Investigating British Sign Language Interpreters' attitudes and perceptions towards Face-to-Face Versus Video Remote Interpreting in Healthcare and Education settings.

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Abstract

Technological advancements have reshaped the Sign Language Interpreting (SLI) profession, increasing remote work opportunities. However, limited research addresses the unique experiences of interpreters in healthcare and education settings. This study explores interpreters' perceptions regarding face-to-face and remote interpreting across these contexts, analysing how these factors affect interpreter perceptions. Using a mixed-methods approach, data was collected through an adapted DIBQ questionnaire (DIBQSLIUK) (168 responses) and a focus group (nine participants) across the UK. Findings indicate that interpreters generally favour face-to-face interpreting, particularly in healthcare settings, due to increased human connection, and professional efficacy. Key themes include accessibility, human connection, professional practices, and training and development. The study highlights the need for targeted training and support to address remote work challenges while emphasising the critical role of in-person interactions in certain contexts. These insights inform future policies and professional development strategies for sign language interpreters.

Chapter 1: Review of Literature

1.1 Background literature

For the purpose of this study, some definitions are needed. The capitalisation of the word deaf (Deaf) is to be used when referring to a person who was born deaf or became deaf before language acquisition and are pre-lingually deaf and use sign language. The capitalisation is a socially agreed identity (SignHealth, 2024). Sign Language Interpreters (SLIs) for this study are either Trainee or Registered Sign Language Interpreters (TSLI/RSLI) using British or Irish Sign Language (BSL/ISL)

The use of SLIs in healthcare and education has evolved significantly over the past several decades. Historically, Deaf individuals have faced significant barriers to accessing these essential services due to the lack of qualified interpreters. The Disability Discrimination Act of (1995) and later the Equality Act (2010) marked turning points, legally mandating the provision of communication support, including SLIs, in public services. This legal framework helped establish the role of SLIs in these sectors, aiming to provide equitable access and improve communication between Deaf individuals and service providers. However, challenges remain, particularly with the introduction of technology such as Video Remote Interpreting (VRI) and Video Relay Servies (VRS), which has sparked ongoing debates about the most effective and context-appropriate mode of interpreting.

Technological advancements have transformed the SLI profession (Llewellyn-Jones, 2019), video technology has been integrated into interpreting across various sectors, such as education, legal, and conference settings (Skinner et al., 2018) and more recently a 999BSL service in the UK. There has been a transition from traditional in-person interpreting to technology-based approaches, such as VRI and VRS. The impact of the COVID-19 pandemic on the accessibility of SLI services for Deaf individuals highlighted the increased need for interpreters within healthcare settings and the sudden shift to virtual platforms in healthcare

settings became apparent (Trzeciak et al., 2021). The evolving landscape for remote sign language interpreting has changed policies and practices in response to the increasing reliance on remote interpreting post-pandemic (Warnicke & Matérne, 2024). It is imperative then to explore the interpreter perspective of remote interpreting. SLIs have expressed that remote settings can alter interpreter performance, potentially affecting accuracy, speed, and overall effectiveness adding to stress and fatigue (Chmiel & Spinolo, 2022), and face challenges such as technical difficulties and lack of interpersonal connection (Aden, 2023; Bachelier, 2022; Warnicke & Granberg 2022). However, this interpreting mode has been shown to have benefits such as accessibility and cost-effectiveness. Medical environments introduce additional complexities and ethical issues including technical terminology, emotional situations, and the need for cultural sensitivity (Desrosiers et al., 2017), alongside misunderstandings of the role of the SLI (Magill, 2017). The need for fast, accurate communication in critical care scenarios poses challenges to how interpreters manage high-stress and urgent situations in healthcare (Nevado et al., 2021). Especially in sensitive medical contexts where misunderstandings can have serious consequences (Pöchhacker, & Klammer, 2024).

In educational settings, interpreting comes with a distinct set of challenges. These challenges often involve context-specific demands and the need to navigate specialized jargon, requiring in-depth preparation, particularly in higher education environments (Knox, 2006). Interpreting in a classroom or lecture theatre adds an additional layer of complexity, as it demands advanced intrapersonal skills to adapt to the diverse dynamics and varying expectations of academic institutions. Interpreters must juggle the intricacies of academic discourse, manage real-time communication, and accommodate the needs of students and instructors alike (Heyerick & Vermeerbergen, 2012). Given these complexities, an important question arises: can remote interpreting effectively meet the rigorous and multifaceted demands of such settings? Factors like the lack of physical presence, potential technological limitations, and the challenge of

maintaining rapport and immediacy in remote interactions further complicate this issue. Exploring whether remote interpreting can deliver the same level of engagement and accuracy as on-site interpretation is crucial in understanding its viability in academically diverse and high-pressure educational contexts.

Historical research has focussed on Deaf perspective, showing there has been a lack of use of interpreters in healthcare, leading to misunderstandings and negative patient outcomes (Chilton, 1995; Lezzoni et al., 2004; Steinberg et al., 2006) and a lack of consistency of utilising SLIs (Smeijers et al., 2018; Myers et al., 2022), especially in emergency care situations due to the unavailability of interpreters (James et al., 2022; Santos & Portes, 2019). Effective interpretation ensures clearer communication and improved healthcare outcomes and clinician-patient rapport, (Swabey et al., 2014; Nicodemus et al., 2020). The introduction of VRI services can offer effective communication between patients and providers to combat the inequity of communication access, especially when in-person interpreters are not available (Masland et al., 2010; Mathew et al., 2023; Rivas Velarde et al., 2022; Havelka, 2020) particularly in remote areas (Hughes et al., 2004) but has revealed limitations in critical care settings (Yabe, 2019; Brenner et al., 2018). It appears Deaf patients and healthcare providers prefer in-person interpreters over VRI due to the complexity of communication in critical care situations, however, VRI is better than no interpreter at all (Foster, 2024). In non-critical care, VRI is seen as more acceptable, though it still has limitations that need addressing (Yabe, 2020). VRI can support communication in clinical settings but may introduce challenges related to non-verbal cues and technical unreliability (Klammer & Pöchhacker, 2021).

To consider Deaf perspectives of SLI use in education settings, older findings show that students value in-person interpreters and express dissatisfactions with VRI (Napier, & Barker, 2004) Deaf perceptions report that many interpreters lack the necessary skills to provide full access to classroom content, leading to learning disparities for Deaf students (Schick et al.,

2006; Oppong et al., 2016). There appears to remain unequal access to instruction and interpreter support highlighting the challenges faced by Deaf students (Skaten et al., 2020). More recent research has shown that Deaf students find that interpreters can either support or hinder inclusion, depending on their training and approach to facilitating learning (McDermid, 2020) and questions whether such mediation leads to true inclusion for deaf students or merely an illusion of inclusion (Russell, 2021).

The COVID–19 pandemic instigated a surge in research on the topic of remote interpreting within the SLI sector. Before this, there were very few studies to address this query. The transition to VRI was highlighted during the COVID-19 pandemic to combat barriers Deaf patients faced in accessing healthcare (Motimele, 2023). Schnack (2020) provided a timely insight into the mental health impacts of VRS/VRI upon SLIs during the COVID-19 pandemic. The study highlighted themes of increased social isolation, heightened anxiety and stress, challenges with remote technology, emotional toll and burnout and the need for better support systems. However, there were only 10 respondents to the online questionnaire over a short period of time. This study highlighted the need for further research into interpreter perspective of VRI, which the current study will address. Warnicke and Matérne's study (2024) of Swedish sign language interpreters' experiences with remote interpreting during COVID-19 addressed issues like technological difficulties, cognitive strain, and the isolation interpreters felt when working remotely, drawing attention to the complexities of adapting to an online format. However, the study would have benefitted from a comparative approach, examining interpreters' experiences before the pandemic to better contextualize the shifts in interpreting dynamics due to COVID-19. The study use qualitative interviews however may have benefitted from quantitative data to substantiate findings. De Meulder and Sijm's (2024) study offered valuable insights into how sign language interpreters adapted to shifting roles during and after the COVID-19 pandemic. By examining interpreters' evolving perceptions of their professional

roles, the study shed light on the balance between being conduits and advocates in remote settings, emphasising the strain placed on interpreters' identities and role boundaries. The research effectively highlights interpreters' coping mechanisms and the emotional toll associated with remote interpreting. The study's emphasis on the interpreters' identity shifts is compelling, but it lacks specific strategies or recommendations to support interpreters in managing these new dynamics. Overall, this work raises important issues but could expand on practical solutions to benefit interpreters post-pandemic. Sheridan and O'Donnell's (2023) study on Irish Sign Language interpreters' workplace wellness during COVID-19 provided valuable reflections on the pandemic's impact and offered future strategies for improvement. The article effectively addressed wellness challenges, including stress and burnout, and stressed the need for better support structures. The study found that there was a need for training in VRI and whilst VRI increases productivity and additional work opportunities for the SLI, there remains the needs for on-site rapport and VRI has negative implications for both mental and physical wellness.

It is pertinent to present the two key papers (Napier, 2017 & Roman, 2022) that were the primary motivation for the current study. Napier et al's research (2017) provided an examination of the experiences of sign language interpreters working in VRI/VRS settings. The authors highlighted the disparity between the perceived benefits for service users and the emotional toll on interpreters, shedding light on issues such as stress, burnout, and the feeling of disconnection from the Deaf community. One of the study's strengths was its qualitative methodology, which captured the lived experiences of interpreters and allowed for a nuanced understanding of their challenges. However, the study has notable limitations. The sample size of 58 was relatively small, however, Napier claims that her sample size was 14.5% of the SLI population at the time due to the low number of SLIs doing VRI/VRS at the time being low, with the total European population of VRI SLIs being just 200. This provides impetus for

expanding upon this research due to the population of UK SLIs working in VRI settings having grown since this study, with a UK SLI population being 386 at the time of the 2021 UK SLI census (Napier et al., 2021). Napier concluded that further research is needed to examine perceptions of SLIs in more depth. Indeed Napier's paper provided the primary motivation for the current study's investigation. Roman et al. (2022) presented a cross-sectional study examining the remote work from SLIs. The authors employed an adapted Determinants of Implementation Behaviour Questionnaire (DIBQ-SLI) to gather quantitative data on SLI's behaviours and feelings towards remote work. One of the study's strengths was the established quantitative approach, utilising various constructs in the questionnaire such as beliefs, attitudes, knowledge and skills and captured a diverse range of variables influencing remote work. The findings underscored the importance of addressing the unique challenges faced by interpreters, such as access to technology and the need for effective communication tools. However, the study also had limitations. The cross-sectional design restricts the ability to establish causal relationships between identified determinants and remote work practices. Furthermore, while the sample size was adequate, it may not fully represent the diversity of the interpreting profession, potentially limiting the generalizability of the findings. Roman recommended further use of the DIBQ-SLI in a more reduced form (15-items). Roman's methodology using an adapted DIBQ for SLIs motivates the current study's methodology.

While there is a growing body of literature examining remote interpreting, there is limited research that specifically addresses the unique challenges and experiences of SL interpreters in healthcare and education contexts, which have distinct communication dynamics and requirements. Much of the existing research in these settings emphasises user perspectives (e.g., Deaf clients and healthcare professionals) over interpreters' views. The rapid shift to remote interpreting due to the COVID-19 pandemic has been documented, but there is a lack of nuanced studies investigating how this shift has affected SL interpreters' practices, attitudes

and perceptions of the two modes of remote and onsite interpreting. Therefore, a focused examination of SLI attitudes can provide valuable insights into how they navigate these modalities in specific settings. This study fills a gap in existing literature on sign language interpreting, particularly regarding the unique context of sign language interpreter perspectives. Previous studies have either focused on Deaf perspectives interpreting or have not sufficiently addressed the specific nuances of sign language interpreting in various settings. By contributing to this body of knowledge, the research can encourage further exploration into the complexities of sign language interpreting and its impact on communication access.

This research aims to examine the perceptions of SLIs towards face-to-face and remote interpreting in both healthcare and educational settings. Specifically, the study seeks to investigate the main effects of interpreting mode (face-to-face vs. remote) and setting (healthcare vs. education) on interpreters' perceptions, as well as the interaction effect between these variables. Furthermore, through focus groups, the research aims to explore how SLIs perceive differences in work environments across these settings and interpreting modes, to provide insights into how these factors influence interpreter practice and satisfaction.

The proposed research is crucial for improving communication quality between Deaf individuals and service providers and informing SLI best practices. Effective communication in healthcare and education settings is essential, as misinterpretations can lead to misunderstandings and inadequate service delivery. By investigating interpreters' perceptions, the research can inform further training and development in VRI and face-to-face interpreting, ultimately leading to better practices and training programs. This research can provide valuable insights that inform policy-making and practical guidelines for interpreting services in healthcare and educational institutions. As VRI becomes more prevalent, understanding its effectiveness from the interpreters' perspective can help organisations develop protocols that maximize communication efficiency and interpreter satisfaction. Policymakers can use the

findings to ensure that interpreters have the necessary resources and training to work effectively in both modalities. With the increasing reliance on technology in interpreting services, accelerated by the COVID-19 pandemic, it is essential to understand how interpreters adapt to VRI compared to traditional face-to-face settings. By exploring interpreters' perceptions and experiences, the research can identify specific technological barriers or training needs that need to be addressed to improve their experience and the quality of interpreting services. Investigating SLI perceptions can contribute to professional development programs by highlighting areas where interpreters feel less confident or satisfied with their work. Understanding SLI experiences in both interpreting contexts can lead to tailored training that prepares interpreters for the challenges associated with VRI and VRS.

1.2 Phase one: Hypotheses

1. There is a significant main effect of setting on interpreters' perceptions, with interpreting in healthcare settings resulting in more positive perceptions than in education settings.
2. There is a significant main effect of interpreting mode on interpreters' perceptions, with face-to-face interpreting perceived more positively than remote interpreting across both healthcare and education settings.
3. There is a significant interaction effect between interpreting mode and setting on interpreters' perceptions, with the difference in attitude between face-to-face and remote interpreting being more positive in healthcare settings than in education settings.

1.3 Phase two: Research questions

1. How do Sign Language interpreters' attitudes and perceptions of work environments compare between face-to-face and remote interpreting in healthcare settings?

2. What are the attitudes and perceptions of work environments of Sign Language interpreters towards face-to-face versus remote interpreting in educational settings?
3. What are the differences between healthcare and education work environments in relation to face-to-face and remote work according to Sign Language Interpreters?

Chapter 2 - Methods

2.1 Participants

The questionnaire targeted Sign Language Interpreters (SLIs) aged 18 and over in the UK and the Republic of Ireland, via Qualtrics. Participants were recruited via a global email invitation to SignVideo staff and closed Facebook groups. Consent was given by the Head of Interpreting Services at SignVideo for the global email (see appendix A). The email advertisement made it clear that participants should have worked remotely and/or face-to-face in either the healthcare/education sectors or both sectors. The target population was SignVideo employees (n=150) and Welsh Sign Language Interpreters (n=25) which is a total population of 175. Therefore the ideal sample size for the questionnaire according to Qualtrics (2024, June 8) was calculated as 121 (Confidence interval 95%, 5% margin of error). The questionnaire was distributed between 10th Dec 2024 and 16th January 2025 and received 168 responses. 63% of respondents were from England, 21% Wales, 5% Scotland and 1% Northern Ireland. 95% were Registered Sign Language Interpreters (RSLI) and 5% Trainee Sign Language Interpreters (TSLI). 78% Female, 20% Male, 1% Non-binary/third gender and 1% preferring not to disclose. 84% of respondents were Hearing, 13% Child of Deaf Adult (CODA) and 3% D/deaf. The age ranges were: 7% 18-30; 22% 31-40; 36% 41-50; 25% 51-60 and 10% 60+. Although it may appear that the respondents were predominantly female, this does coincide with the profession, as the 2021 NRCPD census revealed that 82% of the profession are female and 17% are male (Napier et al, 2021)

The focus group participants were recruited via an invitation at the end of the questionnaire. The focus group was conducted on Feb 10th, 2025, with nine participants and lasted 52 mins via Microsoft Teams. Five participants were from Wales, three from England and one from Scotland. All participants were Registered Sign Language Interpreters (RSLI). There were five

Female and four Male. All participants were hearing with three being a CODA. The age range was 27-60, with between 6 and 36 years of experience working as a Sign Language Interpreter. On average the group spent between 10-50% of their work remotely and between 50-90% in face-to-face work.

2.2 Design

This study employed a mixed methods approach, phase one of the study used a quantitative approach using a cross-sectional online questionnaire using an adapted version of the Determinants of Implementation Behaviour Questionnaire (DIBQ) created by Huijg et al., (2014) and consequently adapted for SLIs by Roman (2022). The questionnaire collected demographic information (gender, age, Deaf/hearing, interpreter status, region of work), followed by the adapted version of the DIBQ (DIBQ-SLIUK). The questionnaire was delivered via Qualtrics software. Independent variables (IV) were the mode of SLI delivery (Face-to-Face vs. Remote) and work setting (Healthcare vs. Education), while the dependent variable (DV) were the perceptions of workplace environment determined by the DIBQ-SLIUK. To address the hypotheses, using SPSS software, a paired t-test was performed for the self-efficacy sub-scale and repeated measures 2x2 Analysis of Variance (ANOVA) were performed for the sub-scales skills, social support, attitudes and emotions. Phase two of the study focussed on the collection of qualitative data, gathered through an online focus group consisting of nine participants. An assistant (study supervisor) was used to assist with the technical elements of the online focus group. Questions were posed to the group via Microsoft Teams and lasted 52 mins. The focus group session was recorded, transcribed and analysed using Braun and Clarke's (2006) method of thematic analysis (see appendix B).

2.3 Materials.

Phase one of the study used an adapted version of the Determinants of Implementation Behaviour Questionnaire, which the researcher named DIBQ-SLIUK, (appendix C). It was refined to 23 items from the original 93 (Huijg et al., 2014) thanks to the study done by Roman (2022), and further guidance from Romans directly to the researcher. Seven of the fifteen items suggested by Roman's (2022) component analysis were used (self-efficacy, skills and social support), the remaining eight of the fifteen items (organisation and innovation strategy) were removed as not applicable to the demographic being potentially freelance SLIs. Two additional subscales from the original DIBQ (Huijg et al., 2014) were added to suit the investigation (Beliefs about consequences and emotions), adding a further 16 items. The items from skills, social support, attitudes and emotion sub-scales were duplicated to allow the researcher to address each mode (remote/face-to-face), meaning the total items used were 32. The participants answered ten demographic questions, followed by the DIBQ-SLIUK in relation to healthcare settings and then again for education settings; participants only answered for settings that had experience of working in. The questionnaire was delivered via Qualtrics and analysed using SPSS. The questions within each sub-scale were Likert scales scored 1-5, with 1 the most negative response, and 5 being the most positive response. A mean score was generated for each sub-scale for each participant. Whilst Roman (2022) used a scoring system of -2 to 2, for ease of analysis and simplicity this study used a 1-5 scoring system (see appendix C). The original DIBQ did Cronbach alpha tests for each construct, and for the selected constructs for this study, ranged between $\alpha = .83$ and $\alpha = .88$ (Huijg., 2014). The adapted DIBQ-SLI Cronbach's alpha had an overall result of $\alpha = .95$ (Roman, 2022). The Cronbach's alpha for the present study's DIBQ-SLIUK scale was $\alpha = .88$, indicating a high degree of internal consistency.

Phase two's focus group was conducted via Microsoft Teams, discussion points were posed verbally using a list of questions linked to the research questions, developed through guidance from the study supervisor to further develop Napier's (2017) work and also to further Roman's (2022) work by addressing the comparison of SLI mode (see appendix D). The researcher posed questions to the participants at the start and during discussions, only some questions were used in the focus group due to the successful flow of natural conversation. The responses were recorded, transcribed, and analysed using Microsoft Teams and Word.

2.4 Procedure

2.4.1 Pilot studies

The online questionnaire was first piloted in the week commencing 25th November 2024 with a total of five respondents through a closed Facebook group of Sign language interpreters. The feedback received from these pilot studies further refined the format of the questionnaire and the wording of questions.

2.4.2 Ethical Considerations

To comply with the UWTSD Research Ethics & Integrity Code of Practice, the UWTSD Student Code of Conduct and the Code of Human Research Ethics (BPS, 2021) full ethical approval was obtained (see appendix E). Consent was obtained by the Head of Interpreting Services at SignVideo for the global email distribution. For phase one, tick-box consent was obtained at the start of the DIBQ-SLIUK, and a digital consent form was given via email to the focus group (see appendix F). Participants were given the contact details of the study supervisor for any discussions regarding any issues that may arise, this was done via the debriefing information given at the end of the questionnaire for phase one and a de-briefing sheet was send via email for phase two of the study (see appendix G).

In accordance with the Data Protection Act (2018), questionnaire data was collected via Qualtrics, then analysed using SPSS, securely stored by the researcher using the university's password-protected Office 365 account on OneDrive. Focus group data was initially transcribed using Microsoft Teams and Microsoft Word, the recording was deleted once transcribed, all qualitative data was securely stored by the researcher using the university's password-protected Office 365 account on OneDrive to further reduce the likelihood of data leakage or exposure and names were deleted within the transcription of focus group and any published findings anonymised.

2.4.3 Study Procedure

The researcher began official data collection, commencing on 10th December 2024. The DIBQ-SLIUK questionnaire was delivered through Qualtrics and distributed via a weblink to SignVideo employees via a global internal email and followed up by posting the study advert on closed Facebook groups; "BSL interpreters"/"Wales BSL interpreters". The initial section was a participant information sheet, followed by a consent tick-box. Participants were advised they could close their internet browser at any time in which to withdraw from the study. Subsequently, participants provided demographic information before proceeding to the DIBQSLIUK. Within the DIBQSLIUK, an option was given to confirm if they have worked within the relevant sector recently (healthcare/education). This then gave them the appropriate questions for each sector. To conclude, after the DIBQ-SLI, the participants were given de-briefing information at the end of the questionnaire.

To address the hypotheses, a T-test and 2x2 repeated measure Analysis of Variances (ANOVA) were performed. These tests aimed to discern not only the main effects of the interpreting mode (face-to-face vs. remote) and the setting (healthcare vs. educational) but also any potential interaction effects between these factors. A scoring system was implemented, assigning score

of 1-5 to the Likert scale, which then were added up for each sub-scale and a mean score generated for each participant for each sub-scale. (see appendix C).

For phase two, participants signed up for the focus group by volunteering their email address at the end of the DIBQSLIUK. There were 21 responses, to which ten were randomly allocated to participate. A Teams meeting link was sent via email to the participants (using blind carbon copy), to join the meeting on the day, of which nine joined on the day. The focus group was via a Microsoft Teams meeting, participants received an information/consent form via email before the study and a debrief sheet after the study as a Word document attached to the group email (in blind carbon copy mode). Participants were reminded that they may exit the focus group at any point, they could do this by exiting the Teams meeting. Thematic analysis, as outlined by Braun and Clarke (2006), was applied; the qualitative data was coded, analysed and refined and four themes were identified; accessibility, human connection; professional practice; training and development (see appendix B).

Chapter 3 – Results

3.1 DIBQ-SLIUK Questionnaire

The questionnaire was between distributed 10th December 2024 and 16th January 2025 and received 168 responses. The responses were exported to SPSS and analysed. A Little's MCAR test was conducted to assess the missing data pattern p = .263. (See appendix H). Based on this result, the data was considered to be missing completely at random (MCAR) and therefore could be handled using standard missing data techniques like multiple imputation. To address missing data in each construct, multiple imputation using the Expectation-Maximization (EM) algorithm was performed in SPSS, which is an accepted tool for MCAR confirmed data (Dong & Peng, 2013; Kosova et al., 2024).

DIBQ-SLIUK Domain results

The responses from each DIBQ-SLIUK construct were scored between 1-5, with 1 and 2 being a negative response, 3 being neutral and 4,5 being positive (see appendix C). Mean scores were analysed as follows. See Table 1 for Mean (M) and Standard Deviation (SD) scores for each construct, see appendix I for interaction graphs for the ANOVAs performed.

Self-efficacy

A paired samples T-test was performed to evaluate the effect of interpreting setting (healthcare/education) on interpreter's perceptions of self-efficacy when working remotely. The paired t-test showed that the difference between settings (healthcare/education) was significant $t(126)=5.01$, $p=<.001$. The effect size, measured by Cohen's d, was d = 0.45, indicating a medium effect. The mean scores showed more positive beliefs about capabilities in the education settings and more negative in healthcare settings.

Skills

A repeated-measures ANOVA was performed to evaluate the effect of mode and setting on interpreter's perception of their skills. Mauchly's test indicated no violation of sphericity, therefore the standard F-test could be used. The main effect of interpreting setting (healthcare/education) was not significant: $F(1,126) = 0.25$, $p = .618$. The main effect of interpreting mode (face-to-face/remote) was significant: $F(1,126) = 142.16$, $p = <.001$. There was a significant interaction between interpreting setting and mode: $F(1,126) = 5.21$, $p = .024$. The interaction graph (see appendix I) shows that perceived skills were altered more in healthcare settings depending on the interpreting mode but it was less altered for education between modes.

Social support

A repeated-measures ANOVA was performed to evaluate the effect of mode and setting on interpreter's perception of social support from other interpreters. Mauchly's test indicated no violation of sphericity, therefore the standard F-test can be used. The main effect of interpreting setting (healthcare/education) was significant: $F(1,126) = 16.05$, $p = <.001$. The main effect of interpreting mode (face-to-face/remote) was significant: $F(1,126) = 23.57$, $p = <.001$. There was not a significant interaction between interpreting setting and mode: $F(1,126) = 1.16$, $p = .283$.

Attitudes

A repeated-measures ANOVA was performed to evaluate the effect of mode and setting on interpreter's attitudes. Mauchly's test indicated no violation of sphericity, therefore the standard F-test can be used. The main effect of interpreting setting (healthcare/education) was not significant: $F(1,126) = 1.29$, $p = .258$. The main effect of interpreting mode (face-to-face/remote) was significant: $F(1,126) = 221.04$, $p = <.001$. There was a significant interaction

between interpreting setting and mode: $F(1,126) = 48.37$, $p = .<.001$. The interaction graph (see appendix I) shows that that attitudes were altered more in healthcare settings depending on the interpreting mode but it was less altered for education between modes.

Emotions

Two repeated-measures ANOVAs were performed to evaluate the effect of mode and setting on interpreter's positive emotions and negative emotions. Mauchly's test indicated no violation of sphericity, therefore the standard F-test can be used.

Positive emotions: The main effect of interpreting setting (healthcare/education) was not significant: $F(1,167) = 0.02$, $p = .90$. The main effect of interpreting mode (face-to-face/remote) was significant: $F(1,167) = 83.54$, $p = <.001$. There was a significant interaction between interpreting setting and mode: $F(1,167) = 11.14$, $p = .001$. The interaction graph (see appendix I) shows that that positive emotions were altered more in healthcare settings depending on the interpreting mode but it was less altered for education between modes.

Negative emotions: The main effect of interpreting setting (healthcare/education) was significant: $F(1,167) = 41.22$, $p = <.001$. The main effect of interpreting mode (face-to-face/remote) was significant: $F(1,167) = 11.38$, $p = <.001$. There was a significant interaction between interpreting setting and mode: $F(1,167) = 112.94$, $p = .<.001$. The interaction graph (see appendix I) shows that that negative emotions were altered more in both healthcare and education settings depending on the interpreting mode, with education having more of a difference between modes.

Table 1

Mean and Standard Deviation Scores for constructs (sub-scales).

DIBQ domain	DIBQ construct	Conditions	Means	SD
Beliefs about capabilities	**Self-efficacy**	Healthcare score	2.89	.93
		Education score	3.34	.93
Skills	**Skills**	Healthcare face-to-face score	4.57	.66
		Healthcare remote	3.60	1.02
		Education face-to-face	4.48	.64
		Education remote	3.76	.91
Social influences	**Social Support**	Healthcare face-to-face score	4.57	.66
		Healthcare remote	3.60	1.02
		Education face-to-face	4.48	.64
		Education remote	3.76	.91
Beliefs about consequences	**Attitudes**	Healthcare face-to-face score	4.57	.66
		Healthcare remote	3.60	1.02
		Education face-to-face	4.48	.64
		Education remote	3.76	.91
Emotions	**Positive Emotions**	Healthcare face-to-face score	4.57	.66
		Healthcare remote	3.60	1.02
		Education face-to-face	4.48	.64
		Education remote	3.76	.91
Emotions	**Negative Emotions**	Healthcare face-to-face score	4.57	.66
		Healthcare remote	3.60	1.02
		Education face-to-face	4.48	.64
		Education remote	3.76	.91

Note. Table 1 shows the Mean and Standard Deviation values for each sub-scale. 1-5 indicates negative to positive perceptions.

