Speech-Language Pathologists' Role in Inclusive Education: A Survey of Clinicians' Perceptions of Universal Design for Learning

Le rôle de l'orthophoniste dans l'inclusion scolaire : un sondage recueillant la perception des cliniciens sur la conception universelle des apprentissages

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KEY WORDS

UNIVERSAL DESIGN FOR LEARNING
UDL
COLLABORATION
INCLUSIVE EDUCATION
SCHOOL-BASED SPEECH-LANGUAGE PATHOLOGY

Abstract

Background: Increasingly, Canadian schools are prioritizing full inclusion in which students with disabilities are educated alongside their peers in general education classrooms. Universal design for learning (UDL) is a framework that supports inclusion and offers a common foundation from which educators and S-LPs can collaborate to meaningfully embed speech, language, and communication support into the classroom.

Purpose: To determine the extent to which S-LPs working in Canadian schools perceived that they were knowledgeable about UDL, their belief that they had the skills needed to implement UDL, and the ease or difficulty with which they were able to implement UDL as part of their current position.

Method: Ninety-one school-based S-LPs completed a 25-minute online anonymous survey. The survey covered a range of topics relevant to school-based practice, including questions specific to UDL.

Results: A majority of S-LPs were familiar with the term and definition of UDL and did not perceive general knowledge about UDL to be a major barrier to implementation. Respondents were less certain about their competency in specific skills needed to implement UDL at the classroom level. With respect to other factors, most S-LPs identified: time, opportunities to collaborate with school personnel, and administrative support as key barriers to implementing UDL. Open-ended survey responses reinforced these factors as barriers and identified additional ones as well.

Conclusion: S-LPs reported many challenges to implementing UDL. While S-LPs would benefit from professional development to support specific skills related to implementation, systemic change also is required to support S-LPs' involvement in collaboratively implementing UDL. Additionally, high quality research is required to examine the effectiveness of UDL-based S-LP services.

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Contexte : Les écoles canadiennes priorisent de plus en plus l'inclusion complète des élèves avec handicaps afin qu'ils reçoivent leur éducation aux côtés de leurs pairs dans les classes régulières. La conception universelle des apprentissages (CUA) est un cadre qui soutient l'inclusion et qui offre une base commune sur laquelle les éducateurs et les orthophonistes peuvent s'appuyer pour collaborer et intégrer un moyen de soutenir la parole, le langage et la communication dans la classe.

Objectif : Déterminer comment les orthophonistes qui travaillent dans les écoles canadiennes percevaient leurs connaissances de la CUA, quelles étaient leurs opinions concernant leurs habiletés à appliquer la CUA ainsi que la facilité ou la difficulté avec laquelle ils ont été en mesure d'appliquer la CUA dans le cadre de leur poste.

Méthodologie : Quatre-vingt-onze orthophonistes travaillant en milieu scolaire ont répondu de façon anonyme à un sondage en ligne d'une durée de 25 minutes. Le sondage couvrait une variété de sujets en lien avec la pratique en milieu scolaire, incluant des questions portant spécifiquement sur la CUA.

Résultats : La majorité des orthophonistes connaissaient le terme et la définition de la CUA et ne percevaient pas qu'une connaissance générale de la CUA constituait un obstacle majeur à son application. Les répondants étaient moins certains de posséder les habiletés spécifiques nécessaires pour appliquer la CUA dans le contexte de classe. Les autres facteurs identifiés par la majorité des orthophonistes comme étant les principaux obstacles à l'application de la CUA étaient le temps, les occasions de collaborer avec le personnel de l'école et le soutien administratif. Les réponses aux questions ouvertes du sondage ont confirmé que ces facteurs étaient des obstacles et en ont fait ressortir d'autres.

Conclusion : Les orthophonistes ont rapporté de nombreux défis dans l'application de la CUA. Bien que les orthophonistes bénéficieraient d'activités de développement professionnel pour soutenir leurs habiletés spécifiques reliées à l'application de la CUA, un changement systémique est aussi nécessaire pour soutenir la participation des orthophonistes dans l'application collaborative de la CUA. De plus, une recherche de qualité est nécessaire pour étudier l'efficacité des services orthophoniques basés sur la CUA.

