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Literature Review:

Best and Emerging Practices in Bridging Programs for Internationally Trained Individuals Seeking Professional Registration in Canada

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Acronyms and Abbreviations

Action Plan	An Action Plan for Better Foreign Qualification Recognition
CLB	Canadian Language Benchmark
ESDC	Employment and Social Development Canada
FLMM	Forum of Labour Market Ministers
FQR	Foreign Qualification Recognition
Framework	A Pan-Canadian Framework for the Assessment and Recognition of Foreign Qualifications
IEMLT	Internationally Educated Medical Laboratory Technicians
IEN	Internationally Educated Nurses
IPG	International Pharmacy Graduate
ITI	Internationally Trained Individual
MLT	Medical Laboratory Technologists
MQRWG	Mobility and Qualification Recognition Working Group (formerly FQRWG)
PLAR	Prior Learning Assessment and Recognition
ROI	Return on Investment

Executive Summary

While Canada has a strong record of successfully attracting highly skilled immigrants, many experience challenges to fully using their education, training and skills, as evidenced by studies on lost earnings (Watt and Bloom, 2001), unemployment (Picot and Hou, 2003) and underemployment rates (Reitz, 2001). For those in regulated occupations, the challenges to obtaining employment in their profession may be more acute than for those in non-regulated occupations because the foreign credential recognition process is complex.

The majority of regulated occupations fall under the authority of provinces and territories, who often delegate oversight to non-governmental bodies through legislation. The role of regulators is generally to protect the public by ensuring that individuals have the necessary education, training, skills, and experience to work in the occupation for which they are certified or licensed. Internationally trained individuals often require further education, training or experience to meet Canadian standards in the profession, depending on the country they come from as well as the regulated occupation they are seeking to be certified or licensed in.

To improve outcomes for immigrants, and so that employers can gain greater access to skilled workers, many jurisdictions have invested in bridging programs, which seek to address the education, training or skill differences between the newcomers' home country requirements in the regulated occupation and Canada's. Bridging programs provide resources and training that assist internationally trained individuals to meet entry standards in a regulated occupation.

This literature review and its accompanying reference tool were developed to inform current and prospective bridging program providers on the best and emerging practices in the field. As a relatively new area, studies are limited on the connection between the design of a program and its outcome. However, the commonalities among findings presented in the literature point to features of bridging programs that have been associated with success. Of the 40 articles dated between 2010 and 2018 that have been cited, common agreement was found on many of the recommended practices and challenges when creating a bridging program.

The analysis of the articles reviewed is structured into three themes: 1) assessment practices prior to admission to the bridging program; 2) program components offered during the program; and 3) considerations for the development and delivery of bridging programs. Best and emerging practices are identified in each of the three themes.

Under the first theme, it is clear from the literature reviewed that an assessment of the individual prior to admission is of paramount importance. Comprehensive and individualized assessments were a common theme that included a range of considerations when assessing an individual.

While an assessment can focus on the training, skills and language gaps an individual may have, it was also recommended that financial and family supports be considered to properly determine in advance not just the needs of the individual, but his or her likelihood to succeed.

Under the second theme, the common program components associated with success included providing an orientation for the participants, such as developing individualized learning plans; providing mentorship, networking and other supports; offering occupation-specific language training; including a section on soft skills development; providing Canadian work experience; and offering academic courses where needed and assisting in exam preparation and career planning.

Under the third theme, considerations for the development and delivery of bridging program range from ensuring stakeholder input is sought to providing flexible, client-centred delivery. Sustainable funding should also be considered. And lastly, robust program evaluation of processes and outcomes was also identified as a best practice, although not without practical challenges. At a minimum, it is recommended that measures should include licensure and employment rates, as well as how well the program addressed client needs.

The best and emerging practices identified in the literature supported the development of the Bridging Program Practices Tool, which provides a quick reference to guide the design of a bridging program.

Lastly, the Annex of this report includes future areas of interest identified in the literature that could serve to improve bridging programs and develop a greater understanding of best practices, including:

▶ Increasing collaboration on the evaluation of program components and delivery format;

▶ Improving clarity on partnership roles and potentially expanding them;

▶ Conducting more analysis of the business case for program investment;

▶ Conducting more research and reporting in non-health occupations; and,

▶ Strengthening reporting on program outcomes.

Working Definitions

I. Best and Emerging Practices

The literature reviewed includes various uses and meanings of the term "best practices." Duncan (2008) and Neiterman et al (2018) included the term "best practices" in the titles of their papers, and Austin and Dean (2006) and Morrill (2018) included "best practices" in the abstracts of their works. Still others use the term in the body of their texts. As is often the case with general terms, while there seems to be a general understanding and common uses, there is not a single, formal definition that has been put forward.

Based on the criteria for evaluating success that are set out by Sattler et al (2015), the following working definitions were used for the purposes of this literature review and tool.

Best Practice

Best practices demonstrate successful, measurable bridging program outcomes, such as improvements on credential assessments, exam results, licensure rates, and employment rates.

Emerging Practice

Emerging practices show promise for becoming best practices but have not yet been validated by measurable outcomes.

II. Bridging Programs

As with best practices, the term "bridging programs" has varied meanings in the literature. A relatively recent term, formal recognition of "bridging programs" started in the year 2000 (Austin, 2007).

Several articles characterized bridging programs in the context of international trained individuals (ITIs) seeking licensure in regulated occupations. Some examples include:

Bridging programs are a great way to help qualified immigrants move more quickly into their professions without duplicating what they have already learned. Bridging can include clinical or workplace experience, skills training, academic upgrading, examination preparation, language training and other individual supports (Noorani, 2015).

Bridging programs … have been recommended as the best means to help newcomer professionals address gaps identified through professional assessment processes…. a program specifically designed to meet the educational needs of professionals educated in other countries (Grant, 2009).

Bridging programs help facilitate the recognition of existing educational credentials and skills, as well as build further skills required for employment in Canada (Parkouda, Beeksma and Kwansah, 2015).
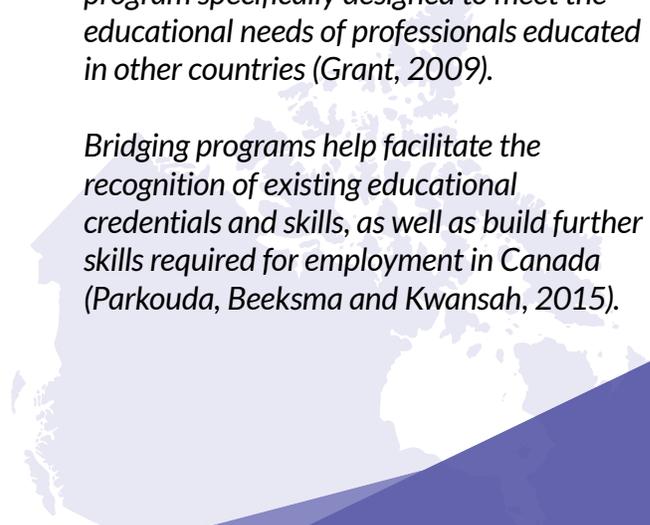
The purpose of bridge programs is to provide the academic and practical skills and competencies, language and work experience to bring individuals to licensure or employment (Switzer-McIntyre, Bonnyman and Quesnel, 2015).

For the purpose of this work, and to facilitate a common understanding, the following working definition will be used:

Bridging
A term associated with addressing differences in training that may exist from one system of education and practice to another

Bridging Program
In this context, bridging programs provide resources and training that assist ITIs to meet entry standards in a regulated occupation.

Any deviations from the working definitions provided here will be noted in the text.

Methodology

Queries for the time period 2009 – 2019 on bridging programs or gap training or bridging education, and foreign or internationally educated were undertaken on the following six data bases: CINAHL Complete, EconLit, Education Source, ERIC, MEDLINE and Web of Science. Both Google Scholar and Google were also searched.

Since bridging programs are a relatively recent activity over the last 20 years, it is not surprising that the number of published works is somewhat limited. Out of the 102 articles identified and reviewed, 40 have been assessed as relevant to the topic of best and emerging practices in bridging programs. They are cited and details are available in the Bibliography.

The most relevant findings that address our research objective to summarize best and emerging practices in bridging program design are found in two recent papers that evaluated seven health bridging programs (Sattler et al, 2015 and Neiterman et al, 2018). Both publications addressed the same questions:

1. What are the outcomes of effective bridging programs and how can they be measured?

2. What are the key features that contribute to bridging program effectiveness?

3. What challenges do bridging programs face in achieving their goals?

4. What is the appropriate role of regulatory colleges, government, employers, and professional associations in ensuring bridging program effectiveness?