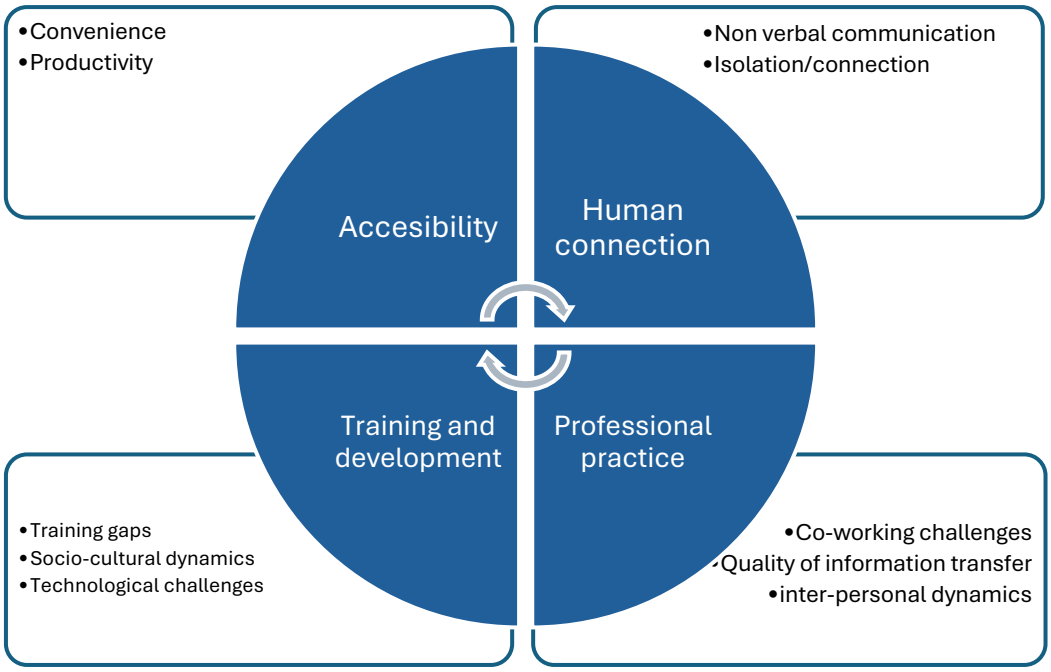
3.2 Focus group

The focus group discussion was recorded, transcribed and analysed using Braun & Clarke's Thematic analysis. The stages of Braun & Clarke were utilised as the procedure format. The responses were firstly familiarised with, then analysed for chunks of meaning and potential codes. The coding was done by making further notes on the responses and creating a list of

codes and the corresponding line numbers. Themes were then identified, reviewed, and defined, following the suggested procedure (see appendix B). The main themes revealed were accessibility; human connection; professional practice and training and development. Main themes and sub-themes are illustrated in Figure 1, with themes and quotations in Table 2.

Figure 1

Main themes and sub-themes



Note. Figure 1 shows a graphical representation of the main four themes and sub-themes found

Table 2

Main themes and quotations

Theme	Quote Keyword	Line number
Accessibility	*"the benefits of having remote interpreters in medical settings is that you can access them almost instantly"*	17
	"remote interpreting and they fit it around their personal life, their family lives"	37
	"the access for the admittedly few deaf people that live in the Highlands and Islands is not a massive population, but it's a very valuable service and a lifeline"	54
	"Remote - I could have 20 GP appointments in a day."	144
Human Connection	*"suddenly it's flat and 2D it that remote element… some respects just an incredibly difficult"*	45
	"deaf people being so isolated, particularly in rural or even in cities, I think it's just that just a cup of tea and that chat in the waiting room and all those things that provide other signposting opportunities"	121
	"Human side, particularly around bad news, difficult news."	117
	"All the other people around the screen and getting the that feedback from them. The facial expressions, the feel for the room, you can't read room if you're not in it"	734
Professional Practice	*"who is it better for? (remote interpreting)? For us or for our clients?"*	137
	"I wonder whether all our soft skills are starting to go"	699
	"Co working doesn't always happen that effectively online unless you are your regulars and you know each other"	468
	"(remote) takes away our power that takes away the importance of why we're there and what we're supposed to be doing and actually being able to assert your dominance"	288
	"So do we actually know whether the quality of interpreting is any better or worse when it's online"	595
Training and Development	*"there is a massive training gap for all of us. I think not just about the using the technology"*	222
	"How do we train the interpreters well? To meet so many different settings and be out there."	348
	"we need more training, but the training can only come from the research and from evidence"	596

Note. Table 2 shows the main themes with quotations from the focus group discussion.

Chapter 4 – Discussion

This study investigated the impact of interpreting mode and setting on interpreters' perceptions, specifically comparing face-to-face and remote interpreting in healthcare and education contexts. The results of the statistical analysis of the DIBQ-SLIUK questionnaire revealed that interpreters perceive their capabilities differently depending on the context in which they work. To address the hypotheses for phase one of the study; interpreter responses were more positive in healthcare settings than in education settings in the self-efficacy, social support and negative emotion construct, supporting the main effect of setting. Therefore hypothesis one was supported only within those particular constructs. Overall interpreters viewed face-to-face interpreting more positively than remote interpreting across all the DIBQ constructs, confirming a significant main effect of mode, thus supporting hypothesis two. Finally, a significant interaction effect was observed, with the difference in interpreter perceptions between face-to-face and remote interpreting being more positive in healthcare than in education in the skills, attitudes and emotion constructs. Therefore hypothesis three was supported within these three constructs. These results highlight the contextual influence of interpreting mode on interpreters' perceptions, which will now be expanded upon. The key finding was that interpreters felt more positive about face-to-face interpreting across all sub-scales. The results also show that the setting in which interpreters work plays a big role in how confident they feel when working remotely. Interpreters felt less sure of themselves when working remotely in healthcare settings compared to education settings. Their sense of skill was mainly affected by whether they were interpreting remotely or in person, rather than by the specific setting. The study also found that interpreters' sense of social support was influenced by both the setting and whether they were working remotely or in person. Interpreters' attitudes toward their work were more affected by whether they worked remotely or in person than by the setting itself. However, the difference in attitudes between in-person

and remote interpreting was more noticeable in healthcare. Interpreters reported feeling fewer positive emotions when working remotely compared to in-person work, with this effect being stronger in healthcare than in education. On the other hand, negative emotions were influenced by both setting and interpreting mode; healthcare settings heightened negative emotions, and remote interpreting led to even more negative emotions. Interestingly, the impact of remote interpreting on negative emotions was stronger in education than in healthcare. These results align with previous research showing that interpreters often have more negative perceptions when working remotely.

The focus group explored the impact of interpreting mode and setting on sign language interpreting practice. The findings highlight both the advantages and limitations of remote and face to face interpreting, particularly in relation to healthcare and educational settings. The first theme found was accessibility. It was highlighted that a key advantage of remote interpreting is its ability to provide instant access to interpreters, particularly for those in rural or remote areas, as previously suggested by Hughes et al., (2004). This accessibility allows for greater flexibility for interpreters, enabling them to fit work around their personal lives. However, despite these benefits, significant challenges remain. One notable concern raised was the financial burden on D/deaf individuals, as the cost of remote interpreting services often falls on them rather than service providers. Additionally, disparities in service provision across different regions may create inconsistencies in access and equity. Another issue raised was that remote services may reduce the need for face-to-face community interpreting, which impacts opportunities for natural human interaction. These factors suggest that while remote interpreting improves accessibility in some ways, it also raises concerns about equity and service distribution. The effectiveness of remote interpreting was suggested to be highly context dependent. It appears to function well for straightforward appointments but is less suitable for complex or emotionally sensitive interactions. Furthermore, the reliability of

remote interpreting is influenced by technological stability and user proficiency, highlighting the need for both clients and interpreters to have access to high-quality digital tools and training A fundamental question raised by participants was whether remote interpreting primarily benefits interpreters or D/deaf clients, this reflects Napier's work (2017). Another point that was raised was that there are generational differences, with older Deaf individuals often struggling with the technological demands of remote interpreting, potentially limiting their access to essential services.

Discussions introduced the theme of human connection, emphasising that one of the most significant drawbacks of remote interpreting is the loss of personal rapport between interpreters and clients. Participants described remote interpreting as 2D and lacking the depth of face-to-face interactions. This absence of personal connection can have profound effects on communication, particularly in sign language where non-verbal cues play a crucial role. Social isolation of Deaf users was another concern raised, the shift to remote interpreting has led to fewer incidental social interactions for D/deaf individuals, such as the informal chat before and after an appointment, exacerbating feelings of isolation. The challenge of reading body language and room dynamics in a remote setting underscores the limitations of video-based communication and raises questions about the overall effectiveness of remote interpreting in fostering meaningful human connection and rapport. Additionally, prolonged screen use contributes to visual fatigue, further impacting both interpreters and clients. The importance of human connection supports the findings from phase one, hypothesis two.

The theme of professional practice was highlighted, interpreters expressed that the shift to remote interpreting has altered interpreters' work dynamics, leading to both opportunities and challenges. While remote work allows interpreters to take on more appointments and increase productivity, it also increases the risk of burnout and job dissatisfaction. The fast-paced nature

of remote interpreting, combined with reduced opportunities for breaks and informal debriefing with colleagues and co-workers may contribute to emotional exhaustion and negative wellbeing. Concerns were also raised about the potential erosion of interpreters' interpersonal skills and professional authority. The lack of face-to-face engagement limits interpreters' ability to build rapport with clients. This, in turn, could impact their sense of professional identity and job satisfaction. The difficulties in teamwork and the absence of effective debriefing mechanisms with both clients and co-workers further highlight the challenges of working remotely. Concerns about professional standards were also evident. Some participants expressed uncertainty about whether remote interpreting can match the quality of face-to-face services, with little academic research to advise. Additionally, the potential commodification of interpreting services and the resulting loss of professional autonomy highlight the risks of prioritising efficiency over quality.

A recurring theme was training and development, emphasising the lack of adequate training for interpreters transitioning to remote work, previously reflected by research (Napier, 2017; Sheridan & O'Donnell, 2023). Many participants noted that they had not received sufficient instruction on remote interpreting techniques, including how to manage signing space and navigate technical platforms and its challenges. This rapid shift , specifically since COVID-19, without proper preparation was suggested could contribute to inconsistencies in service quality. Interpreters also face increasing demands to adapt to new technologies while balancing evolving client expectations. The anticipated impact of artificial intelligence on interpreting raised further questions about the future role of human interpreters in a digital landscape. Additionally, generational differences are shaping the way interpreters and clients engage with remote services. Younger deaf clients tend to be more tech-savvy, while older individuals often struggle with digital platforms. These shifts indicate the emergence of a new type of interpreter,

one that may possess different skill sets but potentially lack traditional soft skills and in-person communication abilities.

To address the research questions, firstly, in relation to healthcare settings, interpreters generally perceived face-to-face interpreting more positively due to stronger human connection and better communication quality, particularly for complex or emotionally sensitive interactions, this aligns with hypothesis two from phase one of the study. Remote interpreting improved accessibility but raised concerns about technological reliability, service consistency, and the financial burden on D/deaf clients. The loss of rapport and difficulties in reading non-verbal cues were particularly problematic in healthcare settings. Similarly, in education settings, face-to-face interpreting was preferred, as remote interpreting was seen as limiting rapport-building with students, educators and co-workers. Challenges included reduced teamwork, the erosion of professional authority, and a lack of effective debriefing opportunities. Skill development gaps were also noted, particularly in adapting to remote platforms. In comparing healthcare and education, attitudes toward remote interpreting varied between the two settings. While healthcare interpreters found remote work useful for straightforward appointments, they considered it less effective for sensitive interactions. In education, remote interpreting posed greater challenges due to the need for sustained interaction and rapport with students and teachers. The shift to remote work also raised concerns about professional well-being, skill development, and ethical considerations in both contexts.

Overall, the current study found that interpreters generally viewed face-to-face interpreting more positively than remote interpreting, which is consistent with previous research. Specifically, the study's quantitative phase revealed that interpreters felt less confident and capable when working remotely in healthcare settings, which was further supported by the

qualitative results. This is supported by previous research (Desrosiers et al., 2017; Nevado et al., 2021) who also reported that remote interpreting, particularly in healthcare, poses unique challenges and can lead to lower self-efficacy for interpreters, aligning with the study's qualitative findings of weaker confidence in healthcare compared to education.

In relation to healthcare settings, the findings highlight several key issues within healthcare remote interpreting, one major concern in remote healthcare interpreting is the difficulty in recognising and conveying non-verbal cues, such as facial expressions and body language, which are crucial for effective medical communication in BSL. This aligns with the broader discussion on how remote interpreting can compromise communication accuracy. Interpreters expressed that healthcare interactions require human connection and interpersonal rapport between the patient and provider, and interpreters play a vital role in facilitating this relationship, this reflects previous studies (Swabey et al., 2014). The absence of in-person presence may create a sense of detachment, reducing patient engagement could affect the outcomes of patients negatively which has been shown in older research (Steinberg et al., 2006). The participants expressed the view that healthcare interpreting is particularly demanding due to the high stakes of medical communication, emotional intensity, and ethical dilemmas involved which is supported by previous research (Desrosiers et al., 2017), The increased negative emotions reported in healthcare settings in this study reflect Yabe (2019), who also found that remote interpreting in healthcare, especially during crises, could exacerbate emotional strain. In healthcare, it was emphasised that remote interpreting improved accessibility especially in emergency situations if no interpreter is available (Masland et al., 2010; Mathew et al., 2023; Havelka, 2020), however participants introduced concerns about non-verbal cue recognition and patient-provider rapport, findings also echoed by Nicodemus et al. (2020).

The study's comparison of face-to-face and remote interpreting in education aligns with findings from Napier & Barker (2004), who explored deaf students' preferences for in-person interpreting due to stronger rapport-building and classroom engagement. Similarly, it was found that video-based interpreting often disrupted the natural flow of interactions in educational settings, a challenge echoed in McDermid's study (2020). Similarly, Napier & Barker (2004) reported that educational interpreters experience heightened fatigue when working remotely due to constant screen focus, split attention between speakers and chat functions, and the challenges of maintaining accuracy in a less interactive setting, these issues were avidly reflected in the focus group discussions.

The current study aligns with existing research on the challenges faced by interpreters transitioning to remote work, particularly the lack of adequate training. Trzeciak et al. (2021) highlighted that the rapid shift to remote interpreting, accelerated by COVID-19, occurred without sufficient preparation, leading to inconsistencies in service quality, this was highlighted in the focus group discussions. Similarly, it was found that many sign language interpreters struggled to adapt to new digital platforms, as their traditional training had primarily focused on in-person settings, (Napier et al., 2021; Warnicke & Matérne, 2024). The study findings reflect Roman's work (2022), stating that while remote interpreting offers flexibility, it also exacerbates professional isolation and limits skill development opportunities. The aspect of technological adaptation and evolving client expectations reflects issues raised by De Meulder & Sijm (2024), who observed that interpreters felt a growing pressure to navigate digital tools while maintaining high service standards. Napier et al. (2017) previously explored this issue in the context of video relay service call centre (VRS) interpreting, finding that interpreters often experienced increased cognitive load and stress when working remotely. This reflects the perceptions of interpreters form the current study, particularly in relation to healthcare remote work. Roman et al. (2022) similarly reported that remote work posed

ergonomic and mental health challenges for interpreters, emphasising the need for improved work conditions and structured support. The concern that technical issues in healthcare settings can lead to miscommunications, delays in diagnosis, and reduced quality of care is echoed by Nicodemus et al. (2020), who found that even minor connection issues could significantly impact medical discussions and decision-making. The anticipated impact of growing remote work and the introduction of AI on interpreting aligns with the broader debate on the profession's future, as discussed by Llewellyn-Jones (2019). Interpreters noted a shift in the skills required for interpreters, suggesting that digital fluency is becoming increasingly important, potentially at the expense of traditional interpersonal and ethical competencies, this concern was shown by Klammer & Pöchhacker (2021), who examined the complexities of ensuring accurate communication in video remote interpreting, particularly in medical contexts.

One of the strongest themes in the study is the loss of human connection during remote interpreting, which potentially diminishes communication quality, especially in emotionally sensitive interactions, particularly true in healthcare settings, where non-verbal cues play a crucial role in interpreting. This mirrors the work of Pöchhacker & Klammer (2024), who explored how remote interpreting affects doctor-patient communication, especially in high-stakes settings where rapport and trust are essential. The study's finding that remote interpreting is less suitable for complex or emotionally sensitive situations also parallels Havelka (2020), who concluded that video-mediated interpreting in healthcare settings is not ideal for nuanced, sensitive communication. This loss of human connection and the 3D nature of BSL and its imperative non-verbal cues have been raised many times before in studies, which accentuates the importance of this element of BSL interpretation (Aden, 2023; Bachelier, 2022; Warnicke & Granberg 2022).

The study found that interpreters reported feeling less social support and more negative emotions when working remotely, particularly in healthcare settings. This resonates with findings from De Meulder & Sijm (2024), who observed that remote work can reduce interpersonal interaction and emotional support, increasing stress and burnout among interpreters. The study also aligns with Schnack (2020), which noted that remote interpreting can contribute to emotional exhaustion due to a lack of informal support from colleagues. The finding that social support is perceived to be higher in education settings than in healthcare settings aligns with research suggesting that medical interpreters often work under greater time pressures and emotional strain, limiting opportunities for interaction with colleagues however it could be said that co-working is not as common in healthcare settings, leading to this result. In contrast, education settings may allow for more collaboration, particularly in settings where interpreters work with the same teachers or students over time, fostering a sense of community. The absence of real-time social engagement can hinder opportunities for debriefing after challenging assignments, which was also identified as a key factor in interpreter well-being. The issue of social support is a key finding, interpreters continue to express a lack of support in remote interpreting in comparison to face-to-face work, which remains to be an issue when co-working, which has been raised previously and is key to the well-being of interpreters (Sheridan & O'Donnell, 2023). It is clear that many individual elements of the current study have been explored to an extent in previous research, further exploration and research remains to be needed, and recommendations to service providers and interpreter training organisations need to be informed by current research as seemingly reoccurring themes continue to emerge.

Conclusion

This study explored the impact of interpreting mode (face-to-face vs. remote) and setting (healthcare vs. education) on interpreters' perceptions, emotions, and professional experiences.

The findings from both the DIBQSLIUK questionnaire and focus group discussions highlight significant differences in how interpreters perceive their capabilities, social support, and emotional well-being across different settings and modes of delivery. Overall, interpreters viewed face-to-face interpreting more positively across all constructs, supporting the stance that in-person interaction fosters stronger professional practice, efficacy, skills, social support, human connection and results in more positive interpreter perceptions. Healthcare settings posed greater challenges in terms of self-efficacy and negative emotional impact, while education settings provided a more structured and predictable working environment. However, remote interpreting significantly reduced interpreters perceived self-efficacy, skills, social support, attitudes and emotions particularly in healthcare contexts where the stakes of communication are high.

The study underscores the need for targeted support and training to help interpreters navigate the challenges of remote work effectively. Given the significant impact of remote interpreting on self-efficacy and emotional well-being, particularly in healthcare settings, professional development programs should focus on equipping interpreters with strategies to manage cognitive load, technical difficulties, and emotional strain in remote environments. Additionally, service providers could prioritise strategies that maintain interpreters' access to social support networks, as peer collaboration and debriefing are critical for mitigating stress and burnout. Healthcare providers could look to ensure a successful briefing before complex remote medical contexts to provide better contextual information to ensure smoother communications. Moreover, the findings highlight an urgent need for policy reforms that ensure equitable access to high-quality interpreting services. Remote interpreting has expanded accessibility, particularly for rural and underserved populations, but concerns remain regarding its effectiveness for complex interactions and inconsistency of service across UK regions. Service providers could consider hybrid models that combine the flexibility of remote

interpreting with in-person support for emotionally charged or high-stakes encounters. Furthermore, the financial burden of remote services on D/deaf clients must be addressed, ensuring that cost does not become a barrier to effective communication. While remote interpreting offers increased accessibility and productivity, it also presents significant challenges that must be addressed to safeguard both interpreters' professional well-being and the quality of communication services. A balanced approach, incorporating structured training, social support mechanisms, and thoughtful policy reforms will be beneficial to optimising interpreting services in both healthcare and education contexts.

The study utilised both quantitative and qualitative methods, allowing for a well-rounded exploration of the topic. The combination of these approaches provides a deeper understanding of interpreters' experiences in both remote and face-to-face interpreting. The study specifically focused on healthcare and education settings, two critical areas where interpreters play a vital role, which have not been directly compared previously. This study allowed for a detailed examination of how setting impacts interpreters' perceptions and experiences in remote versus. in-person work. The focus group provided valuable qualitative insights that deepened the understanding of remote interpreting's impact, especially by highlighting personal experiences, practical concerns, and emotional implications of working remotely. The study focused on cross-sectional data, meaning it provides a snapshot of interpreters' perceptions at a single point in time. Longitudinal studies could offer insights into how perceptions and experiences evolve over time as remote interpreting becomes more prevalent or as interpreters gain more experience with technology. The DIBQSLIUK could be further refined with less repetition of items for simplicity for the participants. While the focus group provided in-depth qualitative data, it may not represent the experiences of all interpreters. The study relies on self-reported data from interpreters, which may be subject to desirability bias or the personal biases of participants. While emotional and professional challenges were discussed, further studies

could place more emphasis on the well-being of interpreters, especially in the context of remote work. This study opens several avenues for further investigation, future research could explore longitudinal impact on interpreters' well-being, client and Deaf perspectives of VRI, technological advancements in remote interpreting, training interventions and equity in service delivery.

References

Aden, M. M. (2023). From In-Person to Technology-Based Interpreting: Evolution and the Need for Flexible, Community-Based Standards.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *psychometrika*, *16*(3), 297-334. DOI: https://doi.org/10.1007/BF02310555

Bachelier, K. L. (2022). *Video remote interpreting in times of crisis: building capacity of interpreting services in Australian healthcare settings* (Doctoral dissertation, Macquarie University).

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Brenner, J. M., Baker, E. F., Iserson, K. V., Kluesner, N. H., Marshall, K. D., & Vearrier, L. (2018). Use of Interpreter Services in the Emergency Department. *Annals of Emergency Medicine*, *72*(4), 432–437. https://doi.org/10.1016/j.annemergmed.2018.05.009

Chilton, E. E. (1995). Ensuring effective communication: the duty of health care providers to supply sign language interpreters for deaf patients. *Hastings LJ*, *47*, 871.

Chmiel, A., & Spinolo, N. (2022). Testing the impact of remote interpreting settings on interpreter experience and performance: Methodological challenges inside the virtual booth. *Translation, Cognition & Behavior*, *5*(2), 250-274.

DOI: https://doi.org/10.1075/tcb.00068.chm

Data Protection Act 2018. https://www.gov.uk/data-protection

De Meulder, M., & Sijm, N. (2024). “I feel a bit more of a conduit now”: Sign language interpreters coping and adapting during the COVID-19 pandemic and beyond. *Interpreting and Society : An Interdisciplinary Journal*, *4*(1), 3–25. https://doi.org/10.1177/27523810231225119

Desrosiers, P., Darden, V., & Keulks, G. (2017). Signed Language Interpreting in Healthcare Settings.

Disability Discrimination Act 1995. https://www.legislation.gov.uk/ukpga/1995/50/contents

Dong, Y., & Peng, C.-Y. J. (2013). Principled missing data methods for researchers. *SpringerPlus*, *2*(1), 222–222. https://doi.org/10.1186/2193-1801-2-222

Equality Act 2010. https://www.legislation.gov.uk/ukpga/2010/15/contents

Foster, K. (2024). An Effective Way to Communicate with the Deaf Seeking Healthcare in Urgent Care. DOI 10.5281/zenodo.13718101

Havelka, I. (2020). Video-mediated remote interpreting<? br?> in healthcare: Analysis of an Austrian pilot project. *Babel*, *66*(2), 326-345. DOI: https://doi.org/10.1075/babel.00156.hav

Heyerick, I., & Vermeerbergen, M. (2012). Sign language interpreting in educational settings in Flanders, Belgium. *InWorking with the Deaf Community Education, Mental Health and Interpreting, ed. byLorraine Leeson and Myriam Vermeerbergen*, 117-132.

Hughes, G., Hudgins, B., & MacDougall, J. (2004). Remote sign language interpretation using the Internet. *Proceedings. Second Annual Conference on Communication Networks and Services Research, 2004*, 345–350. https://doi.org/10.1109/DNSR.2004.1344750

Huijg, J. M., Gebhardt, W. A., Dusseldorp, E., Verheijden, M. W., van der Zouwe, N., Middelkoop, B. J. C., & Crone, M. R. (2014). Measuring determinants of

implementation behavior: psychometric properties of a questionnaire based on the theoretical domains framework. *Implementation Science : IS*, *9*(1), 33–33. https://doi.org/10.1186/1748-5908-9-33

James, T. G., Coady, K. A., Stacciarini, J.-M. R., McKee, M. M., Phillips, D. G., Maruca, D., & Cheong, J. (2022). "They're Not Willing To Accommodate Deaf patients": Communication Experiences of Deaf American Sign Language Users in the Emergency Department. *Qualitative Health Research*, *32*(1), 48–63. https://doi.org/10.1177/10497323211046238

Klammer, M., & Pöchhacker, F. (2021). Video remote interpreting in clinical communication: A multimodal analysis. *Patient Education and Counseling*, *104*(12), 2867–2876. https://doi.org/10.1016/j.pec.2021.08.024

Knox, S. (2006). Sign language interpreting in an academic setting: Preparation strategies and considerations. *Sites: A journal of social anthropology and cultural studies*, *3*(1), 183-204.

Kosova, R., Naço, A., Hajrulla, S., & Kosova, A. M. (2024). Addressing Missing Data in Surveys and Implementing Imputation Methods with SPSS. *International Journal of Advanced Natural Sciences and Engineering Researches*, *8*(2), 40-50.

Lezzoni, L. I., Oday, B. L., Killeen, M., & Harker, H. (2004). Communicating about health care: Observations from persons who are deaf or hard of hearing. *Annals of Internal Medicine*, *140*(5), 356–362. https://doi.org/10.7326/0003-4819-140-5-200403020-00011

Llewellyn-Jones, P. (2019). Technology and sign language interpreting. In *The Routledge handbook of translation and technology* (pp. 289-303). Routledge.

Magill, D. (2017). Healthcare Interpreting from a New Zealand Sign Language Interpreters' Perspective.

Masland, M. C., Lou, C., & Snowden, L. (2010). Use of communication technologies to cost-effectively increase the availability of interpretation services in healthcare settings. *Telemedicine and e-Health*, *16*(6), 739-745. DOI: 10.1089/tmj.2009.0186

Mathew, R., Dannels, W. A., & Parker, A. J. (2023, July). An augmented reality based approach for optimization of language access services in healthcare for deaf patients. In *International Conference on Human-Computer Interaction* (pp. 29-52). Cham: Springer Nature Switzerland. DOI https://doi.org/10.1007/978-3-031-35897-5_3

Mcdermid, C. (2020). Educational Interpreters, Deaf Students and Inclusive Education?. *Turkish Journal of Special Education Research and Practice*, *2*(1), 27-46. DOI: 10.37233/TRSPED.2020.0107

Motimele, D. M. (2023). An assessment on the provision of South African Sign Language interpreting services in the healthcare setting during the Covid-19 pandemic.

Myers, M. J., Annis, I. E., Withers, J., Williamson, L., & Thomas, K. C. (2022). Access to Effective Communication Aids and Services among American Sign Language Users across North Carolina: Disparities and Strategies to Address Them. *Health Communication*, *37*(8), 962–971. https://doi.org/10.1080/10410236.2021.1878594

Napier, J., & Barker, R. (2004). Accessing University Education: Perceptions, Preferences, and Expectations for Interpreting by Deaf Students. *Journal of Deaf Studies and Deaf Education*, *9*(2), 228–238. https://doi.org/10.1093/deafed/enh024

Napier, Skinner, & Turner. (2017). “It’s good for them but not so for me”: Inside the sign language interpreting call centre. *The International Journal of Translation and Interpreting Research*, *9*(2). https://doi.org/10.12807/ti.109202.2017.a01

Napier, J., Skinner, R., Adam, R., Stone, C., Pratt, S., & Obasi, C. (2021). A demographic snapshot of the profession: The 2021 Census of sign language translators & interpreters in the UK.

Nevado Llopis, A., Foulquié Rubio, A. I., Tomassini, E., Garwood, C., Rudvin, M., Andreica, A., & Pelea, A. (2021). Medical Interpreting–A Race against Time. *REVUE INTERNATIONALE D'ÉTUDES EN LANGUES MODERNES APPLIQUÉES*, *14*(Supplément), 22-38.

Nicodemus, B. S., Whynot, L., & Kushalnagar, P. (2020). Insights from US deaf patients: Interpreters’ presence and receptive skills matter in patient-centered communication care. *Journal of Interpretation*, *28*(2), 5. Available at: https://digitalcommons.unf.edu/joi/vol28/iss2/5

Oppong, A. M., Fobi, D., & Fobi, J. (2016). Deaf students’ perceptions about quality of sign language interpreting services. *International Journal of Educational Leadership*, *7*(1), 63-72.

Pöchhacker, F., & Klammer, M. (2024). Ensuring understanding in video remote-interpreted doctor—patient communication. In *Interactional Dynamics in Remote Interpreting* (pp. 66-90). Routledge.