Inclusive education means that "all students attend and are welcomed by their neighbourhood schools in age-appropriate, regular classes and are supported to learn, contribute, and participate in all aspects of the life of the school" (Inclusive Education Canada, 2015). Philosophically, inclusion is founded on a core belief that "...every child, with or *without* disabilities, has the right to belong" (Causton & Tracy-Bronson, 2014, p. 32). Moreover, research shows that high quality inclusive education is associated with health, academic, and social benefits for students with disabilities (Katz, 2013; Morningstar, Shogren, Lee, & Born, 2015; Oh-Young & Filler, 2015; Timmons & Wagner, 2009), *without* impeding the academic progress of students who do not have disabilities (Green, Terry, & Gallagher, 2014; Specht, 2013). Indeed, the social benefits of inclusion extend to all children in the classroom – whether or not they have a disability (Katz, 2013). Yet, despite the philosophical and evidence-based reasons for embracing inclusive education, actual practices in Canada vary tremendously (Towle, 2015). For example, data from Statistics Canada's Children's Participation and Activity Limitation Survey revealed that most provinces educate only about one third of their students with disabilities in highly inclusive settings (Timmons & Wagner, 2009). A recent report on inclusive education in Canada indicates that the gap between policy and practice remains a high priority for this country (Towle, 2015).

Considering Towle's report, it seems both timely and worthwhile to consider what role speech-language pathologists (S-LPs) might play in closing Canada's policy-practice gap in inclusive education. A recent survey of the leadership of teacher's associations across Canada indicated that many teachers feel inadequately prepared to implement inclusive education and view increased collaboration with specialists as essential to building their capacity in this area (Thompson, Lyons, & Timmons, 2015). For example, although general educators are highly knowledgeable about curriculum and instructional design, many do not feel prepared to teach children with disabilities (Peebles & Mendaglio, 2014) and may not be aware of how best to support students with speech, language, and communication needs in the general education classroom (Ralabate, Currie-Rubin, Boucher, & Bartecchi, 2014). As a complement to educators, S-LPs have a wealth of knowledge about the learning challenges that children with communication difficulties are likely to encounter in the classroom, and moreover, the kinds of supports that are needed to support successful learning (Causton & Tracy-Bronson, 2014; Staskowski, Hardin, Klein, & Wozniak, 2012; Zurawski, 2014). The challenge remains: how can educators and S-LPs collaborate to integrate complementary sets of expertise and invite the practice of inclusive education?

Universal Design for Learning (UDL) is one approach to inclusive education that has been proposed to address this challenge; it provides a common foundation for educators and S-LPs to build an accessible curriculum that can support the speech, language, and communication needs of all students (Waller, 2012). UDL emerged from the 'universal design' movement in architecture that saw upfront planning of physical environments to include features such as ramps and curb cuts that benefit all individuals who may require their use (Ralabate, 2011). Redesigning such elements retroactively to meet specific needs was deemed costly and inefficient compared to proactive designs that were accessible to many. UDL was a parallel movement in the field of education that emphasized 'front-loading' curriculum planning to proactively address the learning needs of all students simultaneously (Staskowski et al., 2012); it sought to reduce the need for one-off accommodations that addressed the needs of single students or small, specialized groups (Ralabate, 2011). UDL is distinct from differentiated instruction or DI – an approach that also is relevant to S-LPs working in the schools. Specifically, whereas UDL emphasizes planning for diversity across *all* learners *from the outset*, DI focuses on making adjustments to curricular content or process *in response* to the learning needs of *individual* students (Center for Applied Special Technology, 2013). While some students will need both UDL and DI to fully access the academic curriculum (and potentially other supports as well), many other students' needs will be met by the curricular and instructional supports offered by UDL (Missiuna, Pollock, Levac, et al., 2012). In this way, UDL and DI can be thought of as complementary approaches to supporting inclusive education (Ontario Ministry of Education, 2013).

The primary purpose for implementing a UDL framework is to help all students become self-directed "expert" learners who are highly engaged, goal-directed, and knowledgeable about how they learn (Meyer, Rose, & Gordon, 2014); this is achieved by promoting choice and flexibility within curriculum via varied displays of information, assessment strategies, and methods of student engagement (Staskowski et al., 2012). Waller (2012) has highlighted that the "S-LP plays an integral role in UDL by working collaboratively with classroom teams to ensure that content is presented in a variety of forms, that teaching strategies promote active attention and engagement, and that students have various opportunities and modalities to communicate and to share information" (p.131). UDL

often incorporates benefits of technology within curriculum development and implementation, which can be a strength for S-LPs who have an expertise in assistive technology (Staskowski et al., 2012). Indeed, the American Speech-Language Hearing Association (ASHA) has endorsed UDL as a core component of school-based practice, stating that "knowledge of UDL principles and application should be foundational to how S-LPs conduct evaluations and assessments as well as interventions" (ASHA, 2016, http://www.asha.org/S-LP/schools/Universal-Design-for-Learning). However, despite this endorsement, results from the most recent ASHA Schools Survey indicated that only 23% of S-LPs are implementing UDL in the United States (ASHA, 2014). To our knowledge, no studies have examined the use of UDL by S-LPs in Canada. Given the potential role of UDL in supporting inclusive education more broadly, we believe that this is an important issue for the school-based clinical community to explore. Therefore, the purpose of this paper is to report findings from a recent survey of Canadian school-based S-LPs in which we sought to answer the following questions:

1. Are school-based S-LPs familiar with the term UDL and its definition?
2. What do S-LPs perceive as barriers to implementing UDL in their schools?
3. How confident are S-LPs that they have the knowledge and skills needed to implement UDL as part of their clinical practice in schools?