The perspectives of program participants and alumni, as well as key stakeholders including instructors, employers and regulators, were evaluated in both publications. Because the findings are unique to bridging programs for five health occupations, it is not known whether the results apply to bridging programs for other occupations.

Introduction

While Canada has a strong record of successfully attracting highly skilled immigrants, many experience challenges to fully using their education, training and skills, as evidenced by studies on lost earnings (Watt and Bloom, 2001), unemployment (Picot and Hou, 2003) and underemployment rates (Reitz, 2001). For those in regulated occupations, the challenges may be more acute to obtain employment in their profession compared to those in non-regulated occupations. This is because the foreign credential recognition process is complex. Credential recognition is, for the majority of occupations, a provincial and territorial responsibility, further delegated to professional regulatory authorities. In each jurisdiction, regulatory authorities have the primary responsibility for establishing education, training and licensing standards in the interest of public health and safety.

To improve outcomes for immigrants, and so that employers can gain full access to their skills, many jurisdictions have invested in bridging programs, which seek to address the education and/or skill differences between the newcomers' home country requirements in the regulated occupation and Canada's. Investments have been significant, for example, in Ontario alone, more than $240 million was spent on bridging programs for 50,000 internationally trained individuals (ITIs) between 2003 and 2013 (Government of Ontario, 2013).

This literature review is intended to support those seeking to design or restructure a bridging program. Although bridging programs are relatively new, valuable research has been conducted that looks at challenges and also points to features of bridging programs that result in positive outcomes. Citing 40 articles from the last 20 years, this review provides an overview of current literature and research on bridging programs and identifies some themes, challenges, as well as best and emerging practices in the design of bridging programs.

Bridging programs are a step along the pathway an internationally trained individual takes while seeking recognition of his or her foreign credentials in a regulated occupation. In 2009, the Forum of Labour Market Ministers (FLMM) launched A Pan-Canadian Framework for the Assessment and Recognition of Foreign Qualifications (Framework). This Framework represents a joint commitment by federal, provincial and territorial governments to work together to improve the foreign qualification recognition assessment and recognition systems in Canada. The Framework commits to principles of fairness, transparency, timeliness and consistency. In 2014, bridging was also identified as the priority area of the Forum of Labour Market Ministers' An Action Plan for Better Foreign Qualification Recognition (Action Plan), a companion piece to the Framework. This literature review, as well as the accompanying Bridging Program Practices Tool, supports this priority area[1].

[1] The Québec government has not endorsed A Pan-Canadian Framework for the Assessment and Recognition of Foreign Qualifications, but it supports its principles and collaborates with other governments on FQR.

Based on this review, a Bridging Program Practices Tool has been developed as a checklist of emerging and best practices in bridging program design that can be used to develop future bridging programs or assess current ones.

Findings

I.   Bridging Program Participant Assessment Practices

i.   The Importance of Assessing the Individual

As much as possible, a bridging program should be designed to recognize the knowledge and skills that ITIs have acquired. The bridging program itself should ideally fill gaps in knowledge and skills where they are identified through an assessment against entry-to-practice standards. As such, it is important to develop an initial assessment process that will identify any missing skills, knowledge or competencies required to practice the profession. This assessment supports the development of modularized and customized content for the ITI's learning needs and minimizes repetition of prior learning. Below is a synopsis of authors' views regarding the importance of assessing an ITI before the start of the bridging program.

▶ According to Duncan (2008), a great deal of the success of any bridging program depends on the individual and accurate assessment of its participants. Austin and Dean (2006) concluded it is important to develop an objective and standardized assessment in order to understand each individual's learning needs and to customize interventions.

▶ Austin and Croteau (2006) discussed the importance of a robust needs assessment prior to deciding on program content and delivery to ensure participant needs are met. Neiterman et al (2018) also identified delivering tailored content based on each individual's prior learning assessment to be an important component of bridging education.

▶ Sattler et al (2015) suggested pre-admission assessments are important to determine individual needs and also to ensure there are resources to address these needs. They further suggest that the assessment process should occur throughout the bridging program to provide students with regular feedback. Others have described this as ongoing evaluation which will be discussed in the Program and Participant Evaluation section.

▶ Austin (2007) recommends bridging educators develop policies on admission practices and suggests topics include language, exam, credential, and pre-bridging training requirements. A formal admissions committee is recommended when there is a need to consider exceptional circumstances. This is consistent with Neiterman et al (2018) who found "most bridging programs include an assessment of newcomers' education, training in profession-specific language, clinical, and workplace skills, and certification examination readiness."

- A comprehensive assessment program should also clearly document entry-to-practice competencies against which participants are assessed (Friesen, 2013). The assessment will highlight any differences between the candidate's knowledge and skills and Canadian entry-to-practice standards (Friesen, 2013). An accurate assessment not only prevents the candidate from unnecessarily repeating education or practical experiences, it also ensures that occupational standards are competently and safely met (Stonebridge, 2012).

- According to Morrill (2012) it is important to identify the candidates who are most likely to succeed in the bridging program because programs are often quite concentrated to speed the candidates' entry into the job market, which makes them very demanding and stressful. Morrill (2018) also raised the importance of assessing whether individuals had sufficient family support prior to being admitted into a bridging program. They undertook a survey of applicants' childcare and financial responsibilities and measured family members support for their participation in the program.

ii. Participant Assessment Methods

Because bridging programs provide resources and training that assist ITIs to meet entry standards in a regulated occupation, many successful bridging programs leverage the regulatory body's original assessment of the ITI. A regulator's initial assessment typically involves a verification of all educational credentials and also often involves an assessment of prior professional experience. The literature recommends leveraging the regulatory body's assessment as well as using prior learning

assessment and recognition and competency-based assessments as possible tools/supports for the assessment process.

Leveraging the Regulatory Body's Assessment

- Several bridging programs used the regulatory bodies' assessment results to determine the individualized learning needs of the bridging program participants (Stonebridge 2012, Morrill 2012, Neiterman et al 2015, Johnson 2015 and Austin and Croteau 2007).

- Professional regulators typically assess three qualities to determine the degree to which licensing requirements have been met: credentials, language proficiency, and professional competence (Neiterman et al, 2018).

- Morrill (2012) highlighted the value of working with the regulatory body to design bridging program assessments.

- The CARE program for Internationally Educated Nurses (IENs)in Ontario uses the regulatory body assessment results and then creates a customized plan of action for each participant based on their unique needs (Stonebridge, 2012).

Using Prior Learning Assessment and Recognition

Prior Learning Assessment and Recognition (PLAR) is an assessment method designed to create a safe and comfortable environment to accurately assess the full range of a candidate's

occupational skills and abilities. PLAR allows individuals to document or have assessed prior learning that may have been formal, informal, or experiential. The Canadian Association for Prior Learning Assessment indicates that PLAR tools can include challenge exams, demonstrations, structured interviews, simulations, or portfolios. According to Duncan, (2008) PLAR is an effective bridging assessment tool because it helps bridging program operators understand the needs of their participants.

In a review of seven health bridging programs in Ontario (Neiterman et al, 2018), all programs required that applicants had gone through a regulatory body PLAR process. All of the bridging programs also used other assessment processes in addition to PLAR. These measures identified the areas where the candidate's training and knowledge needed to be adapted to the Canadian context.

Using Competency-Based Assessment

As part of testing methods to economize on resources but maintain positive outcomes for ITIs, Switzer-McIntyre, Norton, Millette and Martin (2015) evaluated a competency-based admission assessment. The competency-based assessment process they evaluated incorporated a content knowledge examination, an objective structured clinical examination, a series of short interview stations, and a written self-reflection. Results indicated that high scores on this assessment process were linked with overall success for applicants. However, given the length of time between the admission process and the end of the licensure process, a sound correlation could not be drawn.

iii. Language Proficiency Requirements for Bridging Program

It is important that applicants best prepared for the bridging program are selected. Language proficiency is an important consideration when assessing the preparedness of an applicant. While applicants need not be completely fluent, advanced fluency is generally considered to be necessary for success.

▶ A common feature of successful bridging programs requires participants to speak English or French at a competent functional level (Duncan 2008; Austin and Dean, 2006).

▶ Duncan (2008) suggested general language training is not appropriate because it can complicate the implementation of bridging programs since participants will present with many levels of language competence.

