

2012

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Recommended Citation

Diamond, Lisa C. and Otero-Sabogal, Regina (2012) "Bilingual Dual-Role Staff Interpreters in the Health Care Setting: Factors Associated With Passing a Language Competency Test," *International Journal of Interpreter Education*: Vol. 4 : Iss. 1 , Article 3.

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Bilingual Dual-Role Staff Interpreters in the Health Care Setting: Factors Associated With Passing a Language Competency Test

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Abstract

Although using trained interpreters can improve care for patients with limited English proficiency, using untrained interpreters may impair it. Without a valid language skills test for interpreters, it is difficult for health care organizations to identify bilingual staff who can serve in a dual role as interpreters. We hypothesized that individuals born outside the U.S. with a higher education level and prior interpreting training and reporting high confidence in interpreting abilities would be more likely to pass a test to function as a dual-role interpreter. We surveyed and tested 387 dual-role interpreters in a large, integrated health care organization. There was a positive association between the above factors and passing the test. Studies like these may help health care organizations to better screen dual-role interpreters. Until standards for interpreters are developed, anyone asked to function as an interpreter in a health care setting, including dual-role interpreters, should undergo testing.

Keywords: interpreter; foreign born; survey; testing, assessment and evaluation; training

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1. Background

Although using trained interpreters has been shown to improve quality of care and outcomes for patients with limited English proficiency (LEP; G. Flores, 2005; Karliner, Jacobs, Chen, & Mutha, 2007), using untrained, ad hoc interpreters may impair them (Gany et al., 2007; Gerrish, Chau, Sobowale, & Birks, 2004). Effective communication between patients and providers is critical to the delivery of safe, high-quality care. With approximately 100 languages commonly spoken in the U.S. (Shin & Bruno, 2003), it is often not feasible to provide professional interpreter services for all LEP patients. Providers often resort to other means to communicate with these patients, including family members, friends, and bilingual ancillary or clinical staff who serve a dual role as interpreters in a medical setting. *Dual-role interpreters* are generally ad hoc interpreters who are hired in an administrative or clinical position as their primary role but use their bilingual language skills to serve as interpreters in a secondary role (Wilson-Stonks & Galvez, 2007). A bilingual employee may provide direct services in both languages, but without confirmation of language proficiency and additional training in interpreter ethics and confidentiality, this employee is not qualified to serve as an interpreter (National Council on Interpreting in Health Care, 2010). The U.S. government mandates that health care organizations ensure that interpreters achieve proficiency in English and the target language, complete formal training, and comply with ongoing quality assurance (U.S. Department of Health and Human Services, Office of Minority Health, 2001). Despite the national movement for standards and training, the literature contains few studies of the contributing factors associated with passing medical interpretation tests.

Serving as a dual-role interpreter does not ensure the language proficiency and interpreter skills needed to provide protection of a patient's confidentiality, impartiality, accuracy, and completeness of interpretation, which are commonly included in interpreter trainings. Frequently, dual-role interpreters have not received training in medical terminology, a code of ethics, and patient confidentiality. Even when using trained, experienced interpreters, there are variations in medical interpretation. A recent study of routine clinical encounters identified alterations in 31% of all utterances, only 5% of which had a clinically significant effect on the clinical encounter (1% had a positive effect and 4% had a negative effect; Jackson, Nguyen, Hu, Harris, & Terasaki, 2010). Several studies have shown that untrained dual-role interpreters are more likely than professional interpreters to make significant errors with potential clinical consequences when interpreting for LEP patients (G. Flores et al., 2003; G. Flores, M.D., 2006; Gany et al., 2007; Moreno, Otero-Sabogal, & Newman, 2007). One study showed that untrained, dual-role interpreters (who were administrative and not clinical staff) made 83% more interpretation

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errors compared to trained interpreters. When untrained dual-role interpreters were tested for language competency including medical vocabulary, 23% did not pass a test at the level to be able to assist with provider–patient communication (Moreno et al., 2007).

