



International  
Specialised  
Skills  
Institute

# AN INTERNATIONAL EXPEDITION:

## Improving the post-secondary education participation of deaf young people and adults

An International Specialised Skills Institute Fellowship.

**CATHERINE CLARK**

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Department of  
Education & Training

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# i. Executive Summary

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*“Education is the most powerful weapon which you can use to change the world” - Nelson Mandela*

Post-secondary education is an important life stage. This period builds on prior learning, encourages lifelong learning and provides us with the foundations, skills and knowledge to support a career pathway. Post-secondary education is an opportunity for us to explore our identity, our values, build on our strengths and attain qualifications that will enable us to have a better quality of life. For deaf<sup>1</sup> people in Australia, access to post-secondary education can be rather haphazard and unstructured.

Once formal secondary schooling is complete, students may commence a post-secondary qualification. Most education institutes will likely provide communication access by ensuring that Auslan interpreters and/or note takers are present in the classroom. This is usually provided at the request of the student and through negotiation with the disability support services. These support services provided may not be sufficient to ensure that deaf students are able to successfully complete their degrees and become contributing economic and social citizens in this country.

In 1981, the United Nations (UN) proclaimed the year as the ‘International Year of Disabled Persons’ (IYDP). At this time the UN called for an international plan of action to ensure the equality, rehabilitation and the prevention of disabilities. This

resulted in the conversation about disability access coming to the fore, however the conversations centred around ‘normalising’ people with a disability and ensuring their access into mainstream society.

Policy makers and educational experts began to explore what access meant for persons with disability based on a model of physical access, which centred around creating an accessible environment (i.e. providing a ramp for wheelchair access, a hearing loop for a deaf person). By providing this access, the thinking was that these cohorts would be able to participate equitably in the mainstream. This thinking was important during that time and the disability movement gained momentum through those early conversations.

It is now over 35 years since the IYDP and those early conversations, but the frameworks in place are still very much based on an accessibility model rather than one of participation and inclusion. Certainly, the needs of deaf learners are still considered through the narrow lens of ‘communication access’. However, equitable and inclusive participation in post-secondary education for deaf people is more than that: it involves appropriate career guidance, self-advocacy and personal empowerment skills, cognitive scaffolding and support, social inclusion and access to extra-curricular activities; it involves additional support for educational literacy to ensure individuals attain 100% of educational benefit during this stage. Organisations within the deaf sector are concerned with the lack of progress in improving full participation in post-secondary education. This is evidenced through the range of post-secondary workshops, research and pilot projects attempting to address this issue.

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<sup>1</sup> This report will use the umbrella term ‘deaf’ in reference to both students who are Deaf and hard of hearing. Deaf refers to people for whom the primary language is Auslan and who identify with the Australian Deaf community. Hard of hearing refers to people who use spoken English and who are comfortable in navigating within the general community but may face barriers with communication such as could be experienced in an educational setting.

Whilst there has been some success through programs provided by Vicdeaf and deafConnectEd, there is still no sustainable and systemic solution. Particularly with regard to deaf specific careers advice, self-advocacy skills, delivery approach, access to pathways and the provision of educational supports to ensure academic success for this cohort.

The National Disability Insurance Scheme (NDIS) is designed to enable people with a disability to lead 'an ordinary life' through choice and control by making decisions about the life they want to lead and the opportunities with which they aspire. This new way of thinking brings disability into the inclusion framework and a level playing field with other equity groups such as women, LGBTI, CALD and others. A sustainable model that ensures choice and pathways into post-secondary education is critical to ensuring young people can receive the full benefit of the NDIS and inclusion in society.

The Victorian Government has introduced the 'Education State' policy which aims to encourage educational excellence in schools and reduce student disadvantage. This policy encompasses all educational levels (early childhood, primary, secondary, tertiary, non-accredited learning). The underpinning objectives of the four pillars of the Education State include:

- » Learning for life
- » Happy, healthy and resilient kids
- » Breaking the link
- » Pride and confidence in our schools.

The notion of 'learning for life' aligns with the Skills First policy; a policy which focusses on building a world class TAFE and community education system including the reduction of learner disadvantage in post-secondary education settings. One of the key messages under Skills First is the goal to increase the participation of students facing barriers to participating in post-secondary education.

The Fellow (Catherine Clark) is the Manager of deafConnectEd which is a Centre funded by the Victorian Department of Education and Training. It sits under the auspices of and is supported by Melbourne Polytechnic. deafConnectEd is funded to ensure the Vocational Education and Training (VET) sector has information, training and support to assist deaf students to participate in vocational education and training. This Fellowship will support the future sustainability of deafConnectEd as well as any new initiatives designed to assist deaf students undertaking VET. It is vital that deaf learners can fully participate in a quality, stable and trusted training market in the same way as other Victorians. As mentioned earlier, the narrow focus on providing communication access to classroom participation does not fully address the cognitive, literacy, learning and social barriers faced by deaf people in post-secondary education. This narrow focus has led to many deaf students dropping out or achieving lower than expected educational outcomes and being unable to realise their full potential. This reduces the opportunity to be full economic and social participants in all aspects of life.

Another driver for change is the NDIS which will be fully implemented by 2019 and there may be opportunities to improve post-school transition support for deaf students through capacity building and tailored program delivery as part of NDIS packaging and funding arrangements.

To ensure increased participation and capability of deaf students in post-secondary education, it is vital that a new and holistic national model of support be introduced. One such model is suggested below, and highlights a move away from just addressing barriers to communication access but considers holistic education, addresses inclusion and embraces full participation in education.

Australia is now at the second wave of disability reform and are observing a shift from one of access to inclusion and participation; making it appropriate to research and explore some of the leading programs and organisations in the United States of America (USA), United Kingdom (UK) and New Zealand (NZ) which have similar education, government systems and disability issues.

The aim of this Fellowship was to visit international institutions that provide high quality educational models which support deaf students participating in vocational education and training. The countries visited were the UK, USA and NZ. The Fellowship also provided an opportunity to participate in the largest higher education conference for professionals working with students with disability, 'AHEAD 2016', attended by over 3,000 delegates. The conference included a stream dedicated to issues affecting deaf and hard of hearing learners; it being the only one of its kind in the world.