▶ According to Austin (2007), general language training should precede bridging education so participants can fully engage in the occupation-specific content. He found that in order to achieve a sustainable and meaningful improvement of one Canadian Language Benchmark level in any domain, at least 18-24 weeks of time is required. Therefore, the length of time it takes candidates to meet bridging program language requirements can be significant.

► Three pilot programs discussed in the literature refer to the importance of setting language proficiency requirements as a prerequisite for the bridging program (College of Dietitians of Alberta and University of Alberta, 2014; Lordly, Guy, Barry and Garus, 2014; and Austin and Dean, 2006).

► Austin and Dean (2006) reported that assessment processes for a bridging program for international pharmacy graduates were modified so that candidates were required to meet a minimum language level prior to undertaking their knowledge assessment. This change was based on an analysis of the assessment results from previous cohorts which identified a correlation between language assessment results and knowledge assessment results.

► In another study, learners entered the pilot program at various stages of language competence (Lordly, Guy, Barry and Garus, 2014). The two candidates who were not assessed for language skills were more challenged by the course content and required more significant facilitator support than those with higher language skills. Although the authors realized this is an area for further research, a decision was made to introduce minimum language scores as a prerequisite for future bridging programs.

► Friesen (2009) recommended setting the language requirement for a bridging program at the same level as the language requirement of the educational institution. This is because the ITIs experienced difficulties if their language capacity was lower than what was required to study at the institution.

► Both Friesen (2009) and Lordly, Guy, Barry and Garus (2014) raised the importance of informing candidates that the regulatory body may have different language requirements than those required for the bridging program.

Language Assessment Methods

Though written early in the history of bridging programs, Austin (2007) notes there is no consensus on language assessments for bridging programs. He suggested there are conflicting opinions among regulators regarding the use of standardized tests. Some advocate for standardized language tests because of their objectivity and wide use. Others are critical of standardized tests because they are expensive and do not test occupation-specific language. When considering tests of language level for bridging programs, Morrill (2018) suggested using a measure that tests the four skills: speaking, listening, reading, and writing using the Canadian Language Benchmark (CLB) test. The CLB standard is a descriptive scale of language ability in English as a Second Language that has 12 benchmarks or reference points along a continuum from basic to advanced. Austin (2007) and Duncan (2008) noted that there is a widespread use of the CLB System in bridging education settings. Other language proficiency assessments that test the four language dimensions include:
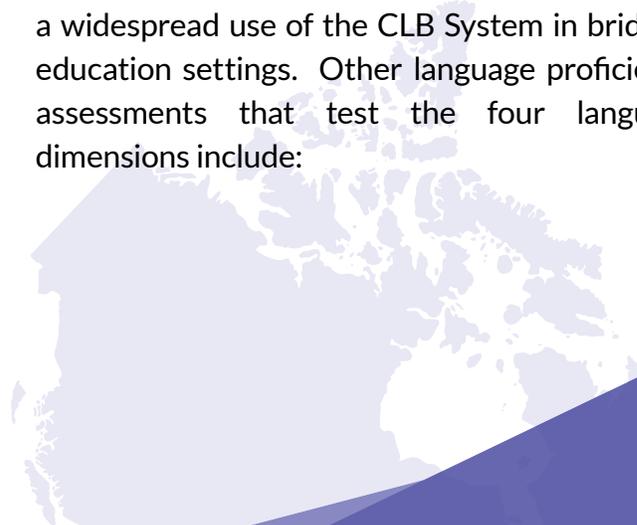
▶ Canadian Language Benchmark
   test (CLB)

▶ International English Language
   Testing System (IELTS)

▶ International English Language Testing
   System, Academic Module (IELTS AC)

▶ Test of English as a Foreign
   Language (TOEFL)

▶ The Canadian Test of English for
   Scholars and Trainees (TEST-CAN)

▶ Test pour étudiants et stagiaires
   au Canada (CAN-TEST)

Duncan (2008) highlighted that the assessment must take into consideration the expectations and requirements of employers and regulatory bodies. The author recommended consolidating assessment procedures that are used by other organizations for different purposes, where possible, to ease the burden of lengthy, repetitive, and often costly assessment processes on ITIs. By choosing a language assessment test that is also required by employers or industry bodies, for example, ITIs could use their language assessment results to apply for the bridging program and to apply for employment, without having to take additional language proficiency tests.

II.   Bridging Program Components

Once assessed, the participant enters the bridging program to complete those identified areas of additional training or education required to become certified in the regulated occupation. A variety of terms are used in the literature to describe bridging program components[2]. These components are in the table below and will be discussed in more detail in the next six subsections. Only those bridging programs mentioned in the articles reviewed that included four or more program elements are listed in this chart.

Table 1: Summary of Bridging Program Components by Author

Component	Author References are listed in the Bibliography.									
	6	7	14	21	11	35	9	23	25	3
Orientation (i)	●	●		●	●					
Customized Learning Plan/Case Management (ii)	●					●	●		●	
Mentorship and Peer Supports (iii)	●	●	●	●	●	●	●	●	●	●
Occupation-Specific Language Training (iv)	●	●		●	●	●	●	●	●	●
Practicing in the Canadian Context (v)	●	●	●	●	●	●	●	●	●	●
Academic Requirements and Exam Preparation (vi)	●	●	●	●	●	●				●
Career Planning (vii)	●		●		●	●		●		●

[2] These terms include: essential components (Canadian Association of Schools of Nursing, 2012); best practices (College of Dietitians of Alberta and University of Alberta, 2014); core elements (Government of Alberta, 2015; Lordly, Guy, Barry and Garus, 2014; Austin, 2007); program components (Friesen, 2013; Morrill, 2012); activities (Stonebridge, 2012); features (Neiterman et al, 2018); and other considerations (Duncan, 2008).

i. Orientation

It is recommended that bridging programs offer participants an orientation before the program begins. The length of the orientation may vary depending on the focus and the objectives of the orientation. Shorter orientations may be limited to orienting students to the program by going over standards, policies, academic environment, course selections, and financial assistance. Longer orientations could also include practice assessments or refreshers, as well as language development and information on practicing in the Canadian context.

- Austin (2007) linked a robust orientation to high bridging program retention rates and suggested they provide ITI's with a clear understanding of expectations, workload, resources needed and supports provided. He noted that this helps to create a culture of mutual support and respect.

- Higginbottom (2011) emphasized that an orientation can provide both social and economic dimensions.

- Lordly, Guy, Barry and Garus (2014) found the orientation allows for an introduction to program components and supports as well as an opportunity to interact with participants and faculty.

- In addition to the above, the Bridging Program Framework developed by the Canadian Association of Schools of Nursing emphasized the importance of providing transparency regarding all bridging program costs (2012).

- Friesen (2013) suggested the orientation, depending on the length, could include a communication and skills refresher, as well as an orientation to professional culture and practice.

ii. Customized Learning Plan/ Case Management

Internationally educated bridging program participants come from a range of linguistic, cultural, and educational backgrounds. They may also have significant challenges in their daily lives. The literature suggests that program faculty and staff should be sensitive to the diverse learning needs of their students and should be able to adapt curriculum and pedagogical strategies to their needs. Students may also require individual counseling and advice to navigate successfully the program.

- In some programs, candidates are connected with a case manager who works with the individual to develop a customized plan of action for achieving milestones in the registration process (Stonebridge, 2012 and Grant, 2009).

- According to Duncan (2008), successful programs rely on individual counselling and advice, which allows program operators to prescribe tailored plans for how the participant can best make use of the program.

▶ Neiterman et al (2018) highlighted the need to employ faculty who are sensitive to the needs and challenges of ITIs and who are able to adapt curriculum accordingly. Such skills are often acquired through professional development/teacher training. Students also appreciated when faculty were either currently practicing or had recently practiced.

▶ A key role in the management of the bridging program for physical therapists was the program coordinator, who was responsible for recruiting, scheduling, data collection, communication and feedback. This position was filled by a physical therapist with 40 years of experience in the field (Greig, Dawes, Murphy, Parker and Loveridge, 2013).

Administrative Supports

In a review of seven health bridging programs (Neiterman et al, 2018), administrative and infrastructure supports were seen as critical and included committed staff, faculty, and supervisors, as well as access to equipment, library, and learning materials. In some cases, assistance to apply for scholarships and bursaries was made available. Educators and administrators who have experience working with ITIs or, at a minimum, who had received cultural sensitivity training were identified as pivotal for a program's success.

iii. Mentorship and Peer Supports

Mentorship/Networking

Mentorship can support an ITI to integrate into the professional culture in Canada and understand its values. Mentors can also support ITIs to develop professional networks, workplace readiness, and communication/language skills. Mentoring provided by other ITIs who have gone through the process can help ITIs learn to navigate the licensure and employment process from those who have successfully done so.

