PROFESSIONALS WORKING WITH DEAFBLIND PEOPLE: RESULTS OF A GLOBAL SURVEY

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EXECUTIVE SUMMARY

This report presents findings from a global survey of interpreters, support workers and other professionals who provide support services to deafblind people. This report was produced as part of the Australian Research Council funded Linkage Project "*Deafblind communication: Building professional competencies*" partnering with Able Australia and NAATI – the National Accreditation Authority for Translators and Interpreters.

Three hundred and twenty-four professionals from 36 countries participated in the survey. Our participants held a variety of roles (sometimes concurrently) across the areas of interpreting, support work and other support services. The cohort who responded are generally well-educated and experienced professionals: just over half of all participants held a Bachelor's degree or higher, and over half of all interpreters and around a third of support workers and Others have been in the field for more than 10 years.

Around two thirds of professionals completing the survey reported that they worked with a mix of people with congenital and acquired deafblindness. As might be expected, very few interpreters (1%) worked exclusively with people with congenital deafblindness, with that number rising to 15% for support workers. Around half of respondents reported that their clients lived in the community independently, with a third responding that they had a mix of clients living in group homes and independently. Only 2% of interpreters, but 8% of support workers worked exclusively in congregate living settings.

When asked about the attitudes and opinions about their job, professionals across all roles showed strong commitment and enjoyment of their roles. Responding on a 1-5 scale, where 5 is strongly agree, we see average agreement scores of 4 or more on questions measuring the extent to which they enjoy the company of deafblind people, find the work emotionally rewarding and well aligned with their personal values. They also feel a strong sense of achievement from their work. Respondents also agree, however, that the work comes with challenges, with an average level of agreement between 3.4 and 4 to statements such as "It is physically taxing" and "It is emotionally draining". Participants were neutral on the question "the work is well paid (average 2.8-3.0) suggesting a level of dissatisfaction with remuneration that comes through at other points in the report. When asked about pay rates compared to doing similar work with non-deafblind people around half of all professions agreed that there was no pay difference in their country/ context. Only 15-20% reported that the work was better paying, with around a quarter of all participants choosing not to answer this question.

Chapter 4 of the report explicitly compares and contrasts the experiences of interpreters and support workers. As might be expected the support workers in our sample were working more frequently with deafblind clients than the interpreters: 56% of support workers, but only 21% of interpreters worked with deafblind clients on a weekly basis. When they work with deafblind clients, 88% of support workers and interpreters report guiding their clients. Interpreters were slightly more likely to work with deafblind clients who still used a visual form of signing (such as signing within a restricted visual frame) (72%) than tactile signing (65%), and were much more likely to perform sight translations of written documents into visual sign languages (76%) than tactile sign languages (38%). Support workers were also actively involved in providing language support with 87% indicating that they interpret long interactions for their clients when working in support worker roles and 49% relaying information from written texts. These responses suggest that there are blurred boundaries between interpreting and support work for deafblind

people in many contexts internationally, a finding further reinforced by the fact that 40% of our support workers also hold other roles where they are hired/ paid to interpret. Our data thus suggests that there is merit in exploring role structures that do not draw a hard boundary between the interpreter and support worker role. However, in any such discussion it is imperative that the professional skill-level standards expected of people working in these roles remain high and that skilled signers are appropriately remunerated for their work with deafblind clients, regardless of the formal job title that they are employed under. In other words, we cannot expect to attract and retain skilled workers in these roles if the pay and conditions do not reflect the demands of the role and the skills required to do it well.

The survey showed very different rates of relevant tertiary education between support workers and interpreters. Only two support workers held a relevant Bachelor's degree or higher specifically focused on support work, whereas for 28% of interpreters held interpreting degrees at that level. This suggests that the interpreting pathway is much more professionalised, though it is still striking that 37% of interpreters in our sample report no higher education in interpreting, simply short courses and/ or on the job training. Despite their very different training levels, interpreters and support workers report near identical levels of confidence when asked about communicating with deafblind clients. On a 1-5 scale both groups have average ratings above 4 for understanding and being understood by deafblind clients who they know and guiding clients. The most challenging areas (scored between 2.8 and 3.4) were understanding and being understood by deafblind clients who they don't know, using haptic signals and using protactile features.

The final section of the report asked about participants exposure to training specifically around working with deafblind clients. Around half of our participants had less than 15 hours of professional development in this area across their entire careers. This speaks to a dearth of training in the area which was consistently reinforced across subsequent questions. The most common training that people had accessed was deafblind awareness training (accessed by around 80% of participants) and guiding deafblind people (accessed by over 65% of participants). Other training types asked about were accessed by around 50% or less of participants – and for all these trainings it is important to remember that we are discussing short professional development sessions that rarely run for more than a day. Participants were, however, extremely enthusiastic about the trainings that they had been able to attend, reporting average satisfaction ratings of 4.2-4.6 out of 5 for the vast majority of trainings that we asked about. Participants who indicated that they hadn't been trained in an area were asked what their barrier to participation was. 49% indicated that there was no training available to attend and 14% indicated that training had been offered but the timing hadn't suited them. 29% elected to give a write-in response to this questions where most reported that they had either already learnt that skill on the job, or that they were themselves involved in training delivery rather than attending training. Unsurprisingly, respondents who were delivering training generally had been practicing for more than 11 years and were often those who indicated earlier in the questionnaire that they began their career before formal qualifications as interpreters/ Deaf interpreters were established**.**

Participants had the opportunity to give open-ended comments about the training they desired, with over 90 participants listing training in specific communication skills or methods that they would like to see, including 39 whose preference was to attend anything and everything as they had had little to no formal training to date. Open-ended comments also frequently raised the need for formalised training pathways that people can access prior to commencing work in the field and the important role that such training plays in ensuring workforce quality.
This report has shown that professionals working with deafblind people face a number of similar challenges around the globe. With the exception of access to training on Protactile

communication (which originated in the US and is still most widely used in that country) it was indeed striking how few differences were observable between data from respondents in different countries.

The data paints a picture of a dedicated and experienced workforce, that have overwhelmingly acquired their skills through on-the-job training and experience. Only in Norway do sign language interpreters report consistent training in deafblind communication as part of their interpreting pre-service training. Australia and Japan are the only other countries to have national-level training units or short courses available for prospective workers to take prior to working in the industry – and in Australia the unit exists as an elective that is not required to be completed prior to commencing work with deafblind people. Our data on qualification and pre-service training suggest that a number of North American colleges are offering one or more units on deafblindness as part of interpreter education and teacher of the deaf programs, but availability of these units is clearly patchy. Again with the exception of Norway, interpreters are not reporting being required to show competency in deafblind signing as part of their general interpreting credential and lament the relatively limited opportunities they have for professional development in this area.

The result of the training landscape is that professionals show a strong appetite for professional development around deafblind communication. The majority of our participants had already completed in excess of 15 hours of professional development on deafblind communication, but were very keen for more: especially training that moved beyond the basis. Lack of training opportunities was the most widely identified barriers to participating in more professional learning, however a number of participants also raised issues around their attendance at training being unpaid and this making it difficult to attend (both to cover the costs of the training and the income forgone in not working that day). When coupled with reports around the variable quality of training and the dearth of more advanced training opportunities these remarks speak strongly to the need for more structured training opportunities and credentialing across the sector globally, to ensure that new recruits can gain the necessary skills to provide high quality services to their clients from day one. Given the specialised skillset involved there is also a strong argument for ensuring that professionals working with deafblind people have access to more stable and/ or better paying employment conditions. While most of our professionals expressed strong desire to keep working in the sector, poor remuneration or lack of steady hours were central reasons people named for why they were considering leaving the profession and are undoubtedly contributing to workforce shortages in the sector.

1. SURVEY CONTEXT

This online global survey was conducted by a team of researchers from Monash University, Australia as part of the Australian Research Council funded Linkage Project "*Deafblind communication: Building professional competencies"* partnering with Able Australia and NAATI – the National Accreditation Authority for Translators and Interpreters.

Deafblind people work with and interact with various kinds of practitioners: interpreters, support workers and others. The first global report of the World Federation for the Deafblind notes that access to "a professional interpreter-guide service can be the key to accessing other services and fundamental rights, such as education, employment, healthcare, culture and recreation" for deafblind people (2018, p. 5), but that such services do not exist in many low and middle income countries and may be highly restricted even in high income countries. The second global report of the World Federation for the Deafblind (2023) includes a large subsection on "Interpreter-guides/Deafblind interpreters and Other Forms of Live Assistance" stressing the importance of deafblind people being able to access support from paid professionals and calling out the current lack of training and certification for professionals working in these contexts in many countries as deeply problematic. This was also a strong theme in the first global report which recommended that "States must also ensure a minimum quality of communication-related services, such as interpretation and personal assistance, and aim for standardisation across the board". (2018, p7.). The second global report makes a number of recommendations to improve practice in the area of interpreting and support service provision. Of most relevance to the current report are the calls for researchers to "… increase international technical cooperation on interpreter-guide/Deafblind interpreting services and increase funding to establish disability support services for persons with deafblindness" (2023, p. 76) The report from 2023 also calls on governments around the world to "establish guidelines on interpreter-guide/Deafblind interpreting competencies, a training and certification programme, a registry and booking system, and quality control measures in consultation with OPDs [Organisation of persons with disabilities] of persons with deafblindness" (World Federation of the DeafBlind, 2023, p. 75).

