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Here or there? An assessment of video remote signed language interpreter-mediated interaction in court

1 Introduction

In Australia there are approximately 6,500 deaf people who use Australian Sign Language (Auslan) as their first or preferred language (Johnston, 2003). It is estimated that there have been 22 hearing impaired inmates in the New South Wales (NSW)[1] criminal justice system since 2002; ten of whom were identified as Auslan users, and one was a user of a foreign signed language[2]. Any deaf person needing to access courtroom proceedings is entitled to the provision of an Auslan/English interpreter. This service is provided to deaf inmates, as well as to deaf defendants out on bail, deaf complainants or deaf witnesses.

The NSW Community Relations Commission (CRC) provides interpreters in criminal courts in over 85 languages, including Auslan. The interpreting service provided by the Deaf Society of NSW—Sign Language Communication (SLC) (NSW)—provides Auslan/English interpreters in family and children's courts. The policy of both the CRC and SLC (NSW) is to employ only interpreters that are accredited at NAATI Professional level[3]. However, the majority of Auslan/English interpreters are accredited at Paraprofessional level (Bontempo & Napier, 2007), thus it can be difficult to find appropriately accredited interpreters who are available. Additionally, the majority of Auslan/English interpreters are located in the major metropolitan areas; therefore deaf people in regional and rural areas can be disadvantaged in accessing courtroom proceedings when interpreters cannot be found. In these instances, the CRC or SLC (NSW) will often fly an interpreter from the city to a regional courthouse to provide the sign language interpreting service required.

Typically, an interpreter is requested to attend the relevant courthouse, and stay in attendance for the duration or the booking, which can be anything from a 10-minute mention to a 2-week trial. This can become a very expensive provision if the interpreter is flown to a regional area for a very short matter. It is not only in regional or rural areas, however, that it can be difficult to locate suitably qualified Auslan/English interpreters. Due to major supply-demand discrepancies (Orima, 2004), Auslan/English interpreters are in great demand, which means that the CRC can even face difficulties in securing the services of an interpreter for a court hearing in Sydney. In these instances, the CRC will sometimes outsource the booking of an Auslan/English interpreter to the specialist interpreting service offered by SLC (NSW), which caters expressly for the needs of deaf

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1 Australia is divided into 6 states and 2 territories, with federal and state governments and legal systems. Sydney is the capital of the state of New South Wales.

2 J. Doherty, personal communication, 20 September 2010

3 National Accreditation Authority of Translators & Interpreters. See Bontempo & Levitzke-Gray (2009) for more information on Auslan interpreter training and accreditation. Go to www.naati.com.au for more information about accreditation levels.

Napier, J. (2011). Here or there? An assessment of video remote signed language interpreter-mediated interaction in court. In Braun, S. & J. L. Taylor (Eds.), *Videoconference and remote interpreting in criminal proceedings.* Guildford: University of Surrey, 145-185.

Auslan users. Nonetheless, SLC (NSW) may also encounter problems in filling such a booking request if all the interpreters on their books are unavailable.

To date, statistics from the CRC show[4] that there were a total of 252 court requests to the CRC for Auslan interpreters from 1 July 2009 to 30 June 2010. Of those requests, interpreters were provided on 219 occasions for courts in NSW (211 criminal matters and 8 civil matters)—202 interpreters at NAATI Professional interpreter level (93%) and 17 interpreters at NAATI Paraprofessional level (7%). On 33 occasions (33/252 or 13%), requests were unfilled for the following reasons:

- 23 occasions (9%) for 'no available resource' for requested date/time;
- 9 requests were specifically for deaf relay interpreters;
- 1 request was for a Mongolian sign language.

Furthermore, it is known that SLC (NSW)[5] received 2 referrals from CRC between July 2009 and June 2010, and they have also had requests for 207 Auslan and/or deaf relay interpreters directly from the courts during the same period. Of these requests, 155 were for Auslan interpreters and 52 requests were for deaf relay interpreters. From the total 207 requests, SLC (NSW) were unable to service 7 requests, and 57 were cancelled (either due to not enough interpreters available or cancelled trials as matters were settled within the first couple of days). SLC (NSW) is also aware of one trial in particular that was postponed in the local court as they were unable to provide 8 interpreters per day (5 days), so the trial was re-scheduled by the court.

At present, the use of audiovisual link in NSW courts is informed by the *Evidence, Audio and Audiovisual Link Act* (1990). At present, an average of 3 out of 5 matters in NSW courts which involve inmates in Correctional Facilities are heard via audiovisual link (50% in Local courts, 43% in the Supreme or District courts), and the goal of the Department of Corrective Services is to increase this figure to 75%[6].

This paper reports on an interdisciplinary research project conducted to investigate the effectiveness of remote sign language interpreting services provided through video remote facilities in the New South Wales legal system. The project was commissioned by the NSW Department of Justice and Attorney General, with a view to informing policy about the provision of sign language interpreters in court remotely via video. Remote access to sign language interpreting was tested across five key venues and six scenarios involving deaf people and signed language interpreters. The aim of the project was to assess the impact of using video remote facilities on the quality of the interpretations when interpreters or deaf people are in different locations, and the stakeholder perceptions of interpreted interactions experienced remotely. The challenge in designing the study was to ensure that the variety of possible combinations was tested, and that issues of familiarity and authenticity were addressed. Qualitative findings from the study will be reported to assess the effectiveness of video remote facilities to enable signed language interpreter-mediated legal proceedings; as well as an overview of the

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4 CRC statistics provided through personal communication with Don Alava, the Online Interpreting Booking System Administrator at CRC, 1 September 2010.

5 SLC (NSW) statistics provided through personal communication with Jasmine Rosza, Manager of the Auslan Interpreting Service at the Deaf Society of NSW, 31 August 2010.

6 Peter Sharp, Manager of Video Conferencing, NSW Corrective Services personal communication, 5 February 2010).

challenges involved in the design and data collection aspects of the study. This research informs spoken and signed language interpreter practitioners about issues to consider when interpreting remotely via video, and researchers about issues to consider when designing interpreting research studies.

2 Setting the scene: A review of the literature

2.1 Court interpreting

The majority of research on court interpreting to date has focused on face-to-face interactions in the courtroom that are mediated via an interpreter, and it has been well documented that courtroom interactions are impacted by the presence of an interpreter, regardless of the language combination (see for example Berk-Seligson, 1990, 1999, 2000, 2002; Colin & Morris, 1996; Dunnigan & Downing, 1995; Hale, 1996, 1997a, 1997b, 1997c, 1999, 2001, 2002, 2004; Hale & Gibbons, 1999; Morris, 1999a, 1999b).

The challenges for deaf people in gaining access to justice via signed language interpreters have been discussed in various studies and reports (see Brennan & Brown, 1997; Mathers, 2006; Napier & Spencer, 2008; Nardi, 2005; Russell, 2002; Russell & Hale, 2008; Stevens, 2005; Turner, 1995; Turner & Brown, 2001), and report on various issues, including the linguistic issues presented by the fact that signed languages are visual in nature.

2.2 Video remote interpreting

Video conferencing is now more commonly used for the provision of spoken language interpreting, and has been used since the early nineties (see Azarmina, 2005; Böcker & Anderson, 1993; Connell, 2006; Fowler, 2007; Jones, Gill, Harrison, Meakin, & Wallace, 2003; Moser-Mercer, 2005; Mouzourakis, 1996; Niska, 1999), but research has shown that it is challenging for all participants; interpreters can feel alienated; their interpreting performance suffers; and empathy with the client is harder to achieve (Braun, 2006, 2007; Moser-Mercer, 2003; Mouzourakis, 2006). The International Association of Conference Interpreters has developed a code for the use of new technologies in conference interpretation (AIIC, 2000), which outlines recommendations for equipment to be used in order to preserve interpreting quality.

2.3 Video remote signed language interpreting

The advent of technology has enabled deaf people to capitalize on the visual nature of videoconferencing and communicate directly using a signed language. Research has shown that deaf American Sign Language (ASL) users adjust their use of ASL in direct deaf-to-deaf communication via videoconference to cope with the interference from video communication (Keating & Mirus, 2003). Thus it was inevitable that the provision of signed language interpreting services remotely through videoconference facilities or video relay services would become more popular, which is evidenced in the UK and USA in particular (Dion, 2005; Lightfoot, 2006; McWhinney, 2009), and more recently in Australia (Napier, McKee, & Goswell, 2010).

With regard to signed language interpreting, the term 'video remote interpreting' or 'video relay interpreting' (VRI) refers to the process of interpreting via video technology, where at least one of the participants is in a different location. In the USA, the term *video relay interpreting* is used where the interpreter is in a different location to all parties but connected via a telecommunications video relay service (VRS). In *video remote interpreting* the interpreter is in the same location as either the deaf or hearing person.

Typically an interpreter is stationed in one location (e.g., at an interpreting agency with a video facility) and interprets between deaf and hearing clients. These clients may be located together (e.g., a doctor and patient together in a surgery) or separately (e.g., a deaf business person contacting a customer in another city). Interpreters employed to work for a VRI service may be booked for block sessions, reducing the need to travel to and between assignments. There have been concerns that this may potentially be more appealing and may attract more interpreters to VRI work at the expense of face-to-face community jobs (Dion, 2005).

At present deaf people are using VRI or VRS in order to organise short meetings at the last minute, and to make phone calls. With further advances in technology, it is likely that more deaf people will use this service regularly for personal communication, and that an increasing proportion of well skilled sign language interpreters will therefore be employed within this type of service, following trends already established in the USA.

VRI has been identified as an effective solution to providing increased access to signed language interpreters, especially for those in regional or rural areas (Spencer, 2000), and has great potential in reducing the need for proximity (Lightfoot, 2006). Competencies for working as a video relay interpreter have been developed in the USA by the National Consortium of Interpreter Education Centres (NCIEC), and a competency model has been suggested for the training of video relay interpreters (Oldfield, 2010).

Anecdotal reports of VRI note that the use of such technology can impact on the signed language interpreting process and interpreters in several ways, including, for example: the need to adapt signing style to account for the two-dimensional medium, limited options for interpreters to assess deaf client's language needs, less opportunity for interpreters to brief with either party, and difficulties of getting a deaf person's attention if the interpreter is in a different location (Napier, McKee & Goswell, 2010).

Taylor (2005) conducted a study to identify the requisite competencies needed by signed language interpreters to perform video relay work effectively, in order to effectively train interpreting students with those competencies for possible employment as video relay interpreters. Taylor observed and/or interviewed 55 interpreters, managers and administrators in two VRS call centers in the United States, and interviewed 25 deaf 'callers' using open-ended questions. Table 1 shows the differences between traditional and VRS interpreting as identified by Taylor (2005, p.9) as a consequence of her research. In sum, Taylor notes that the core competencies required of VRS interpreters can be divided into three categories: skills, knowledge and personal attributes, which are summarised in Table 2 (taken from Taylor, 2005, p.10). Apart from making recommendations as to the needs for preparing interpreters to work in VRS call centres, Taylor also notes that "there is insufficient supply of qualified interpreters to meet the growing demands of the marketplace. This reality was present before the advent of Video Relay Services, but is more apparent as a result" (2005, p.25).