▶ According to Austin (2007) the value of mentorship in bridging programs is almost universally accepted and is valued because it provides a mechanism to expose ITIs to Canadian occupational conventions. Mentoring programs must be designed to meet the needs of both mentors and mentees and normally require an investment in mentor training so they can successfully fill the roles of a colleague, a teacher, a coach and a friend.

▶ Neiterman et al (2018) noted that work readiness supports, such as mentorship, contribute to positive employment outcomes. Formal or informal mentoring relationships that support ITIs in building networks contribute to employment outcomes, which are an important indicator of bridging program success.

▶ Friesen (2013) indicated that mentorship can be achieved in a variety of ways, including matching participants with program alumni, advisors, and faculty from the institution, senior students from the Canadian program, and professionals in the community. Friesen also highlighted the provision of professional networking opportunities that are meaningful and not solely student-oriented events. These could include events such as career fairs, professional development events, industry-institutional liaison, and networking events.

▶ Noorani et al (2015) surveyed mentors and mentees and reported benefits for both parties. In the case of the immigrant mentees, they gained a better understanding of Canadian workplace culture and built social networks. In the case of the mentors, their employers noted strengthened leadership skills and improved intercultural awareness.

▶ In a study of IENs, Ronaldson et al (2017) stated the foundation for the mentorship relationship was trust and support, which fostered integration and promoted cultural understanding. The mentees felt comfortable asking questions and practicing their English skills. They learned more social and subtle forms of communication, including body language and casual communication.

Peer Supports

ITIs face particular challenges integrating into the Canadian workforce, as well as settling into daily life. Connection to a community of others in similar circumstances can support ITIs as they navigate the bridging process and subsequent search for employment.

Austin and Dean (2006) have described the importance of creating "a community of learners," through in-class contact with other newcomers in the same situation. Stonebridge (2012) reported about formalizing the involvement of alumni members to provide peer support, to direct candidates to employment and other opportunities, and to advocate for bridging programs in workplaces and communities. Neiterman et al (2018) indicated that hiring ITI staff who had themselves integrated into the Canadian health care system could help motivate students.

iv. Occupation-Specific Language Training

As noted previously, bridge training participants should already have attained a high level of language proficiency, however, occupation-specific language content is commonly delivered in a bridging program, either in the curriculum or in the practical setting (Stonebridge, 2012, Duncan 2008, Morrill, 2018, Austin and Dean 2006). Occupation-specific language training offers instruction geared to a particular profession and typically includes practical exercises based on workplace communication tasks. It also teaches students about Canadian social and cultural expectations within the profession.

According to Stonebridge (2012), language and professional communication are often barriers for ITIs who seek licensure in regulated professions and employment in their new communities. Bridging participants unanimously expressed that language remains the greatest barrier in developing a professional identity, even three to four years after the bridging program was finished (Friesen, 2009).

▶ In the pharmacy bridging program at the University of Toronto, Austin and Dean (2006) described pharmacy practice-related language instruction which is embedded throughout the curriculum and is tied closely to the undergraduate pharmacy program learning outcomes. Another strength in this program is that English as a Second Language Specialists participate

alongside pharmacy assessors to assist ITIs in their understanding of pharmacy-specific terms (Peters, 2011).

▶ Other programs include occupation-specific language in the bridging program curriculum (Stonebridge 2012, Morrill, 2018).

v. **Practicing in the Canadian Context**

Soft Skills

Bridging programs that address the soft skills of newcomers, through curriculum or practical placements, play an important role in employment readiness. Soft skills, which are rooted in culture (Friesen, 2013), include communication, interpersonal, problem-solving and critical-thinking skills. Halfhill and Nielsen (2007) refer to soft skills as the ability to give and receive feedback, the ability to work in teams, the ability to use appropriate levels of deference and initiative in superior/subordinate relations. Noorani (2015) indicated that employers stressed the importance of developing soft skills for all employees, including immigrants. According to Morrill (2012), when ITIs are let go from jobs or fail to advance, the problem is often related to their soft skills.

Several authors recommended the development of soft skills in bridging programs:

▶ Stonebridge (2012) cited job shadowing situations as a good place to develop soft skills.

▶ Noorani (2015) indicated that mentorships are effective at building work-relevant soft skills.

▶ Morrill (2012) found soft skills such as time management and supervisor interaction could be developed in a simulation setting.

▶ Neiterman et al (2018) recommended courses on communications and workplace readiness skills be developed for bridging program curriculum.

Cultural Knowledge

The literature suggests that cultural knowledge can be as important as academic/professional knowledge in contributing to success. Cultural knowledge is closely linked with soft skills, which are culturally rooted, and can sometimes be learned concurrently. Girard and Bauder (2007) have referred to the term "habitus," or the "the knowledge of the professional culture; professional ethics; professional workplace behaviours and business practices in the Canadian context" to capture all that cultural knowledge (also referred to as competency literacy) encompasses. Neiterman et al (2018) defined cultural competence or literacy as the "knowledge of the local culture of practice." Participants in some bridging programs have also talked about cultural knowledge as an important component of bridging education in and of itself (Neiterman et al, 2018).

▶ Cultural literacy and soft skills can be learned in clinical experiences or observational job shadowing (Stonebridge 2012, Neiterman et al 2018).

Observational job shadowing is designed to help expose IENs to the scope of the role of nurses in Ontario. It is available to those who have either secured or are in the process of securing their registration. The activity is offered in partnership with several health organizations and is strictly observational. Expert nurses have enthusiastically embraced their roles as mentors. This has helped candidates prepare for workplace realities— in particular interactions with patients, families, and other members of the multidisciplinary team. Securing an appropriate number of placements in a variety of health care and nursing sectors is a challenge that management must consistently address because health care partners have many priorities, including placements for students from Canadian nursing schools. The program has brokered reasonably priced insurance coverage that members purchase in order to participate in an observational role in health care settings (Stonebridge 2012).

▶ Cultural knowledge or competency can be augmented by communication and workplace readiness curriculum (Austin and Croteau, 2007).

Canadian Workplace Experience

Professional Canadian experience requirements are often cited as a major barrier to both licensure and employment for ITIs. The practical workplace experience offered in bridging programs allows ITIs to gain Canadian experience, obtain references, develop their networks, and learn more about Canadian workplace culture. Practical work experience is sometimes referred to as practicums, internships, co-ops, clinical placements, etc.

▶ According to Neiterman et al (2018), candidates who gain Canadian workplace experience improved their examination

readiness, and some established the practice hours necessary for licensing.

▶ Johnson (2015) reported that clinical workplace experience improved employment outcomes for Internationally Educated Medical Laboratory Technicians (IEMLTs) and shortened the length of time to secure a job.

▶ Candidates indicated work placements were very important (Neiterman et al, 2018), provided an opportunity to improve their soft skills, and gain Canadian references (Morrill 2018).

▶ Securing clinical placements, internships or other structured work experience has been cited as a key challenge in many bridging programs (Neiterman et al, 2018, Morrill, 2018 and Grant 2009).

▶ According to Neiterman et al (2018) strategies used to overcome these challenges were to schedule clinical placements off-cycle from full-time programs, seek placements in rural or underserviced areas, and involve employers in an advisory capacity to promote greater investment in the program.

Interesting findings were published by Johnson (2015) in relation to the development of a self-directed bridging program for IEMLTs. Two activities were undertaken: 1) a review and evaluation of accepted refresher courses and 2) the development of an "ideal clinical placement blueprint," which is a detailed checklist

with instructions and observable tasks that collectively describe a comprehensive work placement. Passing rates for those individuals who took additional coursework (based on the revised pre-approved list of refresher courses) were lower at 23 percent than the baseline established prior to the project (34 percent). In comparison, 50 percent of those who completed a clinical placement using the "ideal clinical placement blueprint" passed the exam on their first attempt. The "blueprint" was also helpful in attaining clinical placements, with 11 individuals independently finding placements in 25 months compared to two individuals who were able to secure a placement in the previous decade.

vi. Academic Requirements and Exam Preparation

As outlined in Table 1, some articles included academic requirements and exam preparation as components in their bridging programs.