### **Key Fellowship learnings:**

- » The demographics of deaf students in the USA and UK far exceed that of Australia, making the resources much greater.
- » Research in Australia and overseas states that the literacy levels of deaf school leavers are at least two standard deviations below their hearing peers.
- » In USA and the UK, deaf and hard of hearing students are more accepting of and use the native sign language, thus there is less segregation between the two cohorts.
- » The provision of captioning services at the vocational/college level was more widespread in the USA.
- » Segregated colleges were well resourced to support deaf students due to commitment, knowledge and skills of staff within these colleges, and there was also greater social inclusion opportunities in these colleges. Significant research, literacy intervention and provision of niche classes (as well as pathways into mainstream colleges or employment) helped ensure that deaf students were able to attain better than expected economic and social participation outcomes.
- » When students were mainstreamed into a local college, they faced challenges in receiving support compared to when they attended a college that catered for deaf learners with a pathway into mainstream courses.
- » Sign language interpreters in the USA were provided preparation time between

interpreting sessions to ensure they were fully prepared and able to adequately support the students the classroom.

- » As compared to other countries notetakers are over-utilised in Australia and individuals often have very little training in the educational needs of the deaf student they are supporting. In the USA, the preference is for real time captioning or C-Print captioners to assist hard of hearing students (both those who use sign language and those who use speech).

### **Recommendations:**

The Fellow suggests the following recommendations be considered to improve post-secondary outcomes of deaf young people in Australia:

- » A national post-secondary Centre of Excellence be established
- » New technology solutions, such as CPrint, be trialed
- » A comprehensive assessment measure be developed/compiled to ensure students are provided with the appropriate supports for success
- » A strengths-based framework, built on inclusion and participation, be developed as demonstrated in the proposed 'Three-Tiered Model' below.

### **The Three-Tiered Inclusion Model**

The three-tiered model below aims to address all barriers and remove disadvantage by focusing on a strengths based approach which builds on the potential capabilities of individual deaf students.

#### **Tier 1: Inclusive environment (75-80%)**

In Australia, it is recognised that 1 in 6 people have a hearing loss, which may affect their ability to communicate and participation in an education setting in classroom and social aspects of post-secondary engagement. To ensure the inclusion of this population, education providers should ensure that, where possible, visual media

shown in class is accessible with captions and that students are able to access hearing augmentation devices such as hearing loops. All staff should be aware of how to support learners with a hearing loss. These supports and strategies should be embedded in a college diversity and inclusion strategy.

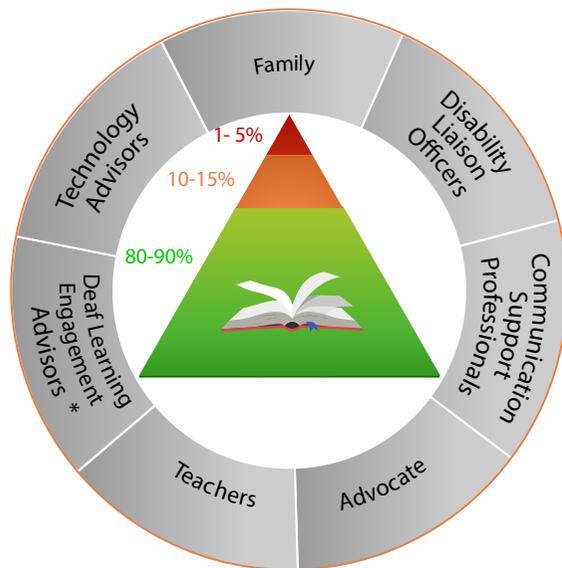
**Tier 2: Specialist support (10-15%)**

This cohort identifies as deaf and will require communication access (Auslan interpreter and/or notetaker/captioner) and specialist academic tutoring to fully participate in an education setting. This learner group will benefit from the interventions of Tier 1, and additional communication supports for education and social participation in post-secondary education. Some students may benefit further from niche classroom support to further enhance learning.

**Tier 3: Niche classroom learning and experiential learning (5-10%)**

This cohort identifies as deaf, and from a diverse background which and will require additional learning support. This group will benefit from niche classroom support and experiential and ‘hands on’ learning. This is in addition to Tier 2 and Tier 1 support to ensure a full experience and engagement in post-secondary education.

Diagram (right): Post-Secondary Education Inclusion Model for deaf students



National Centre of Excellence

Tier 1: Inclusive environment (75-80%)

In Australia, it is recognised that 1 in 6 people have a hearing loss, which may affect their ability to communicate and participation in an education setting. All post education staff should have access to knowledge and skills of support learners with a hearing loss. Inclusion should consider both classroom and social aspects of post-secondary engagement population, education providers should ensure that where possible, visual media shown in class in accessible with captions, students are able to access hearing augmentation devices such as hearing loops. These supports and strategies should be embedded in a college Diversity and Inclusion strategy.

Tier 2: Specialist support (10-15%)

Some deaf learners, regardless of level of hearing loss, will require additional communication access (Auslan interpreter and/or notetaker/captioner) and specialist academic tutoring to fully participate in an education setting. This learner group will benefit from the interventions of Tier 1, and additional communication supports for education and social participation in post-secondary education. Some students may benefit further from niche classroom support to further enhance learning.

Tier 3: Niche classroom learning and experiential learning (5-10%)

Additionally, there are deaf learners, regardless of loss, who are from other diverse groups which will require additional learning needs in addition to Tier 1 and Tier 2. This group will benefit from niche classroom support and experiential and ‘hands on’ learning to ensure a full experience and engagement in post-secondary education.

## ii. Abbreviations & Definitions

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<b>AHEAD</b>	Association on Higher Education and Disability
<b>ASL</b>	American Sign Language
<b>CSUN</b>	California State University, Northridge, CA, USA
<b>CRPD</b>	United Nations Convention on the Rights of People with a Disability
<b>CA</b>	California
<b>DC</b>	Communication Specialist College, Doncaster Deaf Trust, Doncaster, UK
<b>DCAL</b>	Centre Deafness Cognition and Language Research Centre, University College, London
<b>NDCS</b>	National Deaf Children's Society
<b>NDIS</b>	National Disability Insurance Scheme
<b>NTID</b>	National Technical Institute of the Deaf
<b>NY</b>	New York
<b>NZ</b>	New Zealand
<b>PEPNET2</b>	Postsecondary Education Programs Network

<b>RIT</b>	Rochester Institute of Technology
<b>UK</b>	United Kingdom
<b>USA</b>	United States of America
<b>VET</b>	Vocational Education and Training

**Deaf** The term 'deaf' is used in reference to both students who are Deaf and hard of hearing. Deaf (capital D) refers to people for whom Auslan is their primary language and who identify with the Australian Deaf community. Hard of hearing refers to people who use spoken English and who are comfortable in navigating within the general community but may face barriers with communication such as could be experienced in an educational setting. This report will use 'deaf' throughout as an umbrella term for both groups.