In this report we aim to contribute to these calls for greater professionalisation of the field by giving greater insight into current workforce conditions and training practices around the globe. Currently relatively little is known about practitioners that work with deafblind people, including how they acquire the skills to communicate with deafblind people, what kinds of communication strategies they use and what their needs for professional development are. We also have a poor sense globally of who is drawn to this work and if/ how conditions or training opportunities are varying between countries. It is important to note that workforce shortages and difficulties finding staff who have the necessary skills to work with deafblind clients have long been acknowledged as issues for the sector internationally (Able Australia, Senses Australia and Deafblind Australia, 2019; Edwards, 2014; Hersh, 2013) and the previously-cited World Federation of the Deafblind first global report also notes a lack of adequate communication training as an issue for the sector globally (World Federation of the DeafBlind, 2018, p. 7). In better understanding the situation of those currently working in the field it is hoped that we can contribute to conversations about how to improve the sector (at both the national and international level) and to identify both barriers and examples of good practice that can point to known or new solutions.

In relation to designations or occupational titles, there are a variety of terms that are used within and across different countries. The online global survey that we conducted sought to elicit

the work-related designations that practitioners use for themselves and we collate these into three general categories: interpreters; support workers; other groups of workers. The survey design allowed participants to nominate that they work in one, two or multiple categories.

In this way, the survey sought to gain a snapshot view of key information relating to practitioners working in a field that remains under-researched. The wider context of this collected information is that it enables us to adopt an informed and empirically-based approach to developing and trialling training for (potential) support workers and practising interpreters in Australia, a core aim of our wider research project.

1.1   Survey design

A core aim in conducting this survey was to collect data from professionals working in a broad range of countries. An electronic questionnaire was chosen as the most appropriate methodological instrument to gain responses from practitioners globally (Katan, 2009). Reflecting the overall aims of the research project which focus on the development and delivery of training, design of survey questions was informed by similar studies on the profile and work-related activities of interpreters and translators (e.g. Dam & Zethsen, 2013).

On the basis of our research project, we sought to collect data on practitioners' nominated occupational designation(s), educational and training profiles (both pre-certification as university- or school-based training, and post-certification, i.e. professional development) and on their reported level of interest in engaging in further training.

In addition to information relating to their stated occupation(s) and their training, the survey design sought to elicit data relating to the following: demographics (country of residence), profiles of deafblind clients, frequency of work, type of interlingual transfer and/or support duties, reported levels of confidence in employing types of interlingual transfer and/or support duties, attitudes and positionality towards deafblind communication work, remuneration, no. of current years and projected future years of work, contacts with deafblind people outside work.

1.2   Target informants and means of data collection

The desired global reach of the questionnaire led us to ensure that it would be available in four further languages in addition to English: Chinese, French, Japanese and Spanish. These languages were chosen due to a mix of their global footprint and our networks and knowledge of deafblind organisations and support services operating in many of the countries in which these languages are used. We are grateful to students in the Monash Masters of Interpreting and Translation Studies, and members of the Deafblind International board, who translated the questionnaire as well as the responses in these four languages to open questions.

The questionnaires were distributed through a variety of electronic channels, including Facebook posts of key Deafblindness service providers, newsletters and direct emails to our contacts. The survey was open from July-October 2021. As much of the world was operating under COVID-19 restrictions at the time we asked participants to comment on both their current engagement with deafblind clients and their engagement levels with them before the outbreak of the COVID-19 pandemic worldwide (i.e. prior to March 2020).

2. WORKFORCE DEMOGRAPHICS

The survey received 324 completed responses from professionals working with deafblind clients across 36 countries. In this section of the report, we provide further details on the profile of respondents

2.1 International profile of respondents

As shown in Table 1 the largest number of respondents come from Australia (27%) Japan (23%) Canada (10%) the US (8%) and Norway (5%). Twenty-two professionals were the sole representatives of their countries (7%), while for 8% of participants the country they are working in is unknown.[1] Note that in this and other tables presented in the report percentages may not sum to 100 due to rounding.

Country	#	%
Australia	86	27%
Japan	74	23%
Canada	34	10%
USA	27	8%
Norway	15	5%
UK	10	3%
France	10	2%
Brazil	4	1%
New Zealand	4	1%
Sweden	4	1%
Belgium	3	1%
Denmark	3	1%
Italy	2	1%
Other (named)	22	7%
Not stated (and not identifiable)	26	8%
Total	324	100%

Table 1: Participants' country of residence

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[1] Around 20% of people did not state their country on the survey. However, this information was often recoverable through other means, such as geolocation of their IP address or references to the specific national qualifications that they hold. Respondents who answered the questionnaire in Japanese were also assumed to be based in Japan. This enabled us to reduce the percentage of those with no stated country of residence to 8%.

As can be seen from the list of countries, the overwhelming majority of participants come from high-income countries. This is because these countries are more likely to have paid support workers available for deafblind people. Survey results from the 2018 World Federation of the Deafblind report found that of countries that are recorded as providing professional interpreter-guide services for deafblind people, 65% of the countries identified as high-income ones provided such services for deafblind people, compared to 13% of the middle-income countries and 6% of low-income countries (2018, p. 10). Moreover, in only 42% of high-income countries – and less than 10% of low- or middle-income countries - is government funding available to pay for interpreter-guide services (2018, p. 10). This means that in many places around the world there simply are not professional interpreters or support workers for deafblind people to access because it is not possible to make a living solely from doing this work. The World Federation of the Deafblind gives specific mention to Australia, Japan and the Scandinavian countries as having the most developed service sector for Deafblind people globally (2018, p.12) and particularly cites their interpreter training programs as being attentive to the specific needs of deafblind people. Certainly, our data shows a preponderance of professionals from those areas of the world (especially Australia, where the research team are based and thus have strong networks to spread knowledge of the survey). However, we also note the large number of professionals completing our survey from the US and Canada and suggest that initiatives such as the US-based Protactile Language Interpreting National Education Program are having a strong effect in boosting the availability and profile of deafblind services in North America.

When looking at the languages that participants selected to complete the survey in, Table 2 shows that the majority chose English (69%) with Japanese (23%) accounting for nearly a quarter. While the majority of participants chose to answer in English, we posit that the provision of five languages rather than one language enabled a higher uptake rate of potential respondents and greater diversity of the countries represented. In the case of Japan, the availability of a Japanese-language version appears to have been a facilitating factor in gaining responses. Following from this, the responses that this cohort of respondents provided, as well as those of others, have given us insight into a training and professional practice environment that is rarely discussed in the English-speaking literature.

Language	#	%
English	222	69%
Japanese	74	23%
French	14	4%
Spanish	12	4%
Chinese	2	1%
Total	324	100%

Table 2: Language of survey completion

2.2   Professional roles

A fundamental consideration in the survey design was the need to identify the type of work that participants engage in with deafblind people. We therefore asked participants to self-report the type of work that they do with deafblind people and allowed them to select between two broadly defined - "interpreter" and "support worker" – or to select both categories where they perform both roles, either contemporaneously or alternately Thus, participants were allowed to select multiple options and were given the following prompt text to help them understand the roles:

> *In this survey we use the word "interpreter" to mean someone whose job description focusses on relaying a message from one language to another. In many countries, the interpreters that deafblind people often work with are sign language interpreters and/or deaf interpreters that have gained formal certification as interpreters through bodies such as NAATI (National Accreditation Authority for Translators and Interpreters - Australia), CASLI (Center for Assessment of Sign Language Interpretation - US) and AVLIC (Association of Visual Language Interpreters of Canada).*

> *In this survey we use the word "support worker" to mean someone whose job description focusses on supporting a person with deafblindness to go about their daily life (e.g. shopping, guiding, social participation). Other terms for this role used around the world include communication guide (Australia), intervenor (Canada), communicator-guide (UK) and co-navigator (US protactile). A key difference between an interpreter and a support worker is that the support worker has a much broader focus and mediating communication is only a small part of the support worker role.*

> *If you are unsure as to whether your work is best described as an interpreter or a support worker, please choose the option that better fits the focus of the work and any qualifications that you hold. Please only choose the "both" option if you have more than one job and are sometimes employed to interpret and on other occasions paid as a support worker.*

In addition to the above definitions relating to the two main areas of work, if participants' area(s) of work were beyond these two main areas, they could tick the selection "Other" and manually enter the type of work they engaged in. Table 3 presents the occupational designations by which participants identify themselves, including those outside the two main areas of work and who selected the "Other" category. The left column of Table 3 contains the designations that participants themselves nominated. The right column of Table 3 contains a summary of how they have been classified in the ensuing document.

Occupation designations chosen	#	%	
Sign language interpreter / deaf relay interpreter	142	44%	
Sign language interpreter / deaf relay interpreter & Other	7	2%	"Inter-preters"
Sub-total	*149*	*46%*	
Support worker	61	19%	
Support worker & Other	13	4%	"Support Workers"
Sub-total	*74*	*23%*	
Sign language interpreter / deaf relay interpreter & Support worker	53	16%	
Other	40	12%	
Sign language interpreter / deaf relay interpreter, Support worker & Other	8	2%	"Other"
Sub-total	*101*	*30%*	
Total	**324**	**100%**	

Table 3: Type of work undertaken with deafblind clients

As can be seen in Table 3, interpreters outnumber support workers in our sample. We attribute the higher representation of interpreters in our sample to the circumstance that the interpreter workforce is more professionally organised and therefore more easily contactable and receptive to invitations to participate in surveys that this data is based on. For example, when distributing the survey to reach potential participants, we were able to contact a number of national sign language interpreting associations who shared the survey with their members. However, for support workers there were no equivalent bodies that could enable ready contact. Allowing for those who gave multiple responses, we can say that 67% of participants do some interpreting work , 51% do some support worker work and 21% do some work in other roles. As we are sometimes interested in this report in comparing the experiences of interpreters and support workers, we will at points give comparisons between three sub-groups:

> 1) those who work as interpreters and NOT support workers ("interpreters", n= 149). This cohort encompasses those who self-designate as "sign language interpreter / deaf relay interpreter" (n=142) and as "sign language interpreter / deaf relay interpreter and Other" (n=7).