Without a valid and reliable language skills test that will allow all interpreters, both dual role and professional, to be able to demonstrate the knowledge and skills they possess, it is difficult for health care organizations to identify bilingual staff who might do well serving in a dual role as interpreters and those who would not (Moreno et al., 2007). Understanding which factors might influence a bilingual staff member’s ability to serve as a qualified dual-role interpreter in the health care setting—in particular, passing or failing a language competency test—would be helpful in the process of hiring and training bilingual staff. Factors that could affect dual-role staff interpreter language skills include being born outside of the U.S., higher education level, experience with interpreting, and confidence in interpreting abilities (Bandura, 1977, 1994; Capps, Fix, Passel, Ost, & Perez-Lopez, 2003; Downey & Zun, 2007). A study from the Urban Institute found that 14% of workers in the U.S. in 2002 were foreign born, and many could be found in administrative and allied health jobs, suggesting that they may be asked to serve as dual-role interpreters (Capps et al., 2003). Although the perception is that many foreign-born workers enter the U.S. with minimal education, according to the U.S. Census, of the foreign-born people in the U.S. age 25 and over, 40% had completed high school or some college whereas 27.3% had bachelor’s degrees or more education (Larsen, 2004). In addition, research has suggested a relationship between education level and communication competency (Downey & Zun, 2007) and has suggested that previous work experience and confidence may positively influence job performance (Bandura, 1977, 1994). For dual-role interpreters, having strong self-confidence in interpreting abilities may be influenced through mastery of those experiences with previous interpreter trainings. According to Bandura’s theory, people who believe in their own capabilities have a higher performance, given that such an efficacious outlook fosters intrinsic interest and motivation to engage in activities (Bandura, 1977). A study indicated that individual characteristics can impact the interpreter’s belief about whether or not a certain knowledge or skill should be a core competency. These characteristics include length of training, trainees’ experiences with prior training or relevant courses, and the number of interpreting encounters performed (Refki, Avery, & Dalton, 2008).

Based on the current literature and feedback from our own workforce, we hypothesized that a dual-role interpreter born outside the U.S. and with a higher education level would be more likely to pass a language competency test to function as a dual-role interpreter. We also hypothesized that dual-role interpreters who had prior interpreting training and reported high confidence in their interpreting abilities would be more likely to successfully pass a language competency test.

2. Method

2.1 Setting

The integrated not-for-profit health care organization involved in this study (Sutter Health) comprises 26 hospitals, five medical foundations, more than 3,000 physicians, and approximately 4,000 dual-role interpreters. It serves 23 counties throughout Northern California, delivering in-patient and ambulatory services to approximately 18.4% of the state’s patients, who represent wide cultural, ethnic, and linguistic diversity. According to the American Community Survey estimates for 2009, more than 3.6 million people in the counties served by the health care organization in this study speak a language other than English at home, and 27% of adults in these areas reported LEP (American Fact Finder: United States Census, 2009; California Health Interview Survey [askCHIS], 2008). In addition, 2000 U.S. Census data shows that more than 1.5 million people speak English “less than well” or are LEP. Among this population, 49% speak Spanish, 39% speak Asian languages, and 12% speak Indo-European languages as their primary language (U.S. Census Bureau, 2001).

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2.2 Study Sample and Procedures

Eligible participants were the 387 Sutter Health dual-role interpreters who had participated in both the required language competency test and a posttest survey. Beginning in April 2003, organizational executive staff worked with managers to identify staff persons serving as dual-role interpreters who had not previously received formal interpreter training or testing. The process of recruitment and language competency test of dual-role interpreters at this organization has been described previously (Moreno et al., 2007). The language competency test is described below and was mandatory for all staff persons functioning as dual-role interpreters at Sutter Health. The survey was sent via email to those who had completed an online training module on skills used by interpreters. The survey was sent in October 2009 and included 18 questions on demographics, interpreted language history, English language speaking history, employment status, prior experience with interpreter trainings, and confidence in interpreting ability (see Appendix). Survey invitations were initially sent by email to 1,069 participants. One participant no longer worked for the organization, and 144 email addresses were invalid and thus were nonresponders. The survey was ultimately received by 924 dual-role interpreters, and 387 responded to the survey (42%). The survey was initially used to assess the success of the online training module. De-identified data was used in this study and was deemed exempt by the Sutter Health Services Research Institutional Review Board.