# 1. About the Fellow

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## Catherine Clark, Manager deafConnectEd

Catherine Clark (the 'Fellow') has over 25 years' experience as a professional in the deaf sector during which time she has worked to improve the education, economic and social participation of deaf young people. Drawing on her own lived experience of deafness, with strong stakeholder networks (including policy and advocacy, special education, vocational education and training and employment sectors) the Fellow has a strong interest in improving the educational experience and support provided to deaf students in VET. The Fellow's heavy involvement in disability advocacy and policy reform in a voluntary capacity is assisting her to work towards realising the creation of a well-resourced Deaf Education Centre of Excellence that opens pathways into VET for deaf students in Victoria. The Fellow has a thorough understanding of the disability service system, system reform needs and future focus.

The Fellow has read about and researched international post-secondary programs as well as attended seminars and conferences where international guests have produced evidence on models of post-secondary education for deaf people which could be applied to the Australian context.

deafConnectEd is a strategic Centre which sits in the College of Humanities and the Arts within Melbourne Polytechnic. The Centre was established in 1993 to provide literacy, numeracy and computer skills courses as deaf people were increasingly moving into more white-collar employment and needed to develop literacy skills suited to these roles. The Centre now advises government and the VET sector on strategies to improve the participation and retention of deaf students in VET

courses across Victoria. deafConnectEd is funded by the Victorian Department of Education and Training (Higher Education and Skills Group) and operates under the auspices and with the support of by Melbourne Polytechnic.

### Qualifications:

- » Certificate IV in Training and Assessment (TAE10), NMIT 2012
- » Masters of Education (Language Intervention and Hearing Impairment), University of Melbourne, 2011
- » Bachelor of Education (Adult), University of Technology, Sydney, 1999

### Research:

- » Grant Thornton. (2012). Auslan Training Review.
- » NCVER. (2012). Strengthening Pathways for deaf and hard of hearing students into post-secondary education.
- » NCVER. (2007). Connecting the Dots, A successful transition for deaf students from vocational education and training to employment.
- » NCVER. (2007). Connecting the Dots, A statistical compendium.
- » NCVER. (2007). Connecting the Dots: Case Studies of deaf people who have graduated.
- » Auslan Projects (2005)

**Board Memberships:**

- » Skills IQ: Auslan Technical Advisory Committee, Chair (January 2017 – current)
- » Victorian Disability Advisory Council (October 2016 – current)
- » North West Regional Council, Adult Community and Further Education (ACFE)  
– Council member (2014 – current)
- » Deaf Children Australia, Board Member (2009 - 2015)
- » Australian Federation of Disability Organisations, Board Member (2012 - 2014)

## 2. Aims of the Fellowship Program

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The primary aim of this Fellowship was to visit leading models of post-secondary education programs in the USA, UK and NZ in order to learn from researchers and experts and consider ways to adapt these models to the Australian context. Visits to these universities and colleges, which are regarded as international models of best practice in educating and preparing young deaf people for a career and a life beyond school inspired to explore solutions to issues which face young deaf learners in Australia. This Fellowship recommends that program ideas to be developed and piloted in Australia to improve the pathways and outcomes for young deaf people in both VET and Higher Education courses.

The Fellowship aims were:

- a. To share and obtain professional knowledge and expertise by visiting international best practice support services which ensure that deaf students are supported while moving through their post-secondary education and training and into employment.
- b. To attend the international AHEAD Conference 2016 (Indianapolis, Indiana, USA) and garner learnings from a conference whose sole focus was the participation of people with disabilities in post-secondary education.

## 3. The Australian Context

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In Australia, we have two main groups of people with a hearing loss; this is typical of most western countries, however there is much more segregation between the two communities in Australia. One group is comprised of those who are Deaf, and who identify as members of Australia's Deaf community and use Australian Sign Language (Auslan). The other group are people who are hard of hearing, and use speech and assistive listening devices to assimilate within the mainstream hearing community. Typically, members of each group do not feel comfortable with members of the other group despite sharing some common features in their experience of hearing loss. For instance, both groups experience communication barriers caused by their inability to hear speech in a range of situations such as employment, education, social interaction and entertainment. This Fellowship Report uses the term 'deaf' to refer to both groups. During this Fellowship experience, the Fellow observed that there appeared to be more acceptance and assimilation between the two groups in larger Western societies such as the UK and USA. The reasons for this may be due to a range of factors, but the Fellow posits that some of these could be larger resources, larger deaf populations and greater acceptance of their national sign language. This may also be due to economies of scale which allows large number of deaf people to congregate together and enables educational institutions to be better resourced when supporting these individuals.

For obvious reasons, the more severe the hearing loss the greater the barrier and likelihood that these individuals will not be able to fully contribute to society and experience social, community and economic opportunities. With one in six Australians living with hearing loss, the loss of economic and social potential is significant.

Barriers to education begins for many students during the infants/primary years of education but becomes increasingly exacerbated during the teenage and upper secondary school years. This is partly due to the normal teenage experience of wanting to 'fit in' but is also due to the increasing complexity of information, knowledge and skills that secondary school graduates must acquire in order to successfully complete their secondary schooling. Researchers in Australia and overseas note that deaf students complete formal schooling with educational outcomes that are noticeably varied and generally below that of their hearing peers. (Furlonger et al, 2011; Dammeyer & Marshark et al, 2016; Richardson, Marshark, Sarchet, & Sapere 2010). Research identifies a range of factors that contribute to this variation including the student's literacy and fluency in a language (Auslan or English), their development of social, networking and communication skills, degree of hearing loss, and family, ethnic and socio-economic backgrounds (Punch, Creed & Hyde, 2005; Willoughby, 2009, 2011).

The general community views hearing loss as the inability to hear and, whilst it is certainly that, the ramifications of not being able to hear in an educational setting can be quite profound. There is clear evidence that students with disability benefit greatly from participating and being included in mainstream educational settings, and there are documented benefits to the general student population as students become more aware of diversity in society through interaction with these students in those institutions.

For deaf students in mainstream settings, the supports provided are inadequate to ensure optimal educational attainment. For deaf and hard of hearing people this means the provision of sign language interpreters, notetakers, hearing

augmentation systems - but it is not enough. Access to communication allows the student to 'hear' what is being discussed; however, it does not adequately address the processing and learning required to attain the knowledge and skills expected in order to graduate.

Deaf people require so much more educational support to process information received through a 'third party'. Information and educational content often needs to be broken down further to accommodate individual learning styles, literacy levels and cognitive ability, and only then will the 'playing field' be levelled and the full potential of an individual student be realised.