> 2) those who work as support workers and NOT interpreters ("support workers", n= 74). This cohort encompasses those who self-designate as "support worker" (n=61) and "support worker and Other" (n=13)

> 3) and those whose roles encompass both interpreting and support work ("sign language interpreter / deaf relay interpreter and support worker", n=53), ("sign language interpreters / deaf relay interpreter and support worker and Other", n=8) or whose roles lie wholly outside those categories ("other", n=40). The total number in this 'other' group is 101).

It is important to note that our survey was designed using question logic, that meant the job title(s) people chose at this point affected the questions that they saw later in the survey. This is particularly relevant for the 40 participants whose sole job title chosen was "Other". On

reviewing the job titles those respondents were asked to write in we saw that a number gave job titles such as "Communication guide" that are within our definition of "Support worker" (as well as others such as "support co-ordinator", and "teachers of deafblind children" that are not). The question logic means that we cannot retrospectively add relevant "Other" participants back into the support worker category because they did not see the support worker questions. This issue does not, however, affect people who chose multiple job categories, as they were shown questions appropriate to each category.

A striking feature of our data is how localised the support worker data is to certain national contexts. Just three countries accounted for 78% of all our support worker data: Australia (43%), Japan (23%) and Canada (12%). This may reflect the World Federation of the Deafblind (2018) report conclusion that interpreter-guide services are more advanced in Australia and Japan, but we are hesitant to view this as the sole explanation. Rather we see it as in part a reflection on the relative difficulty of contacting support workers compared to interpreters: while the latter are often members of professional associations, the occupational infrastructure of the areas that support workers work in appear to be not so conducive to the formation of associations; those support workers who seek to engage with wider networks tend to do so via organisations such as Deafblind International. In particular the heavy representation from Australia reflects both the fact that the team is based in Australia, but also that Able Australia – the largest employer of support workers for deafblind people in Australia – are a partner in this research and promoted the survey directly to their staff. It may also reflect differences in how support services are organized in different countries. For example, while only 1 US respondent classified themselves solely as a support worker, six chose the option of interpreter and support worker – as did 26 Japanese respondents – suggesting that the two roles may be more intertwined in those countries than in other national settings. Conversely in countries such as Norway, France, New Zealand and Denmark our data is almost exclusively from interpreters.

2.3   Education and work experience

Participants were asked to report on their highest level of education completed. As shown in Table 4, this is a relatively well-educated cohort, where over 50% of all respondents hold a bachelor's degree or higher and only 5% report school education only.

Highest level of education completed	#	%
School	15	5%
Certificate/ diploma/ associate degree (less than 3 years full-time study)	97	30%
Bachelor degree	98	30%
Postgraduate degree	70	22%
Not stated	*44*	*14%*
Total	324	100

Table 4: Highest level of education attained

When we compare highest level of education completed across the three main groups of participants, we find that the interpreters are somewhat more likely to have completed university degrees than support workers. The rates of completion of a tertiary education degree amongst those in the Other group are slightly lower than those for Interpreters, and reflects the fact that many in this group were in professional roles such as teachers of deafblind children. As

Table 5 makes clear too, a number of support workers hold tertiary degrees, including 11 with postgraduate qualification. This is somewhat at odds with the pay-rate offered to support workers in many jurisdictions, which implies that the work is entry-level and relatively unskilled.

Highest Education	Interpreter		Support Worker		Other	
	#	%	#	%	#	%
School	4	3%	6	8%	6	6%
Certificate/ diploma/ associate degree	40	27%	28	38%	29	29%
Bachelor degree	49	33%	17	23%	29	29%
Postgraduate degree	39	26%	12	16%	21	21%
Not stated	*17*	*12%*	*11*	*15%*	*16*	*16%*
Total	149	100%	74	100%	101	100%

Table 5: Highest level of education attained by type of work undertaken

When taken together these statistics show that professionals working with deafblind clients are often moving between roles in support, interpreting and program administration and may come to their roles with a mix of formal qualifications and particular life experience. Despite the relatively high rate of non-responses to the education question, we see the majority of interpreters hold university degrees (including over a quarter with post-graduate degrees), as do nearly 40% of support workers and 50% of those in the Other group. Clearly this is a highly skilled workforce and more action may be needed in many jurisdictions to ensure that people are retained in the workforce.

Participants were asked to report on their years working in the profession. As Table 6 shows, the cohort of professionals who participated in this study were highly experienced: over half of all interpreters and around a third of support workers and other professionals have been working with deafblind clients for over a decade.

Years in the profession	Interpreter		Support Worker		Other	
	#	%	#	%	#	%
Less than 1 year	3	2%	5	7%	11	11%
1-3 years	11	7%	13	18%	14	14%
4-10 years	30	20%	19	26%	21	21%
11+ years	79	53%	23	31%	34	34%
Not stated	26	17%	14	19%	21	21%
Total	149	100%	74	100%	101	100%

Table 6: Years in the profession by type of work undertaken

While our participants were generally quite experienced, it is worth noting that less experienced professionals clustered in the support worker and Other groups. Less than 10% of Interpreters in our sample had been practising for less than 4 years, whereas the equivalent percentage for support workers and participants in the Other category was 25%.

2.4   Hearing and sight status

The questionnaire also asked professionals to report their hearing and vision status. Unfortunately, these questions had a relatively high non-response rate so the data should be treated with caution. However, Tables 7 and 8 clearly demonstrate that most professionals in the space are sighted and hearing, and that only a very small number of professionals are blind or have low vision. Only two support workers and two in other roles identified as deafblind.

Hearing status	Interpreter		Support worker		Other	
	#	%	#	%	#	%
Deaf/ hard of hearing	14	9%	7	9%	22	22%
Hearing	94	63%	37	50%	49	49%
Not stated	41	28%	30	41%	30	30%
Total	149	100%	74	100%	101	100%

Table 7: Hearing status by type of work undertaken

Vision status	Interpreter		Support worker		Other	
	#	%	#	%	#	%
Blind/ Low vision	0	0%	3	4%	3	3%
Fully sighted	73	49%	49	66%	58	57%
Not stated	76	51%	22	30%	40	40%
Total	149	100%	74	100%	101	100%

Table 8: Vision status by type of work undertaken

In Table 7 we see that less than 10% of interpreters and support workers in our sample identify as Deaf or hard of hearing. For the Other category the rate is somewhat higher (22%) but still only a small minority of respondents. We were interested to see the country of origin of the Deaf and hard-of-hearing informants and present a breakdown of this in Table 9 for the countries with more than 7 respondents in this category. Note that the percentages given below are the percentage of professionals from each country who report being Deaf or hard of hearing.

Country of residence	#	%
Australia	18	21%
Canada	4	12%
France	1	13%
Japan	8	11%
Norway	0	0%
UK	1	10%
USA	6	15%
Other	5	11%
Total	43	13%

Table 9: Number and percentage of Deaf / hard of hearing professionals in selected countries

Table 9 shows a relatively consistent trend that around 10-15% of professionals across countries identify as Deaf or hard of hearing, although we note, as stated, that around a third of all professionals declined to answer this question. Australia has a slightly higher proportion of deaf professionals than other countries, though this may be an artefact of our team having better networks into organisations employing deaf staff in Australia, rather than an actual difference in employment rates. The figures also suggest that more needs to be done to attract and retain deaf people to roles working with deafblind people, not least because deaf people bring lived experience and communicative skills that are invaluable to making information accessible to deafblind people.

2.5   Connection to deafblind people

The final demographic questions that we asked participants elicited information about their connections to wider deafblind communities. We first asked if they had family members or close friends who are deafblind and then whether the deafblind community in their area is "sizable". Results to these questions are presented below in Tables 10 and 11.

Deafblind family or close friends:	Interpreter		Support worker		Other	
	#	%	#	%	#	%
Yes	28	19%	15	20%	21	21%
No	96	64%	45	61%	63	62%
Not stated	25	17%	14	19%	17	17%
Total	149	100%	74	100%	101	100%

Table 10: Connection to Deafblind people outside work

Sizable local deafblind community:	Interpreter		Support worker		Other	
	#	%	#	%	#	%
Yes	78	52%	30	41%	57	56%
No	46	31%	29	39%	27	27%
Not stated	25	17%	15	20%	17	17%
Total	149	100%	74	100%	101	100%

Table 11: Size of local deafblind community

As Table 10 indicates, responses to the family or friends question were remarkably uniform – around 20% of professionals across all three categories have a personal connection to deafblind people. Use of the term "sizable" in question 11 was deliberate and no suggested numerical value was provided. The vague wording of the question relates to the vagaries of city size and the size of population groups therein: a few deafblind people in a rural area could well come together to feel like a 'sizable' community, although a similar number of people across a megalopolis such as Tokyo may not seem so sizable. Around half of all participants characterized their area as having a sizable deafblind community. The phenomenon of deafblind people moving to areas that have larger deafblind communities and concomitant better deafblind services has been well documented in the US (e.g. Edwards, 2018; Petronio & Dively, 2006) and may well account for this finding.

3. WORKING WITH DEAFBLIND CLIENTS

In this section we present data on participants' engagement with deafblind clients. We consider areas such as the profile of their deafblind clients, how frequently they work with them and the types of supports that they offer.

3.1 Who are the clients?

One of the first questions we asked our participants was to quantify the proportion of their total paid work that they undertook with deafblind clients. Support workers reported the highest rate of specialization: on average they spent 64% of their work time specifically working with deafblind clients. Those in the Other group came in next at 50%, while interpreters were much lower at only 24% on average. However, within these averages it should be noted that there was great variation among individuals: across all three employment categories there were multiple participants who undertake 100% of their work with deafblind people as well as others who spend around 10% of their time on deafblind work. There is thus strong variation in the degree to which individuals specialize in deafblind work.