Academic Requirements

It is recommended by some authors that bridging programs offer modules that fill any identified gaps in required academic knowledge. Additional curriculum may also be developed for occupation-specific language, practicing in the Canadian context, and jurisprudence.

▶ With the understanding that the academic program must be contextualized for the ITIs' needs, Austin (2007) reported that curricula, teaching methods, and assessments should be similar to the approaches used with students in Canada to ensure acceptability of the program to the public and the professional community.

▶ Friesen (2013) indicated that "the formal purpose of the academic component is generally confirmatory – that is, to meet regulators' requirements for [ITIs] to confirm their original academic preparation in knowledge and skills required for entry level practice in the profession" (15). The academic component can also present theoretical components in a Canadian context and can be enhanced with ITI-dedicated courses to support language and communication as well as socialization to the profession as practiced in Canada.

▶ Given both Canadian-trained and ITIs must meet the same occupational standards, it was recognized that the academic content of the bridging program must not be diluted. A review of exam results, discipline records, credential reviews and feedback from mentors and employers can help to identify the essential academic content for a bridging program. This will also provide a mechanism for future curriculum updates (Austin 2007).

Exam Preparation

Examination formats and styles vary widely around the world. Exam preparation can support ITIs by teaching them about expected response style, format of exams, and underlying cultural assumptions. Increasing the speed of taking the exam may also be important as most licensing exams only allow for a limited amount of time to answer each question. A few programs referred to providing practice exams in bridging programs, although the details for preparing this support were limited.

- Friesen (2013) notes that a program could be 100% focused on licensure exam preparation, but without other critical components, it would be a weak program.

- Austin (2007) cautioned that bridging programs should not focus entirely on exam preparation, rather they should "equip internationally educated individuals with the competencies required for a lifetime of practice."

- In Duncan's (2008) review of bridging programs, a number of programs included exam preparation as either a topic or a module of the program; however, this was typically one aspect of the program, with other components such as integrated training, occupational language, and work experience being the primary focus.

vii. Career Planning

Since the ultimate goal, and one of the measures of success, of bridging programs is employment in an ITI's profession, career planning and employment preparation topics can contribute to an ITI's long-term development as a professional. These topics could be covered in a stand-alone course or workshops on the practice of the profession, and are also acquired through participation in practice placements, mentoring, and professional networking opportunities (Friesen 2013).

- Austin (2007) identified the need for bridging programs to include employment linkages, for the purpose of providing life skills training on topics such as resume preparation, interview guidance, employment readiness and general settlement/integration guidance.

- According to Lum (2008) and Duncan (2008), networking opportunities with local professionals during early stages of the employment integration process, as well as work placements, are important to effectively integrate bridging program participants into the workforce.

- Stonebridge (2012) listed a number of workshops offered to bridging participants. Topics included job search strategies, interview skills, resumés, and cover letters. The program also provided access to affordable (or sometimes free) professional development workshops to expose bridging candidates to nursing and health care issues as they built their portfolios. Video conferencing was used for these workshops to connect participants across multiple geographic settings.

- Morrill (2012) cautioned "the more the program commits to finding job placements, the more the program participants expect a "guarantee' of a job." In this case, the program put effort into communicating that it is the candidate's responsibility to find a job and reinforced this by having participants keep a record of job search activities.

III. Bridging Program Development and Delivery

i. Stakeholder Input, Coordination and Roles

Partnerships among different organizations are a key element of bridging program success. The development of a bridging program should ideally involve partnerships between stakeholders such as employers, educators, regulators, professional associations, governments and community/settlement or employment agencies.

▶ At a learning day of bridging stakeholders held in 2007, it was suggested that strong partnerships are linked to successful bridging programs (Austin 2007). A detailed list of partners and their roles is outlined in a manual which was prepared based on discussions during the learning day. It also outlined success factors for occupational specific partners including an equal shared involvement from two to three partners, early involvement of employers, and involvement of professional associations primarily for advocacy.

▶ Austin and Croteau (2007) attribute the success of the Ontario pharmacy bridging program to the strong and evolving collaboration between regulators, educators, employers and advocacy groups. In this paper, the authors propose an inter-sectoral collaboration model, which also includes the role of settlement agencies and immigrant policy makers.

▶ Several authors highlighted the value of an interdisciplinary coordinating or advisory body overseeing the development and delivery of a bridging program (Lordly, Guy, Barry and Garus, 2014,

Duncan, 2008, Neiterman et al, 2018 and Johnson, 2015). In these projects, contributing advisory board members brought a variety of perspectives to discussions which resulted in responsive problem solving and decision making (Lordly, Guy, Barry and Garus, 2014 and Greig, Dawes, Murphy, Parker and Loveridge, 2013) and the ability to draw on resources from their organizations when necessary (Austin 2007 and Morrill 2018). In some cases, licensed ITIs were also part of the coordinating body (Johnson 2015, Sattler et al, 2015).

Lack of communication with stakeholders was identified as a common challenge for bridging programs (Grant, 2009). According to Lum (2008) a lack of communication between regulatory bodies, government, potential employers and educational institutions leads to duplication or gaps in bridging programs. Both Grant (2009) and Duncan (2008) described difficulties sharing bridging best practices and lessons learned due to a lack of collaboration between the parties involved. This supports the need for some degree of centralization and coordination (Grant 2009).

Although its consultation was not focused specifically on bridging programs, newcomers surveyed by the Panel on Employment Challenges of New Canadians (Noorani, 2015, p.13) spoke of a persistent lack of awareness and teamwork between immigrant-serving organizations, regulatory authorities and other groups, noting that without a shared commitment to the end result, the system is undermined.

Collaboration with Regulators

Austin (2007) emphasized the fact that bridging program funders value involvement from regulatory body representatives, however their role in the delivery of bridging education is an area of debate in the literature. On one hand, the regulator's role is to protect the public; they are not mandated to provide education. On the other hand, many key stakeholders believe regulators are uniquely positioned to assist in the design of bridging programs' curricula given their experience in prior learning assessment and their understanding of key competencies needed to obtain licensure. Ideally, they would also refer potential participants to the bridging program and collect data on licensure rates of bridging program graduates (Neiterman et al, 2018).

Morrill (2011) found partnerships with regulatory bodies resulted in the accurate assessment of participants' education and skills, which led to a savings of course content development and delivery expenses, as well as the candidates' time and tuition, because it was identified through assessment that educational content was already achieved by the bridging program participants.

Collaboration with Post-Secondary Institutions

Several programs highlighted the value of partnering with post-secondary institutions (Lordly, Guy, Barry and Garus, 2014, Duncan 2008, Neiterman et al, 2018, Morrill, 2018 and Austin and Croteau, 2007), because they are already in the education business, they are competent at assessing, and they can offer other comprehensive services that are in place for all students. Others reported on the benefits identified by the post-secondary institutions that offer bridging programs, including:

- ▶ Enthusiastic faculty who appreciated the ITIs' maturity, work ethic and willingness to participate in class discussions (Morrill, 2012);

- ▶ Content that served multiple audiences, including international graduate and undergraduate students in regular programs who face many of the same difficulties (Lordly, Guy, Barry and Garus, 2014, Morrill, 2012, and Austin and Croteau, 2007); and,

- ▶ Heightened sensitivity of domestic students who increasingly will be working in culturally diverse workplaces (Morrill, 2012).

Collaboration with Employers

In the literature reviewed, authors valued strong employer partnerships, which resulted in:

- ▶ Meaningful language and communication curriculum development in consultation with practitioners (Stonebridge, 2012);

- ▶ Expanded work placements (Neiterman et al, 2016);

- ▶ Improved job search processes (Morrill, 2012);

- ▶ Employers becoming ambassadors for the bridging program (Morrill, 2012); and,

- ▶ Financial contributions to the bridging program (Morrill, 2018 and Austin 2007).

According to Austin and Croteau (2007), strong employer engagement may be the result of labour market pressures. The success of the pharmacy

bridging program and its partnerships may have been due in part to the shortage of qualified pharmacists, which incentivized employers to become involved. Duncan (2008) also believed that employer partnerships are connected to labour market shortages.

Engaging employers in bridging education was seen as a primary factor for successful program delivery, however details on how to connect with employers were scant. Morrill (2012) indicated that mentorship connections can provide a mechanism to engage employers. Stonebridge (2012) described how a bridging program for IENs used enhanced marketing and communications strategies and a website redesign to improve employer connections.