Method

Participants

Ethical approval for the study was received from the Hamilton Integrated Research Ethics Board (HIREB) at McMaster University (HIREB Approval #13-764). Participants were recruited from the membership of Speech-Language Audiology Canada (SAC), which is the national professional association for speech-language pathologists and audiologists in Canada. A total of 91 S-LPs working in the schools responded to our request for participants and completed our online anonymous survey.

Of the 91 members who completed our survey, 75 (82%) reported working full-time and 74 (81%) were employed by a school board. Participants included S-LPs from 9 provinces and 1 territory; however, a majority of participants were from British Columbia (n = 17; 19%), Alberta (n = 14; 15%), and Ontario (n = 33; 36%). A predominance of S-LPs from these three provinces is consistent with previous surveys of SAC school-based members (CASLPA, 2011). A majority of S-LPs considered their primary role to be a direct service provider (n = 72; 79%). On average, S-LPs had worked for 14.56 years (SD = 9.82; Mdn = 13.00; range = 1-35) with an average of 11.47 years in the school setting (SD = 8.32; Mdn = 10.00; range = 1-33). Twenty-five percent worked in rural communities with fewer than 1000 people; 34% in small communities with fewer than 30,000 people; 22% in medium communities of up to 100,000 people; and 48% in urban communities with greater than 100,000 people[1].

As might be expected given variations in community size, caseload size also varied widely. Specifically, the median caseload was reported to be 85 students and ranged from 0 for a S-LP manager to 900 for an S-LP working in rural and small communities. Approximately 80% of S-LPs reported providing services to students in Kindergarten through to Grade 5. The percentage of S-LPs providing services to students beyond Grade 5 decreased progressively with approximately 50% providing services to high school students. Close to half of the students receiving S-LP services presented with either phonological/articulation disorders (M = 43.89; SD = 20.67; Mdn = 50.00) or spoken language disorders (M = 45.03; SD = 25.87; Mdn = 45.00). Students with autism spectrum disorders (M = 12.76; SD = 13.19; Mdn = 10.00) and developmental disability (M = 13.30; SD = 13.26; Mdn = 10.00) each accounted for approximately 10% of students receiving school-based S-LP services. All other speech, language, and communication disorders accounted for 5% or less of S-LP caseloads.

Materials

The survey utilized in this study was developed for a project funded by a Clinical Research Grant from Speech-Language and Audiology Canada to examine caseload characteristics and practice patterns among school-based S-LPs with a particular focus on how S-LPs might support inclusive education (Gaines, Campbell, & Missiuna, 2013-2015). To facilitate comparison between our data and the extant literature, questions were adapted from existing surveys about school-based practice patterns where possible (ASHA, 2012; CASLPA, 2011; Dohan & Schulz, 1998; 1999; Missiuna, Pollock, Campbell, et al., 2012). Overall, our survey consisted of questions grouped into three broad sections: (1) background information about participants, their respective caseloads, and current models of service delivery [10 single and 5 multi-part questions; 1 open-ended question]; (2) knowledge and perceptions of initiatives in general and special education related to inclusion, including UDL and response to intervention (RtI) [8 single and 2 multi-part questions; 2 open-ended questions]; and (3) knowledge, skills, and experiences regarding collaborative

consultation and classroom-based approaches to service delivery that would support implementation of UDL or RtI [3 multi-part questions; 1 open-ended question]. The data reported in this paper are from 28 of these questions: 11 questions about the background of the S-LPs (Section 1); 9 questions focused on participants' knowledge of UDL and perceived barriers to its use (Section 2); and 8 questions from a multi-part question about skills relevant to implementing UDL collaboratively with educators (Section 3). A copy of the survey may be requested from the first author.

Prior to data collection, all survey questions and response options were reviewed by several practicing school-based S-LPs for clarity and completeness. Based upon their feedback, we elected to add definitions for three key terms in our survey (UDL, RtI, and collaborative consultation) to ensure that all respondents were provided with a consistent definition and were using the same terminology when responding to survey items. We selected the UDL definition proposed by the National Center on Universal Design for Learning and elaborated by Ralabate (2011):

> "Universal Design for Learning (UDL) is a set of principles for curriculum development that gives all individuals equal opportunities to learn. UDL provides a blueprint for creating instructional goals, methods, materials, and assessments that work for everyone – not a single, one-size-fits-all solution but rather flexible approaches that can be customized and adjusted for individual needs" (National Center on Universal Design for Learning, n.d.).
>
> "By facilitating the design and implementation of a flexible, responsive curriculum, UDL offers options for how information is presented, how students respond or demonstrate their knowledge and skills, and how students are engaged in learning. UDL implementation provides the opportunity for all students to...progress in the general education curriculum by reducing barriers to instruction" (Ralabate, 2011, p.14).