A major distinction that is often made in deafblind service provision is between people with congenital and acquired deafblindness. This is the focus of question 1 of our survey, the results of which are presented in Table 12 below.

Do you work with:	Interpreter		Support worker		Other	
	#	%	#	%	#	%
People with congenital deafblindness (e.g. Congenital Rubella Syndrome, CHARGE syndrome)	2	1%	11	15%	6	6%
People with acquired deafblindness (e.g. Usher syndrome, age-related vision and hearing loss)	57	38%	14	19%	26	26%
Both	90	60%	49	66%	69	68%
Total	149	100%	74	100%	101	100%

Table 12: Type of clients

In the literature it is often reported that (tactile) sign languages are used primarily by people with acquired deafblindness rather than those with congenital deafblindness (e.g. Willoughby et al., 2018; World Federation of the DeafBlind, 2018). At first glance, the fact that only two interpreters in our data work exclusively with people who have congenital deafblindness might seem to support this hypothesis. However, the fact that 60% of interpreters report working with both acquired and congenital deafblind people suggests that the perception that congenital deafblind people rarely use canonical sign languages may be inaccurate. That said, a complicating factor is that Usher syndrome, a genetic syndrome causing deafblindness results in later onset vision impairment and so can be classified as congenital or acquired. It is beyond the scope of this project to explore the ways in which people with congenital deafblindness are

making use of sign language interpreters – and if/ how their signing might differ to that of people with acquired deafblindness, but we commend the area for further research.

Our next question explored whether clients that the participants worked with typically live independently or in a group home context. In Table 13 we see a proportion of each professionals working exclusively with clients in group homes that is similar to the proportion of professionals who reported working exclusively with congenital deafblindness. This suggests that these two cohorts relate largely to one and the same group of professionals. However, answers of "both" are markedly lower for both interpreters and support workers for this question. As Table 13 shows, working with people who live independently in the community is the most common employment context for both interpreters and support workers in our sample.

Do you work with people who live in:	Interpreter		Support worker		Other	
	#	%	#	%	#	%
Group homes with other people with disability	3	2%	13	18%	8	8%
The community independently	93	62%	34	46%	38	38%
Both	53	36%	26	35%	49	49%
Not stated	0	0%	1	1%	6	6%
Total	149	100%	74	100%	101	100%

Table 13: Clients' type of residence

Prior to the design of the survey tool, we had learnt in informal conversations with professionals that some people reported being uncomfortable working with deafblind people of a different gender to them. In order to test whether this was widespread, the questionnaire requested participants to make selections about a range of possible limits that professionals might apply in regard to who they work with. The prompt for this question was "*Some people aren't comfortable with the physical intimacy of working with deafblind people unfamiliar to them. Tell us which of these statements best applies to you*".

Constraints on who professionals work with:	Interpreter		Support worker		Other	
	#	%	#	%	#	%
I only work with deafblind people who I know	15	10%	10	14%	8	8%
I only work with deafblind people who are the same gender as me	2	1%	1	1%	3	3%
I work with any deafblind person	120	81%	55	74%	76	75%
I have other rules about who I do/ don't work with (Please specify)	12	8%	8	11%	13	13%
Total	149	100%	74	100%	101	100%

Table 14: Professionals self-imposed restrictions on who they work with

As we see in Table 14, gender was not a common concern for our professionals, only being chosen by 6 participants (2%) across the three categories. The most common constraints that people imposed were either working only with clients who they already knew (chosen by between 8-14% of participants in each category) or other rules (chosen by a similar number of

participants), which frequently mentioned issues around making sure that they could understand the client (n = 17) as well as physical constraints such as height differences or weight of hands that can make signing with some clients uncomfortable (n= 4). Factors such as whether the deafblind person was a smoker or known for inappropriate touching were also mentioned as deterrents by a handful of participants.

3.2 Experience of working with deafblind clients

In order to better understand the attitudes that professionals hold towards their work with deafblind clients, participants were asked their level of agreement to a range of statements (where 1 = "strongly disagree" and 5 = "strongly agree"). These attitudinal questions were modelled on those used in studies by Bontempo and Napier (2011) and Zhang et al. (2020) and are reflective of question types used in signed and spoken language interpreting literature. To the original question set we added several questions that reflect the unique context of working with deafblind people, such as those around the physicality of the work or the difference between performing a similar role with deafblind vs non-deafblind clients.

Agreement on 1-5 scale	Interpreter	Support worker	Other
I enjoy the company of deafblind people	4.3	4.6	4.3
It is emotionally rewarding	4.1	4.5	4.2
I feel a sense of achievement in what I do	4.1	4.4	4.0
Working with deafblind people matches well with my personal values	4.0	4.2	4.2
I enjoy the mental challenge of the work	4.0	3.9	3.8
I think I am good at my job	3.8	4.0	3.7
It is physically taxing	4.0	3.7	3.7
It is harder working with deafblind people than working with non-deafblind people	4.0	3.5	3.8
It is emotionally draining	3.4	3.5	3.8
I am happy with my working conditions	3.5	3.7	3.7
I am wary of the personal and emotional dependency that can develop when working with deafblind people	3.4	3.8	3.6
I find myself worrying a lot about my deafblind clients	3.1	3.7	3.6
I believe that anyone can learn to work with deafblind people	3.5	3.3	3.6
Career pathway/advancement options are limited in working with deafblind people	3.5	3.3	3.7
I like the flexibility of hours that I can work with deafblind people	3.3	3.5	3.1
Working with deafblind people is a recognised and respected field of work	3.1	3.3	3.0
The work is well paid	3.0	2.9	2.9
It is easier to get work/regular hours working with deafblind people than working with non-deafblind people	2.5	2.9	2.9
I dislike the physical intimacy involved	2.2	2.2	2.3

Table 15: Professionals opinions about their work

The responses presented in Table 15 suggest, in overall terms, that professionals gain a high level of personal satisfaction from their work with deafblind people: they enjoy the company of deafblind people, find the work emotionally rewarding and well aligned with their personal values. They also feel a strong sense of achievement from their work. Support workers score particularly highly on these four aspects, but high scores expressing agreement are recorded across all three groups. Respondents also agree, however, that the work comes with challenges, with an average level of agreement between 3.4 and 4 to statements such as "It is physically taxing" and "It is emotionally draining". We also see evidence of interpreters and support workers conceiving of the job's challenges in slightly different ways. For example, the largest differences we see between the two professional groups is for the statements "I find myself worrying a lot about my deafblind clients" (where support workers outscore interpreters 3.8 to 3.1), and support workers are also somewhat more likely to agree that they are wary about the emotional dependence that clients can develop (3.8 compared to a score of 3.4 for interpreters). The intimacy of support work, and the challenges of navigating boundaries between friendship and paid assistant have been well documented in wider disability studies literature (e.g. Shakespeare, 2013). Therefore, it is unsurprising that support workers feel these issues particularly keenly, especially since we have already seen that support workers are more likely to work with their deafblind clients on a daily or weekly basis. For interpreters, the job's challenges seem more focused around the logistics and individuals' specific communicative repertoires: they are more likely than support workers to agree that "it is harder working with deafblind people than working with non-deafblind people" (4.0 compared to 3.5 for support workers) and they also find it more physically taxing (4.0 vs 3.7).

When it comes to pay and working conditions all groups of professionals are equivocal. The flexible hours that often apply to this work is seen as a double-edged sword, i.e. it is appreciated by some, but viewed as problematic by others. Across this sample, responses show a general level of slight disagreement (or disagreement albeit not marked) with the statement that "the work is well-paid, respected or comes with good career paths". This point is explored in more detail below in the section on pay and conditions. Happily though, the statement that yielded the highest level of disagreement was one that was itself negatively phrased "I dislike the physical intimacy involved". The high level of disagreement with this statement suggests that – at least for people who stay in the profession – the touch-centric nature of deafblind communication is not viewed as problematic.

3.3   Pay and conditions

Previous research has shown that poor pay and conditions are a major factor in motivating people to leave the interpreting profession (Adade et al., 2022; Norström et al., 2012). Given this, the survey asked several more detailed questions in this area, the results of which are presented below. The first asked simply whether people would do more/ less deafblind work if given the choice, with results presented in Table 16.

If given the choice would you...?	Interpreter		Support worker		Other	
	#	%	#	%	#	%
Work a lot less with deafblind people	7	5%	0	0%	5	5%
Work about the same amount with deafblind people	81	54%	33	45%	53	52%
Work a lot more with deafblind people	36	24%	26	35%	30	30%
Not stated	25	17%	15	20%	13	13%
Total	149	100%	74	100%	101	100%

Table 16: Professionals' desired amount of work with deafblind people

The responses to this question show that professionals across the field are highly interested in working with deafblind clients. Only 5% of interpreters and of those in the Other group – and not a single support worker - would undertake less work with deafblind clients if they had full control of their work. At the same time, between 24-35% would take significantly more work with deafblind clients were it available. Around half of all participants feel that the balance they have between deafblind and any non-deafblind work is about right.

We next asked about remuneration rates. It is noteworthy that this question has a non-response rate of 18-24% across the groups so results of the data derived from the available responses are somewhat tentative. Notwithstanding this, in Table 17 we see that the majority of participants report no pay distinction for doing deafblind work compared to similar work with non-deafblind people in the contexts that they work in. Where there is a difference, interpreters and support workers are much more likely to report that deafblind work is better paying than the alternative, while those in the Other category are split more evenly between those who see it as better paying (18%) or worse paying (13%). Given the complex communication skills involved in working with deafblind clients, the finding from this sample that it is unusual for this work to be better paying than other similar roles are of concern as is workforce attrition and/or shortages of available professionals in some contexts.