Traditional interpreting	**VRS interpreting**
Face-to-face communication	No in-person contact
Three-dimensional perspective	Two-dimensional perspective dependent on high speed compression with times when the quality decays
No physical limitation on signing space	Restricted signing space due to technology
Uses contextual and environmental cues for making meaning	Contextual/environment to support cues are lacking
Relationship between parties is commonly known (e.g. doctor/patient, employer/employee)	Relationships between callers are often unknown
Sociolinguistic factors (gender, age, ethnicity) are overt	Sociolinguistic factors are not always known
Assignments are made in advance	"Immediate" assignments
Ability to accept or turn down assignments (e.g., legal or medical interpreting)	Must accept all calls regardless of content or caller (e.g., young children, new immigrant with limited signing abilities, computer techie)
Potential for extensive preparation	Relies on prior experiences rather than preparation
Generally works alone or with one other interpreter	Team environment
Often self-employed	Works for a corporation
Interpretation is the only role	Multiple roles occurring simultaneously (e.g., operator, customer service representative)
One locale with a relatively limited and predictable number of deaf and hard of hearing consumers (e.g., number of "jobs" in a day often range from one to five)	Wide variety of callers and content (e.g., number of calls in a day can be over 100)
Often regional signs are known	Often regional signs are not known
Consumers see each other and are able to monitor reactions visually and auditorily.	Callers are not able to see or hear each other or monitor reactions.
No special need for technology competence	Technology competence is a necessary skill
Dual-tasking at linguistic and physical levels	Multi-tasking at linguistic, physical and mechanical levels
Generally greater demand for English to ASL interpreting	Greater demand for ASL to English interpretation
Most consumers are experienced using interpreters	Many inexperienced callers placing phone calls
Very little use of intimate register	High number of calls requiring the use of intimate register

Table 1: Differences between traditional and VRS interpreting

Skills	**Knowledge**	**Personal Attributes**
Experience	World knowledge	Physical
Adaptability	Deaf related world knowledge	Psychological-emotional
Linguistic	VRS knowledge	Professional & ethical conduct
Telephone protocol & voice control		
Customer service		
Decision making		
Impartiality		
Technology		

Table 2: VRS interpreter competencies summary

In a follow up study, Taylor (2009) interviewed and observed 143 people over a five month period; including interviews with 64 interpreters and/or managers involved in five VRS call centres across the United States; focus groups with 36 deaf and hard of hearing callers' regarding their current and future VRS needs; and observations of 43 VRS interpreters working. She found that interpreters who worked for VRS call centres still worked regularly in the community. Likewise, deaf people who tended to use VRS regularly also repeatedly requested community interpreters for face-to-face interactions. This more in-depth research led to Taylor expanding on the core competencies required of VRS interpreters as follows: *skills* (metacognitive, language fluency, teaming strategies, call management, customer service and telephone protocol); *knowledge* (experience, practical knowledge, ability to learn, and ethics); and *personal attributes* (ability to maintain confidentiality, tolerance of changes in technology, ability to accommodate and adjust, ability to take care of him/herself, and ability to set boundaries).

Although the focus of Taylor's (2005, 2009) studies was on VRS through call centres, the results are also applicable to VRI in terms of the competencies required of interpreters, and the technological impact on the production and comprehension of signed languages.

Alternatively, a study that focuses on VRI has been recently conducted in the United Kingdom. In her analysis of ten case studies of British Sign Language (BSL)/English interpreter-mediated interaction, Wilson (2010) compared face-to-face interpreter-mediated interactions with situations where deaf and hearing people were together but the BSL/English interpreter was in a remote location. She found that interactions that using VRI were slower, predominantly due to the fact that the number of turns taken in video remote interpreted encounters were higher than in face-to-face encounters. Her analyses demonstrated that as long as large screens were used, that the use of technology did not interfere with the interpreting process. However, she found that participants noted the difficulties of reading fingerspelling and facial expressions through the video conference technology, and deaf people in particular felt that the technology was a barrier to the quality of their interpreting experience. In conclusion, she comments that both face-to-face and video remote interpreter-mediated interactions are effective but that the success is heavily dependent on the situation; thus she recommends that only highly skilled interpreters should be employed for VRI assignments.

The use of VRS interpreting has been explored in Australia by the Australian Communication Exchange (Spencer, 2000), and is currently being extensively trialed (Boyd & Harper, 2010). Furthermore, a recent evaluation of VRI services by the Victorian Department of Human Services (BSR Solutions, 2010) identified three key benefits to using VRI:

1. VRI improved access to health and community services by reducing the average lead time for accessing interpreters;
2. VRI improved quality of health and community service delivery by increasing the number of funded interpreting hours, especially in regional and rural areas;
3. VRI increased capacity to service current and future interpreting demand.

After a significant period of testing and technical development, the Victorian project established recommendations for the technical and environmental requirements for the effective provision of VRI. These include:

a. A designated meeting room (multipurpose or dedicated VRI room) for instalment of VRI infrastructure with blue wall back drop; sound proofing; use of hands free speaker; a means of signalling to an outsider that the room is in use to avoid interruptions; free from distraction; and client confidentiality considerations including privacy and quiet.
b. If equipment is on a trolley and moved around, the floor of the room should be marked to show where the trolley and chairs are to be placed when in use. Although VRI cameras can zoom in and out, the need for the client to see the interpreter clearly and vice versa to enable two-way Auslan conversation should be borne in mind at all times.
c. Display minimum resolution 1400x1050; pan and zoom; split screen to enable all parties to view each other; 25-30 frames per second for 95% of transmission; 115 frames per second for 5% of transmission.
d. Enable link to 3 or more locations.

Evaluations of the Victorian project by deaf consumers and interpreters revealed that all were comfortable with the use of VRI, especially due to the large screens that were used, although the interpreters noted some technological issues (e.g., time delay, problems with set-up, clients not knowing where to look). Overall, however, all the participants commented that they would be happy to use the equipment again. The results of the Victorian project (BSR Solutions, 2010) are promising in terms of using VRI to improve the availability of Auslan/English interpreting services.

2.4 VRI in court

The use of videoconferences in criminal proceedings, especially for witnesses or experts participating in hearings, has been allowed under EU legislation since 2000 (Convention on Mutual Assistance in Criminal Matters between EU countries, Article 10). As Braun & Taylor report in this volume, a 2008 survey by the European working group on E-Justice shows that videoconferences are now widely used in criminal proceedings to speed up cross-border cooperation, reduce costs and increase security (Braun &Taylor's review of current practice in this volume).

The AVIDICUS project has highlighted that the emerging settings include videoconferences with witnesses, experts or suspects in different countries but also

between courts or police stations and prisons. These settings are often multilingual, necessitating the use of interpreters to mediate the videoconference proceedings. Videoconference technology has offered a potential solution for current problems with the provision of qualified legal interpreters, especially for minority languages. Thus, "remote interpreting" via a videoconference link using interpreters at distant locations (possibly in different countries), is gaining momentum in European criminal proceedings.[7]

Apart from the findings of the AVIDICUS project and related projects (see elsewhere in this volume), little is known about the viability and quality of video remote interpreting in courts, and training for legal practitioners and interpreters on interpreting in court via videoconference or audiovisual link is almost non-existent. Until the project described in this paper, no research has been conducted about the effectiveness of signed language interpreting services provided through video remote facilities for legal purposes. Given the high stakes involved in legal proceedings mediated through interpreters, it is imperative to analyse the effectiveness of VRI to conduct legal proceedings. Thus, the commissioning of this research project in NSW is timely.

2.5 A study of VRI in NSW courts

The researchable questions addressed in this project were as follows:

a) Communication

1. How easy is it for deaf people to understand interpreters through video remote technology?
2. How easy is it for interpreters to understand deaf people through video remote technology?
3. What are the challenges for all parties in communicating via video technology?
4. Are there any barriers to having deaf clients or interpreters in remote locations?
5. Is the integrity of the interpreting process affected by the provision of services through video remote technology?
6. What are the optimum settings for sign language interpreters to provide quality services remotely through video facilities?

b) Perceptions

1. What are deaf clients' perceptions of the effectiveness of video remote sign language interpreting services?
2. What are legal professionals' perceptions of the effectiveness of video remote sign language interpreting services?
3. What are interpreters' perceptions of the effectiveness of video remote sign language interpreting services?

The conceptual framework for this project involved ethnographic observation and thematic analysis (Silverman, 2006). It was a qualitative study that involved a quasi-experimental design in that five simulated trial scenarios were tested under similar conditions, but each scenario was treated as a case study as it involved different scripts and/or participants, and involved ethnographic observation and follow-up interviews.

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[7] http://www.videoconference-interpreting.net/Avidicus.html

In consultation with representatives from the NSW Department of Justice and Attorney General (DJAG), five sites were identified that have videoconference facilities that can be used to provide signed language interpreting services to courts in NSW. These included:

1. Deaf Society of NSW (Deaf Soc)
2. NSW Community Relations Commission (CRC)
3. Witness Protection (in courthouses) (WP)
4. Corrective Services Cells (CSC)
5. Courtrooms (court)

As the remit of the DJAG Diversity Services is to give consideration to diversity issues in NSW courts, it was decided to focus only on those scenarios that directly involved either the deaf person or the interpreter being in court, and to represent the combination of possibilities with the deaf person remote, the interpreter remote, or the deaf person and interpreter together. Through these discussions it was noted that if the deaf person cannot be present in court, this invariably means they are in custody (CSC) or in witness protection (WP). It was also noted that if the interpreter was in a remote venue, this could be at either the Deaf Society (Deaf Soc) or Community Relations Commission (CRC) videoconference venues, but the impact would be the same. Finally, it was agreed that a control ('ideal scenario') should also be tested for comparison, that is both the deaf person and interpreter together in the courtroom. This gave rise to the recognition of possible scenarios where a deaf person or interpreter might interact with the court via videoconference, also known as audiovisual link (AVL).

It was agreed that testing the possible configurations of the deaf person and/or interpreter being in a remote location was most important, rather than testing every single combination. For example, it would not matter whether the deaf person was in custody or witness protection, the fact that they would be accessing the courtroom from a remote location via AVL was the most important factor. Similarly, it would not matter whether the interpreter was situated at the Deaf Society or the CRC, the fact they are remote was the most crucial aspect. However, as the Deaf Society of NSW has a videoconference system that is not part of the Department of Justice Agency Conference System (JACS), it was decided to test both the Deaf Society and the CRC AVL facilities to ensure that they were equivalent. One additional scenario was also identified: that the deaf person and interpreter may be together in a witness protection room or at a Corrective Services facility. The final five scenarios agreed on for the purposes of testing are outlined in Table 3.