2.3 Language Competency Test

Participants took a language competency test, which had written and oral components measuring completeness, accuracy, and medical terminology in English and the non-English language spoken. The test used a Likert scale to measure skills in language competence, which included assessments of overall accuracy, how clearly meaning was expressed, speed and pace, repetitions and clarifications, omissions and additions, factual data, and overall resourcefulness. Errors made were categorized as additions, omissions, over-summarizations/editing, delivery pace, errors in factual data, and misinterpreted or changed meanings. Subsequently, tested interpreters were given focused feedback containing recommendations for improvement, which included studying medical terminology, increasing exposure to the non-English language via media, and practicing conversation. The test is described in detail elsewhere (Moreno, Otero-Sabogal, Soto, Van, & Newman, 2009). Testing was available in 149 languages, including Spanish, Russian, and Mandarin, which are three of the most common languages requested by patients in the health system. A passing score was 70%. Failure to pass the test at the medical level meant that participants scored 69% or less on the test and, although participants may have demonstrated conversational skills in both languages, they did not possess adequate knowledge of medical terminology in English or the non-English language spoken.

2.4 Statistical Analysis

We sought to identify whether being born outside of the U.S. and having a high education level, experience with interpreting, and confidence in interpreting abilities were associated with passing the language competency test. Baseline and unadjusted measures of age, sex, racial/ethnic group, primary language of participants, the language tested, education level, percent effort at work, job description, where second language skills were learned, and confidence in interpreting abilities were compared using chi-square tests, Fisher's exact test, and the Cochran-Armitage Trend test, where appropriate. In addition, logistic regression was used to identify main predictors of passing the language competency test, modeling outcomes with covariates introduced stepwise. All statistical analyses were performed using SAS Version 9.2 (Cary, NC, 2008).

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3. Results

The study population consisted of 387 dual-role interpreters. Detailed patient characteristics are presented in Table 1. The majority of study participants were under 40 years old, female, Hispanic or Latina (Mexican, Mexican-American, Latina, or Of Spanish Origin), and had either graduated from high school or attended some college or technical school. Eighty-seven percent were full-time employees and half worked in some type of clinical job, which included physicians (MD), registered nurses (RN), physical therapists (PT), occupational therapists (OT), registered dietitians (RD), medical assistants (MA), licensed vocational nurses (LVN), and technical assistants. More than half of participants were born outside the U.S. (26% in a Latin American country, 16% in an Asian country, 4% in Eastern Europe, 0.3% in Western Europe, and 5% in another country not listed). Most had been in the U.S. for more than 15 years. The majority of dual-role interpreters reported their primary language as English, and 80% were native speakers of the language in which they interpret—that is, they learned the non-English language spoken at home or with family. Seventy-six percent reported Spanish as their spoken non-English language, and most were asked to interpret at least weekly, if not daily. Sixty percent reported some previous interpreter training, and 94% reported high confidence in their interpreting abilities.

Table 1: Study Population Characteristics

Characteristic	N=387 (100%)
Age	
• Less than 30	127 (33.2)
• 31–40	130 (33.9)
• 41–50	70 (18.3)
• Over 50	56 (14.6)
Female	352 (91.2)
Racial/Ethnic Group	
• Mexican, Mexican-American, Latina or of Spanish Origin	258 (67.4)
• Asian (Chinese, Japanese, Filipino, Korean, Indian)	73 (19.1)
• White (non-Hispanic/Latina)	45 (11.8)
• Other	7 (1.8)
Education	
• High school graduate/GED or less	60 (15.6)
• Some college or technical school	195 (50.8)
• College graduate	129 (33.6)
Full-time employee	334 (86.5)
Clinical job (MD, RN, PT, OT, RD, MA, LVN, other)	194 (50.1)
Born outside the U.S. or Canada	195 (51.2)

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Years in the U.S. >15	333 (86.1)
Primary language	
• English	200 (51.8)
• Spanish	120 (31.1)
• All others combined	66 (17.1)
Native speaker	311 (80.4)
Interpret in Spanish	293 (76.3)
Use language skills in regular job duties daily or weekly	299 (77.3)
Prior interpreter training	229 (60.3)
High confidence in interpreting ability	357 (93.5)