Pay rates	Interpreter		Support worker		Other	
	#	%	#	%	#	%
People in my job are paid about the same regardless of whether they work with deafblind clients or non-deafblind clients	89	60%	41	55%	50	50%
People in my job are normally paid more when they work with deafblind clients	26	17%	11	15%	18	18%
People in my job are normally paid less when they work with deafblind clients	7	5%	4	5%	13	13%
Not stated	27	18%	18	24%	20	20%
Total	149	100%	74	100%	101	100%

Table 17: Professionals' experience of pay rates

Our final questions in this area asked about people's desires to keep working in the field as well as actual plans for the next five years. Responses are presented below:

Agreement on 1-5 scale	Interpreters	Support workers	Others
How much would you like to keep working with deafblind people in your current role?	4.4	4.6	4.3
How likely do you think it is that you will keep working with deafblind people in your current role?	4.2	4.3	4.2

Table 18: Participants' intentions to continue working with deafblind clients

Table 18 shows that participants are enthusiastic to continue their careers working with deafblind people, with scores well about 4 for desire to keep working in the profession over the next 5 years. When asked more directly about whether they thought they would stay in the profession for that long, scores drop for each group, but only slightly. Those who are planning to leave were asked to state their likely reason for leaving. Retirement or advancing age is the most frequently mentioned reason (34 responses) physical health and burnout concerns (21 responses). Lack of career advancement opportunities is cited as a reason by 16 respondents – mostly support workers – and pay is raised as an issue by 10 respondents. It is worth flagging here that some of the comments about reported level or remuneration are alarming: in places as diverse as Australia, Norway, Sweden, Japan and France, participants report genuine struggles to live on what they are paid, with the sessional nature of interpreting work in particular seeming to exacerbate this issue. We argue strongly that the data presented in this report demonstrates that the comparatively low pay in the sector relative to the skills demanded of professionals is a contributing factor to the workforce shortages that have been documented elsewhere (Able Australia, Senses Australia and Deafblind Australia, 2019; Hersh, 2013). This issue is also adversely affecting levels of workforce retention. But alongside this, this section shows the high degree of value that participants place in doing deafblind work and their strong desire that most of them have to continue working in the field.

4. DIGGING DEEPER: COMPARING THE INTERPRETER AND SUPPORT WORKER ROLES

In this section we explore a series of questions about the work undertaken by interpreters and support workers and the prior training that each groups brings to their roles.

As mentioned in Section 2, our survey was designed to bifurcate so that only those who selected the profession "interpreter" saw questions about interpreting work and only those who selected "support worker" saw questions about support worker work. This design significantly shortened the questionnaire by allowing each group to disregard 9 questions that were not relevant to them.

However, the design had two unintended consequences. The first is that people who described their role solely as "Other" did not have an opportunity to fill out these questions. As noted in section 2.2, a number of those who selected the "Other" category appeared to do work similar that of support workers, but these participants were not able to be added to the support worker group for this question because they did not see any of the relevant questions. The second unintended consequence was that the number of people who selected the category, 'both interpreter and support worker' was much higher than we anticipated: 61 respondents, or approximately 25% of the interpreting sample (210 people in total) and 45% of the support worker sample (135 people in total). Preliminary analysis shows that people who work as both interpreters and support workers gave similar answers to each of the questions in this section compared to those participants who nominated that they work as an interpreter only or as a support worker only. Thirty of the 61 people who chose the 'both' option were based in Japan, suggesting that the two professions of interpreting and support work are less distinct or distinguishable in that country than in many predominantly English-speaking countries. This interpretation is borne out by both our discussions with Japanese colleagues and analysis of the qualifications held by interpreters and support workers working in Japan, which we discuss in section 4.3 below.

Participants who selected both categories were asked a similar set of questions for each role and had the freedom to answer differently. For example, they might report that they work as an interpreter for deafblind people once every month or two, but as a support worker multiple times a week. For the purposes of this section, we have thus chose to report on two slightly different categories of interpreters and support workers than we use at other points in the report: in what follows "interpreter" answers refer to all 210 participants who saw the interpreter questions (regardless of what other jobs they might hold) and support worker answers refer to all 135 participants who saw the support worker questions (regardless of what other jobs they might hold). There are no responses from the participants in the Other group as there were no relevant questions associated with that occupational designation.

4.1 Frequency of working with deafblind clients

An important variable to consider in this research is how frequently people work with deafblind clients. A previous study of deafblind interpreters in the US aimed to capture interpreters who had worked with deafblind people at any point in their career (DeafBlind Interpreting National Training and Resource Center, 2018). Our target audience is professionals who work relatively regularly with deafblind people. However, as our survey was conducted in 2021 at a time when COVID-19 related restrictions were curtailing deafblind people's access to face-to-face service delivery in many countries (Wittich et al., 2022), we were conscious that some people surveyed might not be working at their usual capacity. We thus asked people to report how much they would normally work with deafblind people in a six-month time period assuming that there were no COVID-19 related restrictions in place. People who worked as both interpreters and support workers were asked to give their response for each form of work. All responses are included in the table below, so the total number of responses is greater than the number of individuals.

How often would you work with deafblind people if no COVID restrictions were in place:	Interpreter		Support Worker	
	#	%	#	%
Multiple times a week	44	21%	76	56%
Several times a month	81	39%	38	28%
Once every month or two	52	25%	13	10%
Once or twice	29	14%	5	4%
Not at all	4	2%	3	2%
Total	210	100%	135	100%

Table 19: Frequency of working with deafblind clients

Table 19 is striking in the difference between interpreters and support workers in how frequently they work with deafblind clients. Over 80% of support workers in our sample are working with deafblind clients multiple times a month, and over 50% do so multiple times a week. A minority of interpreters (21%) also work with deafblind people multiple times a week, but a significant group do so much less frequently: 42% of interpreters but only 16% of support workers are working with deafblind clients once a month or less. The work profile that these statistics suggest is that a large proportion of support workers effectively specialize in working with deafblind people, whereas the average interpreter in our sample is engaging in some deafblind interpreting work as part of a broader interpreting work portfolio. This is in line with the figures presented above on the average amount of time participants are working with deafblind people (noting the slightly different samples being considered). It also aligns with the findings from the US-based DeafBlind Interpreting National Training and Resource Cente that reported that a majority of interpreters responded spending less than 25% of their overall work time working with deafblind clients (DeafBlind Interpreting National Training and Resource Center, 2018, p. 59).

4.2   Type of work undertaken

Both interpreters and support workers were asked to indicate which potential aspects of the role they commonly undertook with deafblind clients. A striking feature of the responses from both groups is that there is no one aspect of the role that is undertaken routinely by all workers. That said, as shown in Tables 20 and 21, guiding deafblind clients appears to be a core component of both roles, regularly undertaken by 88% of participants in both categories. Perhaps surprisingly, interpreting between spoken language and a form of sign language is also routinely undertaken by 87% of *support workers*, making it a markedly more common activity than driving clients to appointments (57%) and even supporting daily living activities (76%), which we assumed would be more canonical support worker job elements. We were also surprised to see that only 38% of support workers nominated relaying simple spoken language information as part of their routine practice. However, we caution that this may be an effect of people underreporting this line of work if they had already indicated that they perform other or more extensive interpreting work for their clients.

Communication skills employed by interpreters	#	%
Guiding deafblind clients	184	88%
Sight translating / interpreting written documents into visual sign language	159	76%
Interpreting between visual sign language and spoken language (e.g. restricted visual frame signing)	151	72%
Interpreting between tactile sign language / Protactile and spoken language	136	65%
Interpreting between tactile sign language and visual sign language (relay sign interpreting)	125	60%
Sight translating / interpreting written documents into tactile sign language/ Protactile	79	38%
Chuchotage (repeating spoken language so that the oral deafblind person can hear	73	35%

Table 20: Forms of interlingual transfer and other skills that interpreters report using with deafblind clients

Skills and work-related activities of support workers	#	%
Guiding deafblind clients	119	88%
Longer/ more formal interpreting between spoken language and sign language/ tactile sign language/ protactile	117	87%
Assisting deafblind clients with daily living activities (e.g. shopping, cleaning, cooking)	102	76%
Driving clients to/ from appointments	77	57%
Relaying information from written texts	66	49%
Relaying simple spoken language information (e.g. orders in a shop)	38	28%
Other	25	19%

Table 21: Skills and forms of interlingual transfer that support workers report using with deafblind clients

Table 20 shows that there are various different forms of sign language interpreting employed by interpreters when working with deafblind people. Over 70% of interpreters working with deafblind people are routinely working between spoken/ written language and visual sign language, while 65% regularly interpret spoken language into a tactile sign language/ Protactile but only 38% routinely sight translate written documents into a tactile sign language/ Protactile. While not strictly the domain of sign language interpreters, slightly over a third also perform chuchotage (re-speaking with augmented volume) for oral deafblind people. Relay sign interpreting is also a routine part of practice in this area, undertaken regularly by 60% of participants.