Scenario no.	**Location 1**	**Location 2**	**Location 3**
	Deaf Soc or CRC (I)	Court	WP or CSC (D)
	Deaf Soc or CRC (I)	Court (D)	
	WP or CSC (D & I)	Court	
	Court (D & I)		
	Court (I)	WP or CSC (D)	

Table 3: Final five scenarios

2.5.1 Participants

Participants were recruited by the research team, DJAG representatives and with assistance from SLC (NSW). Deaf people with experience of professional acting were approached directly by the research team to take on the characters in each of the five scenarios. Three actors were confirmed, whose demographics can be seen in Table 4. The deaf actors were asked to simulate deaf people who were more likely to be in the court system, that is, people who are less likely to be well educated, and not particularly bilingual in Auslan and English—people often referred to as having 'minimal language skills' or 'limited Auslan fluency' (Napier, McKee & Goswell, 2010), and were allocated the scenarios as seen in Table 5.

Actor	**Gender**	**Age range**	**First language**
A	Male	35-45	Auslan
B	Female	35-45	English
C	Female	45+	Auslan

Table 4: Deaf actor demographics

Actor	**Scenario**
A	1 - remote
	2 – in court
B	3 – remote with interpreter
	4 – in court with interpreter
C	5 - remote

Table 5: Deaf actor scenarios

Unfortunately on the day of filming, the Actor C was not able to attend at the last minute. So Actor B stepped in and also participated in scenario number 5.

SLC (NSW) provided sponsorship to the project by providing their in-house interpreters to participate in the data collection at a reduced cost. In the end three interpreters were provided (as seen in Table 6), all of who had NAATI Professional Interpreter accreditation, but only one had experience of working in court. After consultation with DJAG representatives it was agreed that the interpreters were a representative sample of the working population of Auslan/English interpreters, as the majority are female (Bontempo & Napier, 2007; Napier & Barker, 2003), and there is no guarantee that an interpreter would have experience working in court as typically any available interpreter would be booked. The interpreters were randomly allocated to scenarios based on their availability.

Interpreter	**Gender**	**Age range**	**First language**
A	Female	40+	English
B	Female	20-25	Auslan
C	Female	25-35	Auslan

Table 6: Interpreter demographics

Finally, hearing participants were recruited from DJAG employees with the assistance of the DJAG Diversity Services Manager and Senior Development Officer. Participants gave their time voluntarily and acted in the roles of judge, prosecution counsel and defense counsel.

2.5.2 Scenario Data

Five scenarios of a simulated courtroom interaction were developed using scripts from mock-trial scenarios from DJAG and based on real courtroom trial excerpts. The scripts were adapted in consultation with the Diversity Services Senior Development Officer, and a briefing was developed for the deaf actors and hearing participants, giving an overview of the 'character' of the deaf person in each scenario, plus any linguistic issues for consideration. It was decided to use the same two scripts for the scenarios, so Script 1 (Breach of an Apprehended Violence Order), was used for scenarios 1, 2 and 4; and Script 2 (Driving whilst Disqualified) for scenarios 3 and 5 (as seen in Table 7).

Remote witness room	**CRC**	**Deaf Society**	**Court**	**Script no.**
Deaf person A	Interpreter A		Court personnel	1
		Interpreter B	Deaf person A Court personnel	1
Deaf person B Interpreter B			Court personnel	2
			Deaf person B Interpreter C Court personnel	1
Deaf person B			Interpreter C Court personnel	2

Table 7: Script and scenario allocation

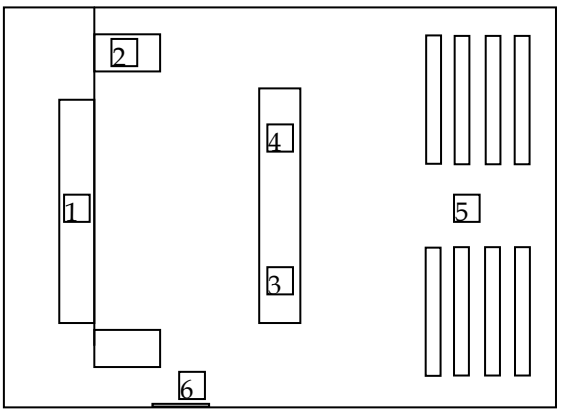
In order to make the simulations as authentic as possible, the interpreters only received brief information about the assignment as would normally be given on a CRC or SLC (NSW) booking sheet, which included: the venue and address, the name of the contact person, date and time of the assignment, the name of the deaf person and the type of court matter.

2.5.3 Process

The data collection process involved complex organisation of multi-location data collection of five scenarios across four sites, using two scripts. The filming took place in four different locations: three in Parramatta (Children's Court, South West Trial Court Remote Witness Room, Deaf Society) and one in the Sydney Central Business District (CRC); which required four researchers to be present to set up each location, film the scenario and interview participants.

Prior to the day of data collection, DVD recorders were installed in the Children's Court, CRC and Deaf Society sites in order to record the video image sent between the courtroom and the remote locations via AVL[8].

Before filming could commence, time was needed to set-up each scenario to ensure that all participants could be seen and heard. Figure 1 illustrates the usual seating positions in court when neither a deaf person nor interpreter is present. It was found that in setting up each scenario, due to the fixed nature of the JACS camera equipment (which could not be moved to focus on different parts of the courtroom or zoom in on people), people had to be moved around so that the deaf person and interpreter in particular could clearly see one another. This often meant that the usual seating positions as seen in Figure 1 could not be adhered to; and the 'views' on the screens either in the courtroom or the remote location room also needed to be adjusted. More detail on these adjustments is given with the description of the results of each scenario.



1 Bench
2 Witness Box
3 Defendant and Defence solicitor
4 Prosecutor
5 Gallery
6 Large plasma TV screen mounted on wall

Figure 1: Usual seating positions in court (without interpreter)

Each scenario ran for approximately 10-15 minutes with simultaneous interpretation between English and Auslan. In order to make the simulation as realistic as possible, the deaf actors and hearing participants were requested to respond to the interpretation as appropriate, even though they were following a script. For example, if the script said: "Tell us your full name and date of birth", but the interpreter only signed: "Tell us your full name", then they were asked to follow what the interpreter signed. Or, another example, if the interpreter signed/said something that was unclear, then they were asked to respond as they thought would be appropriate. They were also told that if they deviated from the script (e.g., to clarify something, to interrupt, etc.), then they should return to the script as quickly as possible; and if they had to deviate from the script they should only make one variation before returning to the script and try to make no more than three variations throughout the entire script.

In order to triangulate the data and ensure that all perspectives were captured, each scenario was video-recorded through three points: (1) a static video-camera on a tripod focused on the deaf participant; (2) a static video-camera on a tripod focused on the

8 Typically this recording device is only available in NSW District Courts.

interpreter (or both the interpreter and deaf person if they were together); and (3) an in-house recording of the footage appearing on the screen through the JACS system[9].

Post-scenario interviews were conducted with all the deaf and interpreter participants using prompt questions that asked their opinions about the use of the technology, their perceived accuracy of the interpretation and whether it was impacted by use of video remote facilities, and their perceptions of the effectiveness of the service. In particular the interpreters were asked about any challenges they experienced, and the deaf people about any barriers they felt they faced. A few of the hearing participants were also interviewed, but due to time constraints many of them had to return to work on completion of the data collection for their scenario. In these instances, the hearing participants were given a hard copy of the prompt questions and asked to email the research assistant with their responses. On completion of the data collection, a follow-up meeting was organised with the JACS Team Leader to clarify the technical specifications used in each scenario. Analysis of the data involved thematic analyses of the various data collected.

2.5.4 Results & Discussion

As already discussed, the project attempted to simulate the range of contexts in which an Auslan/English interpreter may be required to interpret via AVL for a court matter. Throughout the process of collecting the data, it was obvious that employing the services of a sign language interpreter through AVL was effective. In all four scenarios that used AVL it appeared that communication was able to occur. However, to ensure effective communication was possible, some adaptations were needed in some of the scenarios. Without these adaptations the differences between each scenario may have been more noticeable.

To explain the adaptations used during the data collection, for convenience, an overview of each of the scenarios will be presented and discussed separately. Themes from the participant interviews will then be presented with a summary of responses to the research questions.

Overview of scenarios

Scenario 1

In this scenario, the deaf defendant was in custody, the interpreter was in a separate location (at the CRC), and both of these individuals were appearing in court via an AVL. Some possible real-life situations represented by this scenario are:

- weekend bail hearing in regional centre, where no local sign language interpreter is available;
- the inability to transport a defendant to court and no local sign language interpreter is available;
- deaf witness permitted to appear via video link, and no local sign language interpreter is available.

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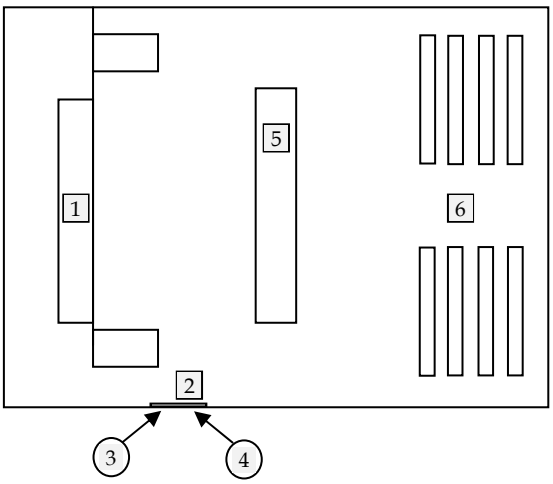
[9] The first scenario was recorded through the CRC as JACS initially had technical problems, but the remaining 4 were all recorded through JACS.

Image 1 is a still-photo taken from the video recording of this scenario. The top picture is divided into two separate images, with the Magistrate on the left side and the Bar Table on the right. The deaf defendant is in the lower, left-hand corner of the image, and the interpreter is in the lower, right-hand corner. This layout was seen on the television screens in all three locations: in the Court, the Remote Witness Room and the CRC. The court and the CRC had large, wide-screen plasma televisions; the Remote Witness Room had a small television screen. Regardless of the television size, in the debriefing after the scenario, both the interpreter and the deaf participant commented that they would have preferred a larger screen, and to not have seen themselves on the screen. The layout of the courtroom for Scenario 1 is illustrated in Figure 2. In this scenario, it was not necessary to move anyone in the courtroom.