Rivas Velarde, M., Jagoe, C., & Cuculick, J. (2022). Video Relay Interpretation and Overcoming Barriers in Health Care for Deaf Users: Scoping Review. *Journal of Medical Internet Research*, *24*(6), e32439-. https://doi.org/10.2196/32439

Roman, G., Samar, V., Ossip, D., McKee, M., Barnett, S., & Yousefi-Nooraie, R. (2022). *Ditching the Driving: A Cross-Sectional Study on the Determinants of Remote Work From Home for Sign Language Interpreters*. https://doi.org/10.3389/frhs.2022.882615

Russell, D. (2021). Critical perspectives on education mediated by sign language interpreters: Inclusion or the illusion of inclusion. *Critical perspectives on plurilingualism in deaf education*, 217-239. https://doi.org/10.21832/9781800410756-013

Santos, A. S., & Portes, A. J. F. (2019). Perceptions of deaf subjects about communication in Primary Health Care. *Revista Latino-Americana de Enfermagem*, *27*, e3127–e3127. https://doi.org/10.1590/1518-8345.2612.3127

Schick, B., Williams, K., & Kupermintz, H. (2006). Look Who's Being Left Behind: Educational Interpreters and Access to Education for Deaf and Hard-of-Hearing Students. *Journal of Deaf Studies and Deaf Education*, *11*(1), 3–20.

Schnack, K. (2020). Social Isolation, Anxiety, and Stress Among VRS/VRI Sign Language Interpreters During the COVID-19 Pandemic. https://digitalcommons.unomaha.edu/university_honors_program/117

Sheridan, S., & O'Donnell, J. (2023). Irish sign language interpreter workplace wellness during COVID-19: Looking back and moving forward. *Journal of Interpretation*, *31*(1), 1. Available at: https://digitalcommons.unf.edu/joi/vol31/iss1/1

SignHealth. (2024, November 27). *What is the difference between deaf and Deaf?* SignHealth. https://signhealth.org.uk/resources/learn-about-deafness/deaf-or-deaf/

Skaten, I., Urdal, G. H. S., & Tiselius, E. (2020). *Exploring deaf sign language interpreting students' experiences from joint sign language interpreting programs for deaf and hearing students in Finland*.

Skinner, R., Napier, J., & Braun, S. (2018). Interpreting via video link: Mapping of the field. *Here or there: Research on interpreting via video link*, 11-35.

Smeijers, A. S., Ens-Dokkum, M. H., Van den Bogaerde, B., & Oudesluys-Murphy, A. M. (2018). Availability of specialised healthcare facilities for deaf and hard of hearing individuals. *International Journal on Mental Health and Deafness*, *4*(1), 14-27.

Steinberg, A. G., Barnett, S., Meador, H. E., Wiggins, E. A., & Zazove, P. (2006). Health care system accessibility : Experiences and perceptions of deaf people. *Journal of General Internal Medicine : JGIM*, *21*(3), 260–266. https://doi.org/10.1111/j.1525-1497.2006.00340.x

Swabey, L., Nicodemus, B., & Moreland, C. (2014). An examination of medical interview questions rendered in American Sign Language by deaf physicians and interpreters. *Investigations in healthcare interpreting*, 104-27.

Trzeciak Huss, J., & Huss, J. (2021). Deaf, not invisible: sign language interpreting in a global pandemic. *AJOB neuroscience*, *12*(4), 280-2 https://doi.org/10.1080/21507740.2021.1941410

Warnicke, C., & Granberg, S. (2022). Interpreter-mediated interactions between people using a signed respective spoken language across distances in real time: a scoping review. *BMC Health Services Research*, *22*(1), 387–387. https://doi.org/10.1186/s12913-022-07776-y

Warnicke, C., & Matérne, M. (2024). Sign language interpreters' experiences of remote interpreting in light of COVID-19 in Sweden. *Interpreting and Society : An Interdisciplinary Journal*, *4*(2), 137–158. https://doi.org/10.1177/27523810241239779

Yabe, M. (2019). *Healthcare Providers' and Deaf Patients' Perspectives on Video Remote Interpreting: A Mixed Methods Study* (Order No. 27603242). Available from ProQuest Central; ProQuest Dissertations & Theses Global. (2291447543). https://www.proquest.com/dissertations-theses/healthcare-providers-deaf-patients-perspectives/docview/2291447543/se-2

Yabe, M. (2020). Healthcare providers' and deaf patients' interpreting preferences for critical care and non-critical care: Video remote interpreting. *Disability and Health Journal*, *13*(2), 100870–100870. https://doi.org/10.1016/j.dhjo.2019.100870

Appendix A – consent to distribute questionnaire, from Signvideo, study advert

Re: Dissertation questionnaire - Inbox • spearton-scale@sorenson.com

Delete Archive Report Move Flag Mark as Unread Sync Block ···

Re: Dissertation questionnaire

Hannah Robinson <HRobinson@Sorenson.com>

Tuesday 8 October 2024 at 07:42

To: Suzanne Pearton-Scale

To protect your privacy, some external images in this message were not downloaded. Download external images Go to Settings

Hi Suzanne,

Certainly, don't mind at all, happy to support research.

We have a few options

1. We have a mailing list, so if you sent over what you wanted in the email, I could forward it to the whole team.
2. Karl could then mention it in the weekly update too to reinforce people doing it
3. Happy for you to also post in Teams and add the whole team and ask for their support (could use Terp Hive Mind channel)

How does that sound?

Hannah Robinson (she/her)
Director of Interpreting Operations (UK)

020 3745 0945
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www.sorenson.co.uk
St. Agnes House, 6 Cresswell Park, Blackheath, London SE3 9RD

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Calling all Sign Language Interpreters!

Can you give me 5-10 mins of your time to complete a questionnaire for my dissertation research?

To take part in this survey, you must be a Sign Language Interpreter working in the UK/Republic of Ireland and will have worked within the healthcare and/or education sector.

SURVEY LINK:
bit.ly/SIGNLANG

THANK YOU!

I am a Registered Sign Language Interpreter based in Wales, studying Applied Psychology at University of Wales Trinity Saint David.

For my dissertation project, I am conducting research into interpreter practices. I am distributing a questionnaire to get data for this project. The research aims to examine perceptions of sign language interpreters towards face-to-face and remote interpreting in both healthcare and educational settings.

I would really appreciate you taking the time to complete the questionnaire. This research is important for improving communication quality between Deaf individuals and service providers and informing SLI best practice and will provide valuable insights into the unique domain of sign language interpreting which is an under-researched area.

Thank you in advance!
Suzanne Pearton-Scale

Appendix B – Thematic analysis of focus group data

Thematic analysis steps	Description
Step 1- Become familiar with the data	• Reading the questionnaire responses twice • Familiarisation notes were made to collate first impressions.
Step 2 – Generate initial codes.	• The responses were given line numbers to organise the data. • Notes were made by using 'comments' on Microsoft Word to highlight chunks of meaning. • Notes were them transferred to another Word document, writing the line numbers and codes as a list. • There were no pre-set codes, codes were created and modified as work progressed.
Step 3 – Search for themes	• Examine codes and start to group into categories or themes. • After grouping, broad themes were identified with the corresponding text from the questionnaire responses with its corresponding line number. • The lines in each group were counting to detect the prevalence of each potential theme.
Step 4 – Review the themes.	• Checking the themes again for link, and sub-themes. • Attaching quotes to confirm meaning. • Major themes and sub-themes were identified.
Step 5 - Define themes	• Defining themes, to further consolidate that the coding and thematic analysis process were still correct.
Step 6 – Write up	• Finally, the thematic analysis was written up into an APA style qualitative report, presenting tables of themes and a diagram of the thematic map.

FOCUS GROUP TRANSCRIPT

Focus group - SLIs-20250210_190914-Meeting Recording

February 10, 2025, 7:09PM

51m 47s

SP **Suzanne Pearton-Scale (2105981)** 0:03

Its looking at face to face and remote interpreting in healthcare and education settings. So firstly I'd just like to put it out to you to have a little chat about what you think are the main advantages and disadvantages of face to face versus remote interpreting in general.

Feel free to speak.

If you'd like to speak, just go ahead and unmute yourself, and I'm hoping we can just speak freely.

MD 0:37

Hi I'm so the I think the benefits of having remote interpreters in medical settings is that you can access them almost instantly.

So a lot of the time, there's not enough interpreters that are doing face to face work just because there's not enough of us in general. So to be able to have a remote interpreter when a face to face hasn't either been booked or haven't been able to source one is, I think one of the greatest benefits to having it in a medical sector, it's not great in terms of quality because a lot of medical.

A lot of medical appointments that the Internet's not great. The technology isn't as good as it should be in terms of quality, so it's not great in that sense. But to be able to have an interpreter like that (quick)

Is a pretty good benefit.

SB 1:41

I'm just building on that to kind of like looking at it in a more general sense. You know the general concept of face to face versus remote interface. I think absolutely right.

Availability. Via remote interpreting. Great.

I think what we have seen since COVID particularly I think up until COVID, I don't think remote interpreting was really much of an entity apart from vRS and VRI services, very rarely would you be on teams interpreting, but since then obviously you know it's a double edged sword because you've got some people who prefer to do remote interpreting and they fit it around their personal life, their family lives, whatever.
What that does though, is it reduces the amount of face to face contact that is readily available.
And so as more and more interpreters do remote interpreting, there is less actual, you know, interpreting hours available in the community where it's actually arguably needed much more in terms of just, you know, human contact and.
The fact that sign language and sign language interpreting is 3D, it's visual, it's done in a in a kind of large space, and then suddenly if it's suddenly it's flat and 2D it that remote element I think detracts from a lot of that and makes interpreting just in some respects just an incredibly difficult.
Double edged sword? Really.

AC 3:06
I'll. I'll come in like one of the great advantages certainly in Scotland, when it comes to medical interpreting is in the Highlands and Islands is accessibility interpreters. I mean, there's just, it was unheard of before. So I mean the, you know, it interpreters to catch ferries or to be helicoptered in just be ridiculous. So the access for the admittedly few deaf people that live in the Highlands and Islands is not a massive population, but it's a very valuable service and a lifeline, you would argue and great for, you know.
I've done some interpret GP appointments remotely and I found that as long as you know, as long as the appointment is generally straightforward and you have a good GP and we all know what it's like to have a good meeting chair or have a good. Court judge, we all know if the person who's running The thing is switched on, then that makes it better. So I've had a lot of successful GP appointments remotely, so I'd just like to, but I agree with everything that S said. I mean, I think it, but S said it's absolutely valid. But there is the other side of it as well. There are advantages for sure.

CW 4:24

There we go. Got it right. Finally can get the mic. Sorry. Just wanted to say I do have a concern about who's paying so and service providers not getting rid of their responsibility to provide interpreters. So working on the vRS service, I do see quite often it's the deaf person who's using their own account to bring in the interpreter. So the deaf person's paying effectively for my time, so I'm all for it when it's the contracts are provided and the technology and the Wi-Fi and the equipment.
That you say, A that you know everything's in place in the hospital, but I do have a concern that I quite often see that deaf people themselves are paying for it and not the service provider that annoys me.

SP **Suzanne Pearton-Scale (2105981)** 5:12

T yeah.

5:13

MD That's so true.

AE 5:15

You what? What I'm hearing kind of backs up my thinking on this.
It's not only 2D in the sense of a flat screen, it's two-dimensional in the sense of when interpreting on screen, you don't have that personal connection with the other people in the room, not just the deaf client and the hearing client, but other people in the room too. You can't. You can't look around. You can't see the reactions of people you can't see who's actively listening, who actively want to be involved.
And that that's a real downside for me of the online interpreting. I completely 100% agree with A. You know, in in those situations where it's ridiculously difficult to get an interpreter and really impractical. And yeah, absolutely. But what I'm hearing is that the online interpreting is great as a last resort.
This is this is my. My feeling is that it's something that should be used as a last resort rather than something that we've become to rely on as a norm and therefore stop trying to in increase the availability of interpreters to be there in person.
Because every positive I hear about it is about the fact that it can be readily available. So it's because we haven't planned because we haven't got interpreters available

because somebody can't get there because it's too expensive.
Not because it's better.
And until it's better, I don't think it's something that we should be encouraging and growing. It's something we should be relying on when we're at that point of, we need it because we haven't got anything, any other system.

J 7:07
I'm thinking just about our older generation deaf people.
I quite often find that the minute you bring out the tech, bam, no, can't any freezing. Any bad tech just adds to anxiety and so on. So I'm sorry. I'm sorry to be the one that's going over the downsides of remotes, but I know we've you've said everything that I agree with. I agree all the positives about it and in those life and death situations, if my mum's in that A&E, I'll have a remote interpreter. Please get the symptoms just.
It might not be the most accurate, but it's better than none. It's better than the nurse or the doctor trying to work it out. But what they're saying so.
On the grand scheme of things, I agree. But when it comes to particularly older generation deaf people that.
Human side, particularly around bad news, difficult news. We all know this, and we all are responsible when we're online as well. If we're working for remote services, we might say in caveat all you need to be bringing someone in or this isn't appropriate. But.
It's just that cup of tea afterwards and stuff and deaf people being so isolated, particularly in rural or even in cities, you know now, deaf people just be more isolated from each other. I think it's just that just a cup of tea and that chat in the waiting room and all those things that provide other signposting opportunities.

SP **Suzanne Pearton-Scale (2105981)** 8:41
M, I think you've had it for a bit.

MD 8:44
I think J was before me. If you want to just go in.

SP **Suzanne Pearton-Scale (2105981)** 8:46
Apologies, J, go ahead.

JK 8:48
Fine. I've kind of half gone a few times.
I think for one question is who is it better for? For us or for our clients? So of course for the 82% of women interpreters with caring responsibilities in a part time job, it's likely better that they can have all of their interpreting between 9:00 and 3:00, for example.
And still make enough money to pay their rent or mortgage.
Whether that's better for deaf people, we've already discussed a lot of those things, but of course we have finite resources.
So as I think S said before, if I were really, if it was well planned, I could have 20 GP appointments in a day.
If I try and do that face to face currently.
The local hospital from where I live is 11 miles away. It takes me 1 1/2 hours to get there in the morning.
In those 1 1/2 hours I could have done a lot of interpreting remotely, so you know, projects like in Scotland with Deaf action where they're trying to increase our availability by making it more visible. That's an advantage of technology. I think that we might see would help both remote and face to face interpreting how far that's going to work is another question.
But then the last thing for me is about training and about our ability to adapt. So if I'm in a GP appointment remotely I might have been ordering a pizza 5 minutes before I might have been in a 2 hour meeting about some business thing just before.
So I have to be a Jack of all trades.
Knowing nothing about anything coming in with no, not even a mindset. If I'm booked for a face to face GP appointment.
Walk in there knowing I'm to the GP.
On the way there in my car, I already think about right. What are the likely things that come up if I'm going to a hospital then I know it's the urology department and I have thoughts about what that is. I have preparation of physically walking into the building, the smells, everything else that goes with it.

For remote interpreting, I don't know how much training any of us have had on how that works. Of course, we know the technology now with COVID and everything, but do we actually know how to adapt to Something else every two minutes, and who are the people that do that and who are the people who don't? And are we breeding a new type of interpreter?
That's my $0.05.

SP **Suzanne Pearton-Scale (2105981)** 11:42
OK. M, did you thank you. Did you want to come in?

MD 11:48
Touch on what everyone's really been saying. I think the one massive negative to remote interpreting is that little connection that we make with our with our deaf participants or patients wherever we go. J is completely right. We don't. We're like switching remotely. Yeah, constantly. You could be ordering a pizza, you could be going and telling someone some really bad news.
But I think the one thing that.
The remote can never ever do. Is have that little rapport that we deal with our, with our, with our deaf patients or deaf clients. When you're in that rating room, I've got at least one client I can think of that wants me regularly for his appointments because, you know, he's going through something really quite scary and just having those little chaps in the waiting room for him just makes him feel so much.
Calmer. And you just do not get that Remotely at all, and I think everyone, I think, I think it was A or T because everyone's calling you.
What you said?
Were human job like we're face? We're social.
We're around people all the time. You don't always know. You have to see the body language of the hearing person in the room as well to get what's actually going on and the underlying meaning of what's actually happening. And you can't really get that done remotely.
And even though it's great, we can bang out all these jobs, but it's that little face to face which interpreting has always been A kind of social profession in that sense, we've always had to have a conversation with the deaf person just also so you can get their signing style as well before you like dropped in it. So yeah, that's just it.

SB 13:51

Stuff some to back up J's point about training.

It's an odd one, isn't it? Because you know where we hit COVID and then suddenly, 1200 of us all went online.

Most of us, without any training on how to interpret remotely. I think you know people are working for VRS/VRI, so they're right servicing. You know how to handle it. But most of us didn't. It was a kind of fly by the seat of your pants training experience over the course of a weekend normally.

But then you compare that to Trainee interpreters coming through the qualification system now, where there is an assessment on remote interpreting, but it's completely erroneous because the interpreting assessment is remote Interpreting consecutive with notes.

Which is just not something we ever do ever in real life. But it's the only assessment that is done in terms of the qualification. So you've got newly qualified interpreters coming up to the thing, right? I've passed my remote interpreting assessment and it was done consecutively with a notepad. Like, how is that of any relevance to what we do in real life? I don't think I've ever done any consecutive interpreting in 15 years. An old lady in a GP? That's probably it.

You know, so I think you, you know even now. So you've got 1100 us or whatever come through COVID we've had training because we've learnt how to do it on zoom by ourselves and then you've got trainee interpreters who've done their one consecutive remote interpreting assessment and that's it. So I think there is still a massive training gap for all of us. I think not just about the using the technology and how to deal with the fact that zoom freezes and you get kicked out of teams and teams. Never bloody works. Ever.

But also you know how to manage your signing style when you're in a box, which is this big and you've got deaf person who's you know, kind of doing this. And you know you're trying to get your signing space to be natural. And so all of those other things, stuff that nobody's ever really considered, nobody's ever really had training on that but. Necessary deliver training on it's just something that we've managed to acquire. So I think if in future you know the profession Shift to doing much more stuff which is online because it is available and it's convenient and technology and AI and all of this stuff.

The training needs to back it up but.

Nobody's having that conversation, I don't think. Certainly not in signature about. I can't speak for the universities and the you might be able to speak to that. But you know, where is the training to go from sitting in a room with somebody with a human connection to suddenly in front of the screen, juggling 2 screens and mouse, a keyboard. The fact that the Internet doesn't work and you can't hear anybody, it's all of that, I think.

SP **Suzanne Pearton-Scale (2105981)** 16:52
Thank you, J. I think you are waiting.

J 16:55
And all of that.
I'm building on that.
That waiting room moment that we've all talked about where you do your assessment of signing skills, how much cultural expansion do we need, actually, how much are we making this understandable to that particular client? That's really hard to do when you're in the factory of being a VRI interpreter, you know, and just online next, next, next. But for me the.
Oh, I've forgotten my actual point because that was my pre point and now the actual point has gone but.
Hey, it was. Thank you, S. The training? Yeah, thank you. So training, but also I know you have to have that year three years experience before you can do it. I'm just thinking about.
The assertiveness you need and the confidence that you need in your professional opinion and it's taken me well over 25 years. So I did a job online for a company and oh, I'm in a maternity ward and everyone's waiting because the face to face interpreter hasn't turned up, hasn't been booked. You know, they didn't turn up classic and so suddenly I'm in this maternity room and I'm like, you know, you're assessing this. And then the doc.
The obstetrician just starts talking and I go. No, no, no, no. So it takes a lot to go stop.
What? What is this? What's this about? Just interpret. No, I'm not going to just interpret. I need some context and I need to understand. I need so because they'll just go. Oh, great. We got into now and.

So I think it takes a lot of part of the training, but also that confidence that's taken for years to be able to stand up in front of a judge or stand up in front of solicitors and say no.
I know what I need to do this job to for it to be safe.
And it's easy, I think, for on a remote situation to just kind of go. OK, well, I'll do it because I'm not in the room. I don't know. There's something about that.

AE 19:12

Yeah. Can I just piggyback on to that J? Because my point is very similar. I was thinking about those interpersonal skills.
They're really important for any frontline worker, but I think a very much lacking. I don't know if it's a generational thing or.
I don't know. I'm not going to speculate, but I think I think having the ability to speak to clients, to doctors, anybody in a white coat.
You know, having the ability to do that.
You need to have face to face contact. You need to develop that through face to face contact.
And I think if you start at a very young age in your career.
Online, you're not going to develop that and you're going to get used to this idea that you get dropped into any situation and you have to cope well.
That takes away our power that takes away the importance of why. We're there and what we're supposed to be doing and actually being able to assert your dominance, if you like to say, hang on if you want me to do a good job here, this is what I need.
You know, and just hold on a second and do that in a nice way and to explain that to your clients and you know everything, it's a lot, it's a lot. And I, I just, I don't think I can do that online, which is why I don't work for any of the agencies which are, which are why I don't put myself forward to do that because.
I think I thrive on face to face communication.
You know, I struggle online just in a group like this. As you've seen, I've switched rooms three times I've been in to tell my boy to shut up because he's on Fortnite with his mates.
You know, and I struggle enough in a group of peers. So actually in a real life interpreting situation, I struggle even more, yeah.

SP **Suzanne Pearton-Scale (2105981)** 21:18
Thank you, T I think C was waiting and then JR, if I'm correct.

CW 21:24
Yeah, I was going to say let JR go first. It'd be nice to hear from somebody a lot younger than me first. Then I'll go.

JR 21:31
You can go first, C if you like. I don't mind.
I was just gonna echo what everyone else has said. Yeah, I agree with everything. I think there's a real worry over VRS interpreting becoming the default. And actually I think it's what T and J were saying earlier on. Who is that? Actually, you know, aimed for and who's a better for? Usually it's not got a deaf person in mind, which is a big anxiety, I think.
And I think everyone was just kinda talked about it, but there was kind of interpersonal skills which T just touched upon. Those are things you can't.
Like you can't teach those skills. You have to actually be in a face to face scenario to. Build that confidence up and get assertive.
And yeah, I think I would be void if new interpreters came up just for kind of VRS route, who's teaching those skills to them because you need to be in those GP waiting rooms and you know, not necessarily just, you know, medical scenarios, but you need to have that face to face interaction to be able to build those skills on the just wanted to echo that really.

CW 22:44
And I was just going to say that I think it's so client dependent. So I think we're seeing A new generation of deaf people who are absolutely savvy.
We're going to get AI coming in. We know that it's going to happen in whatever context that's going to appear.
But I do think that there are people who are absolutely happy to have their interpreters helicoptered in. I did a job last week that threw me completely, and when I went to ask what it was about, there's people like don't ask any questions I

was like OK I'm just going to do what I can here and they're absolutely happy with that. Wanted absolute anonymity where they were and so they didn't want any local people. It was kind of like this is really interesting. There is an absolute flip side to lots of the stuff we're saying. As is there always is with interpreting because it's never black and white as we know. But the other thing I think was we've seen so many people that have trained during COVID as well, we've only.
Been practising online and I think we're seeing a little bit of a dearth of
Those soft skills that JR's just been talking about.
And I mean, I would say over the years I've watched some horrific practise of people walking into rooms and now they've managed people deaf and hearing alike or they've gone talk to just the deaf people not talk to hearing people who are in the room. And I've seen some real upsets created by people with really poor soft skills.
So I think we're still at a cusp of how do we train the interpreters Well? to meet so many different settings and be out there.
And I think it's really situation client dependent and I think we're still in a transition stage. It's just enormous.

SP **Suzanne Pearton-Scale (2105981)** 24:34
Thank you. I think A, will have his hand up for a bit. Thanks.

AC 24:38
Yeah, that, I mean, it's quite it's quite a lot going on there, isn't there. But I mean you know, just to pick up on a few things, you know you've got from A, A's experience all the way to the kind of people that C was just talking about and of course deaf people describe a full diaspora. That's what we expect from deaf people. They're incredibly diverse. That's what's wonderful about the community, isn't it? That's one of the great things.
Is that we're going to have tech savvy definitely that crave These services and defy who are typically older or have other aspects going on with them that mean that they can't really avail themselves of these services. But the things that I'm hearing also though are that. The context of that, I think medical and education, you cannot compare. I don't think that they're very, I mean it's highly context dependent what genre you're in. I think with and then some of the things just to pick up that JR and A

have also talked about is it's relying on lots of variables. So everything's got to be right, doesn't it?
The service practitioner has got to be savvy and good and know how to have to do things if they're in a room with a deaf person and they interpreters or more. You know the interpreters going to be tricked, the connection, the Internet connection is going to be good. So there's So what you see is that all these dependencies and variables that need to be there that aren't necessarily needed to be there face to face. And that's what complicates it. That's what makes.
The delivery of these services, the manifestation of them, very hard, it's like communism. It's like a great idea, but really difficult in practise so.
It is. It's sort of. That's what it reminds me of it, but it can work. I've done GP appointments where they've flown perfectly because I've had a great GP,a very savvy and aware and a deaf person with some agency and good technology. So when all those things line up and it's a simple thing, it's not too, you know, you know. You know, you know, breaking somebody's so all those things.
Make all these dependencies Work against the services being rushed or certainly we should argue about They've been rushed out anyway.

SP **Suzanne Pearton-Scale (2105981)** 26:55
Thanks, A. I'm just going to interject at this point.
You guys are doing amazing in making my job really easy. Thank you. But can I try and guide you to think about different settings at this point? We've talked quite a lot about medical settings. So it would be really helpful to carry on with the medical if that's your experience. But if we can get some education.
Kind of experience in there as well. And with education, I'm talking about schools, universities, community courses, whatever, any form of education really.
Thanks. I think M was waiting and possibly H, Thank you.

MD 27:32
Yeah. Actually just on I was going to change to education settings anyway, but on that case, we kind of also need to consider the health of our clients.
In education, who are constantly having looking at interpreter anyway is draining for a deaf person, especially over long periods of time. Combine that with having to look at them on a screen is I can't do it and I'm hearing.

Imagine them having to constantly look an interpreter on a screen.
We already know that they get fatigue from watching the interpreter face to face.
How much worse it will be going through a screen as well, especially when it's lectures that go on for two hours and the lecture is just talking and talking and talking. And there's no real break for them. You know, they're kind of blinking.
They've missed information.
So.
It's like what A said before. Like everything lines up within education. You've got the interpreters, but you have the transcript. Do you have a note taker as well so they can go back and look at it? Is it recorded for them to go back and look at it?
It's all of these things that some people just think, oh, we've booked interpreter, we've done our part. We don't need to do anymore. But actually considering the health of our, of our, of our clients actually having to watch us is it's really.
It's really hard on them. I've I remember having a client who was doing some heavy training and I could see that they were not OK and you know, I it's like I'm switching my camera off my coworker switching theirs on. I don't know what my coworkers do, and if they're paying attention either because I can't see them, they're not in the same space. I can't really communicate with them. It's all these little things that are really.
It's not healthy.
For a deaf person to constantly be doing that, especially when the subject is so content heavy that even me, I would struggle with. So I don't think it's necessarily healthy to have a deaf person staring at a screen for two hours.
While they're trying to learn the same as their hearing peers, essentially.

SP **Suzanne Pearton-Scale (2105981)** 29:57
H, did you want to come in?

HI 29:59
Yeah, I mean just echoing.

SP **Suzanne Pearton-Scale (2105981)** 30:00
Thank you.

HI 30:02

Supporting everything that everyone said, obviously I live in quite a rural area with not many interpreters at all, so pros and cons both ways you get people that want the same face to face interpreter, but also brilliant. I've got access to whoever I want whenever I want, you know it's I can see both sides of it. Education for me is well, I think something that we haven't really talked about is Co working online face to face. And also that you need to go out there and experience it to then be able to do it online, not the coworking, just interpreting in general, but coworking in such a massive thing within education and you've got that check, you've got that back up from a colleague, you haven't got that in a medical setting, particularly a remote setting or any remote VRS VRI service. I think that's quite a big one that you are just left there on your own to do.

I interpret quite regularly within education.

In different settings both online and face to face, and I like to think that the online service that's given is just as accurate, you know, active Co working supportive Co working for me. I'm concerned about my eyes against the screen as well and you know obviously our own health working online as well. I've got a stand up desk so I can move up and down. So if that's you know something that I've chosen to do for my own health and movement. So I feel, yeah.

There's lots to it and thank you for opening the kind of worms.

SP **Suzanne Pearton-Scale (2105981)** 31:34

J, I think you were next.

J 31:39

Classic I want to say one thing and then A comes out with some golden Nuggets and then H does and I want to respond to them all and I can't because my menopausal brain will let me. But I'll give it a go.

So the Co working thing. Yeah, I find that online more likely. Just turn the camera off, go and have a cup of tea. Kind of Co worker emerges.

