LITERATURE REVIEW

In order to gain an understanding of the existing knowledge about the barriers faced by students with disabilities in graduate education, we conducted a comprehensive review of literature written since 1990 using the following databases: Education Source ERIC and CBCA education CINAHL database, PsycINFO, and PubMed. The keywords included graduate education; higher education; students with disabilities; barriers; accessibility; obstacles; and disability landscape. Our search yielded 23 articles from both grey literature (including government reports, educational reports, and non-governmental reports) and peer-reviewed articles. In the following paragraphs, we summarize findings from the literature review.

There are multiple barriers for students attending graduate education; these barriers are increased and exacerbated for students who have a disability (Teichman, 2010). Students with disabilities encounter obstacles throughout the course of their education. These range from the negative attitudes of educators, to accessing material, to financial constraints. While these barriers continue to exist at the graduate level, there are unique and distinct challenges that exist for students with disabilities pursuing graduate work (Teichman, 2010). In this literature review, we will discuss the current knowledge on unique barriers to graduate education faced by students with disabilities.

We conducted a comprehensive review of the grey and academic literature in order to gain an understanding of the barriers faced by students with disabilities in graduate education. The literature that does exist is limited in scope, and much of the literature is made up of autoethnographic individualized accounts of graduate education based on a specific disability type (Teichman, 2010; Perez, 2013). Most available literature focuses on undergraduate/college or professional program accommodations and student experience. This review elicited a minimal pool of literature (especially international literature) from which to draw meaningful and useful conclusions. The paucity of research on barriers and facilitators to completing graduate work for students with disabilities highlights the critical need to develop a comprehensive research project aimed at educating faculty and service providers.

*Barriers to Graduate Education*

Universities report dramatic increases in the number of requests for accommodation by graduate students with disabilities and in the complexity of the accommodation issues needing to be addressed (Rose, 2010). The range of requests has broadened, from disabilities that are visible (e.g., visual impairments, physical disabilities) to those that are invisible (e.g., mental health and learning disabilities). Many of the latter are particularly challenging in terms of accommodation, because they tend to be situational, intermittent or recurrent, requiring different strategies at different phases as the student moves through his or her program of study (Rose, 2010). As well, significant disabilities that have been accommodated at the undergraduate level may need to continue to be addressed at the graduate level, but using different methods of accommodation, given the complex nature of graduate education (Rose, 2010).

*Accessibility of Materials*

Graduate education requires students to independently conduct and synthesize research. One of the systematic challenges for students with perceptual disabilities is how to retrieve this information when so many of the resources are not readily available in an accessible format. An accessible format requires that printed material be converted into an electronic format to be read with screen-reading software. According to Pérez (2013), the biggest problem faced by graduate students with perceptual disabilities was gaining access to the reading materials required for coursework. Graduate students often are required to rely on volunteer and paid readers to convert the print information into an accessible format. This process is time-intensive and can result in additional expenses for the student that are not covered by the institution (Pérez, 2013). Although students with perceptual disabilities face barriers to accessing information at the undergraduate level, these barriers are exacerbated at the graduate level as there is an increased expectation to complete independent research using multiple sources of information (e.g., books in a printed format, journal articles that are not available electronically, archived material, etc.). Review and synthesis of materials in an inaccessible format may be necessary for the research methodology the student has chosen.

*Attitudinal Barriers*

Joshi (2006) interviewed 19 graduate students with visual disabilities who were enrolled in or had recently completed clinical psychology or master’s-level counseling programs. Participants were asked about their experiences with the admissions process, internships and practice, and access to classroom materials. Professors who possessed negative attitudes towards accommodating a student with a disability were identified as a significant barrier. Students also referred to prejudicial attitudes from clinical supervisors for their practicum placements and internships. For their part, students considered peers a positive part of their lives. They felt that peers were helpful both with class work and with lessening their feelings of social isolation. Many of the participants in this study wished to have more disability awareness activities implemented in the graduate program curriculum to address the attitudinal barriers they had encountered. Though Joshi (2006) described attitudinal barriers in the context of graduate students with vision loss, these barriers are experienced cross-disability (COU, 2013), thus the applicability to the current study.

*Financial Barriers*

Sukhai, Bolton and Chambers (2013) reviewed the impact of educational debt and financial barriers for students with disabilities in Ontario post-secondary institutions. This study was designed using a multi-method approach. A review of the relevant literature provided a baseline from which to conduct initial key informant interviews with students with disabilities across Canada. The analyses of the data from the key informant interviews informed the construction of an online survey that was administered to a sample of students with disabilities in Canadian post-secondary institutions.

Federal and provincial governments have developed several programs (student loans, grants, scholarships) to address the financial needs of Canadian students. Despite these efforts, students with disabilities continue to experience significant financial barriers when attending post-secondary education (Sukhai, Bolton & Chambers, 2013). Many of the expenses students with disabilities accrue come from costly accommodations, testing to diagnose a disability, and assistive technology. The student whose funding is not enough to cover the costs associated with their disability and is unsuccessful at acquiring scholarships and does not work part-time may only have access to student loans as an option to cover these expenses. Students with disabilities are often thought to take reduced course loads in order to meet the needs of their accommodation plan, depending on their level of study ([Brinckerhoff](http://ldx.sagepub.com/search?author1=Loring+C.+Brinckerhoff&sortspec=date&submit=Submit), 1992). This extended enrollment period forces students to incur greater debt. Given their extended enrollment time and their limited access to work opportunities, it is not surprising that students’ concerns about incurring significant debt are exacerbated (Sukhai, Bolton & Chambers, 2013).

*General Conclusions*

The literature is limited in scope, and much of it is made up of autoethnographic individual accounts of graduate education based on a specific disability type (Teichman, 2010; Perez, 2013). Most available literature focuses on undergraduate/college or professional program accommodations and student experience. Our review revealed only a minimal pool of literature (especially international literature) from which to draw meaningful and useful conclusions. This paucity of research on barriers and facilitators to completing graduate work for students with disabilities highlights the critical need to develop research to provide more information to faculty and service providers working with students with disabilities.

# PROJECT GOAL

The overall goal of this initiative was: 1) to evaluate the current landscape of barriers and issues faced by graduate students with disabilities in Canada, in the context of the past 20 years’ advancements in accessibility legislation, pedagogy, disability accommodation and technology; and 2) to present a series of recommendations aimed at enhancing the success of graduate students with disabilities in Canada.

# SPECIFIC OBJECTIVES

This project had a number of specific objectives:

1. To examine the experiences of and barriers faced by graduate students with disabilities across Canada;
2. To develop a series of discussion papers outlining the current systemic issues faced by graduate students with disabilities;
3. To produce information and develop strategies to facilitate the success of students with disabilities in graduate programs;
4. To develop recommendations for the continued improvement of graduate experience for students with disabilities that can be translated into policy at an institutional, provincial or national level; and
5. To develop “tool-based” approaches for students, faculty and institutions to use in addressing issues faced by graduate students with disabilities.