Collaboration with Alumni

Partnerships with bridging program alumni resulted in mentoring and job shadowing opportunities for participants (Stonebridge, 2012). As mentioned above, alumni can play an important role on a program advisory board. Stonebridge (2012) suggests engaged alumni create opportunities to share experiences and knowledge, which strengthens bridging programs and services and, in some cases, results in references and employment opportunities for ITI's.

Collaboration with Government

Two primary roles were identified in the literature for federal and provincial governments in relation to bridging programs: funding and coordination. Funding was identified as a feature of effective bridging programs and financial sustainability was identified as a challenge bridging programs face (Sattler et al, 2015 and Neiterman et al 2018). On the coordination role, the sharing of promising practices for bridging programs as well as coordinating the delivery of clear and accurate information to prospective immigrants through immigration services were identified as priorities.

Collaboration with Professional Associations

According to Sattler et al (2015) professional associations have a somewhat limited role to play in bridging programs because they are funded by and mandated to support professional members. Their role could involve promoting the value of diversity to association members; supporting bridging participants by providing scholarships, employment information, and mentors; and offering continuing professional development opportunities.

ii. Flexible Client-Centred Delivery

Modularized Programming

Where ITIs require bridging, programs and services should be designed to minimize repetition of previous learning. According to Neiterman et al (2018), effective bridging programs support the candidate by offering tailored programming that addresses the differences between Canada's

occupational expectations and those of their home country. Three of the seven Ontario health bridging programs studied in 2018 offered modular programming, in which participants could choose to take only those elements needed (Neiterman et al, 2018). Austin and Dean (2006) wrote about customized educational interventions in a pharmacy bridging program to address individual needs and avoid redundancy. Modular programming, such as the collection of courses and workshops developed at the University of Toronto for physical therapists, is viable when competencies are effectively documented (Switzer-McIntyre, Bonnyman and Quesnel, 2015) as described in the section on a Comprehensive Assessment.

Individualized Programming

According to Lordly, Guy, Barry and Garus (2014), bridging programs should be designed to match the learning styles of their participants. Robust preadmission assessments should be undertaken to clarify individual readiness and identify learning styles. As mentioned previously, participant assessments also identify which supports (language, financial) must be put in place. Austin and Croteau (2006) discussed the importance of a robust needs assessment prior to deciding on program content and delivery in order to ensure participant needs are met.

Strengths-focused

When discussing methods to deliver bridging programs to professionals with skills, a strengths focused culture can be achieved in a "difference model" versus a "deficit model" of delivery. In a publication written for the Office of the Manitoba Fairness Commissioner (Friesen, 2013) these two models are distinguished as follows:

In a difference model, programming serves to facilitate the transition by providing a vehicle to address knowledge or skill demonstrations required by the regulator. In this transitional process, programming will explicitly draw on current knowledge, skills, professional values, and experience while shedding light on the required knowledge, skills, professional values, and experience required for professional registration and career development in Canada.

A deficit model of programming considers the starting point to be a position of deficit, lack, or weakness. Existing knowledge, skills, and experience developed in a non-Canadian jurisdiction are generally discounted. In a deficit model, programming takes a 'start at zero' approach, assuming that most knowledge, skills, and experience required for professional registration and career development have to be facilitated by the program.

A difference model of programming recognizes existing professional knowledge, skills, and experience from a non-Canadian jurisdiction. The full professional qualification from another jurisdiction comprises a strong foundation to transition to professional registration and career development in Canada.

Delivery Format and Physical Location

Where possible, programs should be designed to allow flexibility of access. The aim should be to reduce barriers to access resulting from geography as well as barriers that result from ITIs' need to work to support themselves and their families while simultaneously completing a bridging program.

In the Ontario review of seven health bridging programs, delivery format ranged from exclusively online to exclusively in-person programming, with a blended approach (online and in-person delivery) being most common (Neiterman et al, 2018). In some bridging programs, candidates report a strong preference for face-to-face interaction because it allows for immediate feedback on communication skills (Austin and Dean, 2006). Individual tailoring in a face-to-face setting meets specific needs and avoids redundant training (Duncan, 2008). IPGs wanted fewer online classes and the development of "a community of learners." This was because the IPGs found the networking opportunities and in-class contact with other IPGs in the same situation to be an invaluable part of the program (Austin and Croteau, 2007).

Though participants may have expressed a preference for face-to-face programming, flexible scheduling and program delivery (for example, through online courses) can enhance accessibility for those who cannot attend a full-time program while ensuring that participants have opportunities for professional socialization, cultural orientation, and networking (Grant, 2009). Physical location can also be a barrier to program effectiveness. Two programs mentioned head offices and satellite offices in many communities (Stonebridge, 2012 and Austin and Croteau, 2007). This is important because candidates settle, and are needed, in many communities outside of large cities (Stonebridge, 2012).

Technology can help to improve communication when distance-only options are available. Blackboard Collaborate, an online software collaborative program, and a course management system known as Moodle (Modular Object-Oriented Dynamic Learning Environment) was used to communicate with all participants and to facilitate participation. Activities that posed challenges to online learning were modified (e.g., role playing was facilitated by web cameras). Moodle and Collaborate provided a cost-efficient and effective way for learners to participate. Continuous oral and written facilitator feedback far exceeded what was anticipated and was critical to support candidates in their practice and application of knowledge, skills, and understanding (Lordly, Guy, Barry and Garus, 2014).

iii. Program and Participant Evaluation

The importance of a robust program evaluation was a strong theme in the literature. Austin (2007) differentiated process evaluation from outcome evaluation, with the former implemented early in the life of a program to respond to day-to-day operations and the latter used in a mature program to evaluate program impacts. It was further suggested that it was important to agree upon a clear definition of "successful outcome" in the context of a bridging program.

Morrill (2018) used an evaluation system developed by Kirkpatrick and Kirkpatrick (Saowakul, 2008) which included four levels of program evaluation:

1. measures participants' reactions to the program;

2. measures whether learning occurred;

3. examines behavior that has changed; and,

4. assesses program results.

Sattler et al (2015) identified the following individual bridging program outcomes and made suggestions for indicators to measure bridging program effectiveness in a health care context.

Individual Bridging Program Outcomes

▶ Passing certification exam

▶ Increased knowledge of Canadian health workplace

▶ Increased knowledge of occupation-specific language

▶ Participant needs met

▶ Obtaining employment

Suggested Bridging Program Indicators

▶ Certification exam results

▶ Number of participants passing the orientation to the Canadian health care system course

▶ Number of participants showing improvement on pre- and post-program language assessments

▶ Participant satisfaction and perceptions of the program's effectiveness

▶ Alumni engagement

▶ Number of participants who became licensed after passing certification exams

▶ Number of participants who gain employment in their field

▶ Length of time to find employment

▶ Number of years participants remain employed up to time of desired retirement, and participants' progress in the profession

The literature suggests that most bridging programs are not collecting all of the above information. Although it can be difficult, according to Sattler et al (2015) measuring results is important to understanding bridging program effectiveness.

Bridging program evaluation has been criticized for lacking comparative analysis, making it difficult to identify best practices (Sattler et al, 2015). A survey of participants suggested the effectiveness of bridging programs should be measured by the number of graduates who passed professional examinations and/or obtained employment within a specified period of time (Neiterman et al, 2018). Some programs experienced difficulty collecting data on graduate licensing success (Neiterman et al, 2018) and other programs readily published licensing result differences for those who had taken bridging programs and those who had not (Stonebridge, 2012; Switzer-McIntyre, Bonnyman and Quesnel,

2015; Switzer-McIntyre, Norton, Millette and Martin, 2015; Daniel, Switzer-McIntyre and Evans, 2016; and Johnson, 2015). The lack of systematic data collection on bridging program alumni poses a limitation for assessing any program's effectiveness. Addressing this issue could improve the quality of bridging education and the employability of program graduates (Neiterman et al, 2018).

Ongoing evaluation was recognized as important in several bridging programs (Lordly, Guy, Barry and Garus, 2014; Greig, Dawes, Murphy, Parker and Loveridge, 2013; Johnson 2015; and Austin and Croteau, 2007). One program used participant, mentor and advisory committee feedback to strengthen the program in the areas of clinical feedback and quality of exam bank questions (Greig, Dawes, Murphy, Parker and Loveridge, 2013). Some described the program development process as iterative (Johnson 2015) and progressive, with the experience in the development of the first two modules informing the development of the third (Lordly, Guy, Barry and Garus, 2014). In the same program, ongoing feedback and observations resulted in the changes to the curriculum as required.