Once the survey questions were finalized, they were entered into Research Electronic Data Capture (REDcap), a web-based application to support online data collection through survey development and data management (Harris et al., 2009). Further pilot testing indicated that the survey could be completed in approximately 25 minutes.

Procedure

Participants were recruited from the general membership of SAC using three strategies: (1) a general email sent by SAC to all members of the Association in April 2014; (2) posters distributed to members attending the SAC biannual national convention in May 2014; and (3) a newsletter-style article about the study posted to the members-only section of the SAC website in December 2014. In each of these communications, we provided potential participants with a link to our survey in RedCap, which they could access in order to complete the survey anonymously. Participants were provided with a letter of information in the first page of the survey; consent was assumed by participants' choice to complete all sections of the survey and click on the "submit" button prior to exiting the survey. Participants could exit the survey at any time without saving their responses.

Analysis

For the purposes of this paper, only participants' responses to survey questions about their knowledge of and involvement in activities related to UDL were analyzed. Statistical analyses were completed using SPSS 22 (2013).

Results

According to survey results, 64% of the 91 participants recognized the term UDL and 65% were familiar with the concepts described in the definition of UDL, prior to completing the survey. The respondents who answered 'yes' to either survey item (n=64) continued to answer additional survey questions related to UDL. The remaining 27 respondents were automatically redirected to the next section of the survey. Of the 64 respondents who completed the survey items related to UDL, a total of 55% indicated that their school board used the term UDL; 20% of respondents stated that they were unsure whether or not the term UDL was used; and 25% of respondents indicated that their school board did not use the term UDL.

Next, this same subsample of respondents (n=64) were asked to rate the extent to which they had encountered five specific challenges to implementing UDL during the last year using a 7-point scale where 1 represented *not at all a challenge*, 4 represented a *moderate challenge*, and 7 represented a *substantial challenge*. A 'not applicable' option also was provided based upon feedback received during pilot testing that some challenges were not relevant to S-LPs if their current position did not include a role in UDL implementation. Approximately 25-30% of the participants in the subsample chose the 'not applicable' option for each of the 5 items. Figure 1 shows the distribution of

participants' responses across the 7-point scale for each potential challenge as well as the frequency with which the 'not applicable' category was selected. Overall, most participants reported that knowledge of UDL presented a low to moderate challenge with access to opportunities for professional development in UDL considered to be a moderate to substantial challenge. Having opportunities to collaborate with educators to implement UDL was considered by more than 50% of respondents to be a moderate to substantial challenge with 28% of this subsample reporting this to be a substantial challenge. Time to implement UDL activities was considered to be the greatest challenge in implementing UDL with approximately 57% of participants rating this item as a moderate to substantial challenge. Indeed, a total of 28% of respondents rated this item as a substantial challenge. Receiving administrative support for implementing UDL activities was also highly rated as a challenging aspect of implementing UDL.