Examples of additional services required include individual tutoring and literacy support, as well as proper access to learning and teaching resources (captioning of educational media). The cost of providing these types of support can be quite significant and therefore may not be seen as being a financially sustainable decision for colleges where only one deaf student is enrolled. However, when there are larger deaf populations in a college, the economies of scale make it more attractive and these services can be provided in a fiscally responsible manner.

In a mainstream setting, a deaf person is often socially isolated due to the inability to 'overhear' incidental conversation and will often struggle to develop and maintain social relationships. Building relationships and networks during post-secondary education is a fundamental 'rite of passage' for all young people at this life stage. These potential lifelong friendships and relationships are extremely important for self-development, identity and confidence building. By creating larger deaf populations within a mainstream college, the opportunities for social interaction and engagement are more achievable, not only with deaf peers, but also through support they provide to each other when networking and engaging with other hearing students. As staff and students at that college begin to see deaf people and interact with them, the desire to communicate becomes stronger. This can then lead to the provision of sign language classes at that college, with increasing usage of sign language being seen throughout the campus, thus allowing deaf

students to experience full inclusion, the joy of participating in post-secondary education and the 'rites of passage' one should experience at this time on one's life. In addition, students who are deaf and do not sign are exposed to a new way of communicating and begin to develop other strategies in communication and supports for their future.

In Australia our family and community culture, and way of life, encourages us to attend school and post-secondary education at settings close to home. It is the view of the Fellow that our culture, whilst seemingly fostering inclusion for deaf students by enabling them to attend schools close to home, actually can create segregation and isolation as students may not get access to full educational inclusion to limitations in available funding to provide the required supports. This philosophy is extended to post-secondary education, whereby students feel they must attend their local VET institution and receive disability supports. In short, we have a system that is unable to fund the full cost of disability supports for a deaf student due to the perceived financial burden to institutions as well as having a culture that encourages students to attend local colleges. Consequently, we are creating a class of deaf students who are unable to realise their full potential, and unable to fully contribute to the economic and social fabric of society. This must change.

One suggested change is the establishment of a national specialist Centre of post-secondary education to improve outcomes for our students. Using a co-design model in partnership with the education provider, this Centre could provide a range of services such as funding and resources for specialist tutoring, literacy and numeracy support services to deaf students to increase the student experience of post-secondary education and foster an appreciation of lifelong learning.

In 2015, deafConnectEd had contact with a number of deaf students enrolled in various VET courses who asked for assistance in accessing appropriate support. Out of this the following three case studies provide examples of students' unsuccessful VET experiences:

**Case Study 1: Student enrolled in Certificate III in Hospitality**

- » Student was not getting access to adequate levels of Auslan interpretation, so was not learning.
- » Class was held between 8am - 4pm each day but interpreters were requested from only 8am - 10am.
- » The reasonable adjustment assessment determined class time from 10am - 4pm was practical (hands-on) and therefore no interpreter was needed. Yet, within this time frame, the student was unable to fully participate as they could not ask questions, seek support or learn from the input of fellow students
- » The teacher had a foreign accent , which made lip reading challenging, so the suggested mitigation was for teacher and student to write notes which both found frustrating.
- » The campus was located in outer Melbourne, making it an undesirable location for Auslan interpreters as they are not paid travel time.

**Case Study 2: Student enrolled in Diploma of Nursing**

- » The student had access to an interpreter and note taker.
- » Warning signs of limited English literacy skills were not picked up until assessments were submitted. Consequently, the student was unable to pass their Diploma, due to an inability to adequately write in English.
- » The student was unable to participate in mainstream student learning support, as there was no access to support services and the mainstream teachers were expected to teach deaf students English, without any knowledge or experience.
- » Mainstream literacy teachers were sourced to assist but the teaching of ESL cannot be applied easily to teaching deaf students English.

**Case Study 3: Deaf migrant from Afghanistan**

- » The student wanted access to English via the Adult Migrant English Program (AMEP).
- » The student could not use Auslan but instead used their own home signs.
- » The student was on a waiting list for Vicdeaf's Auslan for Migrants Program, which had over 25 people in group.
- » Consequently this student was unable to enrol in AMEP due to not being able to use Auslan and the AMEP was not funded to cover Auslan interpreters.

deafConnectEd is currently unable to address all of the issues outlined in the above case studies due the fact that they occurred in different educational institutions and the Centre is unable to influence and fund appropriate and required supports. However, if one institution was able to become a 'Centre of Excellence' and resources were pooled collectively then many of these issues could be resolved.

Educators and other professionals who work with deaf and hard of hearing people have long called for improvement in transition support, self-advocacy and social wellbeing programs for deaf people of all ages, but with a particular emphasis on young people leaving school. Some have identified that factors and outcomes experienced by deaf students are like those experienced by other disadvantaged learner groups, such as young people who are disengaged from school or and early school leavers (Byrnes, 1998). However due to the very nature of deafness, the interventions that are tailored to other learner cohorts are often not suitable for deaf learners or require significant tailoring to be effective for this cohort.

In 2010, the now disbanded National VET Equity Advisory Council developed an Equity Blueprint (2011), which clearly identified people with a disability as a key equity group in need of additional support to assist them to attain post-secondary

qualifications in order to participate in the workforce. Many professionals in the VET sector and others working with students with a range of disabilities were hopeful that a range of interventions would be implemented to change perceived ongoing barriers. However, successive changes of governments and VET policy frameworks have meant that this policy was not implemented. Moreover, many of the barriers are worsening and particularly because the sector now operates within a competitive training market.

This Fellowship focused on visiting best practice colleges that provided positive learning environments for deaf students, and explored ways of reducing the barriers faced by deaf learners in post-secondary education. The Fellowship provided an opportunity to compare the VET programs and supports provided in Victoria with overseas models. Ideally, the support requirements deaf people should include:

- » Communication access (Auslan interpreting and notetakers)
- » Literacy intervention and support – subject and content scaffolding
- » Access to technology (live captioning, video interpreting, captions on all DVD's, FM and loop systems)
- » An experiential learning environment including mentoring and coaching opportunities.

This does not always occur in Australia as each of these interventions are ongoing placing a significant cost burden on educational institutions, both public and private. The Australian Disability Discrimination Act (1992) and the Disability Standards in Education (2005) require all training organisations to cover the access and disability support costs so a student can enrol and participate in a training course. Ideally, students should receive full support. However, due to a legal loophole known as 'unjustifiable hardship' many small to medium sized VET institutions can refuse to provide any kind of accessible support on the grounds it will result in financial hardship for their organisation.