So Co working doesn't always happen that effectively online unless you are your regulars and you know each other. And it's, I don't know that there's that

relationship there and an expectation and how do you have those conversations before I've been called in to do a job and we haven't got time to establish how We can support each other, and it's normally I haven't got an ego, nor have I just step in yay 15. Great. Let's go. And that's the Co working brief.
No debriefing.
But A, you were talking earlier about when everything comes together and everything aligns. It's brilliant and I agree there have been loads of jobs, medical education where that happens. Giving a Welsh context now.
There is. There is nothing that aligns there isn't, like I. I don't even know the state of online interpreting in hospitals. I don't think it just doesn't happen. I don't. Does it happen that often? I don't know. techno hear it's like in Wales nothing is joined up. So I can't trust that that would happen anyway. I don't trust that the staff know that there is an online. Let alone face to face Interpreter available, so I think there's a lot of work to be done.
And.
I feel that so for example I did a GP appointments for a regular going for a Med review ended up seeing her kneecap JR. You're going to smile. You know I'm on about like, oh, OK. Wasn't expecting to see your kneecap. Hello. 8 hours later. I'm still in the GP waiting for the ambulance. No, they're not going to come. So then we're off to A&E.
And all of that now I if the NHS in Wales was trustworthy to be aligned.
The online interpreter you know you can't go. Yeah, by and you'd hope that then there would be another online insert or an insert to take over later. But who's going to be with that deaf person while they're lying there in the GP waiting for the ambulance of those stuff. The alignment doesn't work. The NHS in Wales is not able to cope. I don't think with the force that you can tell them. Can you please do this? And you know, it's not going to happen. I'm. I'm not being cynical, am I? It's just the standard. I'm sure it's.
Probably the same in other regions of the UK.
So things that's why I'm a bit like AAAHHH. about the online stuff, even though it's megaly important for that last minute stuff.
That's just my experience really.

SP **Suzanne Pearton-Scale (2105981)** 34:39
Thank you. I'm not sure if it was A or T. Next, go ahead.
Whoever wants to jump in.

AE 34:44
A.

AC 34:45
Just a really short one, just to kind of go off the back. What J was saying there. About deaf people's was awareness of the service in Scotland. It's very different because I don't know if you're aware. In Scotland, the Scottish Government just provides contact Scotland 24/7. That's it. If you're a Scottish deaf person, you can call anybody you like. You can call your family. You can call private businesses. You can call the government. They don't care. It's a free service for everybody 24/7. So it's great. So. And like I said earlier, communism sounds great in practise, but it sounds great but doesn't work in practise. So it's not a perfect service.
But it does help.
When services are well known to the community, so the Scottish deaf community is well aware of contact Scotland because of all the work that went on with the Scottish Parliamentary officer and the Scottish Government officer because they've got people. So this is systemic stuff. So I think just to go piggyback on what other people have said, it's not about what's going on in the context, what it is, but it's also about what surrounds it. All the systems that surround it and the willingness, the awareness, the, the ability of these services to be deaf, aware and interpreter aware
It doesn't sound great in Wales, it's I'm not going to try and pay it. It's not a rosy picture up here. I'm at all by any stretch of the imagination. But having a free service. Responds to some of the points that are made earlier about, you know, deaf people shouldn't pay for the service. They shouldn't be paying for this. This this if they. If they do, that's a disgrace.

AE 36:17
Thanks, A. Can I can I ask more of a question really.

Link to education or health. I mean, I've never been a fan myself of regular work. I'm not a I'm not a big kind of, you know, every Tuesday I'm with this person every Monday and with that person, I've never really got into it. But even though, you know when you live in an area for a long time, you do end up working with people. You end up knowing people, you know, the deaf community.
You know, you know what Mrs. Jones likes? You know how she presents and stuff like that. So the question is.
If you are doing a job online, do you get that regular work? I don't know how it works so if you're in education, for example, might you be working with a student for a lecture throughout his whole course? His or her whole course? Or is it likely to be different into a pre each time and the reason I'm asking that is?
How as interpreters do we know People's norms? So when I turn up with Mr. Jones at the hospital for his regular blood test.
If he walks in and he's incredibly quiet and you know the staff saying, oh, you know, he doesn't seem very talkative, am I able to say, yeah, that that's actually how he is normally, it's OK. It's nothing to worry about or do I know him well enough to say. Yeah, that's very unusual, actually, you know.
Maybe it's worth checking to see if he's OK and by the same with education with students. You know, when we were talking about the welfare and the well-being of students, we have a duty.
As it does, who were there members of the staff who were there? If we're spotting people who in decline in health wise or health wise, do we know people's norms?

SP **Suzanne Pearton-Scale (2105981)** 38:30
Thanks, T. He's breaking up a bit for me. I don't know if it's just my computer. Yeah, OK. I think it was. I we got the most of it. Thanks T. I think it was J. And then S had their hands up. Thank you.

JK 38:42
Yeah, I think a lot of that, what T just said also comes back again to what C said before, who or is our audience who are our clients.
We can all think of deaf professionals who literally tell me what they said. I don't have to do any of the I want to use the international explain thing.

We don't have to, like, go around the houses and all of that and stretch things out just because.
And that not the kind of people that maybe are coming through now as well with better education potentially we don't, I don't know what the next generation is. I haven't met any deaf kids raised recently, but.
For that, I think it's one issue. So how do we need to adapt to maybe a different generation or a different kind, you know 20-30 years ago maybe we didn't have as many PhD holders as we do now.
At a conference, maybe they don't actually want to see us. When I interpret for a student which I currently do, and I tend to tell that student that he they have the same right to be a student than any other student. So if they want to look away and not pay attention to me, that's perfectly fine. That's not my problem. Like they have to then catch up. Of course, that's also not my problem because they won't be catching them up. But you know, they're missing information that that's their responsibility, not mine.
So.
Where is our remit and then, you know, if we look at our spoken language colleagues, none of them have any of those considerations of we need to build a relationship with our clients. We need to prepare for something. When you ring any language line or something and you want a German interpreter, they'll they have nothing they have. They don't even have a qualification. So I speak German and I could work for language line right now.
Now speaking German and being an interpreter, being paid 19 pence an hour per minute. As far as I know.
So then that brings us to quality.
So do we actually know whether the quality of interpreting is any better or worse when it's online or when it's, you know, we're talking about, we need more training, but the training can only come from the research and from evidence. And we don't have an evidence base about, I don't know. I'm looking at A because I don't know that there is any research so far saying.
This is what we have or don't have. I'm not aware of anything.
And then.
Also, is there a difference between? I know this online lecture for psychology or computer science is happening and I'm prepared for it and I have the slides beforehand or here is the vRS telephone call and I'm in a meeting or I'm in a GP

appointment and I know nothing about that is that is that different?
In terms of quality.

SP **Suzanne Pearton-Scale (2105981)** 41:52
Thank you, J. Really interesting point. S did you have a hand up for next?

SB 41:56
Yeah. Just like I'll take it back. I'm like a couple of things really, so.
We talked about kind of relationships and norms and particularly I think online education interpreting, you're lucky if you've seen the deaf person at all, you know, because like any other student, particularly young ones, cameras are off, you know, so you're signing to the ether on a dodgy Internet connection.
Not knowing who you're signing to, what their languages is like if you're doing a cultural expansion, do they do they do that do that? Is that what they want or do they want it more SSE?
I think for me, I actively avoid doing online education work because it just.
It's just so incredibly difficult and like it's not the kind of I find it soul destroying and it's I would not take that work on actively because.
There's hundreds of other people out there that need that kind of on that kind of face to face contact who need those kind of cultural expansions and interpreters who can work with them in a cultural way versus me signing through a grey screen. So I, you know, just.
You know, as a thing, I just, I will actively avoid doing education online interpreting because it's just soul destroying.
Going back to think about quality and training.
I work with somebody on a regular semi regular basis.
Where for example, I'll be the kind of booked online interpreter, and then occasionally they'll bring in a VRI/VRS service as the coworker.
That deaf person has regularly thrown out the VRIVRS interpreter because they've just been of shocking quality, appalling coworking skills.
Disrupting the meeting.
One for example, doing some DIY while their camera was on.
You know, to the point where even the hearing participants were getting.
You know, upset. And you know what? The basically what? Basically, what the Hell's

going on here?
So you know, it feels like the behaviours of some, not all.
Online remote interpreters.
Is markedly different to the kind of behaviours you would do in real life, and for some reason, because you're behind a screen, well, you can. You can do all these weird and wonderful things like building a desk while you're waiting, or you know, or doing it, rushing off for a cup of tea because you're behind the screen. Therefore it doesn't matter. And I think you know, that's all to do with relationships and the distance. I think that a screen will create.
In terms of.
Your service provision.
So yeah, so that's just something I've anecdote, you know, then J's looking for research, data and evidence. Anecdotally, I've sat here in this room and watched people being thrown out of an online meeting because their Co worker behaviours have been shocking. So yeah, a little bit of data for you.

SP **Suzanne Pearton-Scale (2105981)** 45:01
OK C, I think you've got your hand up next. Oh, sorry. Was there someone else?

SP **Suzanne Pearton-Scale (2105981)** 45:07
M. Yeah. Oh, M. Sorry.

MD 45:11
No, I just really wanted to pose a question to everyone and I don't know if everyone's noticed it, but I feel like in particular in education.
It kind of feels like the interpreter takes on more of a responsibility for a deaf person's access then they, the lecturer at the at the actual university or whatever institution that they're at.
And I notice that it happens more remotely than it does face to face, because that relationship they're not, they're not actively talking to the deaf person.
And they're not seeing them face to face. So I just wondered, because I've had been in this scenario when I've worked face to face with the student once and then we

were remote for a few sessions and in the remote session.
The.
Deaf person ended up having a seizure.
He was home alone and the lecturer just looked at me. Like, do you have his family's contact number? And I was like.
No, because you're the you had that information. I don't. And it kind of feels like I see it more often that as soon as it becomes remote, I'm now primarily responsible for that person's access and also health and safety.
He was fine. He was fine. He got out of the seizure.
At that moment, I was and funny enough, my coworker had wandered off. Their screen was off. They didn't turn the camera back on, so I knew that they wasn't there, and it was kind of that moment that I was like.
It just feels like there's some sort of disconnect when you go remote that is down to us to do everything. And I'm just wondering if you guys have had that experience where you're kind of like there you go and it's kind of that relationship.

J 47:18
I think in real life, I think that happened to me more in real life, to be honest. Like, are you their mother? Rude. I'm only 10 years older than them, but you know, but it is. I find it in real life that happened to me more than remote. I don't know about anyone else.

CW 47:38
I just. I know I'm really aware of time as well. Suzanne. I know you haven't got a lot left, but I was just thinking about this whole thing about throwing people off of off screen. I think there's also changing attitudes. So we know with social media, people say things without thinking about it and they put stuff out on Facebook without thinking. I also think it is getting easier to press a switch and kick people off. And I think I wonder whether all our soft skills are starting to Go. I think this might be a sort of Cultural shift and the social shift a societal shift. So instead of challenging poor practise in the room, we've all seen poorl practise in the room from Co workers. We've all seen interpreters turn up shoddily dressed. We've all seen people arrive late. We know we've all done this in face to face so, but it's easier on screen to say I'm throwing them out the room. I'm not going to work with them.

If they're in the room, we know there's very few times that people be thrown out of the room. They'd be tolerated, maybe challenged at the end.
And taken aside by Co worker by deaf person whatever. But I think you know, to just throw it all on VRS and VRI and say that's it's because of this is wrong. I think it's a. There's a lot of other stuff going on here as well.

SP **Suzanne Pearton-Scale (2105981)** 48:58
Thanks C. Yeah, thank you for reminding me of the time. We literally have a couple of minutes left. So I don't know if anybody wants to kind of like have a wrap up point key point. They want to get across in this last few minutes. I'd appreciate that. Go ahead. Anyone, J you've got your little finger there.

J 49:12
Just. Yeah, just.
Just very quickly, it just makes me think of, you know, old demands and control in EIPI and all the basics. And so I interpret for in education, but for a deaf lecturer in spoken English, and it would..., those interpersonal moments of finding it difficult face to face because you've got a lecture room full of 100 people and you've got the mic and you're like AAAHHH
Then, equally the other interpersonal.
Demand of oh, my God, I'm online and everyone's got the camera off all the students they mentioned earlier and. Am I still at doing this in an entertaining Manner?, do you know what I mean? Am I? Is anyone listening? And then all these little things going on, so it there's a lot of interpersonal stuff that can go on depending on yourself and depending on, on, on, on that affects our performance I would say.
And that's it from me. Mike, drop.

AE 50:19
I and I think that is a nice 'sum up. I think that comes back to the 2D nature of the online work is that flat screen to flat screen and not taken into account. All the other people around the screen and getting the that feedback from them. The facial expressions, the feel for the room, you can't read room if you're in it.

SP **Suzanne Pearton-Scale (2105981)** 50:45

Yeah. Thanks T. Anybody else would like to say if their final point before I wrap up things.

Yeah, we'll get. Thank you so much. I'm going to I'm going to wrap it up then. Perfect timing, everyone. I just want to say thank you so much. I really appreciate you giving up an hour of your time. I know how pressure it precious it is to everyone and how lovely to have such a diverse group as well from different parts of the UK. It was really, really useful. That's one of the key things I noticed. Getting different experiences from the different parts of the UK and what's going on in each region is really interesting and you've all raised.

Really interesting points and for my study, I hope this will be really useful. So thank you so much and you should may hear from me very shortly. Thank you so much for your time everyone. Thank you. Good night. Good evening.

SJ **Stuart Jones** 51:32

Thank you. I'm going to, I'm going to press stop the recording now. Then is there any other questions about anything?

Excellent. I just stopped recording it.

SP **Suzanne Pearton-Scale (2105981)** 51:42

OK.

◉ **Stuart Jones** stopped transcription

Familiarisation notes

The initial views

- Remote in healthcare is good for rural area
- Remote in HC is good if no interpreter available
- Quick access in an emergency
- remote interpreting can improve healthcare access.
- accessibility challenges and social isolation.
- efficiency in access to healthcare.
- remote interpreting can improve accessibility in underserved areas.
- accessibility gaps in healthcare services (regional differences)
- financial accessibility of interpreting services.
- human element in interpreters' work-life balance.
- loss of human interaction due to remote services.
- in-person communication offers a richer human connection.
- loss of depth and personal connection in remote interpreting.
- remote interpreting lacks interpersonal connection.
- importance of human presence in emotional or sensitive situations.
- casual human interactions are important for community and support.
- the unique value of human rapport.
- importance of physical presence for full communication
- interpersonal nature of interpreting.
- the necessity of human connection.
- remote work diminishes the ability to establish professional presence and connection.
- the shift away from in-person work may erode interpersonal abilities.
- logistical challenges in professional interpreting
- need for ongoing professional development.
- Training gaps in remote interpreting
- New interpreters need VRI interpreting
- Co-working challenges online
- Lack of non-verbal cues online
- Difficulty in supporting co-workers as efficiently when remote
- Training needed in technology
- Technological challenges
- Rapid shift during COVID to remote
- 2D nature of remote work
- Losing soft skills when online
- Access varies across regions
- 3D nature of BSL interpreting
- Blurring of responsibilities when remote interpreting education

Step 2 – Generate initial codes (with line numbers)

17 - access them almost instantly.
20 - interpreter when a face to face hasn't either been booked
23 - A lot of medical appointments that the Internet's not great.
32 - Availability. Via remote interpreting. Great.
37 - do remote interpreting and they fit it around their personal life, their family lives,
42- And so as more and more interpreters do remote interpreting, there is less actual, you know, interpreting hours available in the community where it's actually arguably needed much more in terms of just, you know, human contact and

44 - sign language interpreting is 3D

45 - suddenly it's flat and 2D it that remote element… some respects just an incredibly difficult.
54 - So the access for the admittedly few deaf people that live in the Highlands and Islands is not a massive population, but it's a very valuable service and a lifeline,

58 - I've done some interpret GP appointments remotely and I found that as long as you know, as long as the appointment is generally straightforward and you have a good GP …So I've had a lot of successful GP appointments remotely
74 - but I do have a concern that I quite often see that deaf people themselves are paying for it and not the service provider that annoys me.

85 - only 2D in the sense of a flat screen, it's two-dimensional in the sense of when interpreting on screen, you don't have that personal connection with the other people in the room

93 - the online interpreting is great as a last resort.

100 - Not because it's better.
And until it's better, I don't think it's something that we should be encouraging and growing

106 - older generation deaf people.
I quite often find that the minute you bring out the tech, bam, no

110 - in those life and death situations, if my mum's in that A&E, I'll have a remote interpreter

117 - Human side, particularly around bad news, difficult news

121 - deaf people being so isolated, particularly in rural or even in cities, you know now, deaf people just be more isolated from each other. I think it's just that just a cup of tea and that chat in the waiting room and all those things that provide other signposting opportunities.

137 - who is it better for? For us or for our clients

138 - 82% of women interpreters with caring responsibilities in a part time job, it's likely better that they can have all of their interpreting between 9:00 and 3:00, for example.
144 – remote - I could have 20 GP appointments in a day.
146 - If I try and do that face to face currently.
The local hospital from where I live is 11 miles away. It takes me 1 1/2 hours to get there in the morning.
154 - training and about our ability to adapt.

159 - Knowing nothing about anything coming in with no, not even a mindset. If I'm booked for a face to face GP appointment.(remote)

161 - On the way there in my car, I already think about right. What are the likely things that come up if I'm going to a hospital then I know it's the urology department and I have thoughts about what that is. I have preparation of physically walking into the building, the smells, everything else that goes with it.
(face to face)

169 - And are we breeding a new type of interpreter?
176 - negative to remote interpreting is that little connection that we make with our with our deaf participants or patients wherever we go
178 - We're like switching remotely. Yeah, constantly. You could be ordering a pizza, you could be going and telling someone some really bad news.
181- the one thing that.
The remote can never ever do. Is have that little rapport that we deal with our, with our, with our deaf patients or deaf clients

191- You have to see the body language of the hearing person in the room as well to get what's actually going on and the underlying meaning of what's actually happening. And you can't really get that done remotely.
196 - social profession in that sense, we've always had to have a conversation with the deaf person just also so you can get their signing style as well before you like dropped in
202 – during COVID… suddenly, 1200 of us all went online.
Most of us, without any training on how to interpret remotely
208 - Trainee interpreters coming through the qualification system now, where there is an assessment on remote interpreting, but it's completely erroneous because the interpreting assessment is remote Interpreting consecutive with notes.
Which is just not something we ever do ever in real life.
222 – there is a massive training gap for all of us. I think not just about the using the technology
225 - manage your signing style when you're in a box, which is this big and you've got deaf person who's you know, kind of doing this. And you know you're trying to get your signing

space to be natural. And so all of those other things, stuff that nobody's ever really considered, nobody's ever really had training on that

236 - where is the training to go from sitting in a room with somebody with a human connection to suddenly in front of the screen, juggling 2 screens and mouse, a keyboard.

257 - assertiveness you need and the confidence that you need (remote)
272 - it's easy, I think, for on a remote situation to just kind of go. OK, well, I'll do it because I'm not in the room.
283 - need to have face to face contact (interpersonal skills)
288 - takes away our power that takes away the importance of why. We're there and what we're supposed to be doing and actually being able to assert your dominance, if you like to say, hang on if you want me to do a good job here, this is what I need.
296 - I thrive on face to face communication
313 - real worry over VRS interpreting becoming the default

324 - need to have that face to face interaction to be able to build those skills on(interpersonal skills)
330 – there is a generation of deaf people who are absolutely savvy (tech)
331 - We're going to get AI coming in.
337 - Wanted absolute anonymity where they were and so they didn't want any local people.
342 - seeing a little bit of a dearth of Those soft skills
348 - how do we train the interpreters Well? to meet so many different settings and be out there.
350- really situation client dependent and I think we're still in a transition stage.

361 - deaf people. They're incredibly diverse. That's what's wonderful about the community, isn't it?
368 - highly context dependent what genre you're in.
372 - service practitioner has got to be savvy and good and know how to have to do things if they're in a room with a deaf person and they interpreters or more. You know the interpreters going to be tricked, the connection, the Internet connection is going to be good.
382 - I've done GP appointments where they've flown perfectly because I've had a great GP,a very savvy and aware and a deaf person with some agency and good technology.
401 - In education, who are constantly having looking at interpreter anyway is draining for a deaf person, especially over long periods of time. Combine that with having to look at them on a screen is I can't do it and I'm hearing.
Imagine them having to constantly look an interpreter on a screen.
405 – Deaf people get fatigue from watching the interpreter face to face. How much worse it will be going through a screen as well, especially when it's lectures that go on for two hours
415 - considering the health of our, of our, of our clients actually having to watch us is it's really.It's really hard on them.

426 - I don't think it's necessarily healthy to have a deaf person staring at a screen for two hours
440 - rural area with not many interpreters at all…I've got access to whoever I want whenever I want
445 - coworking in such a massive thing within education and you've got that check, you've got that back up from a colleague,
450 - I interpret quite regularly within education…I like to think that the online service that's given is just as accurate
453 - I'm concerned about my eyes against the screen
468 - Co working doesn't always happen that effectively online unless you are your regulars and you know each other
471 - haven't got time to establish how We can support each other (remote co-working)
474 - No debriefing (remote co-working/interpreting)
477 - Welsh context now.There is nothing that aligns there isn't, like I. I don't even know the state of online interpreting in hospitals.
481 - I don't trust that the staff know that there is an online. Let alone face to face Interpreter available, so I think there's a lot of work to be done (wales)
494 - The NHS in Wales is not able to cope.(with multiple interpreting modes)499 - even though it's megaly important for that last minute stuff (remote)
513 - deaf people's was awareness of the service in Scotland. ..In Scotland, the Scottish Government just provides contact Scotland 24/7.
517 - It's a free service for everybody 24/7. So it's great (contact Scotland)
529 - But having a free service…deaf people shouldn't pay for the service. They shouldn't be paying for this. This this if they. If they do, that's a disgrace.
543 - doing a job online, do you get that regular work (regular clients?)
556 - If we're spotting people who in decline in health wise or health wise, do we know people's norms? (with regular clients)
575 - So how do we need to adapt to maybe a different generation
587 - considerations of we need to build a relationship with our clients. We need to prepare for something
595 - So do we actually know whether the quality of interpreting is any better or worse when it's online
596 - we need more training, but the training can only come from the research and from evidence
603 - I'm prepared for it and I have the slides beforehand or here is the vRS telephone call and I'm in a meeting or I'm in a GP appointment and I know nothing about that is that is that different? In terms of quality.
615 - students, particularly young ones, have cameras off, you know, so you're signing to the ether

617 - Not knowing who you're signing to, what their languages is like if you're doing a cultural expansion,
620 - I actively avoid doing online education work because it just.
It's just so incredibly difficult and like it's not the kind of I find it soul destroying
627 - education online interpreting because it's just soul destroying.
633 - VRIVRS interpreter because they've just been of shocking quality, appalling coworking skills.

640 - it feels like the behaviours of some, not all.
Online remote interpreters. Is markedly different to the kind of behaviours you would do in real life,

664 - I feel like in particular in education.
It kind of feels like the interpreter takes on more of a responsibility for a deaf person's access
668 - I notice that it happens more remotely than it does face to face, because that relationship they're not, they're not actively talking to the deaf person.
And they're not seeing them face to face
681 - my coworker had wandered off. Their screen was off. They didn't turn the camera back on
689 - I think in real life, I think that happened to me more in real life, to be honest. Like, are you their mother?
699 0 I also think it is getting easier to press a switch and kick people off. And I think I wonder whether all our soft skills are starting to Go (remote interpreting)… If they're in the room, we know there's very few times that people be thrown out of the room
723 - finding it difficult face to face because you've got a lecture room full of 100 people and you've got the mic and you're like AAAHHH
726 - my God, I'm online and everyone's got the camera off all the students they mentioned earlier….Is anyone listening?

734 - the 2D nature of the online work is that flat screen to flat screen and not taken into account. All the other people around the screen and getting the that feedback from them. The facial expressions, the feel for the room, you can't read room if you're in it.

Step 3/4 Search for themes and sub-themes, review

THEMES

Accessibility

17 – "Access them almost instantly."
32 – "Availability. Via remote interpreting. Great."
37 - do remote interpreting and they fit it around their personal life, their family lives,
54 – "So the access for the admittedly few deaf people that live in the Highlands and Islands is not a massive population, but it's a very valuable service and a lifeline."
58 – "I've done some interpret GP appointments remotely and I found that as long as you know, as long as the appointment is generally straightforward and you have a good GP …So I've had a lot of successful GP appointments remotely."
121 – "Deaf people being so isolated, particularly in rural or even in cities, you know now, deaf people just be more isolated from each other."
144 – "Remote - I could have 20 GP appointments in a day."
440 – "Rural area with not many interpreters at all…I've got access to whoever I want whenever I want."
494 – "The NHS in Wales is not able to cope (with multiple interpreting modes)."
517 – "It's a free service for everybody 24/7. So it's great (contact Scotland)."
529 – "Deaf people shouldn't pay for the service. They shouldn't be paying for this. This this if they. If they do, that's a disgrace."

Human Connection

37 – "Do remote interpreting and they fit it around their personal life, their family lives."
42 – "And so as more and more interpreters do remote interpreting, there is less actual, you know, interpreting hours available in the community where it's actually arguably needed much more in terms of just, you know, human contact."
44 – "Sign language interpreting is 3D."
45 – "Suddenly it's flat and 2D... some respects just an incredibly difficult."
85 – "Only 2D in the sense of a flat screen, it's two-dimensional in the sense of when interpreting on screen, you don't have that personal connection with the other people in the room."
117 – "Human side, particularly around bad news, difficult news."
121 – "Deaf people being so isolated, particularly in rural or even in cities... just a cup of tea and that chat in the waiting room and all those things that provide other signposting opportunities."
181 – "The one thing that the remote can never ever do is have that little rapport that we deal with our, with our, with our deaf patients or deaf clients."
191 – "You have to see the body language of the hearing person in the room as well to get what's actually going on and the underlying meaning of what's actually happening. And you can't really get that done remotely."

196 – “A social profession in that sense, we've always had to have a conversation with the deaf person just also so you can get their signing style as well before you like dropped in."
283 – “Need to have face-to-face contact."
288 – “Takes away our power that takes away the importance of why. We're there and what we're supposed to be doing and actually being able to assert your dominance, if you like to say, hang on if you want me to do a good job here, this is what I need."
296 – “I thrive on face-to-face communication."
324 – “Need to have that face-to-face interaction to be able to build those skills on (interpersonal skills)."
342 – “Seeing a little bit of a dearth of those soft skills."
587 – “We need to build a relationship with our clients."
734 – “The 2D nature of the online work is that flat screen to flat screen and not taken into account. All the other people around the screen and getting the feedback from them. The facial expressions, the feel for the room, you can't read room if you're in it."

Professional Practice

100 – Not because it's better. And until it's better, I don't think it's something that we should be encouraging and growing.
179 – We're like switching remotely. Yeah, constantly. You could be ordering a pizza, you could be going and telling someone some really bad news.
283 – Need to have face-to-face contact (interpersonal skills).
288 – Takes away our power, that takes away the importance of why we're there and what we're supposed to be doing and actually being able to assert your dominance, if you like, to say, hang on, if you want me to do a good job here, this is what I need.
296 – I thrive on face-to-face communication.
318 – Real worry over VRS interpreting becoming the default.
446 – Coworking in such a massive thing within education and you've got that check, you've got that backup from a colleague.
468 – Co-working doesn't always happen that effectively online unless you are your regulars and you know each other.
472 – Haven't got time to establish how we can support each other (remote co-working).
474 – No debriefing (remote co-working/interpreting).
595 – So do we actually know whether the quality of interpreting is any better or worse when it's online?
603 – I'm prepared for it and I have the slides beforehand or here is the VRS telephone call and I'm in a meeting or I'm in a GP appointment and I know nothing about that. Is that different? In terms of quality.
615 – Students, particularly young ones, have cameras off, you know, so you're signing to the ether.
633 – VRIVRS interpreter because they've just been of shocking quality, appalling coworking skills.
634 – VRIVRS interpreter because they've just been of shocking quality, appalling

coworking skills.
640 – It feels like the behaviours of some, not all, online remote interpreters is markedly different to the kind of behaviours you would do in real life.
681 – My coworker had wandered off. Their screen was off. They didn't turn the camera back on.

Training and Development

23 – "A lot of medical appointments that the Internet's not great."
73 – "But I do have a concern that I quite often see that deaf people themselves are paying for it and not the service provider that annoys me."
106 – "Older generation deaf people. I quite often find that the minute you bring out the tech, bam, no."
110 – "In those life and death situations, if my mum's in that A&E, I'll have a remote interpreter."
117 – "Human side, particularly around bad news, difficult news."
151 – "On the way there in my car, I already think about right. What are the likely things that come up if I'm going to a hospital then I know it's the urology department and I have thoughts about what that is. I have preparation of physically walking into the building, the smells, everything else that goes with it."
154 – "Training and about our ability to adapt."
165 – "Knowing nothing about anything coming in with no, not even a mindset. If I'm booked for a face to face GP appointment."
169 – "And are we breeding a new type of interpreter?"
203 – "During COVID… suddenly, 1200 of us all went online."
208 – "Trainee interpreters coming through the qualification system now, where there is an assessment on remote interpreting, but it's completely erroneous because the interpreting assessment is remote interpreting consecutive with notes. Which is just not something we ever do ever in real life."
222 – "There is a massive training gap for all of us. I think not just about the using the technology."
228 – "Manage your signing style when you're in a box, which is this big and you've got a deaf person who's you know, kind of doing this. And you know you're trying to get your signing space to be natural. And so all of those other things, stuff that nobody's ever really considered, nobody's ever really had training on that."
236 – "Where is the training to go from sitting in a room with somebody with a human connection to suddenly in front of the screen, juggling 2 screens and mouse, a keyboard."
237 – "We have to be able to take into account the fact that interpreting has always been such a face to face thing."
248 – "I think it's not a right and that's the other thing that I think a lot of people don't think about."
331 – "We're going to get AI coming in."
348 – "How do we train the interpreters well? To meet so many different settings and be out there."