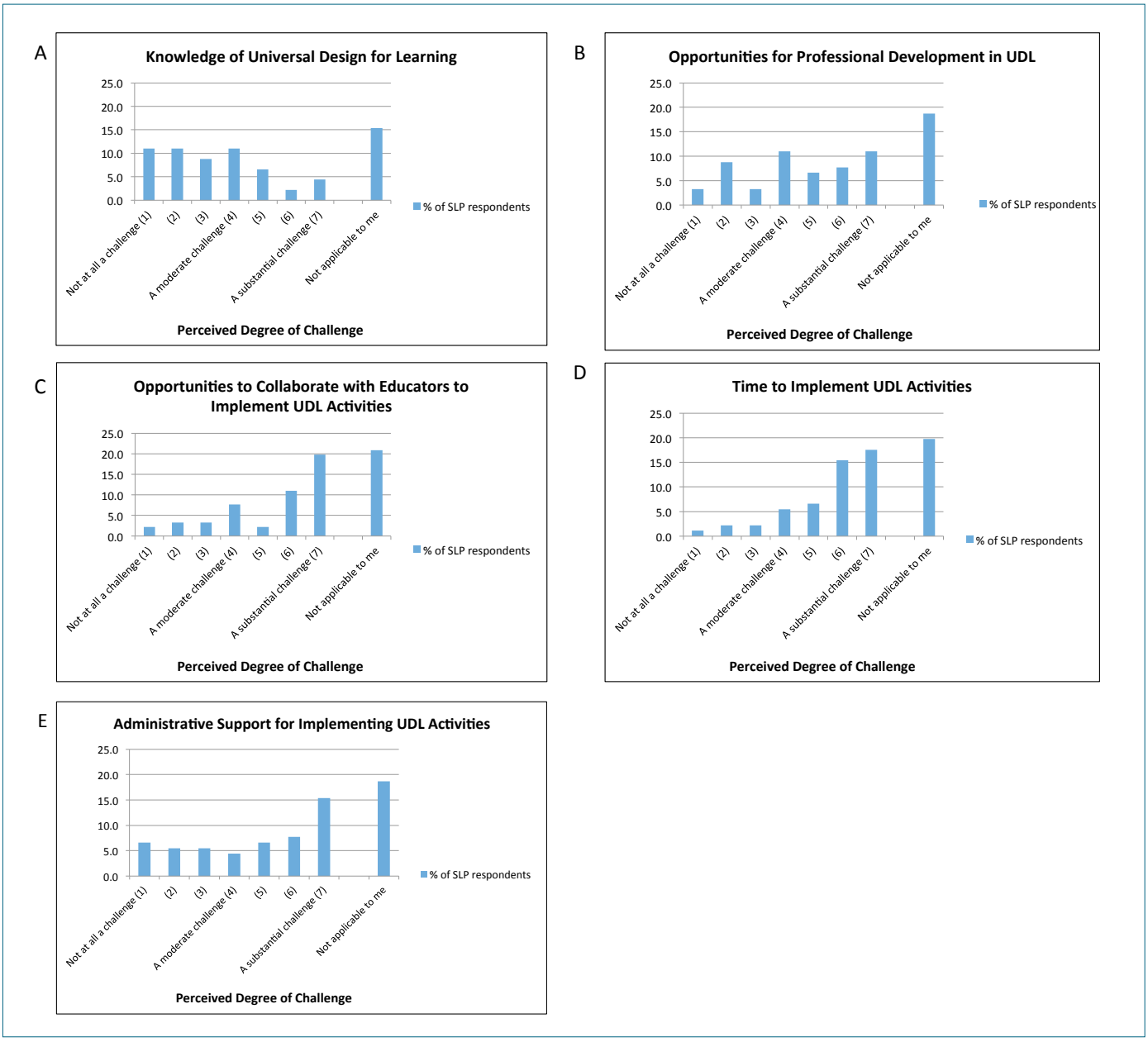

Figure 1. S-LPs' perceived barriers to implementing UDL in current position.

Open-ended feedback from respondents also indicated that a variety of challenges and barriers were experienced when considering implementation of UDL within the classroom. Other than those that had been had rated previously, participants also reported the following barriers: educators may not be invested in UDL themselves or may not be adequately trained in UDL; when school boards do offer training in UDL, S-LPs and other health professionals are often not included; UDL implementation requires building relationships with teachers and creating "buy-in" first, which requires time; schools may lack technological infrastructure to support UDL; there may be a lack of S-LP staff or other financial resources to include UDL-based services; school administrators and staff view the role of the S-LP as mainly a direct service provider rather than a collaborator; and families may prefer that their child receive individual support. Even though most respondents who provided open-ended feedback reported additional barriers, a small number did indicate that they worked in school boards that supported their involvement in UDL and indicated a positive perception of this aspect of their role.

In the final portion of the survey, participants rated their perceived level of competence for several skills, eight of which were particularly relevant to implementing UDL; items were rated on a 7-point scale with 1 representing a skill that was an *area for growth* and 7 representing a skill that was an *area of competence*. As shown in Figure 2, approximately half of respondents rated themselves between 5 and 7 on the following skills, suggesting these were areas of relative competence: a) helping teachers to use curriculum-based activities in the classroom to support receptive language (44%); b) helping teachers to use curriculum-based activities in the classroom to support speech/articulation (47%); and, c) helping teachers to use curriculum-based activities in the classroom to support expressive language (55%). The remaining five skills were viewed as relative areas for growth having been rated between a 1 and 4 by over two-thirds of respondents. Also shown in Figure 2, these included: a) creating curriculum-based resource/activity centres for targeting speech, language, or communication skills that could be used by all students within a classroom (65% rated between 1 and 4); b) helping teachers to use curriculum-based activities in the classroom to support written language (66%); c) designing and delivering a curriculum-based lesson related to speech, language, or communication for a large group of students (68%); d) explaining the principles of UDL as they relate to speech-language pathology (73%); and e) implementing classroom-based activities that reflect the principles of UDL (78%).