Image 1: Scenario 1 - Deaf defendant 'in custody', interpreter (at CRC) – both appear via AVL.



1 Bench
2 Large plasma TV screen mounted on wall
3 Deaf defendant in custody – appearing via AVL connection 1
4 Interpreter at CRC – appearing via AVL connection 2
5 Prosecutor
6 Gallery

Figure 2:Scenario 1 - Deaf defendant 'in custody'; Interpreter at CRC – both appear via AVL

Other technical specifications about the AVL connection for scenario 1 are listed in Table 8.

Connection type	Videoconference mode
Bandwidth used	512kbps
Layout description	3-way split
Other information	JACS established 512kbps connection; Court Officer would only be able to connect at 256kbps

Table 8: Technical specifications for Scenario 1

As noted in Table 8, the connection was established at double the speed of a normal connection than what would be possible if established by a Court Officer. To check whether communication could still be achieved at a lower speed, the researchers re-tested this scenario at 256kbps and found no difference. In addition to the potential real applications of Scenario 1 as mentioned above, another real-life context which would realistically be represented by Scenario 1 is the solicitor-deaf defendant consultation during a court case. In this situation, the court would need to be cleared.

Scenario 2

This scenario is similar to Scenario 1, in that the interpreter is appearing in court via AVL; the difference in this scenario is that the deaf defendant is in the courtroom. Some possible real-life situations represented by this scenario are:

- deaf defendant/witness in a rural/remote setting, with no local interpreter available;
- weekend bail hearing, with no local interpreter available.

Image 2 is a still-photo image taken from the JACS video recording of Scenario 2. The image on the left is a split-screen shot of the Magistrate and the Bar Table. In the picture of the Bar Table, the deaf defendant is seated on the right, the Prosecutor is seated at the left end of the table. The interpreter is pictured separately on the right side of the screen. In the courtroom, the deaf defendant saw the full image of the interpreter on a large plasma screen.

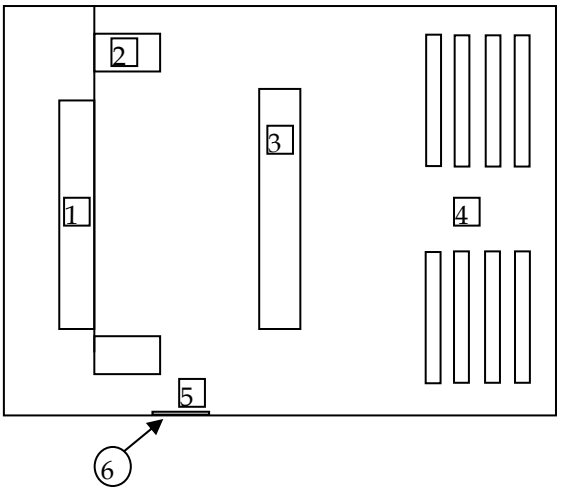
From Image 2 it should be clearly evident that the position of the deaf defendant at the Bar Table would not be ideal, as this is the view that the interpreter had on her screen in the Deaf Society remote location. In a real-life court matter this is precisely where he would need to be seated. In that position the defendant would need to turn to the left to see the interpreter on the television screen hung on the wall of that particular courtroom. However, something more problematic for communication is the fact that the deaf defendant appears to be very small on the screen. Given that Auslan is a visual language, it is imperative that the interpreter and the deaf defendant are able to see each other clearly. To remedy this situation so that the scenario could proceed, we needed to find another location for the deaf defendant. The cameras in the courtroom are in fixed positions, so we needed to work around these limitations. The best solution was for the deaf defendant to sit in the Witness Box, as seen in Image 3.

The resulting position of the participants in the courtroom can be seen in Figure 3. The location of the deaf defendant in the Witness Box should clearly highlight some of the limitations within the current system. Naturally, having a deaf defendant seated in the Witness Box would impact on court proceedings, especially if there were other witnesses. As such, we recognise that this solution does not reflect optimal court practice, but there may be occasions when a deaf witness would be seated in the Witness Box, so this

placement is not beyond the realms of possibility. The other technical specifications for scenario 2 are detailed in Table 9.

Image 2: Scenario 2 – deaf defendant in court, interpreter appearing via AVL

Image 3: Scenario 2 – deaf defendant seated in Witness Box



1 Bench
2 Deaf defendant seated in the Witness Box
3 Prosecutor
4 Gallery
5 Large plasma TV screen mounted on wall
6 Interpreter at Deaf Society of NSW – appearing via AVL

Figure 3: Scenario 2 - Deaf defendant in courtroom; Interpreter at Deaf Society of NSW, appearing via AVL

Connection type	Bail video mode
Bandwidth used	512kbps direct connection
Layout description	Bail video mode

Table 9: Technical specifications for Scenario 2

Scenario 3

In this scenario, the interpreter was with the deaf defendant in a remote location, and both appeared in court via the one AVL link. Some possible real-life situations reflected by this scenario are:

- deaf defendant in custody, but unable to be transported to courthouse;
- deaf witness appearing from a remote location and granted permission to appear via AVL;
- deaf witness being protected, thus permitted to give evidence from remote witness room in the same courthouse.

Image 4 is a still-photo taken from the video recording of this scenario. As can be seen in the image, the interpreter and the deaf defendant are seated facing each other, seated a comfortable distance from each other to allow for signing space. Both participants are positioned with their bodies slightly at an angle so that they can be seen as clearly as possible in the courtroom. The television in the Remote Witness

Image 4: Scenario 3 – deaf defendant and interpreter in custody

Room showed a split-screen image of the courtroom, with the Magistrate on the left of the screen and the Bar Table on the right. The technical specifications for scenario 3 can be seen in Table 10.

Connection type	Videoconference Mode
Bandwidth used	512k direct connection
Layout description	Videoconference Layout
Unique technical specs	Court Officer will be able to connect in this mode
Display in RW room?	Split screen of Bench and Bar similar to top image in screenshot from scenario 1.

Table 10: Technical specifications for Scenario 3

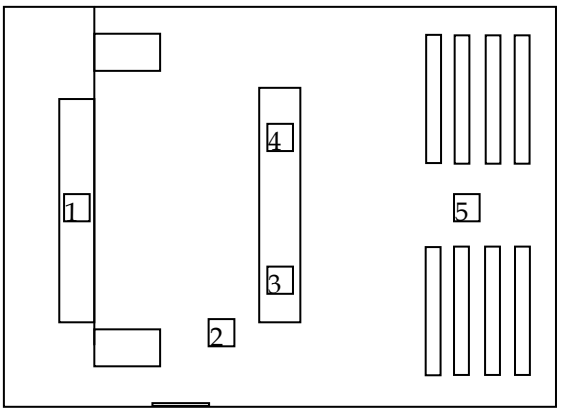
Scenario 4

This scenario was the 'control' scenario. This scenario reflects the current practice of having the interpreter and the deaf person in the courtroom. No AVL was used for this scenario to allow for comparison of current practice and the use of AVL. Image 5 shows the position of the deaf defendant and the interpreter in relation to each other. The deaf defendant was seated at the Bar Table as would be expected in a typical courtroom set-up. Image 6 is a screenshot of what was recorded through the court AVL (JACS) system, which shows the Bench on the left and the Prosecutor and the deaf defendant, seated at the Bar Table, on the right. The significance of these two images will be discussed in the analysis of the scenarios below.

Image 5: Scenario 4 – Deaf defendant (left) and interpreter (right) in court

Image 6: Screenshot of scenario 4, recorded through AVL system

The location of all participants in the courtroom is illustrated in Figure 4. The position of the interpreter is the typical one used in the courtroom if there is a deaf defendant present, but the interpreter may be required to sit or stand in other positions depending on the preference of the Bench, or the role (and thus location) of the deaf participant in the court matter. So while this scenario reflects the current practice of having an interpreter in the courtroom, the positioning of the interpreter may vary.



1 Bench
2 Interpreter
3 Deaf defendant
4 Prosecutor
5 Gallery

Figure 4: Scenario 4 - Location of all participants

Scenario 5

This scenario was the last permutation of the combination of participants engaging in a court matter via AVL. In this situation, the deaf defendant was in a remote location, but the interpreter was in court. Some possible real-life situations reflected by this scenario are:

- deaf witness in a remote/rural location some distance from the court where the matter is being heard, but an interpreter is available at the court;
- deaf defendant in custody and unable to be transported to court, but an interpreter is available at the court;
- weekend bail hearing in a location where an interpreter is not locally available, but one is available at another court.

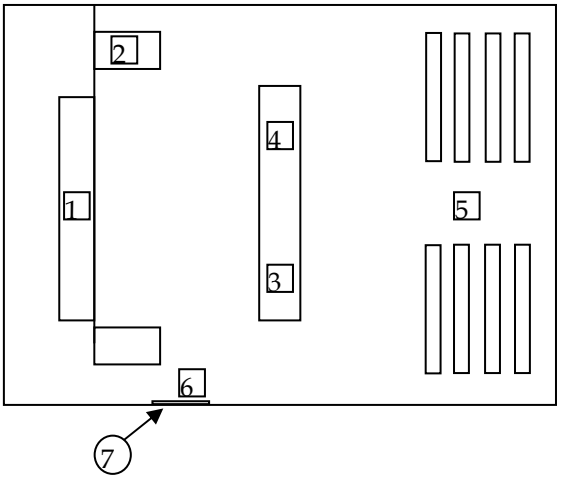
Image 7 is a screenshot from the video recording of this scenario. In this picture the screen is divided into four sections. Moving clockwise from top-left, the images are: the Bench; the interpreter (seated in the Witness Box); the deaf defendant (appearing via AVL from the Remote Witness Room); and, the gallery within the courtroom. It should be noted that once again, as in scenario 2, we had to position one of the participants (this time the interpreter) in the Witness Box. Unlike scenario 2, where there may be real-life circumstances when a deaf person would be seated in the Witness Box, there is no real-life circumstance where an interpreter who is working in a court would be seated within the Witness Box. However, to circumvent the limitations of the current system and the fixed positioning of the cameras within the courtroom, this was the only viable option to be able to proceed with the scenario. As such, this solution highlights one of the major problems and limitations of the current system.

Image 8 is a screenshot of what was seen on the large plasma television screen in the courtroom. Only the deaf defendant was shown on the screen within the courtroom, while Image 7 is what the deaf defendant saw on the screen in the Remote Witness Room. As mentioned above, the JACS cameras are in fixed positions, so this was the only screen-split that could be obtained to get all participants on screen. The lack of clarity of Image 7, due to the visual distraction of the other participants appearing on the screen at the same time is a significant issue that will also be discussed below.