Neiterman et al (2018) proposed undertaking pre- and post-program language assessments, though none of the seven health bridging programs studied in 2018 conducted this form of evaluation.

Austin (2007) reported an accepted principle of program evaluation suggests that approximately 10 percent of resources (money, time and personnel) in any project should be dedicated to program evaluation.

iv. Program Funding and Financial Sustainability

Sources of Program Funding

Bridging programs are typically funded through federal and/or provincial/territorial governments (Parkouda, Beeksma and Kwansah (2015)) as well as other stakeholders. Provincial/territorial contributions may be additional when post-secondary institutions are involved in program delivery, such as the programs described by College of Dietitians of Alberta and University of Alberta (2014); Lordly, Guy, Barry and Garus (2014); Switzer-McIntyre, Bonnyman and Quesnel (2015); Greig, Dawes, Murphy, Parker and Loveridge (2013); Friesen, (2009); and Morrill (2018).

In the case of the engineering bridging program established in Manitoba, permanent provincial funding was awarded after a successful pilot funded by the federal government (Friesen 2009). The IPG Program in Ontario was funded by the provincial government as well as the pharmacy regulatory body and employers (Austin and Dean, 2006); no federal funding was used.

Bridging programs also usually require an investment from the individual enrolled in the program (Parkouda, Beeksma and Kwansah, 2015). Austin (2007) mentioned corporate donations as another funding source and Morrill (2018) suggested the idea of encouraging employers to make donations toward dedicated bridging program courses.

Sustainability Challenges

According to Noorani et al (2015), bridging programs should be supported since they can be vital to the successful integration of skilled immigrants; however, many excellent bridging training programs face sustainability challenges. Grant (2009) suggests stable long-term funding is the only means of creating reliable programming and avoiding the disappointing bridging program closures and downsizing that for example, the medical laboratory profession has experienced.

Many programs are started with pilot funding to cover developmental costs (Grant, 2009). Funders often expect programs to become self-sustaining, meaning ongoing operating costs must be recovered, typically in the form of tuition fees (Neiterman et al, 2018). The sustainability of programs is also impacted by demand, which is influenced by some factors outside the programs' control, such as immigration policies or labor market demand. Fluctuating enrollment numbers make long-term program planning difficult.
Pilot and short-term funding of programs have been criticized for leading to frequent turnover, minimal opportunities to build partnerships, and difficulty demonstrating successful outcomes. According to Grant (2009), stable programs permit the kind of evidence-informed research on outcomes that is lacking in bridging programs.

Mechanisms to Improve Sustainability

One solution to sustainability noted in the literature positions bridging education as an accepted and expected part of occupational training. This could be accomplished by integrating bridging education into the core offerings at educational institutions (Austin 2007).

In the absence of full post-secondary integration, Austin (2007) suggests sustainability is connected to program structure and recommends a clear organizational framework and a systematic approach to curriculum development and admissions. Ongoing environmental scanning is necessary early to identify potential funding sources. Austin further suggests sustainability and program evaluation are closely connected, because if a program is meeting its objectives, it will have successful graduates who are employed and contributing to their field. This attracts new students, employers and revenue sources.

According to Neiterman et al (2018) other strategies to improve sustainability included conducting market research on potential program demand, marketing the program through regulatory bodies, building flexibility into the program to be able to adapt to changing enrolment numbers, and coordinating the delivery of online bridging programs across provinces. This would assist jurisdictions to prioritize and fund the programs in highest need and make the best use of limited operating dollars.

Morrill (2018) offered ideas to realize program savings, noting that in one program, the employee responsible for administrative and case management duties was under-utilized and many administrative duties were more efficiently performed by the program director or personnel in the university. In the same program, low cost features, relating primarily to facilitating interaction between candidates to allow them to feel less isolated and to develop supports for

each other were among the most highly valued features of the bridging program. These findings reinforce the importance of ongoing continuous evaluation and improvement to identify program efficiencies and cost savings.

Sources of Participant Funding

Bridging programs typically involve costs to the ITI, which can be a challenging barrier to participation. Student loans/aid and micro-loans are supports that have demonstrated success.

In 2008, Duncan recommended better coordination among provinces and with the federal government and suggested policy changes with respect to bridging program funding and student aid. Given the primary sources of bridging education funding are from the federal and provincial/territorial governments, and that post-secondary education is mostly a provincial responsibility, it is not surprising that arrangements for student funding vary by province. The idea of affiliating bridging programs with post-secondary institutions to make participants eligible for student loans has been put forward by Neiterman et al (2018). Some provinces have achieved this. As an example, if a bridging program has been approved by Manitoba Student Aid, candidates are eligible to apply for student loans, grants and bursaries (Friesen, 2013).

In 2011, the Government of Canada announced the Foreign Credential Recognition (FCR) Loans Pilot Project to test models for helping immigrants overcome financial barriers. This project has made it easier for skilled immigrants to complete the credential recognition process and find jobs that best suit their skills and experience (Noorani, 2015). Between 2012 and 2015, the Government of Canada tested an FCR loans pilot to assess how best to support newcomers in FCR processes. The pilot project was successful in helping skilled newcomers with a default rate of only two percent. Based on pilot results, Budget 2017 announced the implementation of FCR loans on a permanent basis to cover the costs of getting their foreign credentials recognized and to navigate the recognition processes. Loans are up to a maximum of $15,000 per client. The Ontario Bridging Participant Assistance Program provides a one-time bursary of up to $5,000 to internationally trained professionals with financial need, to cover tuition, books and equipment costs. Some provincial governments support micro-lending organizations that offer loans to bridging candidates. An example is Windmill Microlending in Alberta. Austin and Croteau (2007) mentioned the availability of low interest loans from immigrant-serving charities in Ontario as another source of student funding. Microloans were also mentioned as a funding source by Lordly, Guy, Barry and Garus, (2014).

Some programs used pilot funding to provide income assistance as well as free tuition and books during the first cohort of their bridging programs but were unable to continue to provide these supports in subsequent cohorts (Lordly, Guy, Barry and Garus, 2014; Greig, Dawes, Murphy, Parker and Loveridge, 2013; and Morrill, 2018). In all cases, there were notable drops in enrollment in the second cohort. Encouraging other sources of participant loans, as mentioned above, would

likely be a more sustainable and equitable approach to providing income assistance across all cohorts. In a program survey undertaken by Morrill (2018) respondents from cohorts with and without living allowances recommended the program to other ITIs. This suggests that the program was valuable even without the living allowance (Morrill, 2018).

In 2008, Lum suggested that international bridging program participants viewed educational programs as socially and financially challenging, especially when there is no guaranteed employment. Morrill (2018) reported the features most valued by program participants were either low cost or being attractive to donors, raising the possibility that an effective program could be delivered even in an era of resource constraints assuming appropriate donations can be secured.

Return on Investment

Noorani et al (2015) suggest costs must also be understood in light of the high return on investment of these programs, which get skilled immigrants into the workforce faster and at an appropriate level. Cost benefit analysis of bridging programs has been applied with favorable results in two programs (Parkouda, Beeksma and Kwansah, 2015 and Grant, 2009). In the case of Medical Laboratory Technologists (MLTs), the findings demonstrate clear economic advantages of bridging programs, at both provincial and national levels (Grant 2009). According to the analysis used by Grant, the additional Gross Domestic Product arising from the increase in qualified MLTs working in Canada exceeds the public sector costs of running the MLT bridging programs from the first year on, while long-term

gains are realized at both provincial and national levels. A subsidized MLT bridging program would expedite transition into the profession, reducing the associated stresses and financial burdens experienced by many ITIs (Grant 2009). Investing in CARE Centre's bridging program and associated post-secondary education yields significant returns for the Government of Ontario and for the federal government, as well as IENs themselves (Parkouda, Beeksma and Kwansah, 2015).

In some cases, the value of the internationally delivered education represents over 90 percent of the costs of education and qualifying the individual for a Canadian job. In other words, the bridging component only amounts to about 10 percent of the cost of training because the candidate was primarily educated outside Canada. The returns achieved through bridging programs are usually gross returns; they reflect the educational investments required to obtain higher wages (Parkouda, Beeksma and Kwansah, 2015) and not the post-secondary education savings to the Canadian system. Notably, bridging program funding can address health human resource challenges as well as the need for equitable treatment of newcomer professionals in Canada (Grant, 2009).