Discussion

Although several recent provincial initiatives (e.g., Ontario's Learning for All, Alberta's Action on Inclusion, and New Brunswick's Strengthening Inclusion, Strengthening Schools) have prioritized educational approaches that focus on inclusivity and the provision of high quality instruction to all students in the classroom, a significant gap remains between policy and practice in Canada's schools (Towle, 2015). Thus, in many schools across Canada, students with disabilities do not have access to the same academic and social opportunities as their peers (Timmons & Wagner, 2009). Research indicates that greater collaboration with experts is needed to build educator capacity for inclusive education (Thompson et al., 2015). To this end, S-LPs can make a valuable contribution by considering how they can work with educators to support students with communication-related disabilities in the general education classroom (Ehren, Montgomery, Rudebusch, & Whitmire, 2009). Universal design for learning is a framework that supports inclusion and offers a common foundation on which to build collaboration in the classroom (ASHA, 2015; Ralabate, 2011; Ralabate et al., 2014; Staskowski et al., 2012; Waller, 2012). In this study, we sought to determine the extent to which S-LPs working in Canadian schools perceived that they were knowledgeable about UDL, their belief that they had the skills needed to implement UDL, and the ease or difficulty with which they were able to implement UDL as part of their current role.

While a majority of the S-LPs who completed our survey recognized the term UDL and were familiar with its definition, it was notable that nearly 30% of respondents had never encountered this term or its concepts prior to completing our survey. This suggests that building basic awareness of UDL is a need for at least some school-based practitioners. Of those S-LPs who were already familiar with the term UDL, most did not identify a lack of knowledge about UDL to be a major barrier to implementation. Yet, most S-LPs also were not confident that they could explain how the principles of UDL related specifically to the field of speech-language pathology. Thus, even when S-LPs are familiar with the term and concepts of UDL more generally, they may still need support to apply those principles to their actual clinical practice. This may be why S-LPs identified insufficient opportunities for professional development in UDL as a significant barrier to implementation even though lack of knowledge was not viewed similarly. Furthermore, open-ended comments suggested that it was a lack of opportunities for *shared* professional development with their educator colleagues in particular that impeded implementation of UDL in the classroom. This observation