Image 7: Scenario 5 – Interpreter in court; deaf defendant in custody, appearing via AVL

Image 8: Deaf defendant (in custody) appearing in court via AVL

The location of all participants for scenario 5 is represented in Figure 5, and the technical specifications for scenario 5 are revealed in Table 11.



1 Bench
2 Interpreter seated in the Witness Box
3 Defense solicitor
4 Prosecutor
5 Gallery
6 Large plasma TV screen mounted on wall
7 Deaf defendant in custody – appearing via AVL

Figure 5: Scenario 5 - Location of all participants

Type of connection	Bail Video
Bandwidth used	512k direct connection
Layout description	Bail Video Mode
Unique technical specs	Court Officer will be able to connect in this mode

Table 11: Technical specifications for scenario 5

In sum, overall access was achieved in all five scenarios; there were no significant communication breakdowns, and the interpretations of the trial dialogues were all accurate. Thus it seems that it is possible to provide Auslan/English interpretation in court via AVL, with either the deaf person, or interpreter (or both) being in remote locations. However, it is important to note that adaptations had to be made to make the provision viable.

Now that an overview of each scenario has been provided, detailing the logistics and the screen 'views' that the deaf and interpreter participants had access to, it is worth considering the themes that emerged from the participant interviews. More detail of the ethnographic observations, and linguistic analyses of each scenario can be found in a separate publication (Napier & Leneham, forthcoming).

2.5.5 Participant interviews

All deaf and interpreter participants were interviewed in Auslan and English respectively after the completion of each simulated trial scenario. The interviews were recorded on videotape for further transcription and analysis. Given there were multiple hearing participants performing the roles of other personnel in the courtroom, it was not feasible to interview each of them separately after completion of the scenarios, so they were asked to provide written feedback in response to a series of questions. Disappointingly not all the hearing participants returned written responses; and for the majority, the comments were quite limited. However, one hearing participant who played one of the court personnel was interviewed after a their involvement in two of the scenarios.

The transcripts and written translations of the interviews were analysed for key themes that emerged across comments from all participants. The issues identified have been organised into six themes: Clarity of AVL; Communication; Roles & Participation; Improving the AVL system; Environmental & Technological Issues; and, other Miscellaneous Issues.

Clarity of AVL

As mentioned earlier, it is clear that communication and being able to effectively conduct a court matter with a sign language interpreter via AVL was possible, regardless of how the technology was used. The interpreters and deaf participants generally commented that the image was clear. However, the size of the participants on the screen and the division of the screen into multiple sections were issues for the deaf participants and interpreters. In addition to these issues, other comments from the participants regarding the clarity of the AVL were:

- (Scenario 1: Deaf defendant) In real-life situations, when I am with an interpreter – face-to-face – if there is some uncertainty or something unclear, then I can easily interrupt and they can go back and clarify the information, or vice-versa if they

don't understand me. But, through the AVL system, it's difficult for me to interrupt because the court is in session and things need to keep moving.

- (Scenario 1: Magistrate) I certainly had no problems. It just appeared from the AVL that perhaps the interpreter had big problems. But I don't know what could be done to improve that.
- (Scenario 2: Deaf defendant) You'd have to consider any deaf supporters there might be in the courtroom who might want to express their support for the deaf defendant. In this scenario, with the interpreter only visible on the TV screen on the wall, the other deaf people in the courtroom would not be able to view the screen, so would not have access to what is happening in the courtroom.
- (Scenario 5: Deaf participant) Wasn't clear at all. I felt incredibly disconnected from the proceedings. … If it wasn't for the script, I don't think I would've been able to follow the proceedings very well.

The above comments from the participants confirm many of the observations of the research team regarding technical issues.

Communication

In all scenarios, participants felt that communication was possible, though not always without problems. The 'clarity' factors discussed above certainly impacted on the success of communication. However, in the debriefing interviews the participants made several comments in relation to communication; they included:

- (Scenario 1: Deaf defendant) …you need to explain the AVL process to the deaf client before it begins: "You'll be in this room here. You're the 'witness'. You will communicate via a video camera." It's important to make sure they're aware of the process and understand what's involved before they start.
- (Scenario 1: Deaf defendant) The blue outline around the quadrant of the screen indicates who's speaking and I think that looks good and worked well.
- (Scenario 1: Interpreter) I don't like being away from the deaf person so much. … As an interpreter, it's about that control and being able to go, "Sorry, it's not working." And wondering whether they can hear me. And it just slows everything down.
- (Scenario 1: Prosecutor) The interpreter and the client were not able to see me properly from position (sic).
- (Scenario 1: Prosecutor) I felt like speaking slower so that the interpreter could understand what I was saying.
- (Scenario 1: Magistrate) I was mindful of the interpreter, but also, I know from my experience in court that people don't speak a mile a minute. And certainly from the Bench, they don't. So I was mindful of that.
- (Scenario 2: Deaf defendant) Often when deaf people are working with interpreters, you'll see that they sign everything directly to the interpreter. I think I'm a little bit different; I forget about the interpreter and sign towards the person I want to address. But after this scenario I realise that it's important for the deaf person to watch the interpreter. I found that quite difficult because if I'm only watching the interpreter on the TV screen, then I may not be sure who is speaking and to whom I should respond. But if I'm not watching the interpreter, then she isn't able to interrupt me to ask me for clarification, or to repeat

something she might not have understood when I signed it. I admit that I ignored the interpreter in favour of focusing my attention on the participants who were in court with me. … For me, I'm very competent at working with interpreters, but it is hard to maintain focus on the interpreter on the TV screen, and the other participants in the court.

- (Scenario 2: Deaf defendant) Generally speaking, both in the Remote Witness Room, and here in the courtroom, it was difficult to manage the communication. I'm not meaning in relation to working with an interpreter, I guess it's more to do with the nature of the situation. That I'm not communicating with someone immediately present and because I was aware that what I was saying was being recorded. As such, I needed to put more thought into what it was that I had to say. So it actually made me more tense.
- (Scenario 2: Prosecutor) [Everyone was able to communicate] very easily.
- (Scenario 3: Deaf defendant) The way the interpreter and I were seated, facing each other, was fine. … There may have been some small degree of discomfort with being seated so close to each other – I don't know. But that is a possibility.
- (Scenario 3: Interpreter) I had to turn so that the Judge could see me; I was really close to the deaf person.
- (Scenario 4: Deaf defendant) It would be more difficult for an interpreter to interject if they were in a different location.
- (Scenario 4: Prosecutor) I read the script slowly in order to cover my nerve (sic).
- (Scenario 5: Deaf defendant) I found it very hard to feel like I had a connection with the interpreter – for example, if I needed something clarified.
- (Scenario 5: Deaf defendant) In terms of "communication" and "access", it was there, but in terms of it being "equal" and feeling "empowered", I felt at a disadvantage.
- (Scenario 5: Interpreter) I think there was definitely communication there, but it didn't feel as smooth as compared to if she were in the room.
- (Scenario 5: Interpreter) When I was fingerspelling…I was very conscious of having my [indicates holding palm forward, towards the camera].
- (Scenario 5: Interpreter) There was definitely a preference for when I was with her in the room, I felt like I could get more feedback from her, I knew if she was understanding.

Again, data from the interviews corresponds with observations from the research team concerning communication generally, and whether the deaf and interpreter participants could adequately communicate with one another to ensure that the trial process was effective.

Roles & participation

For most of the scenarios, the participants felt they were able to engage in the exchange quite naturally; however, they did notice some issues relating to individuals' roles and participation. This extended to the interaction between the interpreter and the deaf defendant, their initial meeting, and the extent to which they felt 'connected' to the proceedings. Some of the comments surrounding these issues include:

- (Scenario 1: Deaf defendant) I think the communication in this scenario was actually quicker than in a real life court setting. For example, if a deaf person was really going to court, they'd have to wait for the interpreter to arrive, walk into court with them, of course there'd be a level of anxiety, the need to introduce the interpreter to other people, meanwhile the deaf person would be keen for things to get underway. But in this scenario, the interpreter came in, sat down and everything began straight away. It all ran very smoothly.
- (Scenario 1: Interpreter) I slowed down [my signing speed] because I couldn't get the feedback [from the deaf client]. … you always get that feedback as to whether they understand your signing and then you become more natural. But I didn't feel there was that feedback – there was a lack of closeness.
- (Scenario 2: Deaf defendant) Sitting in this [Remote Witness] room, I felt like I had more control around how I said things. In the court I wouldn't necessarily have that same level of control. I feel that in court I'd be more anxious about what I say because I know there'd be other people watching me, so I'd have to be more mindful about what I said and how I said it. … The technology was fine – it was easy to communicate, but I felt quite disconnected.
- (Scenario 2: Deaf defendant) I'm trying to predict how another deaf person might feel if they were in this situation. And I imagine they'd be a bit anxious and wouldn't know what to do and might feel intimidated with the cameras and other people watching them.
- (Scenario 2: Prosecutor) … because the interpreter took up the whole screen – so it was just like having another person in the room.
- (Scenario 4: Interpreter) The only bit I felt like it was missing out of the normal situation is just the whole introducing myself to the client and getting to know a little bit more about it right prior to it and just being introduced to the court as well. That all felt like it was missing but I can understand that we just go straight into it.
- (Scenario 5: Deaf defendant) I felt weak and intimidated being in [the Remote Witness Room] on my own. I felt that normally a deaf person would be able to ask an interpreter for clarification, that the interpreter would get the message and stop straight away, but in this situation it wasn't possible. It would require me to draw attention to myself, and while some deaf people might not mind that and would be able to assert themselves and ask for clarification, there would be other deaf people who would be too intimidated by having everyone's eyes on them. The less-assertive deaf person might not say anything, or ask for clarification until after the court proceedings.
- (Scenario 5: Deaf defendant) It's more difficult when we're in different rooms. Also, I'm wondering in the kind of scenario we depicted, would there be time or opportunity for the deaf person and the interpreter to meet for a "warm up"? So the deaf person has to deal with the challenge of possibly having an unfamiliar interpreter that they may not have worked with, or do not work well with, plus having to conduct their business in the court.

One issue that was not considered by the research team was whether the deaf person and interpreter could meet to 'warm-up' before a trial. This was an oversight. It often happens (but not always) in real court cases that the interpreter will be introduced to the deaf client, and they will have a brief interaction so that the interpreter can assess the

deaf client's signing style, use of dialect, and establish their role as an interpreter before going into the courtroom. When technology is being introduced into the mix, then this introduction would be even more vital to ensure that all participants feel 'connected'.

