REMOVE BARRIERS TO THE POSTDOCTORAL EXPERIENCE FOR PERSONS WITH DISABILITIES

Recognizing the significant extant barriers against accessing and participating in the postdoctoral training environment for graduate students with disabilities seeking to pursue further training, we recommend that appropriate steps be undertaken at the institutional, organizational and national levels to identify and implement solutions that would enhance access to and participation in the postdoctorate for persons with disabilities. Building on the recommendations contained elsewhere in this report, we specifically recommend that:

- a. A dedicated equipment/infrastructure accommodation fund be established by granting agencies for graduate students and early-career researchers working in laboratory environments; and
- b. The granting agencies establish mechanisms for disability accommodations funding (including human resources assistance and alternative format provision/access) that can be applied for on a needs basis, and arise from a separate funding stream than operations grants, or discretionary or research allowance funding sources.
- c. Federal granting agencies, as well as fellowship granting charitable foundations, examine funding and application policies and practices to ensure accessibility for graduate students, postdoctoral fellows and faculty with disabilities, including demographic collection methods, application accessibility, equity of information provision, availability of dedicated accommodation funding, and policies around research load, time to completion and leaves.
- d. New faculty member orientations, as well as ongoing offerings through relevant university offices (e.g., centres for teaching and learning, faculty conferences, etc.), include training and resource materials around the postdoctorate, disability, and the postdoctoral scholar-supervisor relationship;
- e. Guidelines be provided to supervisors to help them identify the essential requirements for trainees successfully conducting research in their research environment;
- f. Guidelines for postdoctoral scholars and supervisors, patterned after best practices in other contexts, be developed for framing ongoing conversations around the interaction of disability and the postdoctoral training environment;
- g. Institutions, higher education administrators and graduate faculty be provided with resources around the impact of disability and accommodation issues on the student-supervisor relationship in postdoctoral training;
- h. Essential requirements for trainees be inclusive of accommodation-related needs of students with disabilities;
- i. A faculty guide on essential requirements in the context of disability be developed and shared;
- j. Creativity, flexibility and cooperation among the postdoctoral scholar, faculty, and supervisor(s) be fostered to better enable access to accommodations in the context of essential requirements;
- k. New faculty member orientations, as well as ongoing offerings through relevant university offices (e.g., centres for teaching and learning, faculty conferences,

etc.), include training and resource materials around mental health, and the postdoctoral scholar-supervisor relationship; and

- I. Institutions establish a staff/faculty position with expertise in mental health and wellness to assist postdoctoral training offices, to work with academic units and departments to ensure that postdoctoral scholars with mental health disabilities are treated equitably across disciplines, and to ensure uniform application of relevant policies and practices.