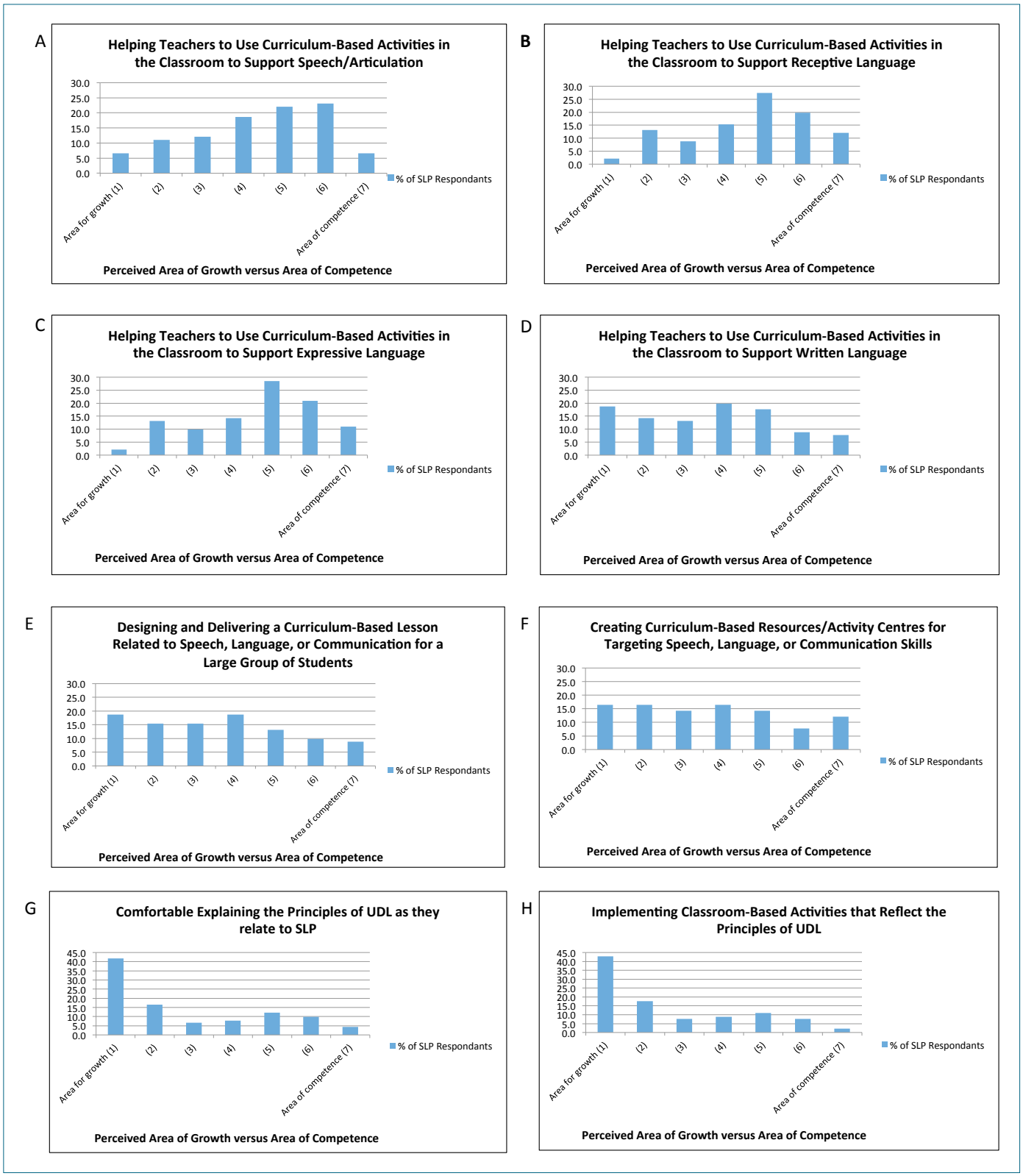

Figure 2. S-LPs' perceived level of competence for skills relevant to implementing UDL.

is worth noting given prior research suggesting that interprofessional training opportunities between S-LPs and educators may be essential to supporting successful collaboration in schools (Hartas, 2004; Hillier, Civetta, & Pridham, 2010; Suleman et al., 2013; Waller, 2012; Wilson, McNeill, & Gillon, 2015).

When asked about several specific skills that would be needed to actually implement UDL in a classroom setting, there was considerable variability in S-LPs' responses. In general, S-LPs felt confident that they could support teachers' use of curriculum-based activities to support speech and language skills in the classroom; however, they were less confident about their own ability to design and implement activities or strategies for use by all of the students in a classroom (e.g., designing a classroom activity center or delivering a whole-class lesson focused on communication skills). These findings dovetail quite well with the results of two recent Canadian studies showing that school-based occupational therapists needed formal training and mentoring to be able to collaboratively implement UDL-based activities in a whole-class setting (Missiuna, Pollock, Whalen, Dix, & Stewart, 2015; Missiuna, Pollock, Campbell, et al., 2012). In addition, Waller (2012) reported the results of a pilot study demonstrating the benefits of pre-professional clinical practica in preparing S-LPs to work in universally designed classrooms; specifically, "...graduate students learned to identify components of UDL in the classroom, incorporate components of UDL in targeted small group interventions, and incorporate components of UDL in whole-class lessons. This information had a positive impact on the overall role of the graduate clinicians in the classroom and on the clinicians' knowledge of school-based issues in speech-language pathology" (p. 134). These findings reinforce the importance of considering both pre- and post-professional training with respect to preparing S-LPs for classroom-based collaboration using UDL. As a first step, we recommend that S-LPs look for opportunities to build their foundational knowledge of UDL. Several free online resources to support professional development in UDL are described in Table 1. In addition, examples of professional practice articles that explicitly describe how S-LPs can be involved in UDL implementation are listed in Table 2. Finally, S-LPs may wish to join a virtual professional learning community to connect with colleagues and build a network in UDL implementation. The National Center on Universal for Learning's UDL Connect website is one such example that is free and open access (see http://community.udlcenter.org/ for more information).

Table 1. Online resources for developing foundational knowledge and skills in UDL

Online Resource	Description
www.cast.org	Website for the Centre for Applied Special Technology (CAST). Researchers from CAST are the original developers of UDL. Their website includes a wealth of resources about UDL, including free and fee-based online professional learning opportunities as well as several free e-learning tools to assist with UDL implementation.
www.udlcenter.org	Website for the National Center on Universal Design for Learning. The goal of the Center is to serve as a hub for UDL implementation by connecting stakeholders interested in UDL to information, research, resources, and professional learning communities.
www.udlresource.ca	Website focused on UDL developed by SET-BC (Special Education Technology – British Columbia) with support from the BC Ministry of Education (Department of Diversity and Equity). Includes a free self-paced course in UDL; online resources; extensive video gallery; and practical strategies for implementing UDL in K-12 classrooms.
http://udltheorypractice.cast.org	Free e-book, "Universal Design for Learning: Theory & Practice." Published in 2014 and written by CAST researchers, this is the most up-to-date resource on UDL research and implementation. It incorporates many illustrations, videos, and case examples of how UDL is implemented in classrooms and schools.