Improving the AVL System

During the debriefing interviews all participants were asked for any suggestions they could offer to improve the AVL system. While some were practical solutions to issues they had identified earlier (such as increasing the size of the TV screens), others were more unexpected as follows:

- (Scenario 1: Deaf defendant) Maybe they could have a button for the deaf person to press, which would light up a switch in front of the interpreter to make them aware of the problem, and then they'd know they might have to provide some clarification. They need something to make it easier for the deaf person to intervene if needed.
- (Scenario 1: Deaf defendant) [They] could have three coloured lights to help indicate who is speaking. For example, if the Judge is speaking, then one light lights up to indicate this. I'm only suggesting this because when looking at the small screen it can be quite difficult to know who is speaking, which can be confusing.
- (Scenario 1: Interpreter) I think it's important to have the hearing people on screen, just to get in your own head where they are, who they are, rather than just hearing voices. Because sometimes you can't discriminate the voices.
- (Scenario 2: Interpreter) I don't need to see me, but it was helpful being able to see the Judge. It would have been helpful to see the Prosecutor. … I was not sure if she was asking a question of [the deaf defendant] and then it made me think I'd interpreted incorrectly. But then she started talking and I was like, "Oh! There's someone else here."

Environmental & technological issues

In addition to the issues identified so far, there were others that were directly related to the environment, either in the courtroom, or the other locations connected via AVL. The comments relate to the physical surroundings, but also to some aspects of the technology. Some comments noted during the debriefing interviews include:

- (Scenario 1 & 2: Deaf defendant) The background was too bright.
- (Scenario 1: Deaf defendant) The picture quality was slightly blurry.
- (Scenario 1: Interpreter) There was a bit of a delay. … So it's a bit off-putting.
- (Scenario 2: Deaf defendant) Having the large TV screen on the far wall, opposite the Witness Box was good, but it wasn't always clear who was speaking – if it was the Judge or one of the solicitors. Working through the AVL, I don't think the interpreter was fully aware of the positioning of people within the courtroom so wasn't able to convey it clearly. For it to work effectively, you'd have to clearly inform the interpreter about who is in the courtroom and where they were positioned. Because the interpreter is conveying the speech from all the other participants, and without clearly establishing who is speaking, it is remarkably confusing.

- (Scenario 5: Interpreter) I wasn't sure whether there was any delay or [the deaf defendant's] feedback wasn't immediate, so it was hard to know whether things were going okay.
- (Scenario 5: Interpreter) The only one thing I will say about [the position of the TV screen on the wall] though, is I had to kind of lean up and that was a bit uncomfortable. If it was for a long period of time, I think that would get pretty uncomfortable. You'd want to be higher up – or just have the TV lower.
- (Scenario 5: Interpreter) I'd say at first, like [signs: POINT POLICE], or [signs: POINT LAWYER] is saying, or [signs: POINT JUDGE] is saying now, but I wasn't sure if that was clear [in the Remote Witness Room]. I think you'd always have to make sure that you say who is talking before you interpret it for them. But if [the deaf defendant]'s seeing this [signs: TV screen divided into four sections], if I'm pointing there, that might actually be nothing and that they're actually over there.

Miscellaneous Issues

In addition to the comments revealed above, one deaf participant commented on the practical application of AVL and when it might be appropriate:

- (Scenario 2: Deaf defendant) There's such diversity in court matters, that I think it would be good to have both options: in court and via AVL. There needs to be a degree of flexibility, based on the nature of the case. If it was a big case, then it would be better for all participants to be in court. If it was only a minor matter, then it could happen via AVL.

2.5.6 Summary of results

To summarise the results from the data, it is clear that AVL can be an effective option for employing a signed language interpreter to work in court. The project explored all possible combinations of an interpreter working through an AVL connection, from within and outside a courtroom. The participants in the project commented on the extent to which they felt fully included or excluded in court proceedings in each of the different scenarios. Noticeably, all the hearing participants' comments for each of the scenarios reflected that they felt the AVL was effective, with the exception of minor technical problems. By contrast, the deaf participants and the interpreters identified some significant areas of concern and limitations of the current AVL system. Their insights are reflected in the comments from debriefing interviews, noted above. In addition to these comments, the researchers analysed the footage for any evidence of other possible concerns. These additional concerns will be discussed below in a summary of the issues noted during the study. As such, fairly well rounded feedback about the process of having an Auslan/English interpreter via AVL in a court matter was gained. To further summarise the results arising from this data, we present responses to the initial research questions for the study.

The first series of questions relates to the effectiveness of the communication via AVL technology.

1. How easy is it for deaf people and interpreters to understand each other through video remote technology?

Four of the scenarios required the use of AVL technology (scenarios 1, 2, 3 and 5), while one scenario (4) was a control and had all participants within the courtroom. According to the participants, they were able to understand each other, with the exception of scenario 5. As will be discussed with regards to the limitations of the study, the fact that the scenarios were scripted may have impacted on the extent to which the deaf participants relied on the interpreter. However, the interpreters (who were not provided with a script) were able to understand the deaf participants in all scenarios.

In addition to being scripted, the effectiveness of the communication may be somewhat deceptive because some adaptations were made during some scenarios, which were beyond standard practice. In particular, in scenarios 2 & 5, participants were seated in the Witness Box. Other challenges, addressed in the next question, would also impact on the ability for the participants to understand each other.

2. What are the challenges for all parties in communicating via video technology?

The participants commented on several challenges and distractions throughout the process, such as: multiple images on the television screen; the slight delay between signing production and seeing it on camera; seeing oneself on the screen; environmental factors such as lighting and distracting backgrounds; fixed camera angles and the position of the TV screens; location of the microphone; the difficulty in watching the television screen and observing what is happening within the courtroom; limited feedback and ability to interact with each other; and the small TV screens which made it difficult to see each other clearly.

In spite of these concerns, the participants felt that communication was possible, but problematic. Less assertive deaf defendants and less-skilled interpreters may be less able to cope with these challenges, which would impact on their ability to understand each other.

3. Are there any barriers to having deaf clients or interpreters in remote locations?

The barriers for using an AVL connection in remote locations depend on the available technology. According to JACS, the technical specifications for the AVL system are uniform across the state. As such, there should not be limitations for using this system in remote locations. The only limitations are the challenges mentioned above, which would be similar to those faced in metropolitan centres as well.

4. Is the accuracy of interpretations affected by the provision of services through video remote technology?

The accuracy of the interpretations is limited by the ability of the parties to communicate effectively through the technology. The data from this project has shown that the interpretation will only be limited if the ability for the interpreter to clearly see the deaf person is reduced, or vice-versa. The factors that impact on the clarity of the interpretation are outlined in the discussion above and in the response to question 2. The accuracy of the interpretation when working through AVL will depend on the interpreter's level of competency, as with any interpreting setting.

5. What are the optimum settings for sign language interpreters to provide accurate, quality services remotely through video facilities?

The optimal settings for effective communication via AVL rely on addressing the challenges outlined above. In addition, the current technical standards for bandwidth should be maintained, or increased where possible. If possible, the interpreter and deaf person should be briefed on the layout of the courtroom and who is present. The technology should be flexible enough to accommodate the option for the interpreter and deaf person to see only each other on the screen, or at least as the main image on the screen. Other participants in the courtroom could be visible on the screen, although priority should be for the deaf person and interpreter to see each other. To ensure correct camera position, the use of portable cameras and television systems should be investigated.

6. What are deaf clients' perceptions of the effectiveness of video remote sign language interpreting services?

Generally the deaf clients felt the AVL system was effective and enabled access to the court. However, they felt more empowered and included, and that they had greater access, in some scenarios more than in others. They also recommended that interpreters and deaf people should be prepared for working through AVL, including knowing who all the participants are, seeing the layout of the courtroom, and seeing how the process will work. The deaf participants also recommended that it would not be appropriate to use AVL for all legal cases. Finally, they questioned whether some deaf individuals could be disadvantaged by using AVL: they may feel disconnected from the interpreter (in some settings), not assertive enough to state their needs, and potentially feel intimidated by the video equipment.

7. What are legal professionals' perceptions of the effectiveness of video remote sign language interpreting services?

In the scenarios we employed the services of volunteers to play the roles of legal personnel in the courtroom. As such, the feedback received was not necessarily from legal professionals. However, all these participants commented that they felt the communication was effective and smooth. One concern, and possible limitation of the study, was that these participants were relying on a script, which may have given a false impression about the effectiveness of the communication; if there had been no script, we might have seen a more definitive indication of the effectiveness of the communication. The justification for using scripts was to reduce variation between the different scenarios, to allow for easier comparison and analysis. A suggestion for further research is to explore AVL in a longer mock trial that is unscripted to assess more accurately the effectiveness of the communication.

8. What are interpreters' perceptions of the accuracy and effectiveness of video remote sign language interpreting services?

As discussed above, all the interpreters felt that communication through the AVL was effective and accurate. However, to ensure accuracy there were times when the interpreter needed to interrupt and seek clarification and they commented that this was much more difficult through AVL than face-to-face. Furthermore, the inflexibility of the

current system, with fixed camera angles and screen layouts, meant that communication was challenging at times.

2.5.7 Limitations of the study

Before concluding the description of this study, there are some limitations that are worth noting. Given that the study did not use authentic courtroom data, various issues were identified that influenced the outcome of the research, as follows:

- The first limitation to note is the fact that deaf actors and DJAG employees were used as participants rather than actual deaf defendants/witness and legal personnel. It was acknowledged in the planning stage that this would have been the ideal, but it was difficult for two reasons: (i) the ethical tension in asking a deaf person who is in a potentially vulnerable position to participate in a research project; and (ii) the difficulty in finding suitable legal personnel to be involved, as the project did not have the budget to match their usual fees, and they would be busy with real cases.
- Secondly, in using simulated trial scenarios and employing professional actors, the study may not have adequately reflected the real experience for deaf people in the court system who are not well-educated or literate, nor familiar with working with interpreters, or confident at being in a formal setting such as a courtroom. Although the actors were 'in character' and the interpreters were briefed on the 'type' of deaf person they were interpreting for, the interpreters still seemed to interpret to the actual 'person' present rather than his/her 'character' (e.g., use of fingerspelling for a bilingual deaf person, rather than targeting the monolingual non-English literate character).
- This situation could have been exacerbated by the fact that the interpreters often had to interpret for the deaf person during the set-up of technical logistics before the scenario began, so that the deaf person could understand what was going on. This means it may have been harder for the interpreter to regard the deaf person as a 'character'. Although interpreters were not asked to interpret the set-up, they often took it upon themselves to do so because of delays with the start, and the fact that the lead Research Assistant in the courtroom was talking to the JACS technician via an audio communication link to iron out any technical problems.
- Aside from any potential technical difficulties, well-educated deaf bilinguals who are used to interacting with interpreters and technology may have more facility to adjust to using interpreters via technology; that is, they may be more adaptable to new environments. Thus the deaf actors' perceptions of their experience may not adequately reflect the wider deaf population.
- As the study focused on the technological aspects of interpreting in court via AVL, none of the typical legal procedures were followed: there was no introduction to the case, no reading of the oath/affirmation for the interpreter; and there was no opportunity for the interpreter to 'meet' the deaf client beforehand and prepare. The lack of adherence to these protocols may have affected the interpreter and deaf participants' sense of involvement.

