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Career and workplace experiences of Australian university graduates who are deaf or hard of hearing

Abstract

This article reports on the experiences of a group of deaf and hard of hearing alumni of Griffith University in South-East Queensland, Australia. Participants completed a survey answering questions about their communication patterns and preferences, working lives, career barriers or difficulties anticipated and encountered, and workplace accommodations used or sought. Results revealed a range of career barriers and workplace difficulties encountered by these participants, as well as solutions found and strategies used by them. Differences in employment sector, job-search activities, difficult workplace situations, and use of accommodations were noted between two groups: those who communicated primarily in Auslan and considered themselves to have a Deaf or bicultural identity, and those who communicated primarily in spoken English and considered themselves to have a hearing identity. Implications for university services supporting deaf and hard of hearing students are outlined and suggestions for further research are made.

Career and workplace experiences of Australian university graduates who are deaf or hard
of hearing

Griffith University, which currently has an enrolment of more than 32,000 students across five campuses in South-East Queensland, was the first Australian university to establish designated support services for students who are deaf or hard of hearing, and its Deaf Student Support Program (DSSP) continues to provide arguably the most extensive support services to these students in Australia. In 2005, a project was conducted jointly by Griffith University's DSSP and Centre for Applied Studies in Deafness. The purpose of the project was two-fold. First, it aimed to examine the evolution of designated support services in Australian universities for deaf and hard of hearing students as pioneered through Griffith University in the 1980s and to explore the university experiences of these students and graduates. The results of this part of the study are reported elsewhere (Hyde et al., in preparation). Here, we report on the findings of the second part of the project, investigating the workplace experiences of Griffith graduates who are deaf or hard of hearing in order to gain a picture of their career directions and to identify and explore barriers that they have encountered in their career and workplace activities.

It appears that the deaf and hard of hearing population, despite a normal distribution of intelligence and aptitudes, continues to be more at risk of lower rates of completion of postsecondary education (Stinson & Walter, 1997) and higher rates of unemployment and underemployment (Access Economics, 2006; Blanchfield, Feldman, Dunbar, & Gardner, 2001; MacLeod-Gallinger, 1992; Schroedel & Geyer, 2000; Winn, 1997) than the hearing population. The career barriers facing deaf and hard of hearing individuals are likely to

contribute to these less than desirable outcomes. Career barriers are defined as “events or conditions, within the person or in his or her environment, that make career progress difficult” (Swanson & Voitke, 1997, p. 434). Researchers and theorists such as Swanson and Voitke and Lent, Brown, and Hackett (2000) have been concerned in particular with the effect of environmental factors such as discrimination and inadequate support systems on people’s career choices and development. The literature indicates that deaf and hard of hearing people encounter career barriers resulting from aspects of their working environment and from societal attitudes, stigma, and discrimination. These environmental and attitudinal barriers contribute to the difficulties experienced by many deaf and hard of hearing people in gaining employment and career advancement (Foster & Macleod, 2003; Laroche, Garcia, & Barrette, 2000; Punch, Hyde, & Creed, 2004; Scherich & Mowry, 1997).

Environmental barriers constitute physical or structural impediments and for people with hearing loss can include background noise in the workplace, the requirement that workers use telephones, and auditory rather than visual alerting signals (DeCaro, Mudgett-DeCaro, & Dowaliby, 2001; Laroche et al., 2000; Winn, 1997). The most difficult workplace situations reported by many deaf and hard of hearing people, however, involve group situations such as departmental and staff meetings, in-service training sessions, and work-related social functions (Laroche et al., 2000; Scherich, 1996; Scherich & Mowry, 1997). Deaf and hard of hearing workers have reported feeling socially isolated and lonely in the workplace, experiencing exclusion from the “office chatter” and social interactions such as occur during lunch breaks, and missing out on incidental information and informal conversations (Foster & Macleod, 2003; Steinberg, Sullivan, & Montoya, 1999).

Environmental barriers—and sometimes attitudinal barriers—can be reduced by the altering of workplace conditions through the provision of accommodations.

Accommodations that have been provided to deaf and hard of hearing people in workplaces in the USA (Geyer & Schroedel, 1999) and Britain (Bradshaw, 2002) include sign language interpreters, telephone typewriters (TTYs), telephone amplifiers, telephone relay services, real-time displays, note-takers, loop systems, flashing alarms, Deafness awareness training or hearing loss information given to co-workers, re-arrangement of the physical environment to facilitate seeing other people better, and video conferencing.

Enacted in 1990, the Americans with Disabilities Act requires employers of 15 or more persons to make reasonable accommodations so that qualified workers with disabilities have equal employment opportunity. In the United Kingdom, the employment provisions of the Disability Discrimination Act 1995 apply to employers with 20 or more employees and require reasonable adjustments to be made. In Australia, the Disability Discrimination Act 1992 requires employers to provide services or facilities to enable a suitably qualified person with a disability to perform the “inherent requirements of the particular employment” as long as such provision would not impose an “unjustifiable hardship” on the employer (Commonwealth of Australia, 1992, section 15, 4).