350 – "Really situation client dependent and I think we're still in a transition stage."
361 – "Deaf people. They're incredibly diverse. That's what's wonderful about the community, isn't it?"
500 – "Even though it's mega important for that last minute stuff (remote)."
574 – "So how do we need to adapt to maybe a different generation."
587 – "We need to build a relationship with our clients."
596 – "We need more training, but the training can only come from the research and from evidence."
699 – "I also think it is getting easier to press a switch and kick people off. And I think I wonder whether all our soft skills are starting to go (remote interpreting)."

SUBTHEMES

Accessibility

- **Convenience**: 17, 20, 32, 52, 54, 231, 440, 517
- **Productivity**: 25, 52, 146

Human Connection

- **Isolation/Connection**: 43, 86, 121, 176, 182, 313, 324
- **Non-verbal Communication**: 44, 45, 192, 377, 737

Professional Practice

- **Co-working Challenges**: 446, 468, 472, 474, 634, 640, 681
- **Quality of Information Transfer**: 100, 595, 603, 615, 633
- **Interpersonal Dynamics**: 179, 283, 288, 296, 318
-

Training and Development

- **Training Gaps**: 154, 165, 169, 203, 208, 222, 228, 236, 348, 350, 596
- **Technology**: 23, 73, 151, 237, 331, 500
- **Socio-cultural Dynamics**: 106, 110, 117, 361, 574, 587, 699

Step 5 – Define the themes

Accessibility:

- Accessibility refers to the ease with which individuals can access services, resources, or information, particularly in the context of inclusive communication. It emphasises removing barriers (e.g., physical, technological, or social) to ensure that everyone, including those with disabilities, can fully participate and engage.
- In BSL interpreting, accessibility refers to the ability of deaf individuals to access vital services, information, and communication through sign language interpretation. It involves ensuring that deaf people can fully participate in various aspects of society, such as healthcare, education, and employment, by providing effective and timely interpretation services.

Human Connection:

- Human connection focuses on the interpersonal relationships and communication that foster understanding, empathy, and support. It highlights the importance of personal engagement, emotional awareness, and the need for genuine interaction in professional and social contexts.
- For BSL interpreters, human connection highlights the importance of personal interaction in the interpreting process. It involves building rapport and understanding between the interpreter, the deaf individual, and the hearing person. Effective human connection ensures accurate communication, especially in emotionally charged situations (e.g., medical consultations), where empathy, trust, and emotional intelligence play significant roles.

Professional Practice:

- Professional practice refers to the standards, behaviors, and ethical guidelines that govern how individuals carry out their work in a particular field. It involves applying expertise, maintaining integrity, and ensuring competence in performing job-related tasks while adhering to industry norms and expectations.
- Professional practice in BSL interpreting refers to the standards and ethical guidelines that interpreters must follow to provide accurate, impartial, and respectful communication. It involves ongoing development of interpreting skills, adhering to codes of conduct, and maintaining professionalism, particularly in challenging or sensitive environments. It also includes understanding the nuances of deaf culture and respecting confidentiality and integrity.

Training and Development:

- Training and development refers to the continuous process of improving skills, knowledge, and abilities through learning opportunities, workshops, and practical experiences. It aims to enhance individual and organizational performance, ensuring that professionals stay current with evolving practices, technologies, and standards in their field.
- In the context of BSL interpreting, training and development refer to the ongoing education and skill-building needed to keep interpreters up-to-date with the evolving

demands of the profession. This includes training on new technologies, adapting to remote interpreting methods, and enhancing cultural competence. Continuous development ensures interpreters are equipped to handle complex, real-time interpretations and can maintain high standards of service.

Appendix C – DIBQSLIUK

Demographic questions

Age	18-30	31-40	41-50	51-60	60+
Gender	Male	Female	Non-binary	Prefer not to say	
BSL interpreter status	Register Sign Language Interpreter (RSLI)	Trainee Sign Language Interpreter (TSLI)			
Region	Wales	England	Scotland	Northern Ireland	Republic of Ireland

Face to face/Remote working patterns
On an average week, what percentage of your interpreting:

	0-20%	21-40%	41-60%	61-80%	81-100%	
Face to face						
Remote						

Work environment working patterns
On an average week, what percentage of your interpreting is in the following settings:

	0-20%	21-40%	41-60%	61-80%	81-100%	
Healthcare						
Education						

Determinants of Implementation Behaviour Questionnaire (DIBQ) for Sign Language Interpreters (UK)

Describe your feelings and behaviours working as a sign language interpreter over the past week:

	Strongly disagree 1	**Disagree 2**	**Neither agree nor disagree 3**	**Agree 4**	**Strongly agree 5**
SELF-EFFICACY					
I am confident that I can interpret remotely as well as I can onsite					
I am confident that I can interpret remotely even when other sign language interpreters are not confident					
SKILLS	**Strongly disagree 1**	**Disagree 2**	**Neither agree nor disagree 3**	**Agree 4**	**Strongly agree 5**

I am practised in working FACE TO FACE					
I am practised in working REMOTELY					
I have the skills to work FACE TO FACE					
I have the skills to work REMOTELY					
SOCIAL SUPPORT	**Strongly disagree 1**	**Disagree 2**	**Neither agree nor disagree 3**	**Agree 4**	**Strongly agree 5**
I can count on support from other SLIs who work FACE TO FACE when working FACE TO FACE gets tough					
I can count on support from other SLIs who work REMOTELY when working REMOTELY gets tough					
Sign language interpreters who also work FACE TO FACE are willing to listen to my problems with delivering interpreting services FACE TO FACE					
Sign language interpreters who also work REMOTELY are willing to listen to my problems with delivering interpreting services REMOTELY					
Sign language interpreters who also work FACE TO FACE are helpful with delivering interpreting services FACE TO FACE					
Sign language interpreters who also work REMOTELY are helpful with delivering interpreting services REMOTELY					

ATTITUDE	**Not useful at all 1**	**Not useful 2**	**Neither useful nor not useful 3**	**Useful 4**	**Very useful 5**
For me, working FACE TO FACE is					
For me, working REMOTELY is					
	Not worthwhile at all 1	**Not worthwhile 2**	**Neither worthwhile nor not worthwhile 3**	**Worthwhile 4**	**Very worthwhile 5**
For me, working FACE TO FACE is					
For me, working REMOTELY is					
	Not pleasurable at all 1	**Not pleasurable 2**	**Neither pleasurable nor not pleasurable 3**	**Pleasurable 4**	**Very pleasurable 5**
For me, working FACE TO FACE is					
For me, working REMOTELY is					
	Not interesting at all 1	**Not interesting 2**	**Neither interesting nor not interesting 3**	**Interesting 4**	**Very interesting 5**
For me, working FACE TO FACE is					
For me, working REMOTELY is					
EMOTIONS					
When I work FACE TO FACE in I feel:					
Nervous					
Optimistic					
Pessimistic					
Comfortable					
Depressed					
Calm					
Agitated					
Sad					
Relaxed					
Uncomfortable					
Cheerful					
Elated					
When I work REMOTELY I feel:					
Nervous					
Optimistic					
Pessimistic					
Comfortable					
Depressed					
Calm					
Agitated					

Sad		
Relaxed		
Uncomfortable		
Cheerful		
Elated		

Appendix D – focus group questions

Questions/discussion points.

General Questions

1. How would you describe your overall experience with face-to-face interpreting?
2. How would you describe your overall experience with video remote interpreting?
3. What factors do you consider when deciding between face-to-face and video remote interpreting for a given assignment?

Healthcare Settings

4. How do you perceive the effectiveness of face-to-face interpreting in healthcare settings?
5. What challenges have you encountered with face-to-face interpreting in healthcare settings?
6. How do you perceive the effectiveness of video remote interpreting in healthcare settings?
7. What challenges have you encountered with video remote interpreting in healthcare settings?
8. Can you share any specific examples where either face-to-face or video remote interpreting significantly impacted the outcome of a healthcare interaction?

Education Settings

9. How do you perceive the effectiveness of face-to-face interpreting in educational settings?
10. What challenges have you encountered with face-to-face interpreting in educational settings?
11. How do you perceive the effectiveness of video remote interpreting in educational settings?
12. What challenges have you encountered with video remote interpreting in educational settings?
13. Can you share any specific examples where either face-to-face or video remote interpreting significantly impacted the outcome of an educational interaction?

Comparative Questions

14. In your experience, what are the main advantages of face-to-face interpreting over video remote interpreting?
15. Conversely, what are the main advantages of video remote interpreting over face-to-face interpreting?
16. How do you feel the quality of communication compares between face-to-face and video remote interpreting in healthcare settings? In educational settings?
17. How do logistical factors (e.g., travel time, accessibility, scheduling) influence your preference for face-to-face or video remote interpreting in healthcare and education settings?

Personal Preferences and Recommendations

18. Which mode of interpreting do you personally prefer in healthcare settings, and why?
19. Which mode of interpreting do you personally prefer in educational settings, and why?
20. What improvements or changes would you recommend to enhance the effectiveness and satisfaction of both face-to-face and video remote interpreting in healthcare and education settings?

Appendix E – Approved ethics form

APPLICATION FOR ETHICAL APPROVAL

RESEARCH STUDENTS This form is to be completed by the student within **SIX** months for full-time students and **TWELVE** months for part time students, after the commencement of the research degree or following progression to Part Two of your course. Once complete, submit this form via the ***MyTSD Doctoral College Portal*** at (https://mytsd.uwtsd.ac.uk). This document is also available in Welsh.
RESEARCH STAFF ONLY All communications relating to this application during its processing must be in writing and emailed to pgresearch@uwtsd.ac.uk , with the title 'Ethical Approval' followed by your name.
STUDENTS ON UNDERGRADUATE OR TAUGHT MASTERS PROGRAMMES should submit this form (and receive the outcome) via systems explained to you by the supervisor/module leader.

In order for research to result in benefit and minimise risk of harm, it must be conducted ethically. A researcher may not be covered by the University's insurance if ethical approval has not been obtained prior to commencement.

The University follows the OECD Frascati manual definition of **research activity**: "creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications". As such this covers activities undertaken by members of staff, postgraduate research students, and both taught postgraduate and undergraduate students working on dissertations/projects.

The individual undertaking the research activity is known as the "principal researcher".

Ethical approval is not required for routine audits, performance reviews, quality assurance studies, testing within normal educational requirements, and literary or artistic criticism.

Please read the notes for guidance before completing ALL sections of the form.

This form must be completed and approved prior to undertaking any research activity. Please see Checklist for details of process for different categories of application.

SECTION A: About You (Principal Researcher)

1	Full Name:		Suzanne Pearton-Scale			
2	Tick all boxes that apply:		Member of staff:	☐	Honorary research fellow:	☐
	Undergraduate Student	☒	Taught Postgraduate Student	☐	Postgraduate Research Student	☐

3	Institute/Academic Discipline/Centre:	Centre of Psychology and Counselling
4	Campus:	University of Wales, Trinity Saint David, Carmarthen Campus
5	E-mail address:	2105981@student.uwtsd.ac.uk
6	Contact Telephone Number:	07877775955
	For students:	
7	Student Number:	2105981
8	Programme of Study:	BSc Applied Psychology
9	Director of Studies/Supervisor:	Dr Stuart Jones

SECTION B: Approval for Research Activity

1	Has the research activity received approval in principle? (please check the Guidance Notes as to the appropriate approval process for different levels of research by different categories of individual)	**YES**	☒	**NO**	☐
				Date	

2	If Yes, please indicate source of approval (and date where known): ***Approval in principle must be obtained from the relevant source prior to seeking ethical approval***	Research Degrees Committee	☐	
		Institute Research Committee	☐	
		Other (write in) Dr Stuart Jones	☒	**13/08/2024**

SECTION C: Internal and External Ethical Guidance Materials

	Please list the core ethical guidance documents that have been referred to during the completion of this form (including any discipline-specific codes of research ethics, location-specific codes of research ethics, and also any specific ethical guidance relating to the proposed methodology). Please tick to confirm that your research proposal adheres to these codes and guidelines. You may add rows to this table if needed.	
1	UWTSD Research Ethics & Integrity Code of Practice	☒
2	UWTSD Research Data Management Policy	☒
3	BPS Code of Human Research Ethics (2014)	☒
4	BPS Code of Ethics and Conduct (2018)	☒
5	BPS Ethics Guidelines for Internet Mediated Research (2021)	☒

SECTION D: External Collaborative Research Activity

If there are external collaborators then you should gain consent from the contact persons to share their personal data with the university. If there are no external collaborators then leave this section blank and continue to section E.

1	Institution					
2	Contact person name					
3	Contact person e-mail address					
4	Is your research externally funded?		**YES**	☐	**NO**	☐
5	Are you in receipt of a KESS scholarship?		**YES**	☐	**NO**	☐
6	Are you specifically employed to undertake this research in either a paid or voluntary capacity?	Voluntary	**YES**	☐	**NO**	☐
7		Employed	**YES**	☐	**NO**	☐
8	Is the research being undertaken within an existing UWTSD Athrofa Professional Learning Partnership (APLP)?	If YES then the permission question below does not need to be answered.	**YES**	☐	**NO**	☐
9	Has permission to undertake the research has been provided by the partner organisation?	(If YES attach copy) If NO the application cannot continue	**YES**	☐	**NO**	☐

Where research activity is carried out in collaboration with an external organisation

10	Does this organisation have its own ethics approval system?	**YES**	☐	**NO**	☐
	If Yes, please attach a copy of any final approval (or interim approval) from the organisation (this may be a copy of an email if appropriate).				

SECTION E: Details of Research Activity

1	Indicative title:	Investigating British Sign Language Interpreters' attitudes and perceptions towards Face-to-Face Versus Video Remote Interpreting in Healthcare and Education settings.		
2	Proposed start date:	22nd October 2024	Proposed end date:	21st May 2025
	Introduction to the Research (maximum 300 words per section) **Ensure that you write for a <u>Non-Specialist Audience</u> when outlining your response to the points below:** *Purpose of Research Activity* *Proposed Research Question* *Aims of Research Activity* *Objectives of Research Activity* Demonstrate, briefly, how **<u>Existing Research</u>** has informed the proposed activity and explain *What the research activity will add to the body of knowledge* *How it addresses an area of importance.*			
3	**Purpose of Research Activity** The growing prevalence of remote British Sign Language (BSL) Video Remote Interpreting and Video Relay Services (VRI; VRS) has become a notable trend in recent years. Prior to the COVID-19 pandemic, 40% of BSL interpreters had engaged in remote work (Roman, 2022). The 2021 Census of Sign Language Interpreters revealed that 62% of British interpreters had transitioned to remote work (Napier et al., 2021) post-COVID. However this census did not explore the underlying attitudes of interpreters towards this transition. Recent studies have examined various aspects of remote interpreting, such as stress factors (Schnack, 2020), perspectives of Deaf individuals (Kushalnager, 2019; Rivas Velarde, 2022; Yabe, 2019), and its applications in various			

settings (Napier, 2011; Napier, 2012). However, there remains a notable gap in research on the attitudes and perceptions of BSL interpreters in Britain in relation to work environment.

Napier et al. (2017) lay the groundwork for subsequent research and its main findings were 64% of interpreters work remotely, 50% had positive views of VRS/VRI such as; remote working saves time and travel costs, VRS/VRI can benefit Deaf community with faster access to services. Negative aspects included little preparation time, technological difficulties and intrapersonal limitations. Building on this, the proposed study intends to expand on Napier's study. focusing on BSL interpreters in the UK and Ireland, marking the first of its kind in this context. Given the substantial growth in VRI since 2017, research in this area is timely and critical.

Roman et al.'s (2022) study using the Determinants of Implementation Behaviour Questionnaire (DIBQ), highlighted a huge shift to remote interpreting during the pandemic, lack of training in remote interpreting and the need to create effective strategies for such work.

The scarcity of research in this emergent field makes the data highly valuable for policymakers and stakeholders, aiding in the development of guidelines and best practices to enhance interpreting services, whilst also offering insights into interpreter well-being.

References:

Kushalnagar, R. (2019). Deafness and hearing loss. *Web accessibility: A foundation for research*, 35-47.

Napier, J. (2011). "It's not what they say but the way they say it". A content analysis of interpreter and consumer perceptions towards signed language interpreting in Australia.

Napier, J. (2012). Here or there? An assessment of video remote signed language interpreter-mediated interaction in court. *Videoconference and remote interpreting in criminal proceedings*, 167-214.

Napier, J., Skinner, R., & Turner, G. H. (2017). "It's good for them but not so for me": Inside the sign language interpreting call centre. *Translation & Interpreting: The International Journal of Translation and Interpreting Research*, *9*(2), 1-23.

Napier, J., Skinner, R., Adam, R., Stone, C., Pratt, S., & Obasi, C. (2021). A demographic snapshot of the profession: The 2021 Census of sign language translators & interpreters in the UK.

	Ris, I., Schröder, K., Kongsted, A., Abbott, A., Nilsen, P., Hartvigsen, J., & Öberg, B. (2021). Adapting the determinants of implementation behaviour questionnaire to evaluate implementation of a structured low back pain programme using mixed-methods. *Health science reports*, *4*(2), e266. Rivas Velarde, M., Jagoe, C., & Cuculick, J. (2022). Video relay interpretation and overcoming barriers in health care for Deaf users: Scoping review. *Journal of Medical Internet Research*, *24*(6), e32439. Roman, G., Samar, V., Ossip, D., McKee, M., Barnett, S., & Yousefi-Nooraie, R. (2022). *Ditching the Driving: A Cross-Sectional Study on the Determinants of Remote Work From Home for Sign Language Interpreters*. 882615-. https://doi.org/10.3389/frhs.2022.882615 Schnack, K. (2020). Social Isolation, Anxiety, and Stress Among VRS/VRI Sign Language Interpreters During the COVID-19 Pandemic. Yabe, M. (2019). *Healthcare Providers' and Deaf Patients' Perspectives on Video Remote Interpreting: A Mixed Methods Study* (Doctoral dissertation, University of Illinois at Chicago). (this box should expand as you type)
4	**Research Question** **Phase 1 – (Quantitative research) hypotheses:** 1. There is a significant main effect of interpreting mode on interpreters' attitude, with face-to-face interpreting perceived more positively than remote interpreting across both healthcare and education settings. 2. There is a significant main effect of setting on interpreters' attitude, with interpreting in healthcare settings resulting in more positive attitudes than in education settings. 3. There is a significant interaction effect between interpreting mode and setting on interpreters' attitude, with the difference in attitude face-to-face and remote interpreting being more positive in healthcare settings than in education settings. **Phase 2 – (Qualitative research) questions:**

	1. How do British Sign Language interpreters' attitudes and perceptions of work environments compare between face-to-face and remote interpreting in healthcare settings? 2. What are the attitudes and perceptions of work environments of British Sign Language interpreters towards face-to-face versus remote interpreting in educational settings? 3. What are the differences between healthcare and education work environments in relation to face-to-face and remote work according to British Sign Language Interpreters? (this box should expand as you type)
5	**Aims of Research Activity** The aim of this research is to examine the attitudes and perceptions of British Sign Language (BSL) interpreters towards face-to-face and remote interpreting in both healthcare and educational settings. Specifically, the study seeks to investigate the main effects of interpreting mode (face-to-face vs. remote) and setting (healthcare vs. education) on interpreters' attitudes, as well as the interaction effect between these variables. Furthermore, through focus groups, the research aims to explore how BSL interpreters perceive differences in work environments across these settings and interpreting modes, with the goal of providing insights into how these factors influence interpreter satisfaction and performance. (this box should expand as you type)
6	**Objectives of Research Activity** **Phase 1 – Quantitative Research:** 1. To explore the effect of interpreting mode (face-to-face vs. remote) on BSL interpreters' attitudes. 2. To investigate the effect of work setting (healthcare / education) on BSL interpreters' attitudes toward interpreting.

	3. To analyse the interaction effect between interpreting mode and work setting on BSL interpreters' attitudes. **Phase 2 – Qualitative Research:** 1. To investigate BSL interpreters' attitudes and perceptions toward face-to-face versus remote interpreting in healthcare settings. 2. To explore BSL interpreters' attitudes and perceptions toward face-to-face versus remote interpreting in educational settings. 3. To study perceptions of BSL interpreters and their wellbeing in relation to the research question. (this box should expand as you type)
	Proposed methods (maximum 600 words) Provide a brief summary of all the methods that **may** be used in the research activity, making it clear what specific techniques may be used. If methods other than those listed in this section are deemed appropriate later, additional ethical approval for those methods will be needed. You do not need to justify the methods here, but should instead describe how you intend to collect the data necessary for you to complete your project.
7	**Method:** Phase 1: The questionnaire targets British Sign Language (BSL) interpreters aged 18+ in the UK and Ireland, via Qualtrics. Participants will be recruited via a global email invitation to SignVideo staff, and closed Facebook groups. Consent has been given by the Head of Interpreting Services at SignVideo for the global email. The email advertisement will make it clear that participants should have worked in either healthcare/education sectors or both. The target population will be SignVideo employees (n=150) and Welsh Sign Language Interpreters (n=25) which is a total population of 175. Therefore the ideal sample size for the questionnaire according to Qualtrics (2024, June 8) is 121 (Confidence interval 95%, 5% margin of error). Phase 2: The focus group participants will be recruited via an invitation at the end of the DIBQ-SLI questionnaire.

Design:

Phase 1:

This study employs a mixed methods approach, using an online questionnaire with an adapted version of the Determinants of Implementation Behaviour Questionnaire (DIBQ) (Huijg et al., 2014), complemented by a 2x2 Analysis of Variance (ANOVA) using Qualtrics software. The Experiment Management System will not be utilised in this study, due to participants needing to be a specific profession.

Independent variables include mode of delivery (Face-to-Face vs. Remote) and sector (Healthcare vs. Education), while the dependent variable is attitudes of workplace environment determined by the adapted DIBQ.

Phase 2:

Qualitative data will be gathered through online focus groups. The focus group will aim to be 8 participants and will last 60 minutes. A pilot focus group will be done initially, followed one main focus group for the study. An assistant (study supervisor) will be used to assist with technical elements of the online focus group.

Analysis:

Phase 1:

To address the hypotheses a between groups 2x2 Analysis of Variance (ANOVA) will be performed. This statistical method will be employed to investigate two primary aspects: first, the differences in attitudes towards face-to-face versus remote interpreting in healthcare settings; and second, the differences in attitudes towards face-to-face versus remote interpreting in educational settings. By utilizing a 2x2 ANOVA, the study aims to discern not only the main effects of the interpreting mode (face-to-face vs. remote) and the setting (healthcare vs. educational) but also any potential interaction effects between these factors. A scoring system will be implemented, assigning positive scores for affirmative responses and negative scores for unfavourable responses.

Phase 2:

Qualitative data will be gathered through focus group discussions. Thematic analysis, as outlined by Braun and Clarke (2006), will be applied to the transcribed data. Thematic analysis will allow for an in-depth exploration of the participants' perspectives, providing a rich and

nuanced understanding of their attitudes towards different interpreting modes in healthcare and educational settings.

Materials:

Phase 1:
The study will use an adapted version of the Determinants of Implementation Behaviour Questionnaire (DIBQ) (appendix 4). It's been refined to 45 items from the original 93. It will be delivered via Qualtrics, analysed using SPSS.

Phase 2:
The focus groups will be conducted via Microsoft Teams, discussion points will be posed verbally with responses recorded, transcribed, and analysed using Microsoft Teams and Word.

Procedure:

Phase 1:

Online questionnaire through Qualtrics. The initial section will be a participant information sheet (appendix 1) , followed by a consent tick-box to confirm their voluntary participation. Subsequently, participants will provide demographic information before proceeding to the adapted Determinants of Implementation Behaviour Questionnaire for Sign Language Interpreters (DIBQ-SLI). Within the DOBQ-SLI, an option will be to tick if they have not worked within the relevant sector recently (healthcare/education)(see Appendix 4). To conclude, after the DIBQ-SLI, the participants will be given de-briefing information to ensure they are fully informed about the study's purpose and findings.

Phase 2:
The focus group will be a Microsoft Teams meeting, participants will receive an information/consent form (appendix 2) before the study and debrief sheet after the study

	(appendix 3) this will be via an online link to a Microsoft form. One focus group will be conducted, with a pilot test study beforehand. <u>References:</u> Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, *3*(2), 77-101. Huijg, J. M., Gebhardt, W. A., Dusseldorp, E., Verheijden, M. W., van der Zouwe, N., Middelkoop, B. J., & Crone, M. R. (2014). Measuring determinants of implementation behavior: psychometric properties of a questionnaire based on the theoretical domains framework. *Implementation Science*, *9*, 1-15. (this box should expand as you type)
	Location of research activity Identify all locations where research activity will take place.
8	Online Questionnaire via Qualtrics survey software. Online Focus group via Microsoft Teams. (this box should expand as you type)
	Research activity outside of the UK If research activity will take place overseas, you are responsible for ensuring that local ethical considerations are complied with and that the relevant permissions are sought. Specify any local guidelines (e.g. from local professional associations/learned societies/universities) that exist and whether these involve any ethical stipulations beyond those usual in the UK (provide details of any licenses or permissions required). Also specify whether there are any specific ethical issues raised by the local context in which the research activity is taking place, for example, particular cultural and/or legal sensitivities or vulnerabilities of participants. If you live in the country where you will do the research then please state this.

9	This is not relevant as all research done within UK *(this box should expand as you type)*

10	Use of documentation not in the public domain: Are any documents **NOT** publicly available?	**NO**	☒
		YES	☐
11	If Yes, please provide details here of how you will gain access to specific documentation that is not in the public domain and that this is in accordance with the current data protection law of the country in question and that of England and Wales. *(this box should expand as you type)*		

	Does your research relate to one or more of the seven aims of the Well-being of Future Generations (Wales) Act 2015?	**YES**	**NO**
12	A prosperous Wales	☐	☒
13	A resilient Wales	☐	☒
14	A healthier Wales	☐	☒
15	A more equal Wales	☒	☐
16	A Wales of cohesive communities	☒	☐
17	A Wales of vibrant culture and thriving Welsh language	☒	☐
18	A globally responsible Wales	☐	☒
19	If YES to any of the above, please give details:		
	As the study is exploring BSL interpreting for the Deaf Welsh community, it could provide useful information for a more equal Wales for future generations. This could lead to more cohesive communities as it may bridge the gap between Deaf and hearing communities. By investigating the effectiveness of BSL interpreting for the Deaf community, this could promote more awareness of Welsh Deaf culture. (this box should expand as you type)		

SECTION F: Scope of Research Activity

	Will the research activity include:	**YES**	**NO**
1	Use of a questionnaire or similar research instrument?	☒	☐
2	Use of interviews?	☐	☒

3	Use of focus groups?	☒	☐
4	Use of participant diaries?	☐	☒
5	Use of video or audio recording?	☒	☐
6	Use of computer-generated log files?	☒	☐
7	Participant observation with their knowledge?	☐	☒
8	Participant observation without their knowledge?	☐	☒
9	Access to personal or confidential information without the participants' specific consent?	☐	☒
10	Administration of any questions, test stimuli, presentation that may be experienced as physically, mentally or emotionally harmful / offensive?	☐	☒
11	Performance of any acts which may cause embarrassment or affect self-esteem?	☐	☒
12	Investigation of participants involved in illegal activities?	☐	☒
13	Use of procedures that involve deception?	☐	☒
14	Administration of any substance, agent or placebo?	☐	☒
15	Working with live vertebrate animals?	☐	☒
16	Procedures that may have a negative impact on the environment?	☐	☒
17	Other primary data collection methods. Please indicate the type of data collection method(s) below.	☐	☒
	Details of any other primary data collection method: (this box should expand as you type)		

If NO to every question, then the research activity is (ethically) low risk and **may** be exempt from **some** of the following sections (please refer to Guidance Notes).

If YES to any question, then no research activity should be undertaken until full ethical approval has been obtained.

SECTION G: Intended Participants

If there are no participants then do not complete this section, but go directly to section H.