Within the Protactile movement in the US in particular, there has been much discussion in recent years about the potential desirability of the blurring of boundaries between interpreters and support workers for Protactile signers[2]. In this community the preference is for a "co-navigator", who is a fluent user of Protactile, and, as the name suggests, works with the deafblind person to navigate the world and interactions. A co-navigator thus moves smoothly between work that is canonically undertaken by support workers, such as assisting with shopping, and that traditionally undertaken by interpreters, such as interpreting a medical appointment. Our survey did not ask professionals – or deafblind people! – about the desirability of combining the support worker and interpreter role. However, the fact that so many support workers are already undertaking interpreting duties, as well as the fact that 40% of support workers also work as interpreters, suggests that in practice in many contexts these roles are already being (formally or informally) combined. Our data thus suggests that there is merit in exploring role structures that do not draw a hard boundary between the interpreter and support worker role. However, in any such discussion it is imperative that the professional skill-level standards expected of people working in interpreting/ co-navigator roles remain high and that skilled signers are appropriately remunerated for their work with deafblind clients, regardless of the formal job title that they are employed under. In other words, we cannot expect to attract and retain skilled workers in these roles if the pay and conditions do not reflect the demands of the role and the skills required to do it well.

4.3   Professional qualifications: interpreters

Of the 210 people in our sample who work as interpreters (i.e. *all* participants who nominated they engage in interpreting work including those in the "interpreter" category and those who engage in interpreting alongside other roles), 167 (80%) reported holding formal qualifications in interpreting. The full list of qualifications as described by participants is given in Appendix 1. We draw the attention of the reader to the fact that for a small number of participants the qualification listed appears to actually be a qualification of sign language proficiency (such as "Diploma of Auslan") rather than an explicit interpreting qualification (such as "Diploma of Auslan-English interpreting").

Because interpreters around the globe hold so many different qualifications, we gain a better sense of these differences if we compare the overall type or level of training that they hold rather than the qualification name. Table 22 summarizes the data we collected to this end. It

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[2] This debate has generally taken place on the listserve "Protactile Network" which is not publicly viewable. However, elements of this debate be captured in John Lee Clark's forthcoming book of essays (Clark, 2023).

shows that around 40% of participants hold a bachelor's degree or higher as their interpreting qualification, while slightly less than that (37%) have only short-course or on-the-job training. Those who chose the "other" option had gone through a diverse range of training programs, and frequently included those who had training of more than two years' duration from a vocational education provider.

Interpreting training level	#	%
No formal training / short course	78	37%
Community college/ Vocation education diploma of 2 years or less	39	19%
Bachelor degree in (sign language) interpreting	29	14%
Postgraduate diploma in (sign language) interpreting	19	9%
Masters/ PhD in (sign language) interpreting	10	5%
Other (Please specify)	35	17%
Total	210	100%

Table 22: Level of training in interpreting attained by interpreters

It is important to note that the majority of interpreters did not report having specific training in deafblind interpreting. Instead, they hold more generic sign language interpreting qualifications. Two exceptions to this rule were interpreters from Japan and Norway, though they operate at opposite ends of the spectrum in terms of depth of training. In Japan, all but one of our interpreters was a *registered interpreter-guide for deafblind people* [盲ろう者向け通訳・介助員] or a *registered guide helper* [同行援護従事者]. These designations relate to credentials that are based on quite short lengths of training: the 'registered interpreter-guide' training program comprises 42 hours of mandatory training plus 42 hours of optional training, while 'registered guide helper' status is attained by completing 20 hours of general training plus 12 hours of specific training. In contrast, in Norway, all participants held a minimum of a BA in sign language interpreting, which includes specific training and assessment in deafblind interpreting as part of the program (Erlenkamp et al., 2014). In Australia, a number of interpreters reported that they had completed an optional module (i.e. 'Communicate with Deafblind people') on deafblindness as part of a vocational Diploma in Auslan (i.e. a language acquisition course taken before formal training as an interpreter). However, this elective module was not compulsory and not a pre-requisite for people to work with deafblind clients. That elective module focuses on giving an overview of different aspects of deafblind communication rather than on language transfer between spoken English and tactile sign language.

A striking, but unsurprising, feature of our data is that those who did not formally study interpreting were likely to be older interpreters who started in the profession before such courses became routine. These results thus reflect the increasing professionalisation of sign language interpreting around the globe (Napier & Leeson, 2016) but also show that a similar regime of qualifications and formal training courses is yet to emerge for the specifics of deafblind interpreting work.

4.4　Professional qualifications: Support workers

Of the 142 support workers who completed our survey (i.e. *all* participants who nominated they engage in support work including those in the "support worker" category and those who engage in support work alongside other roles), 75 (52%) reported holding a relevant professional qualification. The full list of qualifications as described by participants is given in Appendix 2 (noting that 9 participants declined to name the qualification that they held). As with the prior question on interpreting qualifications, we see a number of participants (particularly from Australia) listing a qualification pertaining to their signing proficiency rather than specific skills as a support worker.

When looking at the types of qualifications that support workers hold, it appears that most have only completed short courses in this area, rather than more extended course of study. Table 23 presents responses to our question for participants to select the option that best describes the type of support worker training they had undertaken. However, as we also asked participants to state the name of their qualification, we noticed a number of cases where the same course was classified differently by two or more participants. As such we caution that the distinctions between the main categories here are much less clear than it was for interpreters. What is clear is though is that only two participants hold relevant university degrees and that the clear majority of participants have had less than 1 years' relevant vocational training before commencing their role.

Support worker training level	#	%
No formal training / short course	38	51%
Community college/ Vocation education diploma of 2 years or less	19	25%
Other (Please specify)	17	23%
Not stated	1	1%
Total	75	100%

Table 23: Level of training attained by support workers

From this cross-national data, it is clear that the support worker pathway is much less professionalized than the interpreter pathway, and that supporting deafblind people is a skill that is overwhelmingly acquired through on-the-job training rather than specific credentials. Addressing the lack of training pathways for deafblind support workers is arguably a key measure that needs to be taken to address workforce shortages in this area.

Having given an overview of the pre-service qualifications our participants brought to their work we now consider their self-assessed skills in communicating with deafblind people.

4.5   Self-assessed skills in communicating with Deafblind people

Interpreters and support workers were asked a series of questions about their level of confidence performing a number of communicative tasks when working with deafblind clients. All questions provided to support workers were provided to interpreters as well. The question eliciting levels of confidence contained a Likert Scale ranging from '1 - not at all confident' to '5 - very confident'. At the same time, interpreters were also asked two questions specifically targeting interpreting (linguistic mediation/ inter-lingual transfer) work, as opposed to directly communicating with a deafblind person. The results of these questions are presented in Table 24:

Confidence level on 1-5 scale	Interpreters	Support workers
Understanding a deafblind client known to me	4.3	4.2
Being understood by a deafblind client known to me	4.2	4.1
Guiding deafblind clients	4.0	4.2
Interpreting a conversation / consultation between 2 people	3.9	NA
Using a tactile version of my national sign language	3.8	3.6
Conveying environmental information	3.8	3.9
Interpreting a multi-party interaction involving 3 or more people	3.5	NA
Understanding a deafblind client unknown to me	3.4	3.3
Being understood by a deafblind client unknown to me	3.3	3.3
Using haptic signals	3.2	3.2
Using protactile features	2.9	2.8

Table 24: Self-assessed level of confidence in aspects of communicating with deafblind clients

Overwhelmingly, we see that interpreters and support workers have very similar average levels of confidence for each of these tasks, and show strong similarity in which tasks they are most and least confident in. Confidence levels are highest (scores of 4 and above) for understanding and being understood by deafblind clients known to the survey participant and guiding deafblind people. Confidence levels are lowest (3.2 or lower) for using haptic signals and Protactile features. Interpreters are slightly more confident than support workers at tactile signing and support workers are slightly more confident at guiding. These differences in confidence levels are likely to reflect the relative differences in the demands of each job. However, what is striking is the degree of uniformity in responses across the interpreter and support worker cohort. However, we also acknowledge that interpreters and support workers may be holding themselves to different standards in assessing how well they can employ particular communication skills e.g. understand a deafblind client unknown to them. More interactional studies that look at which communicative practices lead to successful and unsuccessful interactions between deafblind signers and interpreters/ support workers are needed for us to gain an insight into professionals' reported behaviour and the interactional skills they actually employ. These, in turn, will shed light on the linguistic challenges of the work and which skills and strategies enable effective communication.

When taken together, these results suggest that interpreters and support workers are developing on-the-job skills to work with specific deafblind people familiar to them. However, they express lower levels of confidence that their currently acquired skills are always readily transferable to working with other deafblind people – especially if those people like to receive haptic signals or use Protactile. This speaks to the need for better training and development pathways for professionals in the sector internationally. This point is discussed in more detail in the following section.

5. PROFESSIONAL DEVELOPMENT

Three questions in our survey asked about professional development activities to do with deafblindness that our participants had undertaken since they began working in the field. The questions also elicited responses on their perceived needs and their level of desire for further training. It is to be noted that the responses presented in this section return to the three job categories of interpreter, support worker and Other group used in sections 2 and 3 of this report.

5.1   Prior professional development

This section of the survey began with a question on the total number of professional development hours the participants had attended over the course of their careers that were specifically devoted to deafblindness. Results of which are presented below.

Hours of PD undertaken	Interpreter		Support Worker		Other	
	#	%	#	%	#	%
0	11	7%	6	8%	11	11%
1-5	34	23%	13	18%	12	12%
6-15	35	23%	16	22%	9	9%
15+	67	45%	38	51%	63	62%
Not Stated	2	1%	1	1%	6	6%
Total	149	100%	74	100%	101	100%

Table 25: Total hours of professional development undertaken re. deafblindness over the course of professionals' careers

Table 25 paints a mixed picture of access to professional development. Across the three professional groups approximately half of all respondents had undertaken at least 15 hours of relevant processional development over the course of their career. However, between 7-11% across the three professions had had no relevant professional development at all, and around half have still received less than 15 hours across what are generally multi-year careers in the field. In Table 25 we also see that support workers and participants from the Other group appear to be accessing more professional development hours than interpreters. This may be related to those professionals tending to work more frequently with deafblind people. These groups, thus, may either find PD more relevant or may have more opportunities to attend targeted sessions organized by their workplace.