However, many studies conducted in the USA and the UK have shown that necessary, reasonable accommodations are often difficult to obtain or not forthcoming for workers with hearing loss (Foster & Macleod, 2003; Geyer & Schroedel, 1999; Harris & Bamford, 2001; Scherich, 1996; Scherich & Mowry, 1997; Schroedel, Watson, & Boone, 2004; Stika, 1997; Wheeler-Scruggs, 2002). Scherich and Mowry found that the accommodations most commonly provided to deaf and hard of hearing workers were

assistive devices such as amplified telephones and text telephones. The use of support personnel tended to be on an informal rather than a formal basis; for example, a co-worker might agree to make telephone calls for the worker with hearing loss. A majority of respondents (62%) in Scherich and Mowry's study stated that their present accommodations did not meet their needs, and 31% reported that they had been denied a requested accommodation. In addition, it was found that employers recognized the needs of hard of hearing workers less than those of deaf workers. Schroedel, Watson, and Boone (2004) reported a low level of use of job accommodations among a representative sample of hard of hearing adults from 43 states of the USA. They found that workers who reported more assertive work coping behaviors obtained more accommodations than those who were less assertive, and that many workers reported using passive and reactive, rather than assertive, coping behaviors at work.

In a study of 232 deaf and hard of hearing adults, Geyer and Schroedel (1999) found that higher status employees—that is, those with higher levels of education and those in professional and managerial roles—were more likely to receive accommodations than lower status workers. The authors hypothesized that this may occur for two reasons: Employers have a greater investment in higher status workers, and so may be more likely to believe that an accommodation can be justified, and employees in higher status positions may be proficient in gaining information and expressing their needs related to accommodations. The researchers also found that being promoted was positively associated with the number of times an employee asked for accommodations, although this changed to a negative association once the number of requests reached five. They suggested that employees who had supportive supervisors were likely to receive both promotions and

needed accommodations, but whether receiving accommodations made workers more suitable for promotion or being promoted led to more requests for accommodations was not clear (Schroedel & Geyer, 2001).

The majority of these studies found that employees were often reluctant to ask for necessary accommodations. Such reluctance perhaps reflects the apprehension about disclosing their hearing loss to employers or potential employers, due to the fear of being stigmatized or seeming less than competent on the job, that has been reported in studies of hard of hearing adults (Hallberg & Carlsson, 1993; Héту & Getty, 1993; Laroche et al., 2000; Stika, 1997). Stika's focus group study of 107 members of Self Help for the Hard of Hearing found that many participants, fearful of seeming different or deficient, did not ask for accommodations even when their employers were aware of their hearing loss, and believed that employers were reluctant to hire or promote them because of their hearing loss.

Thus, actual or perceived attitudinal barriers, in addition to environmental barriers, can negatively affect the career experiences and outcomes of people with hearing loss. However, research into the career and workplace experiences of people who are deaf or hard of hearing in Australia is lacking. A recent Australian study investigated the anticipation of career barriers among students attending high schools in Queensland and New South Wales with support from itinerant teachers of the deaf (Punch, Creed, & Hyde, 2005, 2006; Punch & Hyde, 2005). The study identified several hearing-related barriers about which students were concerned. Some participants had ruled out certain jobs or careers based on these concerns, indicating a premature circumscription and compromise of

career goals (Gottfredson, 1981, 2002). As well, participants displayed a lack of awareness of the possibility of workplace accommodations that may alleviate such barriers.

The current study sought to extend the above findings by identifying environmental barriers anticipated and encountered by Griffith university graduates in the pursuit of their occupational goals, how they attempted to overcome barriers, solutions they may have found to barriers they encountered, and their use of workplace accommodations.

Method

Participants

The sample consisted of 54 participants, 51 of whom were past students and three of whom were enrolled part-time in post-graduate programs while working full-time in their professional field.

Respondents were asked to report their level of hearing loss across five categories: mild, moderate, moderately-severe, severe, and profound (reflecting categories used by Australian Hearing, an Australian government organization providing audiological services to children and adults (www.hearing.com.au). Fifteen (28%) reported their hearing loss as being in the mild/moderate range; 22 (41%) in the moderately severe/severe range; and 11 individuals (33%) indicated that they had a profound hearing loss.

Two respondents (4%) reported using a cochlear implant, and 29 respondents (54%) used hearing aids all or some of the time. Twenty-six (48%) reported that their hearing loss had occurred at birth or by the age of three years.

Thirty-five respondents (65%) reported that spoken English was their primary means of communication in everyday life, and 19 (35%) reported that Australian Sign Language (Auslan), was their primary means of communication. Similarly, 33 (60%)

identified primarily with the hearing community, while 5 (9%) identified with the Deaf community and 17 (31%) reported a bicultural/bilingual identity.