Table 2 compares the proportion of respondents who passed the language competency test to those who failed by our variables of interest. All were analyzed as categorical variables. There were no differences observed in the proportion of respondents who passed the test and those who failed by age, sex, race/ethnicity, full-time effort, having lived more than 15 years in the U.S., being a native speaker, primary language, non-English language spoken, or those who use their language skills as a part of regular job duties frequently. A significantly higher proportion of participants who passed the language competency test had at least some college or technical school ($p = .02$) compared to those who had a high school education or less. A higher proportion of those in clinical jobs passed the test ($p = .01$) compared to those in administrative jobs (e.g., front-desk clerks, billing clerks). Passing the language skills test was significantly associated with being born outside of the U.S. ($p = .02$). The proportion of participants with prior interpreter training who passed the test was significantly higher ($p = .01$) compared to those with no experience. Finally, the proportion of participants who reported higher confidence in their interpreting abilities was significantly higher than those who reported lower confidence ($p < .0001$).

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Table 2: Factors Associated With Passing or Failing the Language Competency Test

Characteristic	Fail * <i>n</i> = 94 (24.3%)	Pass* <i>n</i> = 293 (75.7%)	<i>p</i> †
Age			n.s.
• Less than 30	35 (38.0)	92 (31.6)	
• 31–40	31 (33.7)	99 (34.0)	
• 41–50	15 (16.3)	55 (18.9)	
• Over 50	11 (12.0)	45 (15.5)	
Female	85 (91.4)	267 (91.1)	n.s.
Racial/Ethnic Group			n.s.
• Mexican, Mexican-American, Latina, or of Spanish Origin	65 (69.9)	193 (66.6)	
• Asian (Chinese, Japanese, Filipino, Korean, Indian)	15 (16.1)	58 (20.0)	
• White (non-Hispanic/Latina)	12 (12.9)	33 (11.4)	
• Other	1 (1.1)	6 (2.1)	
Education			.02
• High school graduate/GED or less	18 (19.2)	42 (14.5)	
• Some college or technical school	55 (58.5)	140 (48.3)	
• College graduate	21 (22.3)	108 (37.2)	
Full-time employee	84 (89.4)	250 (85.6)	n.s.
Clinical job (MD, RN, PT, OT, RD, MA, LVN, other)	37 (39.4)	157 (53.6)	.01
Born in the U.S. or Canada	55 (59.1)	132 (45.7)	.02
Years in the U.S. >15	84 (89.4)	249 (85.0)	n.s.
Native speaker	81 (86.2)	230 (78.5)	n.s.
Primary language			n.s.
• English	52 (55.3)	148 (50.7)	
• Spanish	27 (28.7)	93 (31.9)	
• All others combined	15 (16.0)	51 (17.5)	
Interpret in Spanish	71 (77.2)	222 (76.0)	n.s.

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Use language skills in regular job duties daily or weekly	68 (72.3)	231 (78.8)	n.s.
Prior interpreter training	46 (49.5)	183 (63.8)	.01
High confidence in interpreting ability	77 (84.6)	280 (96.2)	<.0001

*Values are number (%). Some denominators are lower due to missing data and columns may not add up to 100% due to rounding.

†Comparisons made using chi square or Fisher's exact where appropriate for categorical data and Cochran-Armitage Trend Test for ordinal data (education level, confidence levels).

We also used bivariate analyses to understand the relationship between our variables of interest (born outside the U.S., higher education level, prior interpreter training, and confidence in one's interpreting abilities), because many of them are related either intuitively or in published research (Bandura, 1977, 1994; Capps et al., 2003; Downey & Zun, 2007). Consistent with prior studies (Capps et al., 2003; Larsen, 2004), being born outside the U.S. was significantly associated with having a higher educational level ($p = .001$). Those born outside the U.S. reported significantly higher confidence in their ability to interpret ($p = .02$). There was no difference in education level among those with and without prior interpreter training or by confidence in interpreting abilities. Dual-role interpreters with prior interpreter training reported high confidence in their interpreting abilities ($p = .01$) compared to those with no prior training.

In stepwise logistic modeling, there were no significant differences among participants who passed the language competency test and those who did not when the predictors of interest were controlled for. The results were similar when appropriate interaction terms were included.