	Who are the intended participants:	**YES**	**NO**
1	Students or staff at the University?	☐	☒
2	Adults (over the age of 18 and competent to give consent)?	☒	☐
3	Vulnerable adults?	☐	☒

4	Children and Young People under the age of 18? (Consent from Parent, Carer or Guardian will be required)	☐	☒
5	Prisoners?	☐	☒
6	Young offenders?	☐	☒
7	Those who could be considered to have a particularly dependent relationship with the investigator or a gatekeeper?	☐	☒
8	People engaged in illegal activities?	☐	☒
9	Others. Please indicate the participants below, and specifically any group who may be unable to give consent.	☐	☒
	Details of any other participant groups: (this box should expand as you type)		

	Participant numbers and source Provide an estimate of the expected number of participants. How will you identify participants and how will they be recruited?	
10	How many participants are expected?	Questionnaire – aim for 121 participants Focus groups – 8 participants. *(this box should expand as you type)*
11	Who will the participants be?	Participants will be BSL interpreters aged 18+ in the UK and Ireland. *(this box should expand as you type)*
12	How will you identify the participants?	Questionnaire: Participants must be BSL interpreters aged 18+ in the UK and Ireland. An email will be sent to interpreters within SignVideo (n=150), which consists of an email advertisement with a link to the study. This email will be a global email that automatically sends to all BSL interpreters within SignVideo (not individual emails). The content of the email to be sent will be approved by the study supervisor beforehand. Further outreach will be done on closed Facebook groups if more participants are needed (eg – 'BSL Interpreters UK'/'Interpreters and Translators of Wales') consisting of a post with study link. The study advertisement and link will be posted on the Association of Sign Language Interpreters (ASLI) online forum. The participants will sign-up to the study anonymously via all methods, using the study link on the advertisement. Consent has been gained for the global email (see appendix 6)

		Focus group: Participants must be BSL interpreters aged 18+ in the UK and Ireland. Participants will sign-up to the focus group via an invitation at the end of Phase 1 DIBQ-SLI – which will include an online sign-up form (weblink for Microsoft Form, held on UWTSD OneDrive), which will be deleted in full once the focus group commences. Further outreach will be done on closed Facebook groups if more participants are needed (eg – 'BSL Interpreters UK'/'Interpreters and Translators of Wales') consisting of a post with study link. *(this box should expand as you type)*

	Information for participants:	**YES**	**NO**	**N/A**
13	Will you describe the main research procedures to participants in advance, so that they are informed about what to expect?	☒	☐	☐
14	Will you tell participants that their participation is voluntary?	☒	☐	☐
15	Will you obtain written consent for participation?	☐	☒	☐
16	Will you explain to participants that refusal to participate in the research will not affect their treatment or education (if relevant)?	☒	☐	☐
17	If the research is observational, will you ask participants for their consent to being observed?	☐	☐	☒
18	Will you tell participants that they may withdraw from the research at any time and for any reason?	☒	☐	☐
19	With questionnaires, will you give participants the option of omitting questions they do not want to answer?	☒	☐	☐
20	Will you tell participants that their data will be treated with full confidentiality and that, if published, it will not be identifiable as theirs?	☒	☐	☐
21	Will you debrief participants at the end of their participation, in a way appropriate to the type of research undertaken?	☒	☐	☐
22	If NO to any of above questions, please give an explanation			
	Tick box consent for questionnaire at the start of the DIBQ-SLI. A digital consent form will be shared via a weblink that take them to a digital consent form via OneDrive Microsoft Forms. This will be completed before the focus group. Participants will be verbally reminded that they may exit the focus group at any point. The consent forms will be created and stored within UWTSD OneDrive. A digital de-brief form will be given to participants at the end of the study in the same format as the consent form. *(this box should expand as you type)*			

	Information for participants:	**YES**	**NO**	**N/A**
24	Will participants be paid?	☐	☒	☐
25	Is specialist electrical or other equipment to be used with participants?	☐	☒	☐

26	Are there any financial or other interests to the investigator or University arising from this study?	☐	☒	☐
27	Will the research activity involve deliberately misleading participants in any way, or the partial or full concealment of the specific study aims?	☐	☒	☐
28	If YES to any question, please provide full details			
	(this box should expand as you type)			

SECTION H: Anticipated Risks

	Outline any anticipated risks that may adversely affect any of the participants, the researchers and/or the University, and the steps that will be taken to address them. If you have completed a full risk assessment (for example as required by a laboratory, or external research collaborator) you may append that to this form.		
1	Full risk assessment completed and appended?	Yes	☐
		No	☒
2	**Risks to participants** For example: sector-specific health & safety, emotional distress, financial disclosure, physical harm, transfer of personal data, sensitive organisational information		
	Risk to participants: **Emotional Distress**: Discussing work-related challenges, frustrations, or negative experiences with face-to-face and remote interpreting, especially in high-stakes environments like healthcare or education, could lead to emotional	*How you will mitigate the risk to participants:* In line with UWTSD (2022) and BPS research guidelines (2022): **Emotional Distress:**	

	stress or discomfort, and participants could fear that comments made could impact their career progression so may not be entirely honest. **Transfer of Data**: Participants may fear that sharing honest opinions about their attitudes and experiences could affect their professional reputation or relationships within their interpreting community if their data is not adequately protected. **Confidentiality/Anonymity**: Despite assurances of confidentiality, participants may worry that their identity could be unintentionally revealed, especially in focus groups or qualitative discussions, leading to concerns about privacy. *(this box should expand as you type)*	• Clearly inform participants that they can skip any questions they find uncomfortable or withdraw from the study at any time. • Participants will informed at the start of the DIBQ-SLI that they may exit the questionnaire group at any point by closing their internet browser. • Participants will be verbally reminded that they may exit the focus group at any point, they can do this either by informing the research study assistant in the private chat function of Teams, or by exiting the Teams meeting. • The debrief form will give contact details of the research supervisor for any debrief needed. • Participants will be reminded that the focus group and discussion remain confidential and each participant is to respect the BSL Interpreters code of conduct. • **Transfer of Data:** • Ensure all data is anonymised with no identifying information linked to participant responses. • Use secure, encrypted platforms (Qualtrics, SPSS, UWTSD OneDrive) for data collection and storage. • Emphasise the confidentiality of participant information in the information/consent form. • The focus group will be held via Microsoft Teams, a secure platform. **Confidentiality/ Anonymity:** • Questionnaire responses will be anonymous. • The researcher will assure the focus group members that all information within the study is confidential and will remain anonymous. • Use pseudonyms within transcription of focus group. published findings or presentations. • Emphasise confidentiality in the consent form and debrief form.

		(this box should expand as you type)
3	If research activity may include sensitive, embarrassing or upsetting topics (e.g. sexual activity, drug use) or issues likely to disclose information requiring further action (e.g. criminal activity), give details of the procedures to deal with these issues, including any support/advice (e.g. helpline numbers) to be offered to participants. Note that where applicable, consent procedures should make it clear that if something potentially or actually illegal is discovered in the course of a project, it may need to be disclosed to the proper authorities	
	The nature of the exploration of attitudes may instigate some negative feelings for some participants, therefore they will be provided with a detailed information page once they click on the link to Qualtrics, reminding participants of their right to withdraw at any stage and also signposting them to the research supervisor and relevant support services. *(this box should expand as you type)*	
4	**Risks to the investigator** For example: personal health & safety, physical harm, emotional distress, risk of accusation of harm/impropriety, conflict of interest	
	Risk to the investigator: **Handling Sensitive Feedback**: The investigator may encounter strong negative opinions or criticisms about the interpreting profession, technology, or work environments, which could be challenging to manage neutrally. **Maintaining Professional Boundaries**: Engaging with participants who are professional colleagues or part of the same interpreting community might blur boundaries, potentially complicating the research process and affecting the investigator's objectivity and therefore creating a conflict of interest. . *(this box should expand as you type)*	*How you will mitigate the risk to the investigator:* In line with UWTSD (2022) and BPS research guidelines (2022): **Handling Sensitive Feedback:** • The researcher will provide detailed information about the questionnaire, along with examples of the types of questions that will be asked, on the online information page prior to accessing the actual questionnaire. • Participants will be informed that the questions are derived from peer-reviewed sources and validated for research use. They will be encouraged to direct any enquiries to the supervisor first. • If any participant makes inappropriate contact with a student, the matter will

		be reported to the supervisor for further guidance. **Maintaining Professional Boundaries:** • Clearly define the researcher's role as a researcher not as fellow interpreter during participant recruitment and interactions to maintain professionalism. • The researcher will not discuss the research or its contents with colleagues outside of the research itself to prevent boundary blurring. • Reflect on potential biases and regularly consult with research supervisors to maintain objectivity. • Any conflicts of interest will be declared if they arise and reported to the research supervisor. *(this box should expand as you type)*
5	**University/institutional risks** For example: adverse publicity, financial loss, data protection	
	Risk to the University: **Academic Integrity and Credibility**: • Inaccurate or poorly conducted research could damage the institution's reputation for academic rigor and ethical responsibility, affecting future collaborations and funding opportunities. **Data breach** • Data breach of participants' information or information within questionnaires and focus groups could be accidentally shared or stored inappropriately, causing a potential data leak. **Adverse Publicity**	*How you will mitigate the risk to the University:* **Academic Integrity and Credibility**: Compliance with the UWTSD Research Ethics & Integrity Code of Practice, the UWTSD Student Code of Conduct, the BPS Code of Human Research Ethics (2021), and the BPS Code of Ethics and Conduct (2021) is essential to ensure that the research is carried out with respect, responsibility, and professionalism at all stages. Furthermore, participants will receive the contact details of the Director of Studies/Supervisor for any discussions regarding any issues that may arise. Consent has been given by the Head of Interpreting Services at SignVideo for the global email (appendix 6).

	• The reputation of the university could be at risk if research is not done according to regulations. • Participants could spread negative opinions about the university if believe the research is not conducted professionally. *(this box should expand as you type)*	**Data breach** Data will be stored in an anonymised format in line with UWTSD Research guidelines and will only be used for its intended purpose, adhering to the ethical standards outlined in the UWTSD Research Ethics and Integrity Code of Practice and the British Psychological Society's (BPS) Code of Human Research Ethics. Phase 1 – To mitigate any risks to UWTSD and the psychology department, all collected data will be collected via Qualtircs, then analysed using SPSS all of which are securely stored by the researcher using the university's password-protected Office 365 account on OneDrive to further reduce the likelihood of data leakage or exposure. Phase 2 - To mitigate any risks to UWTSD and the psychology department, all data will intitally be transcribed using Microsoft Teams and Microsoft Word, the focus group recording will be deleted once transcribed, all qualitative data will be securely stored by the researcher using the university's password-protected Office 365 account on OneDrive to further reduce the likelihood of data leakage or exposure. **Adverse publicity** Compliance with the UWTSD Research Ethics & Integrity Code of Practice, the UWTSD Student Code of Conduct, the BPS Code of Human Research Ethics (2021), and the BPS Code of Ethics and Conduct (2021) is essential to ensure that the research is conducted with respect, responsibility, and professionalism at all stages. Furthermore, participants will be given the contact details of the Director of

		Studies/Supervisor for any discussions or concerns that may arise. *(this box should expand as you type)*
6	**Environmental risks** For example: accidental spillage of pollutants, damage to local ecosystems	
	Risk to the environment: N/A *(this box should expand as you type)*	*How you will mitigate the risk to environment:* *(this box should expand as you type)*

	Disclosure and Barring Service			
	If the research activity involves children or vulnerable adults, a Disclosure and Barring Service (DBS) certificate must be obtained before any contact with such participants.	**YES**	**NO**	**N/A**
7	Does your research require you to hold a current DBS Certificate?	☐	☐	☒
8	If YES, please give the certificate number. If the certificate number is not available please write "Pending"; in this case any ethical approval will be subject to providing the appropriate certificate number.			

SECTION I: Feedback, Consent and Confidentiality

1	**Feedback** What de-briefing and feedback will be provided to participants, how will this be done and when?
	Questionnaire: In accordance with BPS ethical guidelines (2021), participants in the proposed study will be directed to a debriefing page after completing the questionnaire. This page will be shown at the end of the questionnaire and will be available in digital format for download and future reference. The debriefing will offer additional details about the study, including its aims and research questions. Participants will be reassured that their data will remain anonymous and that they will not be personally identifiable from the information they provided. They will also be informed about UWTSD's data storage and protection procedures, which ensure the confidentiality of their

	responses. Contact information for the researchers and supervisors will be provided for any further questions or concerns. Focus group: In accordance with BPS ethical guidelines (2021), participants in the proposed study will be directed to a debriefing page after completing the focus group. This page will be a digital form accessed via a weblink and will be in a digital format for download and future reference. The debriefing will offer additional details about the study, including its aims and research questions. Participants will be reassured that their data will remain anonymous and that they will not be personally identifiable from the information they provided. They will also be informed about UWTSD's data storage and protection procedures, which ensure the confidentiality of their responses. Contact information for the researchers and supervisors will be provided for any further questions or concerns. *(this box should expand as you type)*
2	**Informed consent** Describe the arrangements to inform potential participants, before providing consent, of what is involved in participating. Describe the arrangements for participants to provide full consent before data collection begins. If gaining consent in this way is inappropriate, explain how consent will be obtained and recorded in accordance with prevailing data protection legislation.
	Questionnaire: Participants will complete the questionnaire using Qualtrics software, and they will be shown an information page detailing the study and its purpose and the participants' rights withing the study. If participants are happy to proceed, they will then be given information that confirms; they have the right to withdraw at any stage. A tick box will confirm their consent before continuing with the questionnaire. Focus group: A digital consent form will be shared via a weblink that take them to a digital consent form via OneDrive Microsoft Forms. This will be completed before the focus group. Participants will be verbally reminded that they may exit the focus group at any point. The consent forms will be created and stored within UWTSD OneDrive. A digital de-brief form will be given to participants at the end of the study in the same format as the consent form. *(this box should expand as you type)*
3	**Confidentiality / Anonymity**

	Set out how anonymity of participants and confidentiality will be ensured in any outputs. If anonymity is not being offered, explain why this is the case.
	Questionnaire – participation is anonymous, no personal information will be required from participants, ensuring their anonymity. All collected data will be securely stored on the university's password-protected OneDrive server, accessible only to the researcher and the supervisor. Focus groups – The researcher will explain confidentiality and anonymity to the group. Asking participants to not use client names or anything identifiable, if they are disclosed, they will be omitted from transcript. Pseudonyms will be used for transcription. The recording will be deleted after transcription. Within the focus group session participants will be reminded of confidentiality and encouraged to use pseudonyms for clients, and also to refrain from using others' names directly if possible. They will be reminded of the confidential nature of the focus group and any information revealed within the session is to remain there and not shared or disclosed outside of the focus group session, this will be reiterated via the consent form and debrief form. They will be reminded of the National Register of Communication Professionals for the Deaf (NRCPD) code of conduct (2024), which highlights the importance of confidentiality of clients and other interpreters. National Register of Communication Professionals for the Deaf [NRCPD], *Code of Conduct,* (2024), https://www.nrcpd.org.uk/code-of-conduct *(this box should expand as you type)*

SECTION J: Data Protection and Storage

	Does the research activity involve personal data (as defined by the General Data Protection Regulation 2016 "GDPR" and the Data Protection Act 2018 "DPA")?	YES	NO
1	***"Personal data"*** *means any information relating to an identified or identifiable natural person ('data subject'). An identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person. Any video or audio recordings of participants is considered to be personal data.*	☒	☐
	If YES, provide a description of the data and explain why this data needs to be collected:		
2	The questionnaire will ask initial demographic information such as gender, age, qualification level and location. This is important for data collection as analysis may include gender/location and qualification level. Participation is anonymous, no personal information will be required from		

	participants, ensuring their anonymity. All collected data will be securely stored on the university's password-protected server, accessible only to the researcher and the supervisor. Focus groups – personal data may be revealed voluntarily during the focus group discussion. The recording will initially be held within UWTSD OneDrive. The recording, which is also classed as personal data, will be immediately transcribed to avoid unnecessary storage of data, then immediately deleted once transcribed. All transcriptions will be anonymised using pseudonyms. *(this box should expand as you type)*		
	Does it involve special category data (as defined by the GDPR)?	**YES**	**NO**
3	***"Special category data"*** *means sensitive personal data consisting of information as to the data subjects' –* *(a) racial or ethnic origin,* *(b) political opinions,* *(c) religious beliefs or other beliefs of a similar nature,* *(d) membership of a trade union (within the meaning of the Trade Union and Labour Relations (Consolidation) Act 1992),* *(e) physical or mental health or condition,* *(f) sexual life,* *(g) genetics,* *(h) biometric data (as used for ID purposes),*	☐	☒
	If YES, provide a description of the special category data and explain why this data needs to be collected:		
4	*(this box should expand as you type)*		

	Will data from the research activity (collected data, drafts of the thesis, or materials for publication) be stored in any of the following ways?	**YES**	**NO**
5	Manual files (i.e. in paper form)?	☐	☒
6	University computers?	☐	☒
7	Private company computers?	☐	☒
8	Home or other personal computers?	☒	☐
9	Laptop computers/ CDs/ Portable disk-drives/ memory sticks?	☐	☒
10	"Cloud" storage or websites?	☒	☐
11	Other – specify:	☐	☒
12	For all stored data, explain the measures in place to ensure the security of the data collected, data confidentiality, including details of backup procedures, password protection, encryption, anonymisation and pseudonymisation:		

	All data collected will be stored on the Qualtrics survey platform until it is exported into SPSS for analysis. Both systems are university-approved and store data in compliance with the UWTSD research data management policy. The dissertation will be stored securely on the University Microsoft OneDrive, in line with the BPS research guidelines (2022). *(this box should expand as you type)*

	Data Protection		
	Will the research activity involve any of the following activities:	**YES**	**NO**
13	Electronic transfer of data in any form?	☒	☐
14	Sharing of data with others at the University outside of the immediate research team?	☐	☒
15	Sharing of data with other organisations?	☐	☒
16	Export of data outside the UK or importing of data from outside the UK?	☐	☒
17	Use of personal addresses, postcodes, faxes, emails or telephone numbers?	☐	☒
18	Publication of data that might allow identification of individuals?	☐	☒
19	Use of data management system?	☒	☐
20	Data archiving?	☐	☒
21	If YES to any question, please provide full details, explaining how this will be conducted in accordance with the GDPR and Data Protection Act (2018) (and any international equivalents, where appropriate):		
	For the proposed study, data management will be handled using university-approved, password-protected SPSS software. Data will be stored in an anonymised format in line with UWTSD Research guidelines and will only be used for its intended purpose, adhering to the ethical standards outlined in the UWTSD Research Ethics and Integrity Code of Practice and the British Psychological Society's (BPS) Code of Human Research Ethics. To mitigate any risks to UWTSD and the psychology department, all collected data will be securely stored by the researcher using the university's password-protected Office 365 account on OneDrive to further reduce the likelihood of data leakage or exposure. Phase 1: The questionnaire will ask initial demographic information such as gender, age, qualification level and location. This is important for data collection as analysis may include gender/location and qualification level. Participation is anonymous, no personal information will be required from participants, ensuring their anonymity. All collected data will be securely stored on the university's password-protected server, accessible only to the researcher and the supervisor. Phase 2: Focus groups – personal data may be revealed voluntarily during the focus group discussion. The recording will initially be held within UWTSD OneDrive. The recording, which is also classed as personal data, will be immediately transcribed to avoid unnecessary storage of data, then immediately deleted once transcribed. All transcriptions will be anonymised using pseudonyms.		

	(this box should expand as you type)		
22	List all who will have access to the data generated by the research activity:		
	Researcher – Suzanne Pearton-Scale Supervisor – Dr Stuart Jones *(this box should expand as you type)*		
23	List who will have control of, and act as custodian(s) for, data generated by the research activity:		
	Suzanne Pearton-Scale *(this box should expand as you type)*		
24	Give details of data storage arrangements, including security measures in place to protect the data, where data will be stored, how long for, and in what form. Will data be archived – if so how and if not why not.		
	Data will be stored on the password-protected university Office 365 account using OneDrive, as well as within the Qualtrics and SPSS software systems, until the completion of the study. Data will be stored in an anonymised format in line with UWTSD Research guidelines and will only be used for its intended purpose, adhering to the ethical standards outlined in the UWTSD Research Ethics and Integrity Code of Practice and the British Psychological Society's (BPS) Code of Human Research Ethics. To mitigate any risks to UWTSD and the psychology department, all collected data will be securely stored by the researcher using the university's password-protected Office 365 account on OneDrive to further reduce the likelihood of data leakage or exposure. All collected data will be securely stored on the university's password-protected server, accessible only to the researcher and the supervisor. The recording will initially be held within UWTSD OneDrive. The recording, which is also classed as personal data, will be immediately transcribed to avoid unnecessary storage of data, then immediately deleted once transcribed. All transcriptions will be anonymised using pseudonyms. *(this box should expand as you type)*		
25	Please indicate if your data will be stored in the UWTSD Research Data Repository (see https://researchdata.uwtsd.ac.uk/). If so please explain. (*Most relevant to academic staff)*		
	No plans to use the UWTSD Research Data Repository for data storage. *(this box should expand as you type)*		
26	Confirm that you have read the UWTSD guidance on data management (see https://www.uwtsd.ac.uk/library/research-data-management/)	**YES**	☒
27	Confirm that you are aware that you need to keep all data until after your research has completed or the end of your funding	**YES**	☒

SECTION K: Declaration

	The information which I have provided is correct and complete to the best of my knowledge. I have attempted to identify any risks and issues related to the research activity and acknowledge my obligations and the rights of the participants. In submitting this application I hereby confirm that I undertake to ensure that the above named research activity will meet the University's Research Ethics and Integrity Code of Practice which is published on the website: https://www.uwtsd.ac.uk/research/research-ethics/		
1	**Signature of applicant:**		**Date: 07/10/24**

For STUDENT Submissions:

2	Director of Studies/Supervisor:	Dr Stuart Jones	**Date: 07/10/24**
3	Signature:		

For STAFF Submissions:

4	Academic Director/ Assistant Dean:		**Date:**
5	Signature:		

Checklist: Please complete the checklist below to ensure that you have completed the form according to the guidelines and attached any required documentation:

☒	I have read the guidance notes supplied before completing the form.
☒	I have completed **ALL RELEVANT** sections of the form in full.
☒	I confirm that the research activity has received approval in principle
☐	I have attached a copy of final/interim approval from external organisation (**where appropriate**)
☐	I have attached a full risk assessment (where appropriate) *ONLY TICK IF YOU HAVE **ATTACHED A FULL RISK ASSESSMENT***

☒	I understand that it is my responsibility to ensure that the above named research activity will meet the University's Research Ethics and Integrity Code of Practice.
☒	I understand that before commencing data collection all documents aimed at respondents (including information sheets, consent forms, questionnaires, interview schedules etc.) must be confirmed by the DoS/Supervisor, module tutor or Academic Director.

RESEARCH STUDENTS ONLY Once complete, submit this form via the **MyTSD Doctoral College Portal** at (https://mytsd.uwtsd.ac.uk).
RESEARCH STAFF ONLY All communications relating to this application during its processing must be in writing and emailed to pgresearch@uwtsd.ac.uk , with the title 'Ethical Approval' followed by your name.
STUDENTS ON UNDERGRADUATE OR TAUGHT MASTERS PROGRAMMES should submit this form (and receive the outcome) via systems explained to you by the supervisor/module leader.

Appendix F – information sheet/consent forms

PRIFYSGOL CYMRU
Y Drindod Dewi Sant
UNIVERSITY OF WALES
Trinity Saint David

Study Information and Consent Form

This information sheet contains important information regarding the study you have signed up to take part in, so please read the information sheet before continuing to the consent form.

You will be asked to do the following:

1. Complete a few questions regarding your demographic factors.
2. Complete a 45-item questionnaire that will assess your attitudes to sign language interpreting via remote and face-to-face settings in both healthcare and educational settings.

Each question will require you to rate your responses to the statement provided on a scale (e.g., strongly agree- strongly disagree)

This task will take approximately fifteen minutes to complete.
At the end of the study, you will be presented with a debrief sheet for your records along with the contact details of the researcher and supervisor.
All answers provided will be anonymous and will not be traced back to you.

Contact Details:
Study Researcher: Suzanne Pearton-Scale
Email Address: 2105981@student.uwtsd.ac.uk

Study Supervisor: Stuart Jones
Email Address: stuart.jones@uwtsd.ac.uk

1. I understand that this research study is being carried out by a 3rd year Psychology Student for a final year dissertation and that taking part in this study will involve completing one questionnaire.
2. I understand that participation in this study is entirely voluntary, and I am free to withdraw participation at any time without giving a reason.
3. I am aware that if I have concerns about the study, I can discuss these concerns with the researcher or academic supervisor at any time during or after the study.
4. I understand that the information provided by me will be held confidentially, with a

code assigned in place of my name. These data will be stored indefinitely in accordance with the Data Protection Act.

5. I also understand that at the end of the study, I will be provided with a debrief form and the opportunity to discuss any issues with the researchers.

I, _____(NAME) consent to participate in the study conducted by Suzanne Pearton-Scale, School of Psychology, University of Wales Trinity Saint David, Carmarthen under the supervision of Stuart Jones.

Participant Signature: _____

Date: _____

Name and signature of the researcher taking consent.

PRIFYSGOL CYMRU
Y Drindod Dewi Sant
UNIVERSITY OF WALES
Trinity Saint David

School of Psychology
Carmarthen Campus

Study Information and Consent Form

This information sheet contains important information regarding the study you have signed up to take part in, so please read the information sheet before continuing to the consent form.

You will be asked to do the following:

1. Take part in an online focus group.

Questions will be posed by the researcher, and responses will be recorded.

The focus group will last approximately 60 minutes.

At the end of the study, you will be presented with a debrief sheet for your records along with the contact details of the researcher and supervisor.
All responses will be anonymous and will not be traced back to you.

Contact Details:
Study Researcher: Suzanne Pearton-Scale
Email Address: 2105981@student.uwtsd.ac.uk

Study Supervisor: Stuart Jones
Email Address: stuart.jones@uwtsd.ac.uk

1. I understand that this research study is being carried out by a 3rd year Psychology Student for a final year dissertation and that taking part in this study will involve completing one questionnaire.
2. I understand that participation in this study is entirely voluntary, and I am free to withdraw participation at any time without giving a reason.
3. I am aware that if I have concerns about the study, I can discuss these concerns with the researcher or academic supervisor at any time during or after the study.
4. I understand that the information provided by me will be held confidentially, with a code assigned in place of my name. These data will be stored indefinitely in accordance with the Data Protection Act.
5. I also understand that at the end of the study, I will be provided with a debrief form and

the opportunity to discuss any issues with the researchers.

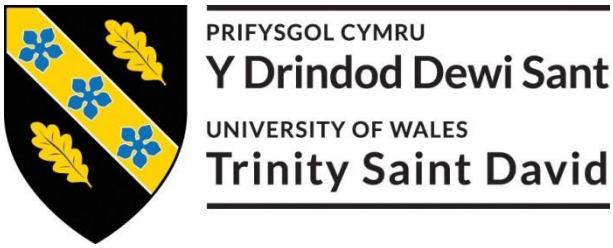
I, _____(NAME) consent to participate in the study conducted by Suzanne Pearton-Scale, School of Psychology, University of Wales Trinity Saint David, Carmarthen under the supervision of Stuart Jones.

Participant Signature: _____

Date: _____

Name and signature of the researcher taking consent

Appendix G – Debrief sheet – Phase 2 focus group



School of Psychology

Carmarthen Campus

Carmarthen

Study Debrief Sheet

Investigating British Sign Language Interpreters' Attitudes and perceptions towards Face-to-Face Versus Video Remote Interpreting in Healthcare and Education settings.

Thank you for taking part in the study.

The aim of this study was the aim to investigate British Sign Language Interpreters' attitudes and perceptions towards Face-to-Face Versus Video Remote Interpreting in Healthcare and Education settings.

We specifically wanted to find out the experiences of individuals' attitudes towards remote versus face-to-face interpreting in healthcare and educational settings.

If you have any questions or concerns regarding this study, its purpose, or procedures, or if you have a research-related problem, please feel free to contact the researcher.

If you wish to withdraw your data from the study, you must tell the researcher now. After this point, all your data will remain *confidential/anonymous,* and we will not trace it back to you.

If taking part in this study has raised any questions please speak to the researchers on 2105981@student.uwtsd.ac.uk or contact the academic supervisor Stuart Jones S.A.Jones@uwtsd.ac.uk
If any part of the study has caused upset, please contact the main researcher and they can signpost you to wellbeing and counselling services if required.

Thank you once again for taking the time to participate in this study.