The language used as a primary means of communication is likely to reflect one's cultural and linguistic affiliation, as well as having an impact on functioning and personal interactions in everyday situations in the workplace. For these reasons, cross-tabulations were conducted to compare the data findings across two groups: those who nominated Auslan as their primary form of communication, and those who nominated spoken English as their primary form of communication. The Auslan group comprised 19 respondents; the spoken English group comprised 35 respondents.

Measures

We designed a survey containing both forced choice and open-ended questions that asked respondents about their work experiences since leaving university. Forced-choice questions asked respondents to report on their primary means of communication (e.g., spoken English, Auslan, Signed English), primary cultural/linguistic affiliation (hearing, Deaf¹, bicultural), degree of hearing loss, time in life when hearing loss occurred, and use of hearing aids or cochlear implants. They then asked about respondents' jobs: the name or title of their job, the sector in which they worked, the ways in which they had found their jobs, and the relationship of their jobs to their areas of study at university.

In order to investigate the types of difficulties that can constitute environmental barriers in the workplace, participants were asked "At work, to what extent does your

¹ We adopt the convention of using "Capital D: Deaf" for persons who consider themselves members of a linguistic-cultural minority community and "lower case d: deaf" for describing the audiological term of loss of hearing. "Bicultural" individuals felt they fell into both categories.

hearing loss affect your ability to participate in...?” for each of six workplace situations, which were based on those used by Scherich (1996) and Scherich and Mowry (1997). The situations were: department/staff meetings; receiving instructions or supervision; in-service, professional development, or training activities; performance evaluations; casual interactions with co-workers; and work-related social functions. Response options were on a five-point Likert scale (1 = very little, 5 = a great deal).

A list of 14 workplace accommodations was based on those used in Geyer and Schroedel's (1999) study and in a survey of British employers of deaf and hard of hearing workers (Bradshaw, 2002). For each of the workplace accommodations listed, categories of response were: *I use this accommodation; this accommodation may be helpful to me but I have not asked for it; I have asked for this accommodation but have not received it; and I do not need this accommodation.* The 14 accommodations can be seen in Tables 2 and 3.

Open-ended questions asked respondents to describe their reasons for wanting to work in their chosen occupation or field. In addition, a series of four questions was asked to investigate career barriers experienced. The first was “Before you commenced employment, did you anticipate any difficulties (barriers or obstacles to achieving your goals) at work related to your hearing loss? If yes, please describe the difficulties you anticipated.” The other three questions asked to what extent any of these anticipated barriers had been encountered in the workforce; if any other, unanticipated, barriers had emerged; and what solutions respondents had developed to address barriers encountered. Respondents were invited to write about their experiences at whatever length they chose. In this way, the quantitative results were extended by the qualitative results from the open-ended responses.

Procedure

Ethical clearance for the study was obtained from Griffith University. The project recruited current students, past students, and graduates. The university's Student Equity Services compiled a list of all past and current students who had identified on their enrolment form that they had a hearing loss and/or who had contacted or used the DSSP. The total number identified was 262. Of these, potential contact information was available for 180. After follow-up letters, emails, or telephone calls, the final number of completed surveys returned was 72. Non-response could often be attributed to lack of current address details, as this was the main way of attempting contact, unlike some U.S. studies where more enduring identifiers such as social security numbers have been used to track former students (Rochester Institute of Technology, 2005). These 72 comprised the sample for the part of the study investigating university experiences (see Hyde et al., in preparation). The 54 who were not current students formed the sample for the investigation of graduates' career experiences reported here.

Quantitative results

Types of employment

Eight people reported that they were not currently working. Of the 46 employed respondents, the largest proportion reported working in the education sector. Twenty-one individuals (46%) worked in education, and from respondents' reporting of their job titles it appeared that 17 of these were working in deaf education settings, the large majority as teachers of the deaf. Four people (9%) worked in government departments (excluding education departments); ten (22%) worked in the private sector; nine (20%) were self-employed; and two respondents (5%) worked for agencies serving Deaf people. Some

differences in employment field patterns were revealed between the spoken English and Auslan groups. Fifty-nine per cent of the Auslan group reported working in education, compared to 38% of the spoken English group. Of those outside the education field, fewer Auslan respondents (11%) were employed in the private sector compared to the spoken English group (28%). Eighteen percent of the Auslan group and 21% of the spoken English group reported that they were self-employed.