4. Discussion

To our knowledge, this is the first study to examine the association between socio-demographic characteristics of dual-role interpreters and passing a language competency test. Our findings demonstrate the positive association between being born outside the U.S., having a higher education level, maintaining clinical jobs, having prior interpreter training, and reporting high confidence in the ability to interpret with passing a language competency test as a dual-role interpreter in a medical setting.

Medical interpreting is a field in evolution, with the ongoing development of standards of practice and codes of ethics (National Council on Interpreting in Health Care, 2010). Currently, trainings for medical interpreters range from several hours in total to year-long courses; this variation may result in a wide range of competency levels among medical interpreters. Developing standards for medical interpreter certification is critical to assuring quality interpreter services in any health care setting. Ad hoc interpreters, such as bilingual dual-role interpreters, usually have at best minimal training in medical interpreting, and their fluency in both English and their native language is not known. Given the increased use of ad hoc interpreters in medical settings, it is critical to test the fluency (in English and non-English languages) of all health care staff serving in this dual role regardless of their racial/ethnic background, primary language spoken, or other demographic factors. Our study suggests some factors that may serve as helpful screening mechanisms for organizations seeking to hire personnel to function as dual-role interpreters.

Our findings indicate that whereas participants born outside of the U.S. had higher education levels than their U.S.-born counterparts, both of these factors could be considered indicators of passing the language competency test. Our study confirms previous research suggesting a relationship between being foreign born and having a high education level. One study showed that naturalized citizens born outside of the U.S. were more likely to have graduated from high school than noncitizens (Larsen, 2004), and that 67% of foreign-born people over the age of 25 living in the U.S. had completed high school or had received further education. Due to the relationship between

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being foreign born and education level, it is difficult to predict how these independently influence success as a dual-role interpreter.

Our findings call attention to the critical need to train dual-role interpreters to enhance their language competence skills and confidence in performing their secondary role as interpreters. In our study, both prior interpreter training and a high level of confidence in one's ability to interpret were significantly associated with passing the language competency test. Studies show that accurate self-assessment of abilities usually stems from actual experience in using the skill in question (Bandura, 1977; Ehrlinger, 2008). According to social cognitive theory, self-efficacy can come from both "mastery experiences," for example, performing a task successfully, and from psychological responses, such as the confidence reported by our participants (Bandura, 1994). Further research is needed to understand these relationships before they can be used as predictors of success for dual-role interpreters.

Although our study has findings important to health care organizations trying to hire dual-role interpreters to work with LEP patients, there are some limitations to consider. First, aside from the interpreter test scores, all of the other data used in these analyses were self-reported. There may be data that are over- or underreported, depending on participants' perceived incentives and disincentives to self-report. In particular, because all of the study participants were already functioning as dual-role interpreters, it is possible that some may have overestimated their confidence in their abilities in an effort to appear competent to be fulfilling this role, whereas others may have underestimated their confidence levels to keep expectations on themselves low. Although there is no evidence that confidence is reported higher among women or a particular ethnic or racial group, our study was disproportionately populated by Hispanic/Latina women, which may not be generalizable to dual-role staff interpreters in other health care settings. Currently, there is no universally agreed-upon test of interpreter skills. The test used in our study, although professionally developed and validated, may need improvement to assess interpreter ability once national standards for interpreters are established. Finally, our study demonstrates important associations that are no longer statistically significant in multivariate regression models, which implies that unmeasured variables may also be contributing to passing the language competency test. Further research is needed to identify these unmeasured variables and to further understand the influence of having a higher education level, being born outside of the U.S., having a clinical job, receiving prior interpreter training, and reporting high confidence in one's ability to interpret on language competence.

To date, bilingual dual-role interpreters' language competency levels have not influenced policies in health care organizations. The National Council on Interpreting in Health Care is piloting a national certification test for health care interpreters (National Council on Interpreting in Health Care, 2010). This national consensus-building process will result in guidelines to assure that testing and training programs are teaching interpreters appropriate content to perform in a dual role effectively. Additionally, The Joint Commission recently released accreditation requirements to help hospitals better address effective communication, cultural competence, and patient-centered care (The Joint Commission, 2009). Although many aspects of effective communication, cultural competence, and patient-centered care are currently supported by existing requirements, the proposed requirements have not been translated into testing and training curricula to further improve the safety and quality of care for all patients.