Table 2. Examples of professional practice articles describing S-LP role in UDL implementation

Citation
Horn, E., & Banerjee, R. (2009). Understanding curriculum modifications and embedded learning opportunities in the context of supporting all children's success. *Language, Speech, and Hearing Services in Schools, 40*, 406-415.
Ralabate, P. K. (2011). Universal design for learning: Meeting the needs of all students. *The ASHA Leader, 16* (10), 14-17.
Ralabate, P. K., Currie-Rubin, R., Boucher, A., & Bartecchi, J. (2014). Collaborative planning using universal design for learning. *ASHA SIG 16 Perspectives on School-Based Issues, 15*, 26-31. doi:10.1044/sbi15.1.26.
Staskowski, M., Hardin, S., Klein, M., & Wozniak, C. (2012). Universal design for learning: Speech-language pathologists and their teams making the common core curriculum accessible. *Seminars in Speech and Language, 33*, 111-129.

In addition to issues related to knowledge and knowledge application, S-LPs also identified factors such as lack of time, lack of opportunities to meet with teachers, and lack of administrative support as barriers in their participation in collaborative implementation of UDL. These kinds of barriers are not new to school-based practice and previously have been identified as interfering with collaboration in the school setting (Glover, McCormack, & Smith-Tamaray, 2015; Hartas, 2004). The fact that these barriers appear to impede S-LP involvement in implementation of UDL is underscored by our finding that up to 25% of the S-LPs completing this section chose to not even rate these barriers presumably because implementation of UDL was not relevant in their current position. In retrospect, we would have liked to have probed these respondents further to ascertain why they viewed that series of questions as not applicable. For example, perhaps the school board for which they work doesn't use UDL. In any case, even without that additional information, these responses suggest that UDL may be an underutilized option for collaboration in the classroom.

To address these types of systemic barriers, it will likely be necessary to advocate for change in how school-based S-LP services are viewed as a whole. As just one example of how this has unfolded in the United States, the American Speech-Language-Hearing Association, the American Occupational Therapy Association, and the American Physical Therapy Association issued a joint statement in 2014 outlining the rationale for shifting from a traditional caseload approach to a workload approach for therapists working in schools (ASHA, n.d.). In a caseload approach, consideration is given only to the number of students receiving services without taking into account other activities performed by S-LPs that support students, such as consultation and collaboration with school staff, participating in school-wide initiatives, working with parents, attending team meetings, planning, documentation, or travel time (ASHA, n.d.). In a workload approach, consideration is given to *all* of the activities performed by the S-LP as part of their role in the schools and caseload size is adjusted accordingly (ASHA, n.d.). As part of this initiative, ASHA has developed a number of resources that school-based S-LPs may use to help their states and local boards of education transition from a caseload to a workload approach (see ASHA's Practice Portal on Professional Issues).

In Canada, a parallel initiative was undertaken by the Canadian Association of Speech-Language Pathologists and Audiologists (CASLPA; recently renamed Speech-Language and Audiology Canada or SAC), the Canadian Association of Occupational Therapists (CAOT), and the Canadian Physiotherapy Association (CPA) to develop an evidence-based Caseload Management Planning Tool in which client needs, intervention complexity, and service intensity are considered in conjunction with non-client care activities to estimate the number of clients who can be managed successfully over a given period of time for a given number of therapists (CAOT, CPA, & CASLPA, 2011). These kinds of tools and resources can serve as a starting point for school-based S-LPs looking to advocate for a workload approach in their current school position.

Limitations

The sample size in this study is small relative to the total number of S-LPs working in Canadian schools and was not recruited proportionately from all provinces and territories in Canada. Thus, it cannot be assumed that the results reported in this study are representative of the

larger population of school-based S-LPs in this country. Moreover, as in most survey research, the S-LPs who chose to complete our survey were volunteers and may have been highly motivated to express their views on the topic of collaborative service delivery in schools – whether positive or negative. For that reason, we cannot be certain that had our survey reached a greater percentage of S-LPs practicing in the schools that our results would be replicated. That being said, the fact that our findings are consistent with the existing literature (e.g., Glover et al., 2015; Hartas, 2004) provides support for the validity of our findings.

Conclusions and Future Directions

The growing demand in Canada for schools to be fully inclusive (Towle, 2015) challenges educators and S-LPs alike to reconsider how they may best work together to support students with disabilities in the general education classroom. In this paper, we have suggested that collaborative implementation of UDL offers one means by which school-based S-LPs could help educators create inclusive classrooms. Yet our survey results indicated that S-LPs did not feel that they had sufficient training or supports to implement UDL in their current roles within the schools. Accordingly, professional development opportunities will likely be needed to build S-LPs' knowledge, skills, and capacity to engage in collaborative practice using UDL. In addition, there is a need for ongoing advocacy at a systems level to remove existing barriers to collaboration in the schools. Finally, high quality research is required to build an evidence base for UDL-based S-LP services as well as to determine best practices for professional development. Only when all of these elements are addressed is it likely to be possible to explore the potential role of school-based S-LPs within the broader context of inclusive education.

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End Notes

[1] Percentage does not equal 100% as categories were not mutually exclusive (i.e., a single S-LP might work in several communities of varying size).

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