Field of employment related to field of study

Twenty-three respondents (43%) reported that they had studied education or special education programs at diploma (a superseded three-year program), bachelor's (the current four-year program), or master's levels, with many indicating that they had pursued the specialist stream of education of the deaf. Fifteen individuals (28%) reported gaining degrees in Arts. The remaining fields of study reported included science, psychology, human services, health sciences, communication, information technology, and hotel management. Respondents were asked if their first job and their current job (if different from their first job) were related to their fields of study at university. The majority reported that their first job (80%) and their current job (64%) were related to their field of study. Within the two groups, 86% of the spoken English group and 72% of the Auslan group reported that their first job was related, and 60% of the spoken English group and 64% of the Auslan group stated that their current job was related. Ninety-one per cent of those who had graduated with teaching degrees were currently employed in education.

Methods of finding jobs

Participants were asked how they found their first job and their current job (if different from their first job). Personal contact was the most frequently reported means of finding both first and current jobs, with 25% using this method to find their first job, and 41% their current job. Advertisements in newspapers or on the Internet were reported by 22% for first jobs and 14% for current jobs. Job search agencies and recruitment companies were rarely used, with only 4% acquiring their first job, and none their current job, in this way. The university was also a means of finding 14% of first and 3% of current jobs.

Respondents who primarily used Auslan used personal contacts even more than those who primarily used spoken English. Within the Auslan group, 37% reported finding their first job, and 40% their current job, through a personal contact, compared to 17% and 36% respectively in the spoken English group. Sixteen per cent of the Auslan group found their first job, and 7% their current job, through the university, whereas only 7% of the spoken English group found their first job through the university, and none their current job.

Difficult workplace situations

Table 1 shows the impact of hearing loss in the six workplace situations for the whole group and for the Auslan and spoken English groups. In order to make comparisons between those respondents who had little or no difficulty and those who had a lot of difficulty in the six workplace situations listed, responses were combined into two categories: those in the first two points and those in the last two points on the five-point Likert scale. When proportions of responses in these two categories are considered, it can be seen that respondents reported a lot of difficulty in participation in the areas of work-related social functions (49%), in-service, professional development or training activities

(42%), and department/staff meetings (34%). There were lower levels of response for casual interactions with co-workers (30%), performance evaluations (18%), and receiving instructions or supervision (15%).

Respondents were also asked to specify any other situations in which their participation was affected. Six situations were specified: accessing professional gossip and information-sharing; telephone-marketing/sales; school playground duty; interacting with schoolchildren; lunch-room; and hearing with competing background noise.

There are differences between the two groups in some of the workplace situations. Meetings and training activities were more often reported as problematic by the Auslan group than by the spoken English group, whereas there was little or no difference between the two groups' responses in relation to work-related social functions and receiving instruction or supervision.

[Table 1 about here]

Workplace accommodations

As shown in Table 2, results from the whole sample indicated that one of the most widely used accommodations was the re-arrangement of furniture to facilitate seeing other people better (42%); it may be because it is simple and inexpensive that this accommodation had been so often used. Sign language interpreters were used by 44% of respondents, and telephone accommodations (TTYs, the telephone relay service, and telephone amplifiers) were also commonly reported. Deaf awareness training or hearing loss information given to co-workers was reported by 40% of respondents. It is likely that this training or information was given largely by the Deaf or hard of hearing individuals

themselves; in their open-ended responses (described below), many respondents wrote that they tried to reduce workplace barriers by explaining the implications of their hearing loss to their colleagues.

Table 3 shows the percentage of respondents in each group, Auslan and spoken English, who reported using each accommodation. The Auslan group reported high rates of use of sign language interpreters, improved lighting, TTYs, the telephone relay service, deaf awareness training, and special arrangements for professional development and training days, whereas the spoken English group reported higher usage of telephone amplifiers and assistive listening devices for meetings.

[Tables 2 & 3 about here]

Qualitative results

Respondents were asked open-ended questions about their anticipation of barriers, their experience of anticipated barriers, their experience of unanticipated barriers, any solutions developed to address barriers or difficulties encountered, and their reasons for choosing their present occupation. The analysis of the responses to these questions revealed a range of barriers and difficulties encountered in workplaces and provided further information about the provision or withholding of accommodations. Although many respondents reported that they had anticipated some problems, many more responses were given about unanticipated difficulties. Very specific difficulties were reported and, in the process of data analysis, these have been organized into several categories: attitudinal, difficulties obtaining accommodations, social, technological, and suitability of job. Although these categories are overlapping rather than discrete, they are used for the purposes of clear reporting of the results of the open-ended responses.

Attitudinal

Some respondents reported specific examples of difficulties obtaining job interviews after disclosing their hearing loss and lack of promotion because of their hearing loss. One respondent described this incident:

My last boss had me in tears. He was angry because I didn't hear someone's name. I was to take over my supervisor's position but he changed his mind. He said my hearing loss was not acceptable.

Several responses described negative attitudes of co-workers or employers, with examples given of co-workers getting frustrated, having a poor understanding or tolerance of hearing loss, not wanting to repeat what they had said, and not being helpful or happy about making accommodations; for example:

The attitudes of co-workers when trying a sound-field system at a meeting and having to use the microphone. Some people were not thrilled.