Our study shows that having a higher education level, being born outside of the U.S., having a clinical job, receiving prior interpreter training, and reporting high confidence in one's ability to interpret were all factors associated with passing a language competency test for interpreters. These findings could also have implications in other countries where the use of foreign-born health care workers is common (Cummins, 2009; de Veer, den Ouden, & Francke, 2004; Okounga & Tilki, 2010). Further research must be done to understand the interrelationships between these factors and understand the role of self-efficacy in the training of dual-role interpreters. Studies like these may help health care organizations to better screen and train dual-role interpreters. Until national standards for interpreters are developed, anyone asked to function as an interpreter in a health care setting, including dual-role interpreters, should undergo testing and training.

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Instructions: Sutter Health is interested in knowing what are the characteristics of the interpreters serving our patients. Please complete the following questions. Please select one response per question by placing an X next to your answer choice in the column titled "Response."

Q#	Response	Question
1		What is your occupation?
		Administrative assistant (Patient Service Representative, Front Desk)
		Medical assistant, LVN, Technical Assistant
		Clinical staff (MD, RN, PT, OT)
		Other
2		Is your job at a Sutter Health affiliate:
		Part time
		Full time
		Per Diem
		Other
3		What is your age?
		Less than 30
		31–40
		41–50
		50 or over
4		What is your gender?
		Male
		Female
		Transgender
5		What is your primary language?
		English
		Spanish
		Russian
		Mandarin

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		Cantonese
		Tagalog
		Hmong
		Punjabi
		Vietnamese
		Hindi
		Arabic
		French
		Italian
		German
		Other
6		In what Non-English language do you provide interpreter services?
		Spanish
		Russian
		Mandarin
		Cantonese
		Tagalog
		Hmong
		Punjab
		Vietnamese
		Hindi
		Arabic
		French
		Italian
		German
		Other
7		In general, what languages do you read and speak?
		English Only
		English better than Non-English second language
		Both Equally

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		Non-English second language better than English
		Non-English second language Only
8		What language(s) did you speak as a child?
		English Only
		English more than Non-English second language
		Both Equally
		Non-English second language more than English
		Non-English second language Only
9		What language(s) do you speak at home NOW?
		English Only
		English more than Non-English second language
		Both Equally
		Non-English second language more than English
		Non-English second language Only
10		Where did you learn the non-English language you use to interpret?
		At home or in family life
		High school or college courses
		Independent study courses
		Study abroad or from living in another country
		Other
11		Where were you born?
		United States
		Latin American Country
		Asian Country (including India and Pacific Islands)
		Eastern Europe (including Russian-speaking countries)
		Western Europe
		Other
12		If born outside of the U.S., how long have you lived in the U.S.?
		Born in the US
		0–5 years

Bilingual Dual-Role Staff Interpreters in the Health Care Setting

		6–10 years
		11–15 years
		16+ years
13		What is your race or ethnicity?
		American Indian or Alaska native
		Asian (Chinese, Japanese, Filipino, Korean, Indian)
		Black, African-American
		Mexican, Mexican-American, Latina, or of Spanish origin
		Native Hawaiian, Samoan, Pacific Islander
		White (Non-Hispanic/Latino)
		Other
14		How often do you use your language skills to interpret as part of your regular job duties (what you were hired to do – MA, LVN, RN, etc.)?
		Daily
		Weekly
		Monthly
		Rarely
		Never
15		What is your highest year of school completed?
		Less than high school
		Grade 12 or GED (High school graduate)
		College 1 year to 3 years (Some college or technical school)
		College 4 years or more (College graduate)
16		When was the most recent interpreter training you attended?
		Less than 1 year ago
		1–2 years ago
		More than 2 years ago
		Never attended an interpreter training course
17		How confident do you feel in your ability to interpret?
		Highly Confident

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		Confident
		Somewhat confident
		Not confident
18		How confident do you feel in your ability to provide accurate information?
		Highly Confident
		Confident
		Somewhat confident
		Not confident