Most training institutions are well meaning and will try to negotiate an adjustment that is affordable for them. This may mean providing some communication access or the negotiation with the student to find a resolution. Often this may result in the student completing the course with incomplete content knowledge or in the student dropping out before completion as it was just 'too hard'. Despite this, there are some stories of success within this framework, which is the result of perseverance by both the deaf student and the individual educators at the institute. In most cases, however, educational quality and student knowledge and skill development are compromised.

Australia needs to, and can do, better.

## 4. Identifying the Required Skills Enhancement Areas

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The skills enhancement areas identified as being critical components of this Fellowship were the following.

- a. To increase the Fellow's knowledge and skills in understanding best practice transition and support services to deaf people internationally.
- b. To develop international networks in both post-secondary services for deaf and hard of hearing people as well as distance education sign language programs.
- c. To disseminate findings and information to the deaf sector, government and the VET sector as a whole.

## 5. The International Experience

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The Fellow visited the USA, UK and NZ as part of her 2016 Fellowship investigations.

In Australia, and more recently in the UK and the USA, we know that the majority of deaf students complete their education either in a deaf facility within a local school or they attend a local school as the only deaf individual in that setting. The remaining attend specialist schools for the deaf as they may have additional disabilities or may have been bullied and had a negative experience of mainstream schooling and thus better able to thrive socially and academically in a school for the deaf where everyone uses a native sign language.

Both the UK and the USA have larger populations and as a consequence larger deaf populations. This means that both countries have the resources, can collect the evidence base and have significant funding streams to ensure deaf education is properly resourced and supported in order to better ensure full educational access for students. The international experience which underpinned this Fellowship was deliberately wide ranging given the breadth of programs available in these countries.

The post-secondary education system in the UK is very similar to that of Australia, yet they are able to fund and support a vocational college that ensures deaf people with additional disabilities have a positive educational pathway while also providing opportunities for deaf people in mainstream education. The issues experienced in Australia by deaf VET college leavers are similar in the UK with regard to mainstream post-secondary institutions. So, to balance that out it was important to visit educational centres in the USA, which are very much 'Rolls Royce' solutions. The Fellow recognises that it will not be possible to create a similar model in Australia, but it is hoped that a blueprint can be devised at the state and national level to explore ways of creating a national Centre of Excellence providing post-secondary education for deaf people in Australia.

The NZ approach is interesting in that it is a small country with a small deaf population, but without the geographic distances that we have in Australia. Yet, in NZ the government has been able to fund a central model of support and education for young deaf people as a pathway to mainstream education.

### 5.1. Specialist Colleges - USA

#### **a) National Technical Institute of the Deaf (Rochester, New York, USA)**

The National Technical Institute of the Deaf (NTID) was established by President Lyndon Johnson through an Act of Congress in 1965. The NTID is one of two post-secondary institutions in the USA for deaf people that are funded through an Act of Congress. The other one is the more famous Gallaudet University in Washington DC. NTID receives USD \$45M per year to operate the NTID which not only educates deaf adults but is also a leading research institute conducting research related to deaf education.

The NTID is one of nine colleges that form the Rochester Institute of Technology (RIT), in Rochester New York. It reports to Congress via the NTID Advisory Group and the USA Department of Education. In 2016, 1,122 deaf students enrolled with NTID of which 16% withdrew. Most deaf students who enrol in NTID apply for a two-year college degree whilst others enrol in NTID as a pathway into a four-year degree through RIT which is a large institute with over 12,000 students.



Image 1: Front entrance to the National Technical Institute of the Deaf

The enrolment breakdown is as follows:

Type of Qualification	Numbers in 2016
Career Exploration Studies (CES)	44
Sub-Baccalaureate Programs (NTID):	0
Career-Focussed Programs	316
Associate + Bachelors/Pre-Baccalaureate	211
Baccalaureate Programs at RIT	507
Graduate Programs at RIT	44
Total Enrolments	1,122

Reference: NTID Annual Report 2016 (p.13)

The primary mission of the NTID is to provide deaf and hard of hearing students with outstanding, state of the art technical and professional education programs complemented by a strong arts and sciences curriculum, which prepares them to live and work in the mainstream of a rapidly changing global community and enhance their lifelong learning.

Secondly, the NTID prepares professionals to work in fields related to deafness; undertakes a program of applied research designed to enhance the social, economic and educational accommodation of deaf people; and shares its knowledge and expertise through outreach and other information dissemination programs. (NTID Annual Report; 2016, p. 10).

NTID educates a diverse mix of deaf students. Whilst the first or preferred language of many enrolled deaf college students is American Sign Language (ASL), more and more students are enrolling with cochlear implants and have had no previous exposure to ASL. The common factor for all students is that they are deaf, have faced barriers in secondary education, have below average English literacy and require additional support to participate fully in post-secondary education. In

2016, total enrolments were 1,122 of which 96% were from the USA and 4% were international students.

RIT/NTID state that on completion of their degrees, either Associate or Bachelors, graduates earned 95% and 178%, respectively, more than those who completed post-secondary education at other post-secondary education institutions in the USA.

Throughout the year, the support services were:

Type of Service	Inside Classroom (Hours)	Outside classroom (hours)
Interpreting	112,110	36,937
Captioning	23,081	1,254
Notetaking	61,924	

The Fellow undertook a tour of NTID/RIT conducted by Ben, a young 22 year-old deaf American who is planning a career as an audiologist. Ben is the only deaf child from a hearing family and like many deaf children of his generation was fitted with cochlear implants at a young age. Ben attended a mainstream school with support and commenced study in a local College on completion of school. His college grades were suffering and he was at risk of becoming disengaged and dropping out. He heard about NTID, applied and was accepted. He began his NTID/RIT journey not knowing ASL and had not met many other deaf people prior to coming to the institute. Ben is now in his third year of a science degree. During his first year, Ben began his studies in NTID with the support of CART<sup>2</sup> as well as literacy support out of class. Ben resided on campus and shared a dorm with

<sup>2</sup> CART is an acronym for Communication Access Real-time Translation which is a speech to text translation service that is very well utilised in post-secondary education settings (both College and University) across the USA. In Australia, we use this system for our live television captioning, theatre captioning and in the workplace. CART is used in some universities but is not seen as appropriate for TAFE.

other deaf college students. It was through socialising and meeting deaf peers that he acquired ASL. Ben now prefers to receive support through ASL interpreters and has dropped CART access. Ben also has a job with a café on campus and says that many RIT hearing students have learnt basic ASL and learned deafness awareness; making it a fully inclusive university providing a positive, engaging and full educational experience. It was through his time here that he developed an interest in audiology and looks forward to continuing his studies and graduating as a deaf audiologist who is fluent in ASL, allowing him to provide holistic support to families of deaf children.