Others reported that people with whom they interacted at work responded to them as if they were "rude or stupid", or "abrupt and loud", because of the effect of their hearing loss on their oral-aural communication.

Obtaining accommodations

Difficulty in obtaining important accommodations, particularly interpreters but also TTYs and flashing alarms and bells, was described in the open-ended responses. Acquiring these accommodations sometimes involved lengthy and protracted "fights" or waiting times.

Originally I was told that I would lose my job if I needed to use interpreters. The teachers' union and the Deaf Society helped me out here. I have since had my "reasonable adjustment" taken away and then restored. I'm still waiting for the flashing alarms and for fire and bell times to be installed.

As my degree was to do with communication, the issue of interpreters, especially the cost, is a total barrier.

However, several people reported working in supportive environments; for instance:

I encounter [difficulties] regularly but am lucky that my employer generously regularly provides interpreters and other assistive devices.

In contrast, this respondent compared her experiences at university with the unanticipated difficulties she faced in the workforce:

Well, after being provided for so well by Griffith Uni, it was a huge shock entering the workforce and finding myself in the situation of having to ask and fight for the right to access interpreting etc. I knew there would be some difficulties but I never envisaged how difficult it would be.

Technological

Worries about having to use the telephone at work were mentioned frequently as an anticipated barrier, and featured in several responses about problems at work and solutions found. While some respondents used TTYs, others who used voice telephones in good listening conditions wrote of their struggles to do so at work; for example:

I cannot answer the phone. I can't hear it ring over the noise from the children and have not dared try to speak to anyone on the phone. I would have to disappear into the toilet to hear them.

One person reported that having telephone calls diverted to a pager gave her the opportunity to return the call with some prior information about the caller, making it easier for her to manage the conversation. One respondent had "asked the boss not to rely on me for answering the phone;" another sometimes asked colleagues to take telephone calls for him.

Some respondents reported that technical assistive devices could sometimes be problematic. For instance,

FM sets – dead spots in rooms and buildings, interference from fluorescent lights, power cables.... Sometimes at very interesting meetings or seminars, just when you are counting on the FM to do the job, you find these barriers can't be overcome. Loop system – unbelievable how many buildings have loop systems that are faulty (or don't have them at all).

The cost of hearing aids, problems with them breaking down, and "a place to take them when they need fixing once I am off the hearing centre list", were also mentioned. In addition, job-specific technical problems were cited. For instant, a nurse commented: "Can't use a stethoscope and hearing aids at the same time."

Social

Reflecting the quantitative findings of difficulties in work-related social functions and interactions with co-workers, several respondents commented on their difficulties in social situations and settings such as lunchtime breaks. Typical responses were:

Difficulty with fellow staff is always an issue. Hard to understand at staff socials and no-one will fund interpreters for these, hence difficult to make meaningful friendships in work environments without super-human efforts.

I did not anticipate the disadvantage of missing out on gossip, networking opportunities, casual information sharing.

It has always been difficult socializing in groups during lunchtime breaks in the staff room.

Type of organization or job

Some respondents commented that the type of organization or job in which they might work was an important consideration due to their hearing loss. Often, they sought work in quiet environments and avoided working directly with the public; for example:

Hearing issues severely restricted the number of jobs that I would be suitable for e.g. unable to work in noisy/retail environments.

For some respondents, self-employment was a preferred option:

I didn't pursue my degree and decided to work singly for myself when I don't need to hear or depend on oral instructions.

Reflecting the large proportion of respondents working in schools, mostly as teachers of the deaf, many responses discussed working in the school environment and with children. The

noisy environment, playground duty, and access to meetings and parent-teacher interviews were most commonly mentioned. For example:

Hearing announcements and the school bell, meetings and briefings.

I never anticipated: noisy environments; noisy children; noisy staff rooms; poor understanding/tolerance of my hearing impairment by others on staff; misunderstanding information.

In many cases, these difficulties had been ameliorated by solutions devised, including exchanging duties with other teachers, swapping playground duty to quieter periods, and specific strategies in meetings. Several comments were made about supportive colleagues; for instance:

I am fortunate in that I work with supportive friends and colleagues and when these glitches occur, I can usually get support.

It is a hearing school with a deaf facility so deaf awareness is paramount.

However, barriers to participation occurred even in work environments where fellow staff members could sign, as this response indicates:

While working at a deaf school, the staff did not accommodate for my deafness by signing and talking at the same time. It was isolating when I couldn't follow what was happening.