The following question dug deeper into participants' experience of training by asking them if they have attended specific types of professional development. As shown in Table 26, participants have overwhelmingly attended deafblind awareness training and training in guiding deafblind people. But attendance at PD focussed on other areas was variable and appears to depend on the profession group and where in the world the person is located.

Type of training	Interpreter		Support Worker		Other	
	#	%	#	%	#	%
Deafblind awareness	110	74%	60	81%	86	85%
Guiding deafblind people	97	65%	55	74%	79	78%
Haptics	85	57%	36	49%	54	53%
Introduction to tactile signing	71	48%	31	42%	56	55%
Visual frame signing	62	42%	33	45%	54	53%
Specialised workshop on aspects of tactile signing (e.g. use of space, use of pronouns)	36	24%	16	22%	33	33%
Protactile	34	23%	11	15%	32	32%
Total	149	100%	74	100%	101	100%

Table 26: Types of professional development undertaken re. working with deafblind clients over the course of professionals' careers.

The data shows that participants in the Other category – a number of whom held leadership roles in Deafblind service organisations – were slightly more likely than interpreters and support workers to have attended PD in most areas. Support workers were more likely than interpreters to have received training in guiding deafblind people (74% vs 65%) which makes sense given the different focus of each role. In most other areas interpreters and support workers have attended trainings at relatively similar rates. Protactile training is however an exception, having been attended by 23% of interpreters but only 15% of support workers. Here however, it is important to note that Protactile training has been largely offered in the US only and low uptake rates across the whole sample need to be viewed in this context. As discussed, on in section 2.1, while the interpreter data for this survey was sourced from people working around the globe, the support workers overwhelmingly come from Australia, Japan or Canada (78% of the sample in total). Thus, the low number of support workers who have received Protactile training may be indicative more of the nationality of the support workers who participated in our study than of differences in the frequency of training in this area in the US compared to other countries where Protactile is starting to spread to.

Those who indicated that they had attended any PD training on any aspect or thematic area of deafblind communication were asked to rate their satisfaction with the training on a 1-5 Likert scale ranging from '1 - not satisfied at all' to '5 - very satisfied', with median scores by profession given below:

Satisfaction on 1-5 scale	Interpreters	Support workers	Others
Deafblind awareness	4.4	4.5	4.5
Guiding deafblind people	4.6	4.4	4.5
Visual frame signing	4.4	4.2	4.3
Introduction to tactile signing	4.5	4.5	4.4
Haptics	4.4	4.6	4.2
Protactile	4.4	4.4	4.4
Specialised workshop on aspects of tactile signing (e.g. use of space, use of pronouns)	4.6	3.8	4.2

Table 27: Satisfaction with professional development undertaken by skill or thematic area

Table 27 shows that interpreters in particular are very satisfied with the quality of the training they have been able to attend. They also report little variance by subject matter – with average scores between 4.4 and 4.6 for all areas of training that we asked about. These high levels of satisfaction suggest that there may be an appetite for training among this cohort and that they are highly appreciative of the training opportunities that have come their way. Support workers and those from the Other group are also generally satisfied with PD training that they have undertaken, especially in the area of deafblind awareness, guiding deafblind people, introduction to tactile signing and Protactile (average scores of 4.4 and above). Other areas, while still positive, received slightly lower evaluations. Here though, it is also important to acknowledge the small numbers involved. For some groups the effect of this is that one or two trainees with 'outlying' responses may markedly alter the overall medial score. For example, only 12 support workers had attended any specialised workshops on aspects of tactile signing (e.g. use of space, use of pronouns) which may partially account for the lower satisfaction of this group in this training.

In order to more closely gauge participants' appetite for further study in different areas we asked those who had completed PD in particular areas about their level of interest in undertaking further training in the same area. Participants were asked to respond to the following statement, "I would like to attend further training in this area" via gradings on a 1-5 Likert scale where '1 – strongly disagree' to '5 - strongly agree'. Median scores by profession are given below in Table 28:

Desire for follow up training on 1-5 scale	Interpreters	Support workers	Others
Deafblind awareness	4.3	4.4	4.4
Guiding deafblind people	4.1	4.2	4.4
Visual frame signing	4.1	4.3	4.5
Introduction to tactile signing	4.3	4.6	4.5
Haptics	4.4	4.8	4.4
Protactile	4.7	4.8	4.7
Specialised workshop on aspects of tactile signing (e.g. use of space, use of pronouns)	4.5	4.2	4.3

Table 28: Interest in follow up training according to skill/thematic area

The median scores of participants' responses show a strong interest in further training – especially for Protactile with scores of 4.7 and 4.8 across the three groups. These figures reiterate the strong appetite for further training and suggest that more training opportunities will be enthusiastically embraced if made available.

At the end of the survey, participants had the opportunity to give open-ended responses about aspects of training that they had found particularly useful or well done. Alongside comments highlighting particular skills learned, three major themes emerged from these responses:

1. the majority of participants feel that they are learning their skills in this area much more through working on-the-job with specific clients than through structured professional development;
2. if participants attend training in a communication practice (like haptics) that their clients don't use they quickly forget the skill;
3. good professional development needs to have hands-on components and include deafblind people at its core. This enables participants to gain a real understanding of their experiences. It also enables practical opportunities to communicate with deafblind people in a simulated and safe environment.

Representative comments include:

"Really, I learned on the job."
"Practice. But, I want to do it with the clients I support so that we can use and remember it together. Learned a lot, but my clients don't use it."
"Training from someone with lived experience was fabulous, complementing training from O&M [orientation and movement] specialists. Again, interactive learning is the key."

As might be expected in an area where training opportunities are scarce and ad-hoc, a small number of participants commented on the variable quality of the training they had received. While satisfaction rates were generally very high, some participants gave negative feedback about training they had attended where it had been unfocussed or lacking nuance. For example, participants criticised training sessions that gave the impression that one, single strategy was the best way to handle a situation with all deafblind people, rather than it being presented as one of many strategies for their professional toolkit and/ or acknowledging that different deafblind people will have their own preferences. In saying this, we do acknowledge the challenge of trying to cover the plethora of communicative practices that are used by deafblind people in training, especially if only a small number of hours are allocated to the task. But a lesson that has emerged from the Protactile movement, that we are also starting to notice in Australia and in the Nordic countries, is that the more opportunities that deafblind people have to come together and communicate with each other, the more they are able to calibrate their signing styles with each other and come to more unified (and often more effective) ways of communicating with each other (Edwards, 2018; Manns et al., 2022; Mesch & Raanes, 2023). So, supporting and advocating for more of these opportunities should be an important, if non-obvious, agenda-item for those interested in improving the training landscape. We cannot expect all variation to disappear. However, these grievances are a call for longer and more structured training programs to be available to interpreters and support workers working with deafblind people. Greater training will enable participants to explore and come to grips with the variety of communicative approaches that can be expected to encounter in their roles.

5.2   Barriers to training

If participants indicated in our survey that they had not participated in a specific type or area of training, they were asked a follow-up question about the reason for this. Participants were invited to select one of a predetermined list of reasons or could write in a response under "other" if they preferred. Responses to these questions were relatively similar across the three occupational groups as well as across each training area. For the sake of brevity, Table 29 presents results for each reason aggregated across profession and training area.

Reason for not undertaking PD	#	%	Range by training type	
			Low	High
Not interested	13	1%	0%	2%
Not relevant to me	44	4%	2%	6%
Not available in my area	488	49%	41%	52%
Available but timing hasn't worked out	134	14%	8%	19%
Too costly	24	2%	0%	4%
Other	283	29%	23%	38%
TOTAL	986	100%		

Table 29: Reasons for not attending deafblind related training

From Table 29 we see that local availability is by far the biggest factor in limiting participants' access to professional development. Almost half of the respondents selected this as a reason. The 'Other' category also received many responses. On reading the write-in responses recorded in this category, we see that most responses relate to the participants reporting that they had either already learnt that skill on the job, or that they were themselves involved in training delivery rather than attending training. Unsurprisingly, respondents who were delivering training generally had been practicing for more than 11 years and were often those who indicated earlier in the questionnaire that they began their career before formal qualifications as interpreters/ Deaf interpreters were established. Protactile was an exception here, where most participants indicated that it was their lack of familiarity with the concept of Protactile that accounted for their lack of training in it, or that this was a communicative variety that is not used in their country.

Another factor that can affect the type and pitch of PD training in specialist areas is that when such training is offered, it may tend to be of an introductory nature. This suspicion appeared to be confirmed from some responses from participants, where some of the more experienced professionals identified this as a disincentive to attend PD. They believed that the skills that they had already acquired would not be further advanced by PD that is intended for those with little or no knowledge of the specific skill/thematic area. The profiles of this more experienced cohort point to a need also for more advanced or targeted types of PD training. Pleasingly, cost, interest and relevance were not seen as major barriers to access training. These reasons were selected by fewer than 6% of participants. The time commitment required of some PD training courses was an obstacle for around 15% of participants, even where they expressed a specific interest in it. Given people's busy lives this percentage level may not seem particularly high. However, it does remind us of the need for PD training to be available at a variety of times as well as locations. Given that timing and location of training together were barriers that accounted for nearly two-thirds of participants not attending training, it is worth considering

whether there are some forms or thematic areas of training that could be offered remotely, while still acknowledging the value of and providing onsite, hands-on training, especially when it comes to using a touched-based language.