Suzanne Pearton-Scale

BSc Honours Applied Psychology
University of Wales Trinity Saint David, Carmarthen

Appendix H – MCAR outputs

Summary of Estimated Means

	BELIEFS_HEALTH	BELIEFS_EDUCATION	SKILL_HEALTH_F2F	SKILLS_HEALTH_REMOTE	SKILLS_ED_F2F	SKILLS_ED_REMOTE	SUPPORT_HEALTH_F2F	SUPPORT_HEALTH_REMOTE	SUPPORT_ED_F2F	SUPPORT_ED_REMOTE	ATTITUDES_HEALTH_F2F	ATTITUDES_HEALTH_REMOTE	ATTITUDES_ED_F2F	ATTITUDES_ED_REMOTE
All Values	2.8929	3.3981	4.5714	3.5840	4.4854	3.8058	4.0926	3.8201	3.8201	3.8201	4.5105	3.2607	4.1373	3.4926
EM	2.8893	3.3433	4.5710	3.5884	4.4995	3.7850	4.0925	3.8196	3.8196	3.8196	4.5157	3.2452	4.1291	3.4879

EM Means

BELIEFS_HEALTH	BELIEFS_EDUCATION	SKILL_HEALTH_F2F	SKILLS_HEALTH_REMOTE	SKILLS_ED_F2F	SKILLS_ED_REMOTE	SUPPORT_HEALTH_F2F	SUPPORT_HEALTH_REMOTE	SUPPORT_ED_F2F	SUPPORT_ED_REMOTE	ATTITUDES_HEALTH_F2F	ATTITUDES_HEALTH_REMOTE	ATTITUDES_ED_F2F	ATTITUDES_ED_REMOTE
2.8893	3.3433	4.5710	3.5884	4.4995	3.7850	4.0925	3.8196	3.8196	3.8196	4.5157	3.2452	4.1291	3.4879

a. Little's MCAR test: Chi-Square = 143.004, DF = 133, Sig. = .261

Appendix I – SPSS outputs

SELF EFFICACY OUTPUTS

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	BELIEFS_HEALTH_SCORE	2.8911	127	.93373	.08285
	BELIEFS_ED_SCORE	3.3406	127	.92975	.08250

Paired Samples Correlations

		N	Correlation	Significance One-Sided p	Significance Two-Sided p
Pair 1	BELIEFS_HEALTH_SCORE & BELIEFS_ED_SCORE	127	.411	<.001	<.001

Paired Samples Test

		Paired Differences					t	df	Significance One-Sided p	Significance Two-Sided p
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	95% Confidence Interval of the Difference Upper				
Pair 1	BELIEFS_HEALTH_SCORE - BELIEFS_ED_SCORE	-.4947	1.01150	.08976	-.62710	-.27185	-5.008	126	<.001	<.001

Paired Samples Effect Sizes

			Standardizer[a]	Point Estimate	95% Confidence Interval Lower	95% Confidence Interval Upper
Pair 1	BELIEFS_HEALTH_SCORE - BELIEFS_ED_SCORE	Cohen's d	1.01150	-.444	-.626	-.261
		Hedges' correction	1.01757	-.442	-.622	-.260

a. The denominator used in estimating the effect sizes.
Cohen's d uses the sample standard deviation of the mean difference.
Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor.

SKILLS OUTPUTS

Within-Subjects Factors

Measure: MEASURE_1

MODE_1F2F_2REMOTE	SETTINGS_1HEALTH_2EDU	Dependent Variable
1	1	SKILLS_HEALTH_F2F
	2	SKILLS_HEALTH_REMOTE
2	1	SKILLS_ED_F2F
	2	SKILLS_ED_REMOTE

Descriptive Statistics

	Mean	Std. Deviation	N
SKILLS_HEALTH_F2F	4.5735	.65723	127
SKILLS_HEALTH_REMOTE	3.5965	1.02280	127
SKILLS_ED_F2F	4.4821	.64454	127
SKILLS_ED_REMOTE	3.7559	.91192	127

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[c]
MODE_1F2F_2REMOTE	Pillai's Trace	.002	.251[b]	1.000	126.000	.618	.002	.251	.079
	Wilks' Lambda	.998	.251[b]	1.000	126.000	.618	.002	.251	.079
	Hotelling's Trace	.002	.251[b]	1.000	126.000	.618	.002	.251	.079
	Roy's Largest Root	.002	.251[b]	1.000	126.000	.618	.002	.251	.079
SETTINGS_1HEALTH_2EDU	Pillai's Trace	.530	142.163[b]	1.000	126.000	<.001	.530	142.163	1.000
	Wilks' Lambda	.470	142.163[b]	1.000	126.000	<.001	.530	142.163	1.000
	Hotelling's Trace	1.128	142.163[b]	1.000	126.000	<.001	.530	142.163	1.000
	Roy's Largest Root	1.128	142.163[b]	1.000	126.000	<.001	.530	142.163	1.000
MODE_1F2F_2REMOTE * SETTINGS_1HEALTH_2EDU	Pillai's Trace	.040	5.210[b]	1.000	126.000	.024	.040	5.210	.620
	Wilks' Lambda	.960	5.210[b]	1.000	126.000	.024	.040	5.210	.620
	Hotelling's Trace	.041	5.210[b]	1.000	126.000	.024	.040	5.210	.620
	Roy's Largest Root	.041	5.210[b]	1.000	126.000	.024	.040	5.210	.620

a. Design: Intercept
Within Subjects Design: MODE_1F2F_2REMOTE + SETTINGS_1HEALTH_2EDU + MODE_1F2F_2REMOTE * SETTINGS_1HEALTH_2EDU

b. Exact statistic

c. Computed using alpha = .05

Mauchly's Test of Sphericity[a]

Measure: MEASURE_1

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon[b] Greenhouse-Geisser	Huynh-Feldt	Lower-bound
MODE_1F2F_2REMOTE	1.000	.000	0	.	1.000	1.000	1.000
SETTINGS_1HEALTH_2EDU	1.000	.000	0	.	1.000	1.000	1.000
MODE_1F2F_2REMOTE * SETTINGS_1HEALTH_2EDU	1.000	.000	0	.	1.000	1.000	1.000

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. Design: Intercept
Within Subjects Design: MODE_1F2F_2REMOTE + SETTINGS_1HEALTH_2EDU + MODE_1F2F_2REMOTE * SETTINGS_1HEALTH_2EDU

b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
MODE_1F2F_2REMOTE	Sphericity Assumed	.147	1	.147	.251	.618	.002	.251	.079
	Greenhouse-Geisser	.147	1.000	.147	.251	.618	.002	.251	.079
	Huynh-Feldt	.147	1.000	.147	.251	.618	.002	.251	.079
	Lower-bound	.147	1.000	.147	.251	.618	.002	.251	.079
Error (MODE_1F2F_2REMOTE)	Sphericity Assumed	73.695	126	.585					
	Greenhouse-Geisser	73.695	126.000	.585					
	Huynh-Feldt	73.695	126.000	.585					
	Lower-bound	73.695	126.000	.585					
SETTINGS_1HEALTH_2EDU	Sphericity Assumed	92.103	1	92.103	142.163	<.001	.530	142.163	1.000
	Greenhouse-Geisser	92.103	1.000	92.103	142.163	<.001	.530	142.163	1.000
	Huynh-Feldt	92.103	1.000	92.103	142.163	<.001	.530	142.163	1.000
	Lower-bound	92.103	1.000	92.103	142.163	<.001	.530	142.163	1.000
Error (SETTINGS_1HEALTH_2EDU)	Sphericity Assumed	81.631	126	.648					
	Greenhouse-Geisser	81.631	126.000	.648					
	Huynh-Feldt	81.631	126.000	.648					
	Lower-bound	81.631	126.000	.648					
MODE_1F2F_2REMOTE * SETTINGS_1HEALTH_2EDU	Sphericity Assumed	1.997	1	1.997	5.210	.024	.040	5.210	.620
	Greenhouse-Geisser	1.997	1.000	1.997	5.210	.024	.040	5.210	.620
	Huynh-Feldt	1.997	1.000	1.997	5.210	.024	.040	5.210	.620
	Lower-bound	1.997	1.000	1.997	5.210	.024	.040	5.210	.620
Error (MODE_1F2F_2REMOTE*SETTINGS_1HEALTH_2EDU)	Sphericity Assumed	48.299	126	.383					
	Greenhouse-Geisser	48.299	126.000	.383					
	Huynh-Feldt	48.299	126.000	.383					
	Lower-bound	48.299	126.000	.383					

a. Computed using alpha = .05

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	MODE_1F2F_2REMOTE	SETTINGS_1HEALTH_2EDU	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
MODE_1F2F_2REMOTE	Linear		.147	1	.147	.251	.618	.002	.251	.079
Error (MODE_1F2F_2REMOTE)	Linear		73.695	126	.585					
SETTINGS_1HEALTH_2EDU		Linear	92.103	1	92.103	142.163	<.001	.530	142.163	1.000
Error (SETTINGS_1HEALTH_2EDU)		Linear	81.631	126	.648					
MODE_1F2F_2REMOTE * SETTINGS_1HEALTH_2EDU	Linear	Linear	1.997	1	1.997	5.210	.024	.040	5.210	.620
Error (MODE_1F2F_2REMOTE*SETTINGS_1HEALTH_2EDU)	Linear	Linear	48.299	126	.383					

a. Computed using alpha = .05

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
Intercept	8547.736	1	8547.736	7707.332	<.001	.984	7707.332	1.000
Error	139.739	126	1.109					

a. Computed using alpha = .05

Estimated Marginal Means

1. Grand Mean

Measure: MEASURE_1

Mean	Std. Error	95% Confidence Interval	
		Lower Bound	Upper Bound
4.102	.047	4.010	4.194

2. MODE_1F2F_2REMOTE

Estimates

Measure: MEASURE_1

MODE_1F2F_2REMOTE	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	4.085	.057	3.973	4.197
2	4.119	.059	4.003	4.235

Pairwise Comparisons

Measure: MEASURE_1

(I) MODE_1F2F_2REMOTE	(J) MODE_1F2F_2REMOTE	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	-.034	.068	.618	-.168	.100
2	1	.034	.068	.618	-.100	.168

Based on estimated marginal means

a. Adjustment for multiple comparisons: Bonferroni.

Multivariate Tests

	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[b]
Pillai's trace	.002	.251[a]	1.000	126.000	.618	.002	.251	.079
Wilks' lambda	.998	.251[a]	1.000	126.000	.618	.002	.251	.079
Hotelling's trace	.002	.251[a]	1.000	126.000	.618	.002	.251	.079
Roy's largest root	.002	.251[a]	1.000	126.000	.618	.002	.251	.079

Each F tests the multivariate effect of MODE_1F2F_2REMOTE. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Exact statistic

b. Computed using alpha = .05

3. SETTINGS_1HEALTH_2EDU

Estimates

Measure: MEASURE_1

SETTINGS_1HEALTH_2EDU	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	4.528	.045	4.438	4.618
2	3.676	.070	3.538	3.814

Pairwise Comparisons

Measure: MEASURE_1

(I) SETTINGS_1HEALTH_2EDU	(J) SETTINGS_1HEALTH_2EDU	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
					Lower Bound	Upper Bound
1	2	.852*	.071	<.001	.710	.993
2	1	-.852*	.071	<.001	-.993	-.710

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

Multivariate Tests

	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[b]
Pillai's trace	.530	142.163[a]	1.000	126.000	<.001	.530	142.163	1.000
Wilks' lambda	.470	142.163[a]	1.000	126.000	<.001	.530	142.163	1.000
Hotelling's trace	1.128	142.163[a]	1.000	126.000	<.001	.530	142.163	1.000
Roy's largest root	1.128	142.163[a]	1.000	126.000	<.001	.530	142.163	1.000

Each F tests the multivariate effect of SETTINGS_1HEALTH_2EDU. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Exact statistic

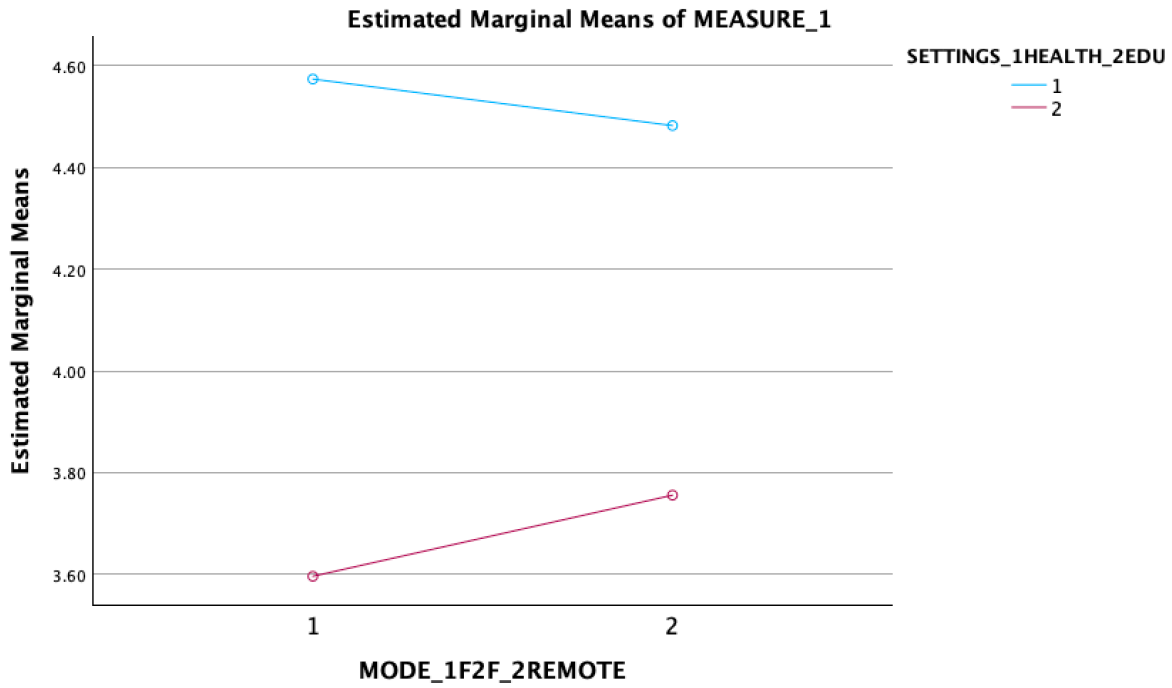
b. Computed using alpha = .05

4. MODE_1F2F_2REMOTE * SETTINGS_1HEALTH_2EDU

Measure: MEASURE_1

MODE_1F2F_2REMOTE	SETTINGS_1HEALTH_2EDU	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
1	1	4.573	.058	4.458	4.689
	2	3.596	.091	3.417	3.776
2	1	4.482	.057	4.369	4.595
	2	3.756	.081	3.596	3.916

Profile Plots



SOCIAL SUPPORT OUTPUTS

Within-Subjects Factors

Measure: MEASURE_1

mode_1F2F_2REMOTE	setting_1HEALTH_2EDU	Dependent Variable
1	1	SUPPORT_HEALTH_F2F_SCORE
	2	SUPPORT_HEALTH_REMOTE_SCORE
2	1	SUPPORT_ED_F2F_SCORE
	2	SUPPORT_ED_REMOTE_SCORE

Descriptive Statistics

	Mean	Std. Deviation	N
SUPPORT_HEALTH_F2F_SCORE	4.0948	.76979	127
SUPPORT_HEALTH_REMOTE_SCORE	3.8252	.80510	127
SUPPORT_ED_F2F_SCORE	4.2851	.71488	127
SUPPORT_ED_REMOTE_SCORE	3.9535	.76515	127

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[c]
mode_1F2F_2REMOTE	Pillai's Trace	.113	16.049[b]	1.000	126.000	<.001	.113	16.049	.978
	Wilks' Lambda	.887	16.049[b]	1.000	126.000	<.001	.113	16.049	.978
	Hotelling's Trace	.127	16.049[b]	1.000	126.000	<.001	.113	16.049	.978
	Roy's Largest Root	.127	16.049[b]	1.000	126.000	<.001	.113	16.049	.978
setting_1HEALTH_2EDU	Pillai's Trace	.158	23.566[b]	1.000	126.000	<.001	.158	23.566	.998
	Wilks' Lambda	.842	23.566[b]	1.000	126.000	<.001	.158	23.566	.998
	Hotelling's Trace	.187	23.566[b]	1.000	126.000	<.001	.158	23.566	.998
	Roy's Largest Root	.187	23.566[b]	1.000	126.000	<.001	.158	23.566	.998
mode_1F2F_2REMOTE * setting_1HEALTH_2EDU	Pillai's Trace	.009	1.164[b]	1.000	126.000	.283	.009	1.164	.188
	Wilks' Lambda	.991	1.164[b]	1.000	126.000	.283	.009	1.164	.188
	Hotelling's Trace	.009	1.164[b]	1.000	126.000	.283	.009	1.164	.188
	Roy's Largest Root	.009	1.164[b]	1.000	126.000	.283	.009	1.164	.188

a. Design: Intercept
Within Subjects Design: mode_1F2F_2REMOTE + setting_1HEALTH_2EDU + mode_1F2F_2REMOTE * setting_1HEALTH_2EDU

b. Exact statistic

c. Computed using alpha = .05

Mauchly's Test of Sphericity[a]

Measure: MEASURE_1

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon[b] Greenhouse-Geisser	Huynh-Feldt	Lower-bound
mode_1F2F_2REMOTE	1.000	.000	0	.	1.000	1.000	1.000
setting_1HEALTH_2EDU	1.000	.000	0	.	1.000	1.000	1.000
mode_1F2F_2REMOTE * setting_1HEALTH_2EDU	1.000	.000	0	.	1.000	1.000	1.000

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. Design: Intercept
Within Subjects Design: mode_1F2F_2REMOTE + setting_1HEALTH_2EDU + mode_1F2F_2REMOTE * setting_1HEALTH_2EDU

b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
mode_1F2F_2REMOTE	Sphericity Assumed	3.222	1	3.222	16.049	<.001	.113	16.049	.978
	Greenhouse-Geisser	3.222	1.000	3.222	16.049	<.001	.113	16.049	.978
	Huynh-Feldt	3.222	1.000	3.222	16.049	<.001	.113	16.049	.978
	Lower-bound	3.222	1.000	3.222	16.049	<.001	.113	16.049	.978
Error (mode_1F2F_2REMOTE)	Sphericity Assumed	25.293	126	.201					
	Greenhouse-Geisser	25.293	126.000	.201					
	Huynh-Feldt	25.293	126.000	.201					
	Lower-bound	25.293	126.000	.201					
setting_1HEALTH_2EDU	Sphericity Assumed	11.474	1	11.474	23.566	<.001	.158	23.566	.998
	Greenhouse-Geisser	11.474	1.000	11.474	23.566	<.001	.158	23.566	.998
	Huynh-Feldt	11.474	1.000	11.474	23.566	<.001	.158	23.566	.998
	Lower-bound	11.474	1.000	11.474	23.566	<.001	.158	23.566	.998
Error (setting_1HEALTH_2EDU)	Sphericity Assumed	61.349	126	.487					
	Greenhouse-Geisser	61.349	126.000	.487					
	Huynh-Feldt	61.349	126.000	.487					
	Lower-bound	61.349	126.000	.487					
mode_1F2F_2REMOTE * setting_1HEALTH_2EDU	Sphericity Assumed	.122	1	.122	1.164	.283	.009	1.164	.188
	Greenhouse-Geisser	.122	1.000	.122	1.164	.283	.009	1.164	.188
	Huynh-Feldt	.122	1.000	.122	1.164	.283	.009	1.164	.188
	Lower-bound	.122	1.000	.122	1.164	.283	.009	1.164	.188
Error (mode_1F2F_2REMOTE*setting_1HEALTH_2EDU)	Sphericity Assumed	13.177	126	.105					
	Greenhouse-Geisser	13.177	126.000	.105					
	Huynh-Feldt	13.177	126.000	.105					
	Lower-bound	13.177	126.000	.105					

a. Computed using alpha = .05

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	mode_1F2F_2REMOTE	setting_1HEALTH_2EDU	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
mode_1F2F_2REMOTE	Linear		3.222	1	3.222	16.049	<.001	.113	16.049	.978
Error (mode_1F2F_2REMOTE)	Linear		25.293	126	.201					
setting_1HEALTH_2EDU		Linear	11.474	1	11.474	23.566	<.001	.158	23.566	.998
Error (setting_1HEALTH_2EDU)		Linear	61.349	126	.487					
mode_1F2F_2REMOTE * setting_1HEALTH_2EDU	Linear	Linear	.122	1	.122	1.164	.283	.009	1.164	.188
Error (mode_1F2F_2REMOTE*setting_1HEALTH_2EDU)	Linear	Linear	13.177	126	.105					

a. Computed using alpha = .05

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
Intercept	8289.905	1	8289.905	5365.408	<.001	.977	5365.408	1.000
Error	194.678	126	1.545					

a. Computed using alpha = .05

Estimated Marginal Means

1. Grand Mean

Measure: MEASURE_1

Mean	Std. Error	95% Confidence Interval	
		Lower Bound	Upper Bound
4.040	.055	3.931	4.149

2. mode_1F2F_2REMOTE

Estimates

Measure: MEASURE_1

mode_1F2F_2REMOTE	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	3.960	.059	3.843	4.077
2	4.119	.058	4.005	4.234

Pairwise Comparisons

Measure: MEASURE_1

(I) mode_1F2F_2REMOTE	(J) mode_1F2F_2REMOTE	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b] Lower Bound	Upper Bound
1	2	-.159*	.040	<.001	-.238	-.081
2	1	.159*	.040	<.001	.081	.238

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

Multivariate Tests

	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[b]
Pillai's trace	.113	16.049[a]	1.000	126.000	<.001	.113	16.049	.978
Wilks' lambda	.887	16.049[a]	1.000	126.000	<.001	.113	16.049	.978
Hotelling's trace	.127	16.049[a]	1.000	126.000	<.001	.113	16.049	.978
Roy's largest root	.127	16.049[a]	1.000	126.000	<.001	.113	16.049	.978

Each F tests the multivariate effect of mode_1F2F_2REMOTE. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Exact statistic

b. Computed using alpha = .05

Estimates

Measure: MEASURE_1

setting_1HEALTH_2EDU	Mean	Std. Error	95% Confidence Interval Lower Bound	Upper Bound
1	4.190	.062	4.068	4.312
2	3.889	.065	3.761	4.018

Pairwise Comparisons

Measure: MEASURE_1

(I) setting_1HEALTH_2EDU	(J) setting_1HEALTH_2EDU	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b] Lower Bound	Upper Bound
1	2	.301*	.062	<.001	.178	.423
2	1	-.301*	.062	<.001	-.423	-.178

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

Multivariate Tests

	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[b]
Pillai's trace	.158	23.566[a]	1.000	126.000	<.001	.158	23.566	.998
Wilks' lambda	.842	23.566[a]	1.000	126.000	<.001	.158	23.566	.998
Hotelling's trace	.187	23.566[a]	1.000	126.000	<.001	.158	23.566	.998
Roy's largest root	.187	23.566[a]	1.000	126.000	<.001	.158	23.566	.998

Each F tests the multivariate effect of setting_1HEALTH_2EDU. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Exact statistic

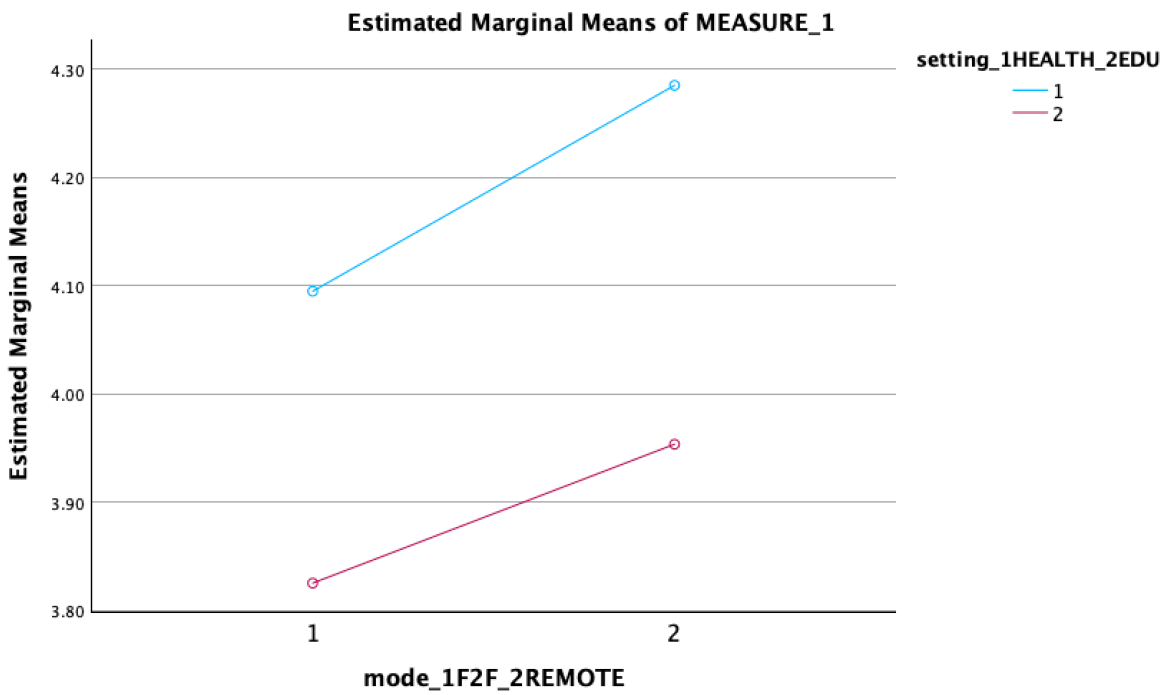
b. Computed using alpha = .05

4. mode_1F2F_2REMOTE * setting_1HEALTH_2EDU

Measure: MEASURE_1

mode_1F2F_2REMOTE	setting_1HEALTH_2EDU	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
1	1	4.095	.068	3.960	4.230
	2	3.825	.071	3.684	3.967
2	1	4.285	.063	4.160	4.411
	2	3.954	.068	3.819	4.088

Profile Plots



ATTITUDES OUTPUTS

Within-Subjects Factors

Measure: MEASURE_1

mode_1F2F_2REMOTE	setting_1HEALTH_2EDU	Dependent Variable
1	1	ATTITUDES_HEALTH_F2F_SCORE
	2	ATTITUDES_HEALTH_REMOTE_SCORE
2	1	ATTITUDES_ED_F2F_SCORE
	2	ATTITUDES_ED_REMOTE_SCORE

Descriptive Statistics

	Mean	Std. Deviation	N
ATTITUDES_HEALTH_F2F_SCORE	4.5125	.55442	127
ATTITUDES_HEALTH_REMOTE_SCORE	3.2573	.87971	127
ATTITUDES_ED_F2F_SCORE	4.1483	.66413	127
ATTITUDES_ED_REMOTE_SCORE	3.4830	.72673	127

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[c]
mode_1F2F_2REMOTE	Pillai's Trace	.010	1.291[b]	1.000	126.000	.258	.010	1.291	.204
	Wilks' Lambda	.990	1.291[b]	1.000	126.000	.258	.010	1.291	.204
	Hotelling's Trace	.010	1.291[b]	1.000	126.000	.258	.010	1.291	.204
	Roy's Largest Root	.010	1.291[b]	1.000	126.000	.258	.010	1.291	.204
setting_1HEALTH_2EDU	Pillai's Trace	.637	221.040[b]	1.000	126.000	<.001	.637	221.040	1.000
	Wilks' Lambda	.363	221.040[b]	1.000	126.000	<.001	.637	221.040	1.000
	Hotelling's Trace	1.754	221.040[b]	1.000	126.000	<.001	.637	221.040	1.000
	Roy's Largest Root	1.754	221.040[b]	1.000	126.000	<.001	.637	221.040	1.000
mode_1F2F_2REMOTE * setting_1HEALTH_2EDU	Pillai's Trace	.277	48.369[b]	1.000	126.000	<.001	.277	48.369	1.000
	Wilks' Lambda	.723	48.369[b]	1.000	126.000	<.001	.277	48.369	1.000
	Hotelling's Trace	.384	48.369[b]	1.000	126.000	<.001	.277	48.369	1.000
	Roy's Largest Root	.384	48.369[b]	1.000	126.000	<.001	.277	48.369	1.000

a. Design: Intercept
Within Subjects Design: mode_1F2F_2REMOTE + setting_1HEALTH_2EDU + mode_1F2F_2REMOTE * setting_1HEALTH_2EDU

b. Exact statistic

c. Computed using alpha = .05

Mauchly's Test of Sphericity[a]

Measure: MEASURE_1

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon[b] Greenhouse-Geisser	Huynh-Feldt	Lower-bound
mode_1F2F_2REMOTE	1.000	.000	0	.	1.000	1.000	1.000
setting_1HEALTH_2EDU	1.000	.000	0	.	1.000	1.000	1.000
mode_1F2F_2REMOTE * setting_1HEALTH_2EDU	1.000	.000	0	.	1.000	1.000	1.000

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. Design: Intercept
Within Subjects Design: mode_1F2F_2REMOTE + setting_1HEALTH_2EDU + mode_1F2F_2REMOTE * setting_1HEALTH_2EDU

b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
mode_1F2F_2REMOTE	Sphericity Assumed	.609	1	.609	1.291	.258	.010	1.291	.204
	Greenhouse-Geisser	.609	1.000	.609	1.291	.258	.010	1.291	.204
	Huynh-Feldt	.609	1.000	.609	1.291	.258	.010	1.291	.204
	Lower-bound	.609	1.000	.609	1.291	.258	.010	1.291	.204
Error (mode_1F2F_2REMOTE)	Sphericity Assumed	59.443	126	.472					
	Greenhouse-Geisser	59.443	126.000	.472					
	Huynh-Feldt	59.443	126.000	.472					
	Lower-bound	59.443	126.000	.472					
setting_1HEALTH_2EDU	Sphericity Assumed	117.112	1	117.112	221.040	<.001	.637	221.040	1.000
	Greenhouse-Geisser	117.112	1.000	117.112	221.040	<.001	.637	221.040	1.000
	Huynh-Feldt	117.112	1.000	117.112	221.040	<.001	.637	221.040	1.000
	Lower-bound	117.112	1.000	117.112	221.040	<.001	.637	221.040	1.000
Error (setting_1HEALTH_2EDU)	Sphericity Assumed	66.758	126	.530					
	Greenhouse-Geisser	66.758	126.000	.530					
	Huynh-Feldt	66.758	126.000	.530					
	Lower-bound	66.758	126.000	.530					
mode_1F2F_2REMOTE * setting_1HEALTH_2EDU	Sphericity Assumed	11.049	1	11.049	48.369	<.001	.277	48.369	1.000
	Greenhouse-Geisser	11.049	1.000	11.049	48.369	<.001	.277	48.369	1.000
	Huynh-Feldt	11.049	1.000	11.049	48.369	<.001	.277	48.369	1.000
	Lower-bound	11.049	1.000	11.049	48.369	<.001	.277	48.369	1.000
Error (mode_1F2F_2REMOTE*setting_1HEALTH_2EDU)	Sphericity Assumed	28.781	126	.228					
	Greenhouse-Geisser	28.781	126.000	.228					
	Huynh-Feldt	28.781	126.000	.228					
	Lower-bound	28.781	126.000	.228					

a. Computed using alpha = .05

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	mode_1F2F_2REMOTE	setting_1HEALTH_2EDU	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
mode_1F2F_2REMOTE	Linear		.609	1	.609	1.291	.258	.010	1.291	.204
Error (mode_1F2F_2REMOTE)	Linear		59.443	126	.472					
setting_1HEALTH_2EDU		Linear	117.112	1	117.112	221.040	<.001	.637	221.040	1.000
Error (setting_1HEALTH_2EDU)		Linear	66.758	126	.530					
mode_1F2F_2REMOTE * setting_1HEALTH_2EDU	Linear	Linear	11.049	1	11.049	48.369	<.001	.277	48.369	1.000
Error (mode_1F2F_2REMOTE*setting_1HEALTH_2EDU)	Linear	Linear	28.781	126	.228					

a. Computed using alpha = .05

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
Intercept	7530.789	1	7530.789	9178.702	<.001	.986	9178.702	1.000
Error	103.378	126	.820					

a. Computed using alpha = .05

Estimated Marginal Means

1. Grand Mean

Measure: MEASURE_1

Mean	Std. Error	95% Confidence Interval	
		Lower Bound	Upper Bound
3.850	.040	3.771	3.930

2. mode_1F2F_2REMOTE

Estimates

Measure: MEASURE_1

mode_1F2F_2REMOTE	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	3.885	.046	3.793	3.976
2	3.816	.054	3.708	3.923

Pairwise Comparisons

Measure: MEASURE_1

(I) mode_1F2F_2REMOTE	(J) mode_1F2F_2REMOTE	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	.069	.061	.258	-.051	.190
2	1	-.069	.061	.258	-.190	.051

Based on estimated marginal means

a. Adjustment for multiple comparisons: Bonferroni.