Solutions

The efforts that many respondents had made to overcome barriers and the solutions that they had implemented were extensive. Some of the solutions devised have already been mentioned above in relation to specific difficulties. In addition, many responses referred to the importance of self-advocacy, educating others about hearing loss, and personal qualities such as persistence. Respondents wrote of the need to be proactive, to be honest about one's hearing loss and supports needed, to educate employers and colleagues, and to be aware of anti-discrimination laws and stand up for one's rights. This response illustrates the extensive forward planning and perseverance involved in obtaining accommodations:

Being ahead of everything, advocating in advance and questioning situations right down to what kind of voice does the speaker for the upcoming PD/meeting have. I then say what I need and guide my supervisor to organizing that for me. Be patient, because it takes a while for people to start automatically thinking to put certain processes in place. Always praise when it happens – seems to stick in people's mind.

Some respondents mentioned the need to stay healthy and rested in order to deal with the “listener fatigue” they experienced in their working days, and the efforts needed to “manage” their work environment. This comment sums up the courage and energy needed to do this:

Sometimes I have taken the easy way out and done nothing and missed out and regretted it, but it does take constant energy and guts and vigilance to be the only

one in a meeting or conference who says “I can’t cope, we need to make some changes.”

Reasons for choosing occupation

In order to explore the extent to which the participants’ hearing loss was a factor in their career decision-making and occupational choices, an open-ended question was asked: *Please describe the factors that led to your choosing your present occupation, or wanting to work in this field.* A small number of responses described factors that were not associated with hearing loss; for example, “desire for flexible working hours to meet family and personal commitments.” However, the majority of responses to this question referred to the respondents’ deafness, usually in one of two ways. The first way involved the fact that the individual had chosen to work in a field or setting likely to have a quiet environment; for instance:

Quiet work environment. Can use previous skills, knowledge and experience.

Situation where there is less competing background noise, less anxiety caused from inability to hear conversations.

The second factor influencing career choices, and the one reported by the majority of respondents to this question, was the desire to draw on their personal experience of deafness to support others who are deaf or hard of hearing, usually in education.

Life-long dream to become a teacher of the Deaf, my own deafness & school experience was the main reason why I chose the field.

I felt that I had a contribution to make to other D/HH students.

I love working with kids and want them to see a Deaf person achieving personal goals.

Pragmatism combined with more altruistic motives in responses showing that respondents were mindful of the type of work environments that would be easier for them, as these responses illustrate:

Realistic choice – guaranteed employment. Good pay – great holidays. Good support for Deaf employees.

I couldn't hear very well as a classroom teacher. Very fatigued and this was a job where I could work one on one and had some direct knowledge of hearing impairment to offer students and staff.

I love working with children and wanted to apply my own experience in helping them overcome hurdles and develop their education. Working with deaf children was the easiest choice as I'd be able to communicate with them.

Discussion

The majority of the respondents were working in the field which they had studied at university, although there was some drift away over time, with 80% of first jobs being related to degree studied, compared to 64% of current jobs. Overall, the fact that the majority of respondents were employed in their area of university study suggests that the education and training they had received was of benefit to their employment and career

development. In particular, 91% of those who had graduated with teaching degrees were currently employed in education, mainly as teachers in schools.

In addition to the high number of participants in the field of education, responses to questions about the employment sector in which they worked revealed interesting differences between the Auslan and spoken English groups. Fifty-nine per cent of the Auslan group reported working in education, compared to 38% of the spoken English group. Of those outside the education field, Auslan respondents were under-represented in the private sector (11%, compared to 28% for the spoken English group). Approximately 20% of both the Auslan and the spoken English group reported that they were self-employed, and it is possible that this situation indicates a way around some of the difficulties faced by deaf and hard of hearing people in hearing work-places. It was apparent from the open-ended responses that a move to self-employment had been made by at least one respondent as a way to avoid these difficulties.

Differences in ways of finding jobs were apparent in the data. Personal contact was a major means for both groups, but particularly for the Auslan group, who reported using this method for finding their first job more than twice as often as the spoken English group. This may reflect the individuals' varying levels of personal confidence and capacity to undertake job search activities, or even the cohesiveness and support within the Deaf community. It is possible that there is an over-reliance on a limited range of job search activities among Deaf individuals, and there may be a need for the acquisition of job search skills to be addressed while students are at university.

From the findings of both the quantitative, forced-choice responses and the qualitative, open-ended responses, it appears that these deaf and hard of hearing people had

experienced a range of barriers, both environmental and attitudinal, in their working lives. The quantitative findings indicated that the most problematic workplace situations were social gatherings, professional development or training activities, and meetings. Performance evaluations and receiving instructions or supervision were reported as being less difficult. These results are consistent with the degree to which each situation involves groups of people or one-on-one communication. Situations involving the former are likely to be difficult for hard of hearing persons who depend on their residual hearing supplemented by lip-reading, and for Deaf persons in hearing environments unless supported by adequate sign language interpreting or other effective accommodations. Situations involving instructions, supervision, and performance evaluations are more likely to be conducted one-on-one and therefore be easier for people who are Deaf or hard of hearing to participate in. The finding that meetings and training activities were more problematic for the Auslan group of participants than for the spoken English groups could suggest the particular difficulties of access in group situations for Auslan users, who may not readily be provided with interpreters.