Image 2: The Fellow's tour guide, the lovely Ben

The tour of NTID/RIT was inspiring as full and inclusive access was provided everywhere with most faculty staff, hearing students and hospitality staff able to communicate in rudimentary ASL. Also, all TV screens showed captions during broadcasting news and information bulletins across the site. There were ASL classes available for RIT staff and students to increase communication between deaf NTID students and mainstream RIT students. There were emergency points throughout both NTID/RIT which allowed deaf students to press a button which would immediately alert security staff to their location and assistance would be rendered within seconds. In addition, some of the security staff were able to communicate in ASL to ensure full access. There were video phones and TTY phones throughout the campus to again ensure full access to students as required.

NTID is not only a large educational institution that provides inclusive, accessible and appropriate educational pathways to its students, but it also incorporates a range of research centres that research a range of issues on deafness and post-secondary education.

Research Centres include:

#### **Center on Access Technology (CAT)**

Established in 2006, CAT seeks to research and utilise, develop and/or adapt new technologies that are used by deaf and hard of hearing people to improve personal communication in education, social and employment settings. CAT seeks to investigate, evaluate and report on the most effective use of technology and trains individuals to accelerate the implementation of best practices into post-secondary education. An example of new technologies developed is the CPrint system that is widely used in secondary and post-secondary education settings throughout the USA. More recent research underway include:

- » Design User Interface for Video Relay Services
- » Accessible Communication for Everyone (ACE) App

- » Automated Speech Recognition.

#### **NTID Center on Cognition and Language (CCL)**

Established in 2016, the mission of NCCL is to promote interdisciplinary collaboration in exploring topics that lead to new discoveries regarding cognitive, language and socio-cultural factors that affect deaf individuals' learning, wellbeing and health. NCCL includes:

- » Deaf X Laboratory
- » Deaf Health Laboratory
- » Deaf Studies Laboratory
- » Sign Language Laboratory.

#### **Center for Education Research Partnerships (CERP)**

The CERP's role is to establish and join research partnerships concerned with development and learning among deaf and hard of hearing students across their lifespan and in various educational settings. The goal is that through research and knowledge, opportunities can be provided to optimise educational opportunities and success for students who are deaf and hard of hearing.

The most significant research from the work of this Centre is new insights gained from longitudinal exploration of ways in which spoken and sign (English and ASL) languages interact with cognitive abilities and the impact and effect on student learning in school as well as post-school settings. The findings span across student learning, psychological functions and academic outcomes and will have implications not only for formal education but lifelong learning opportunities in the future.

#### **Research Center for Teaching and Learning (RCfTL)**

The focus of RCfTL is to create opportunities for sustainable research that will improve deaf education, expose students to research practice and develop

the next generation of NTID educational researchers and scholars. The Centre also seeks opportunities for cross-sector collaboration between NTID and RIT researchers which is focussed on providing better educational opportunities and experience for deaf and hard of hearing students across different disciplines.

## 5.2. Specialist Colleges – United Kingdom (UK)

The UK has specialist colleges that cater for deaf and hard of hearing learners throughout the country. These Colleges are an alternative to attending a mainstream college with specialist support. The benefit of such colleges is that all specialist support is provided onsite, which includes residential lodging for those who live out of the area. The Fellow took the opportunity to visit Communication Specialist College in Doncaster (Yorkshire) which catered for deaf people with additional disabilities as well as other students with communication disorders.

### a) **Communication Specialist College (Yorkshire, United Kingdom)**

The Fellow spent two days at the Communication Specialist College in Yorkshire. The focus was on meeting and talking to the staff about the delivery model at the College. This College is a very well-resourced school working with students who would normally be disengaged from education and become independent workers. The school works intensively with students from enrolment through to completion and ensures they are placed in employment or further education upon graduation.



*Image 3: Front entrance to Communication Specialist College*

The Communication Specialist College began its life known as the Yorkshire Residential School for the Deaf in 1829, and then was later renamed the Doncaster School for the Deaf. Over time the school expanded to include a nursery, residential and day school, college and care home. Today the School forms part of the Doncaster Deaf Trust, which is a National Centre of Excellence in supporting deaf children from nursery age through to post school education. The Trust's mission is 'to empower and support individuals to be resilient, independent and skilled to enable them to achieve their future aspirations and live fulfilling, independent, lives'. Due to financial pressures and to ensure long term sustainability, the Trust expanded its focus to include children with other communication disabilities including Downs Syndrome, Aspergers and Autism Spectrum disorders. However, there is a requirement that these children acquire British Sign Language (BSL) at an intermediate level so that they can communicate with deaf children who use BSL, thus avoiding issues of segregation and promoting interaction between all students.

The Communication Specialist College sits within the Doncaster Deaf Trust and its philosophy is person centred and its program considers the needs of the whole person. Staff focus not only on the education outcomes but on the social and emotional support for each student as they regard this as a measure of success in ensuring that each individual can live as close a life of independence as possible after leaving the college.

With a strong focus on literacy and numeracy skills that are embedded in each qualification, the staff teach each qualification using experiential learning.

The College delivers NVQ Certificate II to III level courses in: plastering, panel beating, motor mechanics, body work, hair, makeup and beauty, hospitality, sport and recreation and so on. Many of the classrooms are experiential learning labs that simulate the workplace to provide students with a real experience of learning and using equipment that is expected in the workplace. This model provides experiential and hands-on learning for all students.



*Image 4: The woodworking workshop - one of the many experiential workshops at CSC*

The College has 90 students enrolled, of which 35 are deaf or hard of hearing and 65 are on the Autism Spectrum (including Asperger's syndrome). The staff is comprised of 55 qualified teachers and 25 ancillary staff (audiology, speech and listening, literacy, numeracy, life skills, tutors). All staff can communicate using some BSL, with varying degrees of fluency. BSL interpreters are utilised when required to ensure clarity in communication.

Each student has an individual learning plan in which student goals are documented and monitored. Regular team meetings are conducted with the student, ancillary and teaching staff, family members and funding bodies (councils) to discuss student progress. Towards the end of the second year, a transition plan is implemented to

transition students into work experience and work placements to prepare them for work. Specialist staff begin to target businesses in the local community where the students reside, seeking work placements and employment opportunities on completion of their studies.