- Scenario 5 should have had a different deaf person, but she unfortunately pulled out at the last minute. This means that scenarios 4 and 5 involved the same deaf person and interpreter for two scenarios, but different scripts were used[10].
- The use of scripted scenarios may have been problematic. The research team tried to account for the potential lack of authenticity by using scripts in advising participants to allow for deviations (e.g., incorrect interpretation, clarify, repair) then return to script. It would have more closely replicated an authentic court case to have no scripts and simply provide participants with briefings and allow them to improvise. Scripts were chosen in order to try to standardise the language used in each scenario (e.g., to prevent more use of fingerspelling in one scenario than another). But it was noted that the use of scripts did impact on the authenticity of the data, especially in relation to potential communication breakdowns. For example:
    - Scenario 3 – there was an audio problem in court (when the interpreter was too far away from the microphone in the remote location), but the judge stuck to the script until the Research Assistant in the court intervened. In an authentic setting, if the judge could not hear, he or she would have stopped proceedings to determine the nature of the problem.
    - Scenario 5 – the deaf witness lost track of who was talking, and when there was a long pause, she realised she had been asked a question so she referred to script and continued. If there had been no script, there would have been more confusion and need for clarification.
- The final (and major) limitation is that the results have effectively been manipulated as the data collection involved moving deaf people and interpreters to be seated where they could be adequately captured on the fixed cameras. If they were seated where they would normally be expected to sit/ stand in a courtroom, the scenarios would not have been as effective, or in fact possible. So in fact, some scenarios were not realistic at all.

3 Conclusions

This paper has presented the findings of a study commissioned by the NSW Department of Justice and Attorney General (DJAG), and sponsored by the Deaf Society of NSW, to investigate the effectiveness of sign language interpreting services provided through AVL in NSW courts. The provision of services was tested in key venues with JACS facilities across a range of scenarios involving deaf people, Auslan/English interpreters and non-deaf legal personnel. The aim of the project was to assess the integrity of the interpreting process when interpreters or deaf people were in different locations, and the stakeholder perceptions of interpreted interactions experienced remotely. Qualitative analyses were used to assess the effectiveness of AVL to enable sign language interpreter-mediated legal proceedings. This paper has outlined the various stages of the research and the findings. To conclude, we provide a summary of the issues identified, and the recommendations presented to DJAG. One of the most promising and satisfying aspects

[10] We tried to avoid the same deaf person and interpreter being together for more than one scenario to avoid development of familiarity.

of this study is that the results will be directly applied in the provision of sign language interpreting in courts via audiovisual link in NSW courts.

3.1 Summary of issues

This section summarises the issues observed throughout the data collection, in feedback from the participants after the scenarios, and also from analysis of the data. The issues have been grouped into four categories: technological, linguistic, environment, and training and preparation.

3.1.1 Technological issues

(a) Set-up time

Each of the scenarios required an unexpectedly protracted set-up time. This was due to the unique circumstances for each scenario, but also because the limitations of the current system, such as having to seat participants in the Witness Box (scenarios 2 & 5), had to be worked around. Given that the set-up took longer than expected for all of the scenarios using the AVL (1, 2, 3 & 5), it would seem that potential technical challenges would need to be factored into the court schedule to accommodate setting-up the AVL connection. This may result in the use of AVL being problematic for a busy court.

(b) Speed of bandwidth

The speed of the bandwidth needs to be maintained and guaranteed at current minimum standards. For scenario 1, the speed was optimised, but this would be beyond the capabilities of the Court Officers; JACS would need to be involved if this optimisation was required on a regular basis.

(c) Size of television screens

The size of the screens in the Remote Witness Rooms was very small, especially when the screen is divided into smaller sections displaying different images. The television screens in the other remote locations (i.e., the Deaf Society of NSW and the CRC), were quite large, and even when divided into smaller images, the interpreters felt the picture quality was still acceptable.

(d) Number of images on screen

When the television screen was divided to show simultaneously different images, the deaf consumers and interpreters both found this challenging and distracting – particularly with smaller televisions. Both the interpreters and deaf consumers commented that it was distracting to see themselves signing, especially because there is a slight delay.

(e) Position of microphone

In scenario 3 the position of the microphone in the Remote Witness Room was problematic, resulting in the audio feed to the courtroom appearing to drop out. A research assistant needed to hold the microphone closer to the interpreter as she was speaking so that she could be heard in the courtroom. Given that the interpreter needed

to use her hands to sign, and needed to sit far enough away from the video camera so that she and the deaf person could be seen clearly on screen, having the microphone at some distance away and being required to hold it to speak would be impractical.

(f) Use of fixed cameras

The use of fixed cameras within the courtroom and in the Remote Witness Rooms meant that in some of the scenarios (2 & 5) the participants were: a) seated in positions which made it difficult for them to be seen clearly on screen; or, b) were required to sit in positions that were not standard practice (e.g., in the Witness Box). In scenario 3, the interpreter and deaf client were restricted in where they could sit so they could be seen on camera, but still sit comfortably to see each other. Also, the fixed cameras did not always show all the participants in the courtroom, meaning the interpreter or deaf client was not sure who was speaking. At times the camera was pointed at the gallery, which was a redundant image on the screen that was not necessary for the deaf consumer or interpreter.

(g) No recording of interpreter/deaf person when seated in certain locations

Another problem with the fixed cameras is that even when participants were sitting in their usual locations in the courtroom, they were sometimes not seen on camera, so their contribution to the proceedings could not be recorded. This issue is significant for any court matter involving a deaf person who uses a signed language, because without the deaf person or interpreter's signing being captured on video, there is no record of what they have said, or the signed interpretation. Having an accurate record of the original signed messages and the signed interpretations are as equally as important as having an audio recording of any spoken utterances/interpretations. This recording may be necessary for any subsequent legal matters, such as appeals.

3.1.2 Linguistic issues

(a) Size of signer – difficult to 'read' signing

In relation to the size of the television screen and dividing the screen into multiple images, this impacts on the size of the signer (either the deaf person, or the interpreter). The smaller the image, the less clear it becomes; a smaller image also makes it harder to perceive the subtleties and details of Auslan, such as: fingerspelling, facial expression, eye-gaze, directional verbs, use of space, role shift, numbers, etc.

(b) 3D language rendered in 2D form

Auslan is a visual-spatial language, which uses space grammatically. Signs are produced within the 'signing space' for different purposes, such as: showing direction or location, showing relationships between objects, indicating timelines, and to indicate separate topics – to name a few (Johnston & Schembri, 2007). As such, the language exists within, and exploits, three dimensions. One of the challenges with using a 3D language via a video link is that the option to use 3D space is removed, and the language is portrayed in two dimensions. This may create challenges and result in possible miscommunications. Although the findings of this study did not report any particular problems with the 2D aspect of using video, it has been noted elsewhere (BSR Solutions, 2010) that use of a

large screen is ideal to ensure that a person using a signed language can be seen clearly enough. Deaf participants in this study and the Victorian project (BSR Solutions, 2010) noted that when a large screen was used they felt comfortable in watching the Auslan, and were not concerned about any miscommunication. All the participants in this study expressed concerns if they were confronted with a small screen, as some of the nuances of Auslan may be lost. Thus if AVL is to be used, these concerns should be noted and the system used with caution.

(c) Fingerspelling production/readback

In scenario 5 the deaf participant commented that she adjusted the production of her fingerspelling (i.e., spelling an English word using a signed alphabet) so that it would be more clearly visible to the interpreter, who was in the courtroom. She slowed down the pace of her spelling, but also oriented her hand in such as way that it would be more clearly visible. However, this deaf participant is a professional actress and co-host of a television program, so is very comfortable at working via a video camera. The vast majority of deaf individuals would not have this level of metalinguistic awareness, so may not be able to automatically adjust their signing style. This could impact on the overall effectiveness of the communication. The interpreter in scenario 1 also commented that she felt the deaf participant appeared to have slowed down his signing, indicating that he too had sufficient metalinguistic awareness to make this adjustment. This deaf participant was also a professional actor, so possessed a level of awareness that may not be inherent in all deaf consumers.

(d) Attention-gaining strategies/ turn-taking

In all interpreted interactions, regardless of language, there may be occasions when one of the participants or the interpreter may need to seek clarification or interject. For this to occur in sign language, the one who is trying to interject needs to be seen by the other person. In all settings where AVL was used (scenarios 1, 2, 3 & 5), in the debriefing interviews the interpreters and/or deaf participants commented on the challenge in relation to getting the other person's attention, if needed. In the scenarios where the deaf participant and the interpreter were not together (1, 2 & 5) it was difficult for them to get the other's attention if they were not watching the television screen. This may result in inaccurate translations that might go uncorrected or in lost information from a testimony if the person has continued to speak/sign before the misunderstanding is revealed and their clarification is different from their initial utterance. Furthermore, if communication is unclear – either through the inability to seek clarification, or failure to do so – then this could influence the jury's or Bench's impression of the deaf individual, or the interpreter.

3.1.3 Environmental issues

(a) Background

Ideally the background behind the signer should be devoid of as much visual distraction as possible, and should ideally be a solid colour—preferably blue (BSR Solutions, 2010). In scenarios 2 and 5, the deaf defendant and the interpreter were seated in the Witness Box. The wall behind had sections cut out of it, which looked like stripes when viewed on a television screen. In addition, in scenario 5, strips of bright sunlight were shining on the wall behind the interpreter, which produced glare. This, compounded with the high

camera angle, the small television screen and the multiple images on the screen, made it very uncomfortable for the deaf person to watch the television in the Remote Witness Room. The deaf participant in scenario 1 also commented that the background behind the interpreter at the CRC was also too bright. The brightness of it impacted on the clarity of the interpreter's hands if they moved within that section of the image on the television screen.

(b) Lighting

As mentioned, above, lighting was problematic if it was too bright or there was too much glare, as on the wall behind the interpreter in scenario 5. If the lighting is too bright or dim, then this will impact on the clarity of the image. Also, strong shadows should be avoided.

(c) Audio

Generally the audio facilities were adequate. However, in scenario 3, when the deaf defendant and interpreter were together in the Remote Witness Room, the audio feed to the courtroom appeared to drop out. After reviewing the data it became apparent that the audio was still working, but was not loud enough to be heard clearly in the courtroom. If the interpreter had spoken louder, then it may not have been an issue, but this would require an interpreter to speak at an uncomfortably loud volume, which would be problematic for any extended period. Basically the problem with the audio feed at this point in scenario 3 was the location of the microphone being some distance from where the interpreter and deaf person were required to sit so they could both be seen on camera.