Multivariate Tests

	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[b]
Pillai's trace	.010	1.291[a]	1.000	126.000	.258	.010	1.291	.204
Wilks' lambda	.990	1.291[a]	1.000	126.000	.258	.010	1.291	.204
Hotelling's trace	.010	1.291[a]	1.000	126.000	.258	.010	1.291	.204
Roy's largest root	.010	1.291[a]	1.000	126.000	.258	.010	1.291	.204

Each F tests the multivariate effect of mode_1F2F_2REMOTE. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Exact statistic

b. Computed using alpha = .05

3. setting_1HEALTH_2EDU

Estimates

Measure: MEASURE_1

setting_1HEALTH_2EDU	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	4.330	.042	4.247	4.414
2	3.370	.059	3.253	3.488

Pairwise Comparisons

Measure: MEASURE_1

(I) setting_1HEALTH_2EDU	(J) setting_1HEALTH_2EDU	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
					Lower Bound	Upper Bound
1	2	.960*	.065	<.001	.832	1.088
2	1	-.960*	.065	<.001	-1.088	-.832

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

Multivariate Tests

	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[b]
Pillai's trace	.637	221.040[a]	1.000	126.000	<.001	.637	221.040	1.000
Wilks' lambda	.363	221.040[a]	1.000	126.000	<.001	.637	221.040	1.000
Hotelling's trace	1.754	221.040[a]	1.000	126.000	<.001	.637	221.040	1.000
Roy's largest root	1.754	221.040[a]	1.000	126.000	<.001	.637	221.040	1.000

Each F tests the multivariate effect of setting_1HEALTH_2EDU. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Exact statistic

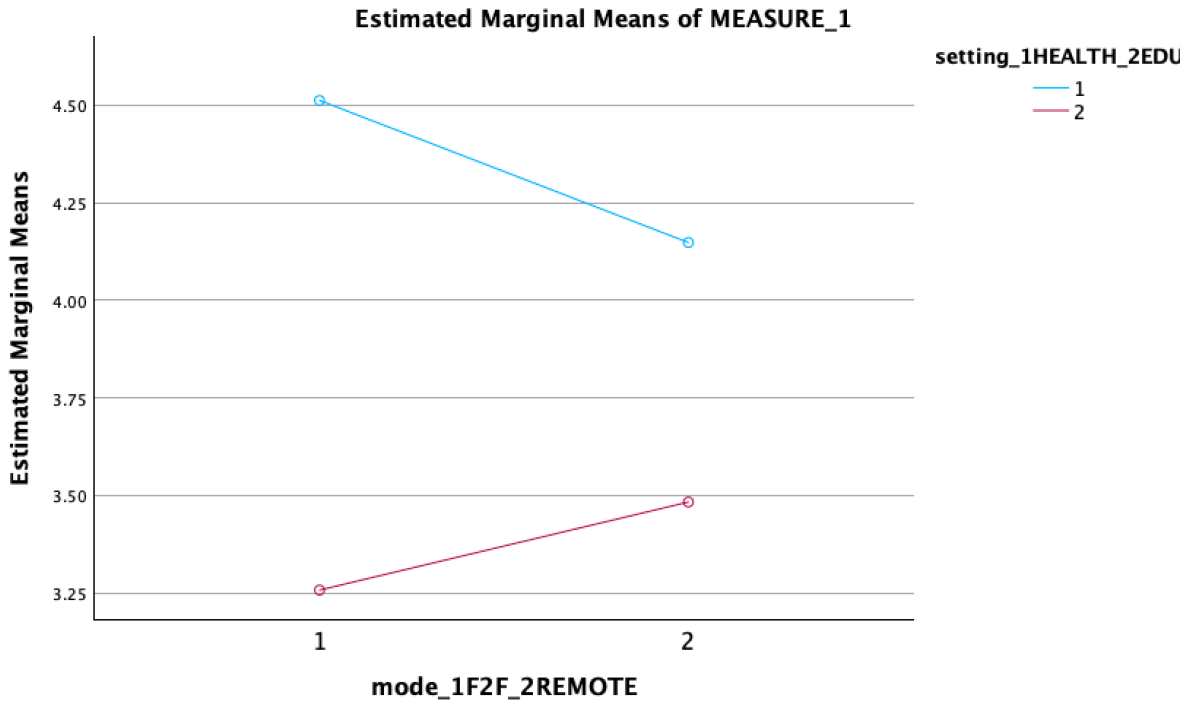
b. Computed using alpha = .05

4. mode_1F2F_2REMOTE * setting_1HEALTH_2EDU

Measure: MEASURE_1

mode_1F2F_2REMOTE	setting_1HEALTH_2EDU	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
1	1	4.512	.049	4.415	4.610
	2	3.257	.078	3.103	3.412
2	1	4.148	.059	4.032	4.265
	2	3.483	.064	3.355	3.611

Profile Plots



POSTIVE EMOTIONS OUTPUTS

Within-Subjects Factors

Measure: MEASURE_1

mode_1F2F_2REMOTE	setting_1HEALTH_2EDU	Dependent Variable
1	1	F2F_HEALTH_POSITIVESCORE
	2	F2F_ED_POSITIVESCORE
2	1	REMOTE_HEALTH_NEGATIVESCORE
	2	REMOTE_ED_POSITIVESCORE

Descriptive Statistics

	Mean	Std. Deviation	N
F2F_HEALTH_POSITIVESCORE	1.8869	1.73870	168
F2F_ED_POSITIVESCORE	1.6964	1.83694	168
REMOTE_HEALTH_NEGATIVESCORE	.8929	1.13219	168
REMOTE_ED_POSITIVESCORE	.9464	1.41531	168

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[c]
mode_1F2F_2REMOTE	Pillai's Trace	.366	96.537[b]	1.000	167.000	<.001	.366	96.537	1.000
	Wilks' Lambda	.634	96.537[b]	1.000	167.000	<.001	.366	96.537	1.000
	Hotelling's Trace	.578	96.537[b]	1.000	167.000	<.001	.366	96.537	1.000
	Roy's Largest Root	.578	96.537[b]	1.000	167.000	<.001	.366	96.537	1.000
setting_1HEALTH_2EDU	Pillai's Trace	.002	.369[b]	1.000	167.000	.544	.002	.369	.093
	Wilks' Lambda	.998	.369[b]	1.000	167.000	.544	.002	.369	.093
	Hotelling's Trace	.002	.369[b]	1.000	167.000	.544	.002	.369	.093
	Roy's Largest Root	.002	.369[b]	1.000	167.000	.544	.002	.369	.093
mode_1F2F_2REMOTE * setting_1HEALTH_2EDU	Pillai's Trace	.018	3.135[b]	1.000	167.000	.078	.018	3.135	.421
	Wilks' Lambda	.982	3.135[b]	1.000	167.000	.078	.018	3.135	.421
	Hotelling's Trace	.019	3.135[b]	1.000	167.000	.078	.018	3.135	.421
	Roy's Largest Root	.019	3.135[b]	1.000	167.000	.078	.018	3.135	.421

a. Design: Intercept
Within Subjects Design: mode_1F2F_2REMOTE + setting_1HEALTH_2EDU + mode_1F2F_2REMOTE * setting_1HEALTH_2EDU

b. Exact statistic

c. Computed using alpha = .05

Mauchly's Test of Sphericity[a]

Measure: MEASURE_1

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon[b] Greenhouse-Geisser	Huynh-Feldt	Lower-bound
mode_1F2F_2REMOTE	1.000	.000	0	.	1.000	1.000	1.000
setting_1HEALTH_2EDU	1.000	.000	0	.	1.000	1.000	1.000
mode_1F2F_2REMOTE * setting_1HEALTH_2EDU	1.000	.000	0	.	1.000	1.000	1.000

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. Design: Intercept
Within Subjects Design: mode_1F2F_2REMOTE + setting_1HEALTH_2EDU + mode_1F2F_2REMOTE * setting_1HEALTH_2EDU

b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
mode_1F2F_2REMOTE	Sphericity Assumed	127.751	1	127.751	96.537	<.001	.366	96.537	1.000
	Greenhouse-Geisser	127.751	1.000	127.751	96.537	<.001	.366	96.537	1.000
	Huynh-Feldt	127.751	1.000	127.751	96.537	<.001	.366	96.537	1.000
	Lower-bound	127.751	1.000	127.751	96.537	<.001	.366	96.537	1.000
Error (mode_1F2F_2REMOTE)	Sphericity Assumed	220.999	167	1.323					
	Greenhouse-Geisser	220.999	167.000	1.323					
	Huynh-Feldt	220.999	167.000	1.323					
	Lower-bound	220.999	167.000	1.323					
setting_1HEALTH_2EDU	Sphericity Assumed	.787	1	.787	.369	.544	.002	.369	.093
	Greenhouse-Geisser	.787	1.000	.787	.369	.544	.002	.369	.093
	Huynh-Feldt	.787	1.000	.787	.369	.544	.002	.369	.093
	Lower-bound	.787	1.000	.787	.369	.544	.002	.369	.093
Error (setting_1HEALTH_2EDU)	Sphericity Assumed	355.963	167	2.132					
	Greenhouse-Geisser	355.963	167.000	2.132					
	Huynh-Feldt	355.963	167.000	2.132					
	Lower-bound	355.963	167.000	2.132					
mode_1F2F_2REMOTE * setting_1HEALTH_2EDU	Sphericity Assumed	2.501	1	2.501	3.135	.078	.018	3.135	.421
	Greenhouse-Geisser	2.501	1.000	2.501	3.135	.078	.018	3.135	.421
	Huynh-Feldt	2.501	1.000	2.501	3.135	.078	.018	3.135	.421
	Lower-bound	2.501	1.000	2.501	3.135	.078	.018	3.135	.421
Error (mode_1F2F_2REMOTE*setting_1HEALTH_2EDU)	Sphericity Assumed	133.249	167	.798					
	Greenhouse-Geisser	133.249	167.000	.798					
	Huynh-Feldt	133.249	167.000	.798					
	Lower-bound	133.249	167.000	.798					

a. Computed using alpha = .05

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	mode_1F2F_2REMOTE	setting_1HEALTH_2EDU	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
mode_1F2F_2REMOTE	Linear		127.751	1	127.751	96.537	<.001	.366	96.537	1.000
Error (mode_1F2F_2REMOTE)	Linear		220.999	167	1.323					
setting_1HEALTH_2EDU		Linear	.787	1	.787	.369	.544	.002	.369	.093
Error (setting_1HEALTH_2EDU)		Linear	355.963	167	2.132					
mode_1F2F_2REMOTE * setting_1HEALTH_2EDU	Linear	Linear	2.501	1	2.501	3.135	.078	.018	3.135	.421
Error (mode_1F2F_2REMOTE*setting_1HEALTH_2EDU)	Linear	Linear	133.249	167	.798					

a. Computed using alpha = .05

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
Intercept	1235.001	1	1235.001	227.456	<.001	.577	227.456	1.000
Error	906.749	167	5.430					

a. Computed using alpha = .05

Estimated Marginal Means

1. Grand Mean

Measure: MEASURE_1

Mean	Std. Error	95% Confidence Interval	
		Lower Bound	Upper Bound
1.356	.090	1.178	1.533

2. mode_1F2F_2REMOTE

Estimates

Measure: MEASURE_1

mode_1F2F_2REMOTE	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	1.792	.121	1.552	2.031
2	.920	.073	.775	1.065

Pairwise Comparisons

Measure: MEASURE_1

(I) mode_1F2F_2REMOTE	(J) mode_1F2F_2REMOTE	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
					Lower Bound	Upper Bound
1	2	.872*	.089	<.001	.697	1.047
2	1	-.872*	.089	<.001	-1.047	-.697

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

Multivariate Tests

	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[b]
Pillai's trace	.366	96.537[a]	1.000	167.000	<.001	.366	96.537	1.000
Wilks' lambda	.634	96.537[a]	1.000	167.000	<.001	.366	96.537	1.000
Hotelling's trace	.578	96.537[a]	1.000	167.000	<.001	.366	96.537	1.000
Roy's largest root	.578	96.537[a]	1.000	167.000	<.001	.366	96.537	1.000

Each F tests the multivariate effect of mode_1F2F_2REMOTE. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Exact statistic

b. Computed using alpha = .05

3. setting_1HEALTH_2EDU

Estimates

Measure: MEASURE_1

setting_1HEALTH_2EDU	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	1.390	.097	1.199	1.581
2	1.321	.115	1.095	1.548

Pairwise Comparisons

Measure: MEASURE_1

(I) setting_1HEALTH_2EDU	(J) setting_1HEALTH_2EDU	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	.068	.113	.544	-.154	.291
2	1	-.068	.113	.544	-.291	.154

Based on estimated marginal means

a. Adjustment for multiple comparisons: Bonferroni.

Multivariate Tests

	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[b]
Pillai's trace	.002	.369[a]	1.000	167.000	.544	.002	.369	.093
Wilks' lambda	.998	.369[a]	1.000	167.000	.544	.002	.369	.093
Hotelling's trace	.002	.369[a]	1.000	167.000	.544	.002	.369	.093
Roy's largest root	.002	.369[a]	1.000	167.000	.544	.002	.369	.093

Each F tests the multivariate effect of setting_1HEALTH_2EDU. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Exact statistic

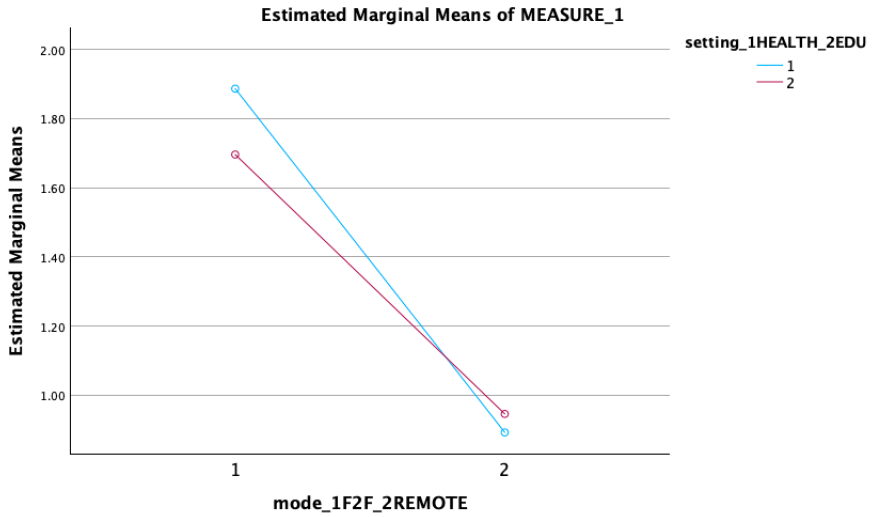
b. Computed using alpha = .05

4. mode_1F2F_2REMOTE * setting_1HEALTH_2EDU

Measure: MEASURE_1

mode_1F2F_2REMOTE	setting_1HEALTH_2EDU	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
1	1	1.887	.134	1.622	2.152
	2	1.696	.142	1.417	1.976
2	1	.893	.087	.720	1.065
	2	.946	.109	.731	1.162

Profile Plots



NEGATIVE EMOTIONS OUTPUTS

Within-Subjects Factors

Measure: MEASURE_1

mode_1F2F_2REMOTE	setting_1HEALTH_2EDU	Dependent Variable
1	1	F2F_HEALTH_NEGATIVESCORE
	2	F2F_ED_NEGATIVESCORE
2	1	REMOTE_HEALTH_NEGATIVESCORE
	2	REMOTE_ED_NEGATIVESCORE

Descriptive Statistics

	Mean	Std. Deviation	N
F2F_HEALTH_NEGATIVESCORE	.2798	.74966	168
F2F_ED_NEGATIVESCORE	.2143	.64875	168
REMOTE_HEALTH_NEGATIVESCORE	.8929	1.13219	168
REMOTE_ED_NEGATIVESCORE	.5714	.95761	168

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[c]
mode_1F2F_2REMOTE	Pillai's Trace	.270	61.874[b]	1.000	167.000	<.001	.270	61.874	1.000
	Wilks' Lambda	.730	61.874[b]	1.000	167.000	<.001	.270	61.874	1.000
	Hotelling's Trace	.371	61.874[b]	1.000	167.000	<.001	.270	61.874	1.000
	Roy's Largest Root	.371	61.874[b]	1.000	167.000	<.001	.270	61.874	1.000
setting_1HEALTH_2EDU	Pillai's Trace	.070	12.656[b]	1.000	167.000	<.001	.070	12.656	.943
	Wilks' Lambda	.930	12.656[b]	1.000	167.000	<.001	.070	12.656	.943
	Hotelling's Trace	.076	12.656[b]	1.000	167.000	<.001	.070	12.656	.943
	Roy's Largest Root	.076	12.656[b]	1.000	167.000	<.001	.070	12.656	.943
mode_1F2F_2REMOTE * setting_1HEALTH_2EDU	Pillai's Trace	.062	11.073[b]	1.000	167.000	.001	.062	11.073	.911
	Wilks' Lambda	.938	11.073[b]	1.000	167.000	.001	.062	11.073	.911
	Hotelling's Trace	.066	11.073[b]	1.000	167.000	.001	.062	11.073	.911
	Roy's Largest Root	.066	11.073[b]	1.000	167.000	.001	.062	11.073	.911

a. Design: Intercept
Within Subjects Design: mode_1F2F_2REMOTE + setting_1HEALTH_2EDU + mode_1F2F_2REMOTE * setting_1HEALTH_2EDU

b. Exact statistic

c. Computed using alpha = .05

Mauchly's Test of Sphericity[a]

Measure: MEASURE_1

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon[b] Greenhouse-Geisser	Huynh-Feldt	Lower-bound
mode_1F2F_2REMOTE	1.000	.000	0	.	1.000	1.000	1.000
setting_1HEALTH_2EDU	1.000	.000	0	.	1.000	1.000	1.000
mode_1F2F_2REMOTE * setting_1HEALTH_2EDU	1.000	.000	0	.	1.000	1.000	1.000

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. Design: Intercept
Within Subjects Design: mode_1F2F_2REMOTE + setting_1HEALTH_2EDU + mode_1F2F_2REMOTE * setting_1HEALTH_2EDU

b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
mode_1F2F_2REMOTE	Sphericity Assumed	39.537	1	39.537	61.874	<.001	.270	61.874	1.000
	Greenhouse-Geisser	39.537	1.000	39.537	61.874	<.001	.270	61.874	1.000
	Huynh-Feldt	39.537	1.000	39.537	61.874	<.001	.270	61.874	1.000
	Lower-bound	39.537	1.000	39.537	61.874	<.001	.270	61.874	1.000
Error (mode_1F2F_2REMOTE)	Sphericity Assumed	106.713	167	.639					
	Greenhouse-Geisser	106.713	167.000	.639					
	Huynh-Feldt	106.713	167.000	.639					
	Lower-bound	106.713	167.000	.639					
setting_1HEALTH_2EDU	Sphericity Assumed	6.287	1	6.287	12.656	<.001	.070	12.656	.943
	Greenhouse-Geisser	6.287	1.000	6.287	12.656	<.001	.070	12.656	.943
	Huynh-Feldt	6.287	1.000	6.287	12.656	<.001	.070	12.656	.943
	Lower-bound	6.287	1.000	6.287	12.656	<.001	.070	12.656	.943
Error (setting_1HEALTH_2EDU)	Sphericity Assumed	82.963	167	.497					
	Greenhouse-Geisser	82.963	167.000	.497					
	Huynh-Feldt	82.963	167.000	.497					
	Lower-bound	82.963	167.000	.497					
mode_1F2F_2REMOTE * setting_1HEALTH_2EDU	Sphericity Assumed	2.751	1	2.751	11.073	.001	.062	11.073	.911
	Greenhouse-Geisser	2.751	1.000	2.751	11.073	.001	.062	11.073	.911
	Huynh-Feldt	2.751	1.000	2.751	11.073	.001	.062	11.073	.911
	Lower-bound	2.751	1.000	2.751	11.073	.001	.062	11.073	.911
Error (mode_1F2F_2REMOTE*setting_1HEALTH_2EDU)	Sphericity Assumed	41.499	167	.248					
	Greenhouse-Geisser	41.499	167.000	.248					
	Huynh-Feldt	41.499	167.000	.248					
	Lower-bound	41.499	167.000	.248					

a. Computed using alpha = .05

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	mode_1F2F_2REMOTE	setting_1HEALTH_2EDU	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
mode_1F2F_2REMOTE	Linear		39.537	1	39.537	61.874	<.001	.270	61.874	1.000
Error (mode_1F2F_2REMOTE)	Linear		106.713	167	.639					
setting_1HEALTH_2EDU		Linear	6.287	1	6.287	12.656	<.001	.070	12.656	.943
Error (setting_1HEALTH_2EDU)		Linear	82.963	167	.497					
mode_1F2F_2REMOTE * setting_1HEALTH_2EDU	Linear	Linear	2.751	1	2.751	11.073	.001	.062	11.073	.911
Error (mode_1F2F_2REMOTE*setting_1HEALTH_2EDU)	Linear	Linear	41.499	167	.248					

a. Computed using alpha = .05

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
Intercept	161.073	1	161.073	89.611	<.001	.349	89.611	1.000
Error	300.177	167	1.797					

a. Computed using alpha = .05

Estimated Marginal Means

1. Grand Mean

Measure: MEASURE_1

Mean	Std. Error	95% Confidence Interval	
		Lower Bound	Upper Bound
.490	.052	.387	.592

2. mode_1F2F_2REMOTE

Estimates

Measure: MEASURE_1

mode_1F2F_2REMOTE	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	.247	.047	.155	.339
2	.732	.071	.591	.873

Pairwise Comparisons

Measure: MEASURE_1

(I) mode_1F2F_2REMOTE	(J) mode_1F2F_2REMOTE	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
					Lower Bound	Upper Bound
1	2	-.485*	.062	<.001	-.607	-.363
2	1	.485*	.062	<.001	.363	.607

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

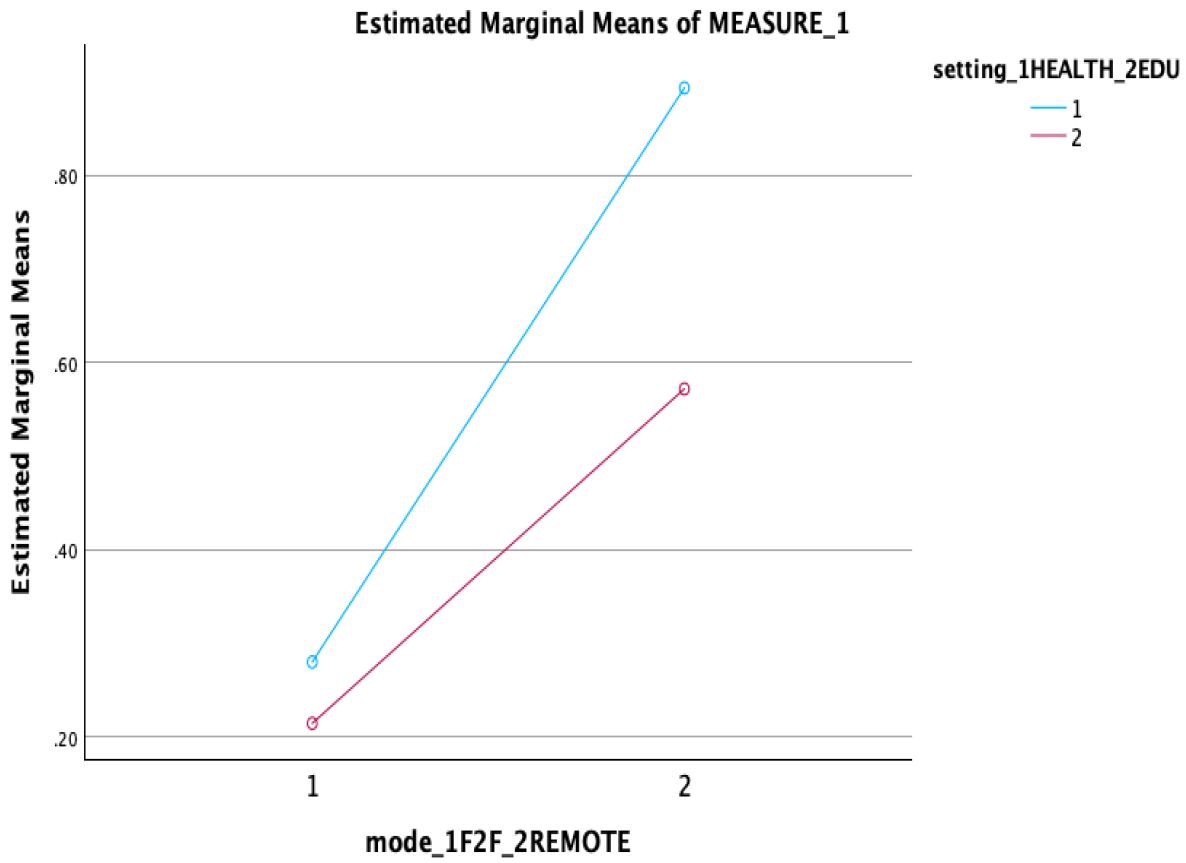
4. mode_1F2F_2REMOTE * setting_1HEALTH_2EDU

Measure: MEASURE_1

mode_1F2F_2REMOTE	setting_1HEALTH_2EDU	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
1	1	.280	.058	.166	.394
	2	.214	.050	.115	.313
2	1	.893	.087	.720	1.065
	2	.571	.074	.426	.717

Estimates

Measure: MEASURE_1

setting_1HEALTH_2EDU	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
1	.586	.061	.465	.707
2	.393	.055	.284	.502

Profile Plots