Conclusion

Bridging programs are a relatively new activity as programming goes, having been in existence just under 20 years. That said, many jurisdictions and stakeholders in Canada have invested significantly in this type of programming, and their importance and prominence is increasing as is the literature on the topic. While monitoring and evaluation in this area, including data collection, are being recognized by the experts as an area that needs improvement, much of the information already available is rich and point toward best and emerging practices.

Under the first theme, it is clear from the literature reviewed that an assessment of the individual prior to admission is of paramount importance. Comprehensive and individualized assessments were a common theme that included a range of considerations when assessing an individual. While an assessment can focus on the training, skills and language gaps an individual may have, it was also recommended that financial and family supports be considered to properly determine in advance not just the needs of the individual, but his or her likelihood to succeed.

Under the second theme, the common program components associated with success included providing an orientation for the participants, including developing individualized learning plans; providing mentorship, networking and other supports; offering occupation-specific language training; including a section on soft skills development; providing Canadian work experience; and offering academic courses where needed and assisting in exam preparation and career planning.

Under the third theme, considerations for the development and delivery of bridging program range from ensuring stakeholder input is sought to providing flexible, client-centred delivery.

Sustainable funding should also be considered. And lastly, robust program evaluation of processes and outcomes was also identified as a best practice, although not without practical challenges. At a minimum, it is recommended that measures should include licensure and employment rates as well as how well the program addressed client needs.

As with any kind of programming, the longer it is in existence, the more opportunity there is to apply lessons learned to improve programs and the more time there is to test key components by seeking to replicate results. By using this literature review and the Bridging Program Practices Tool, program developers will be able to contribute to future best and emerging practices by sharing their results and evaluations.

Annex A: Future Areas of Interest

Collaboration on Assessment Standards and Bridging Program Frameworks

The literature review revealed that some occupations are collaborating on the development of Pan-Canadian entry-to-practice standards. Although this may be considered outside the scope of best practices in bridging program design, it has been well documented that these standards form the basis for bridging participant assessments (Friesen, 2013, Duncan, 2008, Austin and Dean, 2006 and Austin 2007) and bridging program curriculum (Switzer-McIntyre, Bonnyman and Quesnel 2015). The assessment process and bridging program curriculum development is unnecessarily complicated and expensive in the absence of common entry-to practice standards. In one of the articles that evaluated seven health bridging programs, one key informant is quoted as stating:

> *An additional issue is the complexity of registration and certification systems, which vary from province to province and profession to profession. The lack of a national system and standardized process leads to confusion among applicants. A more seamless system with greater cooperation between stakeholders and more standardized processes would assist bridging program applicants in navigating the system (Neiterman et al, 2018).*

The Canadian Association of Schools of Nursing published a Pan-Canadian Framework of Guiding Principles and Essential Components for IEN Bridging Programs (2012). It is expected this approach would be transferable and valuable in other occupations.

Collaboration on Curriculum Development

There was very little evidence of jurisdictional collaboration on bridging program curriculum development in the literature, which could lead to reduced program development costs. Conceptualizing and developing comprehensive programs has been described by Sattler et al (2015) to be complex work with opportunities for shared development. Austin (2007) suggested program development costs can be significant.

> *Bridging programs could draw on economies of scale by developing common elements that can be used across bridging programs and/or by sharing resources with existing full-time programs at the institution. Existing examples are the Orientation to the Canadian Health Care System, Culture and Context offered through the University of Toronto and Understanding the Canadian Health Care System: A Course for Internationally Educated Health Professionals offered by HealthForceOntario (Sattler et al, 2015).*

Collaboration on the Evaluation of Program Components and Delivery Formats

The literature identified a list of bridging program components that are common across several occupations, and other components that are occupation-specific. Jurisdictions could work

more closely together to share investments in the evaluation of components essential to all bridging programs, components that are occupation-specific, and to validate which components achieve the most promising outcomes.

> *There are a variety of approaches to bridging with little standardization across programs. Empirical research exploring the connection between specific bridging program elements and IEHP [internationally educated health professional] success is needed (Sattler et al, 2015).*

Bridging program delivery format is another feature that varies greatly in the literature and there is an opportunity to better understand appropriate program length and which delivery approaches (on-line, face-to-face, blended) result in the best outcomes.

Collaborating on Practices to Successfully Secure Work Placements

Although not all bridging programs offer work placements, the literature review supported their value in improving examination readiness, establishing practice hours and improving employment outcomes. Importantly, bridging participants valued these placements to improve soft skills and gain Canadian references.

Some bridging program operators experienced difficulty securing work placements for their clients, and many others did not, which presents an opportunity for pan-Canadian jurisdictions and occupations to work together to examine which approaches result in the greatest likelihood of obtaining placements with employers. The work undertaken by Johnson (2015) in developing an "ideal clinical placement blueprint" may be instructive to others. The detailed checklist provided instructions and observable tasks, that describe a comprehensive work placement and the use of this tool increased the number of clinical placement opportunities dramatically.

In 2017, the Government of Canada announced a two-year pilot project to provide direct support to approximately 1,200 skilled newcomers to help them obtain their first Canadian work experience. In total, six pilot projects are currently examining the effectiveness of workplace integration, training, paid internships, hiring subsidies, mentoring, and employer engagement. It will be important to follow this pilot project to see if it results in an increased number of work experience opportunities for ITIs in bridging programs.

Expanded Roles and Responsibilities of Regulators and Partners

The literature highlighted the importance of robust partnerships with employers, educational institutions, community/settlement or employment agencies, bridging program alumni, regulatory bodies and all levels of government. The need to clarify partner roles was mentioned (Sattler et al, 2015) and is an opportunity for future work.

There was some interest shared in the literature for an expanded role for the regulatory body. With the understanding that regulators exist to protect the public and the integrity of professions, stakeholders agreed that regulatory bodies could

assist in the design of bridging programs' curricula, refer potential participants to bridging programs and collect data on licensure rates of bridging program graduates (Neiterman et al, 2018). Funding to support regulatory body participation in the above activities could be considered in the bridging program budget development process (Sattler et al, 2015). Although this is a sensitive and complex idea, it is worthy of further discussion and debate.

> *Bridging programs require the input of numerous organizations for their development and delivery, including regulatory colleges, government, professional associations and employers. However, the appropriate role of each of these organizations is not always clear. One of the most contested areas is the level of involvement of regulatory colleges (Sattler et al, 2015).*

Bridging Program Return on Investment and Program Funding

The literature suggests greater investments in bridging programs are worthy of further analysis and discussion.

Bridging program return on investment (ROI) has been favourably demonstrated in the literature (Parkouda, Beeksma and Kwansah, 2015 and Grant, 2009) and in both cases ROI was calculated based on the relationship between the cost of the bridging program and the projected benefits from increased personal income tax revenue of employed practitioners. Neither of these two studies took into consideration savings on post-secondary education costs, estimated in some cases to be over 90 percent of the costs needed for an ITI to qualify for a Canadian occupation (Parkouda, Beeksma and Kwansah, 2015).

Therefore, Parkouda, Beeksma and Kwansah, (2015) suggest these favourable ROI results may be undervaluing the total possible benefits.

Bridging Program Publications by Occupation

There appears to be an opportunity to encourage or conduct more research in non-health occupations.
Of the articles that focused on bridging programs for a specific occupation, overwhelmingly the majority pertained to health occupations, at 83 percent. By contrast, there were no publications on the trades identified in this literature review.

Reporting Requirements

Improved reporting on key indicators, especially licensure rates of bridging program participants and international applicants to regulatory bodies, has been recommended in the literature. Improved reporting would assist decision-makers to identify where to target bridging program investments.

Future Study

The literature review revealed several other areas for future research on bridging programs. For example, Sattler et al (2015) suggested future research could focus on:

► Exploring why employers may be reluctant to hire ITIs and providing recommendations for developing relationships between bridging programs and employers.

▶ Exploring how ITIs learn about bridging programs to identify the best ways to provide information about these programs. This research should also examine how having access to information about bridging programs at different stages of the immigration and certification processes impacts certification and employment outcomes.

▶ Undertaking longitudinal research that follows bridging program graduates through their work search and during employment in their field to help further identify the successes and gaps of bridging programs and other supports.

Lordly, Guy, Barry and Garus (2014) reported participant language ability emerged as a bridging program issue and recognized more research is needed to establish the impact of language ability on bridging program outcomes, for those meeting the minimum university language requirements.

Neiterman et al (2018) suggested improved market research would inform program demand.

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