3.1.4 Logistical issues

(a) For interpreters working via AVL

The three interpreters who were involved in the data collection all had previous experience of interpreting through AVL, though not necessarily within a courtroom. Only one of the interpreters had never been inside a courtroom previously. If interpreters have not had previous experience working via AVL, or within a courtroom, then interpreters should receive training. This would be necessary to prevent problems from arising, and also to enable them to consider the linguistic and environmental issues and how to address them.

(b) For legal personnel on using AVL specifically with Auslan interpreters and deaf people

Training is necessary for court personnel on how to adjust the AVL settings to suit the context, such as: which cameras to use; which video mode (i.e., Bail Video, or Videoconference); adjusting the bandwidth; and involving JACS if necessary. If additional equipment is introduced to address issues listed above, such as portable video cameras, television screens or microphones, then training for this equipment would also be necessary.

(c) Time for briefing regarding technical and linguistic aspects (e.g., establishing who is where)

The deaf participants and interpreters commented that they felt the preparation period was missing from the scenarios. They felt they did not have the chance to meet each other, become familiar with each other's signing style, familiarise themselves with the courtroom, or the other participants. This would be essential so that both the interpreter and the deaf person have a clear understanding of who is involved and is able to draw on linguistic features of Auslan (e.g., the use of space) to indicate who is speaking. A briefing period would also allow for any technical issues to be addressed prior to commencing the court matter.

(d) Establish cues for attention-getting

As noted above, the ability for the deaf person or the interpreter to gain the other person's attention is essential to ensure an accurate interpretation. However, the constraints of working via AVL make this problematic. As such, a briefing period would provide an opportunity for the interpreter, deaf person and court personnel to negotiate cues and protocols for gaining attention. The participants in the data collection noted that being able to seek clarification or interject were essential, but it was made difficult when working via AVL.

3.2 Recommendations

As a consequence of the findings of this research study, six recommendations were presented to DJAG in relation to the provision of Auslan/English interpretation via AVL in NSW courts. It should be noted that the following recommendations were based on the current JACS AVL system. If the system were to be changed and/ or updated, the recommendations would also change. The recommendations focus on the observations of the functioning of the current JACS AVL system in line with the provision of Auslan/English interpretation in five different scenarios. The recommendations were considered by the DJAG Working Party with final recommendations made to the NSW Attorney General for implementation in policy and practice.

Recommendation 1

Based on the current JACS AVL system it is recommended that this system is not used to provide Auslan/English interpreting services in NSW courts, as there are too many issues with guaranteeing effective, equitable access.

At present, the research team feels that the current system is not flexible enough to address the unique requirements of signed language interpreting. Under the current JACS AVL system, the time and trouble involved in establishing the right conditions to ensure that deaf/interpreting access is adequate, means that the AVL system is not the desired panacea. Given the variety of courtroom layouts and available technology (i.e., number of video cameras, size and number of television screens, etc.) and the varying experiences of court clerks in using AVL, the challenge of setting up an AVL interpreting connection would not be worth it, and there would be risks of communication breakdowns.

This recommendation was rejected by DJAG as they felt it important to pursue the use of the JACS AVL system, given there were no major hurdles discovered in this study.

However, this position is dependant on Recommendations 2 and 3 and DJAG noted that AVL should only be used in specific circumstances to ensure that the deaf client is not disadvantaged through the lack of availability of a face-to-face interpreter. Where possible a face-to-face interpreter is the preferred option.

Recommendation 2

If the current JACS AVL system has to be used, then it should only be used in certain scenarios.

The results of this project have shown that employing an Auslan/English interpreter to work in a court via AVL is potentially successful, but only effective under certain conditions. In light of evidence from this project and based on the current limitations of the system, we feel that all the scenarios could potentially allow for successful interaction, with provisos.

The recommended preferences for using AVL under the current system are:

- Scenario 3: deaf individual and interpreter together in a remote location, appearing in court via AVL.
- Scenario 1: deaf individual and interpreter are in different locations outside of the courtroom (e.g., interpreter at SLC (NSW) or CRC and the deaf person in remote witness room), both appearing in court via separate AVL connections.
- Scenario 2: deaf individual in court and interpreter in other location. (Note: under the current limitations of the system, this only worked with the deaf individual seated in the Witness Box and because of the large television screen in the remote location).

Scenario 5 (deaf individual in remote location and interpreter in court) is not recommended at all under the current system. In this situation the deaf person in the remote location became too confused by too many divisions and images on the television screen: the interpreter was too small, the camera angle was too high, the lighting on interpreter created too much glare, and the background behind the interpreter was distracting. If these factors can be addressed, then it may be possible to use AVL in this scenario.

This recommendation was accepted by DJAG, with modifications to the ranked order of the scenarios. The revised order is as follows:

- Scenario 1: The system worked well for the deaf client and interpreter. This scenario is a realistic example of where a client may be in custody and the interpreter is in another remote location. The advantage was both the client and interpreter faced the monitor and camera and had limited distractions. The only downside to this scenario was the loss of the face-to-face dynamic and the ability of the interpreter to meet the client before the case to confirm language fluency.
- Scenario 3: Both the client and the interpreter were both in the same remote location. The possibilities for this scenario occurring are limited. There were physical difficulties with how close the interpreter and client had to sit to be captured on the camera. Their positioning was side on to the camera and made it difficult for court participants to view facial or body language.
- Scenario 2: In order for the interpreter to see the deaf client, the deaf client had to be positioned in the witness box due to the constraints of fixed cameras. To make this scenario work under the current system, guidelines (with magisterial

approval) would need to be developed that would indicate the repositioning of parties within the courtroom. A preferable solution would be to recreate Scenario 1 by using the remote witness room and thereby both the interpreter and client are remote.

Recommendation 3

If the current JACS AVL system has to be used, then it should only used for short matters of no longer than 30 minutes in duration.

Even if all the identified challenges with the AVL system could be addressed, utilising the services of an Auslan/English language interpreter via AVL for any lengthy court matter would **not** be appropriate. We recommend that it would only be appropriate for brief matters. Using the AVL system for short matters is where the greatest efficiencies could be found in avoiding the transportation of deaf inmates, and reduced costs for booking interpreters for shorter periods of time and with less notice. Thus the JACS AVL system should not be used to provide signed language interpreters for hearings or sentencing, and should only be used for short matters such as adjournments and brief mentions.

This recommendation was accepted by DJAG, who agreed that the use of AVL should be restricted to short matters of 30 minutes or less or where the face-to-face option was not available. The working party also specified the types of matters where AVL may be used. They include: matters for adjournment and bail matters only when the face-to-face option is not available. The working party agreed to ensure minimal disadvantage by advising that AVL **should not** be used in hearings and expert matters; sentencing; witness testimony; changes to bail; or the finalisation of matters.

Recommendation 4

If the current JACS AVL system has to be used, then technological guidelines must be developed to ensure that technological constraints are addressed.

DJAG accepted this recommendation and noted that technical guidelines must be developed to ensure the JACS team are aware of how to configure the system for each scenario as it arises.

Recommendation 5

If the current JACS AVL system is going to be improved or upgraded the findings of the research should be considered in determining the best course of action.

If investment is made to address the technological and environmental short-comings in the JACS AVL system, in the long run it could prove to be more cost-effective to utilise the services of signed language interpreters in courts via AVL. Services could be provided more effectively and efficiently than requiring the interpreter or deaf client be physically present in the courtroom.

The current system uses fixed cameras, which proved to be problematic throughout this project. It was recommended that the use of portable AVL equipment should be

explored.[11] In addition, the size of television screens and the layout of images on the screens would need to be modified to reduce the amount of on-screen visual information. If possible, the interpreter and deaf person should be able to see each other in the majority of the screen. It may be possible to have smaller images of other participants in the court, but it is not necessary for the interpreter or deaf person to see him/herself on the screen. Depending on the mode of AVL being used, the Bench may require a split screen view, with both the interpreter and deaf individual on the screen. Furthermore, the location of the microphones should also be considered to ensure they are able to accommodate the needs of interpreters without impacting on their ability to do their work (i.e., use their hands).

DJAG accepted this recommendation, and noted that when upgrading AVL equipment JACS should consider sign language users and interpreters as potential users of the system and refer to findings of the research study and the JACS response to the Report. The working party is supportive of the proposed monitor software upgrade as per the *JACS Response to the Macquarie University Report* "that the system be reprogrammed so that the interface could be used to maximise the image size on the monitor." This low cost response would make the system more effective and user friendly for deaf clients and other clients with different disabilities. DJAG also emphasised that JACS should note the Victorian research on VRI and their technical solutions in undertaking any upgrade of the system. A portable system might be a consideration for courts that are not being upgraded, and where possible the data from this study should be used to prioritise locations for staged upgrades.

Recommendation 6

If the current JACS AVL system has to be used, then guidelines must be developed for personnel who will encounter the system.

Guidelines should include: (a) information for judges and legal personnel on the sign language interpreting process via AVL; (b) guidelines for interpreters on working with AVL in court; (c) mandatory training for sign language interpreters on working with AVL; and (d) training for court personnel on operating the AVL system.

DJAG accepted this recommendation and noted that guidelines must be developed for all potential users; including Magistrates, court staff, legal representatives, interpreters and deaf clients; and could include:

- courtroom setup for each type of scenario;
- instructions for court staff responsible for arranging the system – "Call JACS";
- instructions for Magistrates on when to use the system. An example of this might be:
    - the closing of a court to allow a client to brief their counsel via the AVL
    - never use with deaf (relay) interpreters as it becomes too complex;
- guidelines for clients could be developed in conjunction with the Deaf Society of NSW. The guidelines could be videoed in Auslan and made available on the Deaf Society's website and on DVD for use by Corrective Services NSW.

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[11] See for example the portable equipment provided by Paras Associates Video Interpreter Network in hospitals in the United States and the portable equipment provided by the Department of Human Services Victoria in some of their VRI locations).

The recommendations have since been approved by the NSW Attorney General, and implementation is due to begin. DJAG have agreed that use of the AVL system with Auslan/English interpreters will be piloted over a period of three to six months in order to tweak guidelines; and that use of the system will be reviewed after one year to evaluate its effectiveness.

4 Acknowledgments

Acknowledgements go to Marcel Leneham for his major contribution as the principal research assistant on this project, and his insight when analysing the data; and George Major and Lindsay Ferrara for their assistance with the data collection. I would also like to thank all the participants and also Anne Mangan and Julia Haraksin from Diversity Services at the NSW Department of Justice and Attorney General for their support in organising the data collection, and Patrick Donoghue, Manager of the Justice Agency Conference System, for his technical assistance with the data collection.

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