### 5.3. Specialist Colleges – New Zealand

#### a) Kelston Deaf Education Centre – KDEC (New Zealand)

The Kelston Deaf Education Centre in NZ combines a pre-school, a residential school for the deaf, a regional teacher of the deaf program, and assistive technology program. The residential school for the deaf caters for students from Years 1 – 12. The school program is extended to include a Year 13 - 15 program for students who are not ready to participate in mainstream post-secondary education. The Fellow met with staff who manage the two-year pathway Year 13 - 15 program and spent two days discussing their model. The Year 13 - 15 program is named 'Tu Kokiri' (meaning 'To Stand') and the motto is:

*To stand with pride and humility, moving forward to grasp your aspirations and meet the changes that the world presents to you.*

As is the case in the USA and the UK, all staff who work at KDEC are can either communicate fluently or effectively in New Zealand Sign Language (NZSL) and staff include a mix of deaf and hearing people. There are between 9 – 22 students in the program at any one time. The KDEC Year 13 - 15 program is staffed by two full time teachers of the deaf, one NZSL interpreter and two teachers' aides. A place in the program costs between NZ\$30,000 - \$50,000 depending on the needs of the student, and a residential place in the program costs at least NZ\$40,000 per year (all of which is funded by the NZ Department of Education).

The program delivered in both NZSL and written English follows a wholistic and adult learning approach that considers all aspects of the individual. The program covers a range of themes: Mental health, health and physical education; self-

determination, managing emotions, community contribution and engagement. Some of the topics covered in classes included:

- » World view
- » Maori studies
- » Literacy
- » Situations vacant
- » Learners drivers licence
- » Financial literacy
- » Deaf lives
- » Wellbeing
- » Future planning
- » Life skills

Using a bi-lingual approach, English literacy is integrated across all subjects, however, as is the case in the UK, focus is on ensuring each student has an individual learning plan which outlines their career, life and study goals. The program includes visits to the following places:

- » AUT Deaf Sign Café
- » Mt Albert Library
- » Local deaf club.

This program is more than a life skills 'transition school', because it offers real social and inclusion opportunities for deaf young people, which would not be prevalent if the student was in a mainstream post-secondary setting. Many of these students may be marginalised in their families and from their local communities because they cannot hear and engage in every day conversation. This school provides a place for continuing education, knowledge and confidence building as well as assisting with preparing for life in the workforce (e.g. CV preparation). The Centre promotes friendships and an opportunity to interact with deaf adults who not only act as role models but can share Deaf cultural knowledge and their experiences of work as deaf people.

This flexible but intensive program provides students with a safe and welcoming environment that allows them to connect with future community resources and

foster independence beyond school as well as providing a chance to form new networks.

The Fellow attended the annual Speech Competition evening which is hosted by KDEC, and is open to all deaf students in mainstream settings as well as KDEC students. The program is an opportunity for students to research a topic and present a short speech as well as encouraging use other resources such as video or PowerPoint to support their presentation. Students were given the opportunity to present in either NZSL or English. The winners received a trophy and a financial award for their efforts but the benefit for all students was the ability to stand up in front of an audience in a supportive environment and confidently tell a story in their chosen language. Family members cried, students laughed and deaf adults admired the confidence and resilience of the young people telling their stories. It was a lovely and uplifting evening.

## 5.4. Mainstream Education Providers – USA

### a) California State University, Northridge (CSUN) – National Centre on Deafness

California State University, Northridge (CSUN) is one of California's largest universities with over 38,000 students enrolled annually. The National Centre on Deafness (NCOD) was set up in 1972 as a coordinating unit to support the growing number of deaf students on campus. This ensured the provision of ASL interpreters and note takers to support students. Over the years, and after the introduction of the American with Disabilities Act (1990) stipulated standards for the provision of educational supports to students with a disability, the Department of Education set up specialist centres throughout the USA to ensure the ongoing support of deaf students in post-secondary education. Unlike the NTID, the NCOD is funded by an Act of Congress but is rather as an ongoing commitment to ensure the participation of deaf students in post-secondary education. Currently the NCOD supports approximately 175 deaf and hard of hearing students.

The Director, Cathy McLeod, who is herself deaf, arranged for the Fellow to meet all the NCOD staff to compare and discuss the support provided to deaf and hard of hearing students enrolled in college (vocational education). The session was conducted in American Sign Language (ASL) and was videoed as an information resource for the Fellow. It also meant the Fellow could converse in ASL (which she is not fluent in) without the need to take detailed notes throughout the discussions.



*Image 5: NCOD and Pepnet staff in a knowledge sharing session*

NCOD is markedly smaller than NTID and is staffed by twenty (20) people, from the Director, to the interpreter and tutorial support coordinators. There is also a team which supports literacy development, social interaction and engagement as well as mentoring and work placement support. The team are all fluent in ASL with a good mix of experienced deaf and hearing professionals.

The themes discussed were:

- » Composition and diversity of deaf student population at CSUN
- » Orientation Week – program and activities
- » Empowerment of deaf individuals
- » Career Planning and Support – ‘University 100 class’
- » Tutorial program for deaf students
- » Preparing for a written proficiency exam
- » Alternative test for deaf second language learners – ASL communication and knowledge test
- » Quality and standards of deaf student support services
- » Technology support – use of captioning services – C-Print and other support
- » Access to extra-curricular or social activities at CSUN.

The discussion was very broad ranging and showed the breadth of support services to deaf students, which extends way beyond what is available in Australia. The emphasis placed on the orientation week and the literacy support were of particular interest to the Fellow as we know that many deaf students face personal, cultural and literacy challenges in moving from a school environment into university. CSUN receives an annual grant from the Department of Education to operate NCOD and, as part of their social and equity agenda, the institution matches the commitment from the Federal government. This is an example of the types of services that are provided by mainstream universities.

In Australia, the closest we have to the CSUN model is at Griffith University (Queensland) which provides dedicated resources for supporting deaf and hard of hearing students at a university level. Griffith University staff also provide support to other Queensland universities in a collaborative model. The absence in Australia of a model such as CSUN frequently results in the loss of accumulated knowledge.

That is, individual staff at various universities develop expertise and knowledge about the needs of deaf and hard of hearing students over time, which is often lost once that particular staff member leaves the institution.

The other key takeaway from the Fellow’s experience at NTID and CSUN was how inclusive both institutions were for deaf people. At each institution, there was a good mix of deaf and hearing staff and, in some cases, deaf staff occupied leadership roles. In others, they were collaborators or team members but everyone was fluent in ASL, which made the Fellow’s communication smooth and seamless. There was no need for an ASL interpreter, as the Fellow was able to pick up rudimentary ASL quickly which assisted in her communication.