However, sign language interpreters, TTYs, and the telephone relay service were accommodations reportedly used by many respondents. Although it is heartening that 94% of the Auslan respondents reported that they used sign language interpreters in their workplace, the qualitative findings indicated that obtaining interpreting services often required a considerable struggle, and interpreters were rarely provided for some situations. This situation reflects findings in the U.S. literature. For example, in their ethnographic study of deaf professionals, Foster and MacLeod (2003) found that participants reported a

lack of provision of interpreters for social situations, resulting in exclusion from informal and spontaneous communications with colleagues.

Interestingly, the majority of workers reported no need for most of the accommodations listed. The instances where individuals had asked for an accommodation and not received it were not many, with the highest number being 5% who had asked for but not received telephone amplifiers, flashing alarms, and assistive listening devices for meetings. However, it is of concern that some deaf or hard of hearing workers are being denied accommodations such as these and others, including sign language interpreters and special arrangements (e.g., provision of interpreters or note-takers) for professional development or training days. It is also of concern that substantial proportions of respondents had not asked for accommodations that they thought might be helpful to them; for example, 26% had not asked for special arrangements when attending professional development or training days even though they considered that this accommodation might be helpful to them. This is consistent with reports in the U.S. literature of reluctance among deaf and hard of hearing workers to request accommodations (Hétu & Getty, 1993; Laroche et al., 2000; Schroedel et al., 2004; Stika, 1997).

These quantitative findings were extended by the findings from the open-ended responses, which gave examples of difficulties experienced and negative reactions encountered when seeking accommodations such as interpreters, TTYs, and flashing alarms. In addition, it was apparent from the open-ended responses that there were individuals who were not aware of the current availability of accommodations that may be helpful to them. For instance, recent advances in equipment such as amplified and electronic stethoscopes have provided useful technological accommodations for medical

personnel who are deaf or hard of hearing (Maheady, 2004). Thus, not asking for an accommodation may reflect a lack of knowledge of the availability of a specific accommodation or a reluctance to ask. In either case, the findings suggest that it may be necessary for postsecondary institutions to prepare deaf and hard of hearing students to develop the knowledge, skills, and confidence to obtain needed accommodations in their workplaces.

Reflecting the literature (Foster & Macleod, 2003; Laroche et al., 2000; Scherich, 1996; Scherich & Mowry, 1997; Steinberg et al., 1999), the current study found difficulties with the “social” side of work life. These difficulties were reported in the forced-choice answers, where approximately half of both the Auslan group and the spoken English group reported experiencing a lot of difficulty in work-related social functions. They were also reflected in the open-ended responses, where respondents described feelings of isolation, missing out on casual information sharing and gossip, and the lack of provision of interpreters for informal or social situations. These situations and interactions are important to career maintenance and advancement, as well as to the experience of well-being that arises from satisfactory personal interactions and friendships at work and that constitutes an important benefit of work for most people (Hall, 2002; Jahoda, 1982).

Some respondents described standing up forcefully for their rights when accommodations were denied them; others described the efforts they went to in order to organize accommodations for themselves. Clearly, they needed to be proactive and assertive in order to acquire the accommodations they needed. It appeared from some responses that it took considerable courage and energy to do this; this may add to the fatigue resulting from the constant need for close concentration required to function in a

hearing environment reported in the current study and in the literature (Backenroth-Ohsako, Wennberg, & Af Klinteberg, 2003).

Several respondents wrote about supportive colleagues and helpful employers, particularly in workplaces that were involved with Deaf or hard of hearing consumers or students. A considerable number of participants reported that they pursued a career in these fields because they wanted to make a difference in the life of deaf and hard of hearing children, as well as because they believed that the work environment would be supportive. In the current climate in which a sense of meaning and purpose in their work is important to many people (Hall & Mirvis, 1996), working in the field of deaf education or services to deaf people can constitute a means for deaf and hard of hearing individuals to use their personal life experiences to build a meaningful, fulfilling working life. In addition, there is an expectation that these environments will have supportive employers and colleagues with an understanding of issues related to deafness and will provide conditions and accommodations necessary to the optimal functioning of deaf and hard of hearing employees. However, our findings show that, even in deaf education and deaf services, career barriers can be present for deaf and hard of hearing employees.

Of course, not all people who are deaf or hard of hearing want to work in deaf education or deaf service organizations. In addition to the substantial number of students who had chosen to study education, usually specializing in the education of the deaf, a wide range of programs of study were chosen by our study's participants, reflecting the broad range of interests and aptitudes of deaf and hard of hearing individuals. However, our findings suggest that jobs outside the deafness area may involve even more barriers to gaining employment and promotion and greater reluctance among employers to provide

accommodations. Clearly, both education for employers and an array of communication and self-advocacy skills among deaf and hard of hearing individuals are necessary for this situation to improve.