5.3   Improving the training landscape

Participants had the opportunity to give open-ended comments about the training they desired, with over 90 participants listing training in specific communication skills or methods that they would like to see, including 39 whose preference was to attend anything and everything as they had had little to no formal training to date. For example:

> "I would like to see opportunities for PD about every aspect of Deafblindness and Deafblind communication. I would definitely attend. As far as I know, the amount of PD on Deafblind communication/support is almost none."
> "Everything! Am very keen to attend Deafblind-related interpreter training, however, there hasn't been anything available as just yet."

Open-ended comments also frequently raised the need for formalised training pathways that people can access prior to commencing work in the field and the important role that such training plays in ensuring workforce quality.

> "All of the above. I feel I have to learn on the job, and that isn't fair for clients, but there isn't anything available in my area (that I've found)."

> "This training needs to take place before someone is given an interpreting Diploma or NAATI [National Accreditation Authority for Translators and Interpreters in Australia] certification. Leaving the delivery of these skills until an interpreter is working and engaging in professional development doesn't address the issue as by this time people have less time to attend PD and are not willing to invest time and money into further training for which they will not be compensated despite the increase demands of the work types they will now be equipped to undertake. As per WASLI [World Association of Sign Language Interpreters] recommendations, Deafblind interpreting must be embedded early and often in the interpreting curriculum as a normal variation in the rich tapestry of signing communities."

There is also an important point to be made about remuneration and training that comes through from our survey. While few participants mention the cost of PD as a disincentive to attend it, many added that they receive no financial support from employers (e.g. interpreting agency) or others (e.g. organisations representing deafblind people and their communication needs; government agencies) to attend PD training. This means that for a significant number of our respondents time spent at PD is unpaid time away from work that must be negotiated, and thus may likely occur at times where they need to forgo work to attend it, with the consequence of reduced remuneration. In this environment, it may not be so much the cost of training itself that is a barrier, but forgoing possible income. This issue seemed a particularly stark barrier in Japan, where many people commenting on the desire for further training then qualifying their responses with concerns about the cost and/or their ability to attend. However, this was not restricted to Japan only and was mentioned by participants across many different countries. Given the data presented in this report about a generally low level of remuneration across the sector, it is unsurprising that the need to attend unsubsidised training is felt to be a burden.

Establishing formal credentials in working with deafblind people (or integrating such modules into existing credentials) may be a way to address this issue as this would likely allow participants to then access (financial) support where this is available for students in their country to fund their education. The current system of PD training that in many countries is offered in an ad-hoc or infrequent way is, while still appreciated, unlikely to be able to provide skill acquisition in a systematic way to those seeking or needing these skills. In order to meet current and future workforce demands in the area of services for deafblind clients, the provision of and format of currently available training needs to be re-examined. A re-think may be required if we are serious about improving both the number and skill levels of professionals working with deafblind clients. This would appear to apply to all countries that the professionals in our survey work in.

6. CONCLUSION

This report has shown that professionals working with deafblind people face a number of similar challenges around the globe. With the exception of access to training on Protactile communication (which originated in the US and is still most widely used in that country) it was indeed striking how few differences there were observable between data from respondents in different countries.

The data paints a picture of a dedicated and experienced workforce, that have overwhelmingly acquired their skills through on-the-job training and experience. Only in Norway do sign language interpreters report consistent training in deafblind communication as part of their interpreting pre-service training. Australia and Japan are the only other countries to have national-level training units or short courses available for prospective workers to take prior to working in the industry – and in Australia the unit exists as an elective that is not required to be completed prior to commencing work with deafblind people. Our data on qualification and pre-service training suggest that a number of North American colleges are offering one or more units on deafblindness as part of interpreter education and teacher of the deaf programs, but availability of these units is clearly patchy. Again, with the exception of Norway, interpreters are not reporting being required to show competency in deafblind signing as part of their general interpreting credential and lament the relatively limited opportunities they have for professional development in this area.

The result of the training landscape is that professionals show a strong appetite for professional development around deafblind communication. The majority of our participants had already completed in excess of 15 hours of professional development on deafblind communication, but were very keen for more: especially training that moved beyond the basics. Lack of training opportunities was the most widely identified barriers to participating in more professional learning. However, a number of participants also raised issues around their attendance at training being unpaid and this making it difficult to attend (both to cover the costs of the training and the income forgone in not working that day). When coupled with reports around the variable quality of training and the dearth of more advanced training opportunities these remarks speak strongly to the need for more structured training opportunities and credentialing across the sector globally, to ensure that new recruits can gain the necessary skills to provide high quality services to their clients from day one. Given the specialised skillset involved there is also a strong argument for ensuring that professionals working with deafblind people have access to more stable and/ or better paying employment conditions. While most of our professionals expressed strong desire to keep working in the sector, poor remuneration or lack of steady hours were central reasons people named for why they were considering leaving the profession and are undoubtedly contributing to workforce shortages in the sector.

7. REFERENCES

Able Australia, Senses Australia and Deafblind Australia. (2019). *Submission to the parliamentary inquiry into NDIS planning*. Joint Standing Committee on the NDIS – NDIS planning.

Adade, R., Appau, O., Mprah, W. K., Fobi, D., Marfo, P. S., & Atta-Osei, G. (2022). Factors Influencing Sign Language Interpretation Service in Ghana: The Interpreters' Perspective. *Journal of Interpretation*, *30*(1), 1.

Bontempo, K., & Napier, J. (2011). Evaluating emotional stability as a predictor of interpreter competence and aptitude for interpreting. *Interpreting*, *13*(1), 85–105.

Clark, J. L. (2023). *Touch the future: A manifesto in essays*. Norton. https://wwnorton.com/books/9781324035367

Dam, H. V., & Zethsen, K. K. (2013). Conference interpreters—The stars of the translation profession?: A study of the occupational status of Danish EU interpreters as compared to Danish EU translators. *Interpreting*, *15*(2), 229–259.

DeafBlind Interpreting National Training and Resource Center. (2018). *DeafBlind Interpreting: Toward Effective Practice*. Regional Resource Center on Deafness Western Oregon University. https://www.protactilelanguageinterpreting.org/uploads/1/0/2/9/102986848/dbi_toward_effective_practice_2018.pdf

Edwards, T. (2014). *Language Emergence in the Seattle DeafBlind Community* [University of California, Berkeley]. http://search.proquest.com/openview/63cb352317bb90097011b9a64d105b52/1?pq-origsite=gscholar&cbl=18750&diss=y

Edwards, T. (2018). Sign-creation in the Seattle DeafBlind community. *Gesture*, *16*(2), 305–328. https://doi.org/10.1075/gest.16.2.06edw

Erlenkamp, S., Amundsen, G., Berge, S. S., Grande, T., Mjøen, O. M., & Raanes, E. (2014). Becoming the Ears, Eyes, Voice and Hands of Someone Else Educating Generalist Interpreters in a Three-year Programme. In L. Leeson, S. Wurm, & M. Vermeerbergen (Eds.), *Signed Language Interpreting* (pp. 12–36). Routledge.

Hersh, M. (2013). Deafblind People, Communication, Independence, and Isolation. *The Journal of Deaf Studies and Deaf Education*, *18*(4), 446–463. https://doi.org/10.1093/deafed/ent022

Katan, D. (2009). Occupation or profession: A survey of the translators' world. *Translation and Interpreting Studies. The Journal of the American Translation and Interpreting Studies Association*, *4*(Profession, Identity and Status: Translators and Interpreters as an Occupational Group), 187–209.

Manns, H., Willoughby, L., Iwasaki, S., & Bartlett, M. (2022). Intersubjectivity and (non-) shared modes of interaction in Australian tactile signing. *Lingua*, *271*, 103295.

Mesch, J., & Raanes, E. (2023). Meaning-making in tactile cross-signing context. *Journal of Pragmatics*, *205*, 137–150.

Napier, J., & Leeson, L. (2016). Sign language in action. In *Sign language in action* (pp. 50–84). Springer.

Norström, E., Fioretos, I., & Gustafsson, K. (2012). Working conditions of community interpreters in Sweden: Opportunities and shortcomings. *Interpreting*, *14*(2), 242–260.

Petronio, K., & Dively, V. (2006). Yes, no, visibility, and variation in ASL and Tactile ASL. *Sign Language Studies*, *7*(1), 57–98. https://doi.org/10.1353/sls.2006.0032

Shakespeare, T. (2013). *Disability rights and wrongs revisited*. Routledge.

Willoughby, L., Iwasaki, S., Bartlett, M. J., & Manns, H. (2018). Tactile sign languages. In J.-O. Östman & J. Verschueren (Eds.), *Handbook of pragmatics* (pp. 239–258). John Benjamins Publishing Company. https://doi.org/10.1075/hop.21.tac1

Wittich, W., Nicholas, J., & Damen, S. (2022). Living with deafblindness during COVID-19: An international webinar to facilitate global knowledge translation. *British Journal of Visual Impairment*, *40*(3), 487–499. https://doi.org/10.1177/02646196211002887

World Federation of the DeafBlind. (2018). *At risk of exclusion from CRPD and SDGs implementation: Inequality and Persons with Deafblindness. Initial global report on situation and rights of persons with deafblindness*. https://www.wfdb.eu/wp-content/uploads/2019/06/WFDB_complete_Final.pdf

World Federation of the DeafBlind. (2023). *Second global report on the situation of persons with deafblindness   Good practices and recommendations for the inclusion of persons with deafblindness*. https://wfdb.eu/wp-content/uploads/2023/03/ENG_WFDB-2nd-Global-Report_-FINAL-V6.pdf

Zhang, C. X., Marshall, J., Bernard, A., & Walker-Smith, K. (2020). Development and evaluation of interprofessional e-learning for speech pathologists, interpreters and translators. *Translation & Interpreting, The*, *12*(1), 142–158.