The qualitative findings indicated that respondents encountered many more career barriers and workplace difficulties than they had anticipated while at university. Deaf graduates of a postsecondary institution that has an extensive deaf students' support program, as does Griffith University, are likely to have had ready access to accommodations and services such as interpreting and note-taking while at university. However, such ready access is rare in the "real world" of work and post-university life. It may be necessary for universities to better prepare students with hearing loss to deal with potential career and workplace barriers.

The current study has revealed barriers and difficulties faced in the workplace by a group of adults with hearing loss, including those with a Deaf or bicultural affiliation and who prefer to communicate in Auslan and those who prefer to communicate in spoken English and who may be described as hard of hearing. The sample in this study was comprised of university educated professionals. Given that U.S. studies have found that higher status employees (those with postsecondary education and/or in professional or managerial positions) were more likely to receive accommodations than those of lower status (Geyer & Schroedel, 1999), it is of concern that lower status deaf and hard of hearing employees may experience more difficulties than our study's sample in overcoming workplace barriers. Further research is needed with this population.

The struggle by some respondents to obtain needed accommodations and to overcome career barriers indicates that, despite recent improvements in public awareness

and legislation, there remains a considerable way to go before deaf and hard of hearing individuals in Australia achieve an equitable participation in their workplaces and in career advancement. In particular, our findings emphasize the importance of self-advocacy and assertiveness skills. In addition, the unanticipated nature of barriers encountered adds further weight to the suggestion that deaf student support services in universities should offer programs in career preparation, including awareness of potential job accommodations, understanding of disability rights legislation and employer responsibilities, and training in self-advocacy and assertiveness skills. Further study of the impact of these and other strategies seems warranted if deaf and hard of hearing university graduates in Australia are to be able to identify, secure, and sustain effective employment in their fields of professional development.

We found the use of both quantitative and qualitative question formats to be useful in this study, as the qualitative responses exemplified and elaborated upon the quantitative findings. In addition, the qualitative findings indicate valuable directions for further research. Particularly in relation to career barriers, it would now seem useful for further research based on quantitative parameters to design an instrument and measure the extent to which the perceptions revealed by the present study's qualitative findings are present among a larger population of deaf and hard of hearing adults. The current study was concerned with barriers external to the individual, namely, environmental and attitudinal barriers encountered by deaf and hard of hearing people in their career and workplace experiences. It would also be valuable for further research to investigate potential barriers within the individual, such as levels of career preparedness, skills and abilities, and self-efficacy beliefs.

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Table 1

Extent of difficulty in workplace situations for the Auslan and spoken English groups in percentages

Situation	All (N=54)		Auslan (N=19)		Spoken English (N=35)	
	1&2 ²	4&5 ³	1&2	4&5	1&2	4&5
Meetings	66	34	59	41	71	29
Instructions/supervision	85	15	85	15	85	15
Training activities	58	42	47	53	67	33
Evaluations	82	18	79	21	83	17
Co-worker interactions	70	30	75	25	68	32
Social functions	51	49	50	50	52	48

² Likert scale categories 1 & 2 (very little & a small amount)

³ Likert scale categories 4 & 5 (quite a lot & a great deal)

Table 2

Use and availability of accommodations for all participants in percentages (N=54)

Accommodation	Use	May be helpful, not asked	Have asked but not received	Don't need
TTY	37	7	2	53
Telephone relay service	37	7	0	56
Phone amplifiers	28	8	5	59
Sign language interpreters	44	2	2	51
Loop systems	8	5	0	87
Flashing alarms	35	16	5	44
Computer-assisted note-taking	5	16	0	79
Better lighting	24	10	2	63
Furniture re-arranged so you can see other people better	42	14	2	42
Deaf awareness training or hearing loss information to co-workers	40	30	0	30
Assistive listening devices for meetings	20	10	5	65
Co-worker takes notes for you at meetings	21	23	0	56
Video conferencing equipment	8	21	3	69
Special arrangements for professional development or training days	40	26	2	33

Table 3

Percentages of participants in the Auslan and spoken English groups using workplace accommodations

Accommodation	All (N=54)	Auslan (N=19)	Spoken English (N=35)
TTY	37	71	17
Telephone relay service	37	77	9
Phone amplifiers	28	8	40
Sign language interpreters	44	94	13
Loop systems	8	0	14
Flashing alarms	35	65	17
Computer-assisted note-taking	5	7	5
Better lighting	24	43	13
Furniture re-arranged so that you can see other people better	42	50	40
Deaf awareness training/hearing loss information to co-workers	40	67	26
Assistive listening devices for meetings	20	7	30
Co-worker takes notes for you at meetings	21	29	17
Video conferencing equipment	8	13	5
Special arrangements for professional development or training days	40	81	20