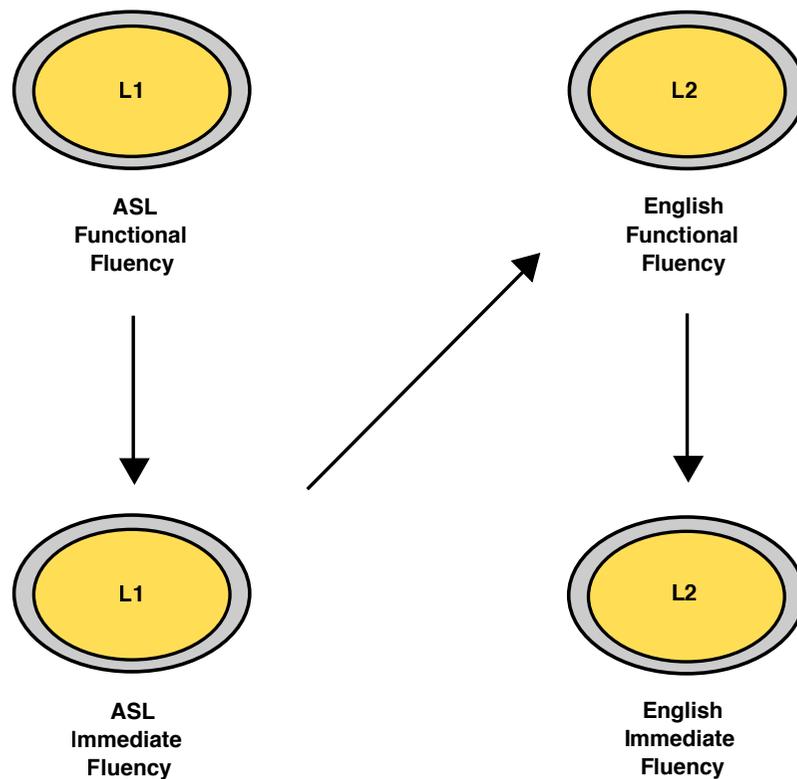
#### **b) Austin Community College – Deaf Migrants Program**

The Fellow met with Erica Shadburne, an educator in the deaf ESOL (English for Speakers of Other Languages). Erica is also the Assistant Dean of the Humanities and Arts Department. Erica is fluent in ASL and leads a team of deaf and hearing teachers, all of whom are fluent in ASL. The college has approximately 150 deaf students each year, many of whom are migrants, have other disabilities and/or have not had a good experience during their high school education.

This program has been specifically tailored to meet the learning needs of deaf learners and is taught in ASL. The program has four levels – Basic to Level 4 which is an Associate degree level qualification (equivalent to our Diploma level qualification). The Fellow shared knowledge and experience of teaching deaf migrants as this is a very important area of development in Australia presently. In recent years deaf people have migrated or sought asylum in Australia, from countries such as Syria, Afghanistan and Iran to name but a few. Many of these students arrive with some rudimentary visual communication, home sign communication or, if they are fortunate, are fluent in their native sign language. The Austin Community College model is of interest to the Fellow as a possible one to explore as she begins providing classes to a group of deaf migrants in 2018.

Austin Community College advise their learners that it takes between two to three years to complete all four levels. A student enrolling in the Level 1 course often does not have good English literacy but will be a capable user of ASL (known as Language 1). When Erika first commenced working at Austin Community College, deaf students were enrolled in mainstream English as a Second Language (ESL) classes and following a typical ESL curriculum which was not producing effective results.

The model used in Austin Community College is based on a theory of second language acquisition as outlined in Cummins, J (1985): Bilingualism and Special Education: Issues in Assessment and Pedagogy.



Upon enrolment, each student undertakes an academic assessment to determine their ASL and English levels so as to place each student in the correct class. The aim of this program is to ensure that deaf students fully understand their first language (ASL) including: grammar, syntax, parameters, and all linguistic elements with the aim of each student fully developing their ASL metalinguistic skills. This provides them with the foundation and basis for learning English as a Second Language. The College provides a 'Learning Lab' where students can meet and interact with tutors fluent in ASL with expertise in Mathematics, English literacy and comprehension. Accessible technology is also provided as are access to textbooks, computers and other supports typically found in a mainstream study skills unit – the main difference is that all conversation and interaction is done in ASL to meet the needs of all students.

Upon completion of all ESL levels, students can continue their studies through an academic pathway established with Gallaudet University in Washington DC. This allows students to further develop qualifications that can lead to a career that is socially and economically satisfying.

## The Experts and Resources

### a) **Marc Marshark**

Dr Marchark is an internationally renowned researcher in the educational outcomes and experiences of deaf college and university students in the USA. The Fellow's conversation with Dr Marshark was regarding literacy support and inclusion and participation of deaf people in post-secondary education.

His most recent research focusses on predicting academic achievements in deaf and hard of hearing students. This research provides evidence that by understanding the individual characteristics (family composition, primary language of communication, educational access and background) of the individual deaf or hard of hearing student, it is possible to predict their academic achievement. This research will provide the basis of better intervention and supports to ensure these

students are able to exceed these predictions and explore ways to lift the baseline results of deaf students in post-secondary settings.

Research around the world continues to outline the complexity and the ongoing debate of the best educational settings to educate deaf children and adults. This debate has been ongoing since the 1850s and continues to divide educational experts today, however there is one statistic that remains constant. All deaf students graduate from secondary school with academic levels significantly lower than those of their hearing peers. Marshark attributes this to the possibility that 'deaf students do not have the language and environmental diversity of their hearing peers' (Marshark et al, 2015). Marshark also notes that this deficit in academic outcomes will affect the individual's long term cognitive development, social functioning and knowledge of the world, all of which have a cumulative influence on individual long-term development and achievements over time.

Marshark's research provides valuable lessons that can assist in the design of educational material, methods and interventions that can support the academic achievement of deaf people which will lead to better outcomes for their social and economic participation beyond vocational education and university.

The Fellow's meeting with Marshark provided her with an understanding of how much we know about educational outcomes and how much we don't know. The NTID conducts rigorous testing to determine if a student is eligible to go into the NTID/RIT pathway or if they should just complete a sub-baccalaureate pathway. Whatever the outcome, NTID invests heavily in ensuring each student is equipped for success by providing a range of supports including: niche classes with deaf and hearing lecturers; ASL interpreters; real time and CPrint captioning services; small class tutorials; audiology; counselling; and, social opportunities. Some of these are shared with RIT, with NTID providing the leadership, teaching pedagogy and support to RIT to ensure optimal achievement for students.

The lessons learnt from the Fellow's meeting with Dr Marshark is that we must ensure we have baseline measures to assist in understanding the type of supports

that the individual student needs. These measures could be a range but need to include an academic, literacy and cognitive assessment which will assist in building an understanding of where the student is at when they arrive to vocational education or university.

It would be extremely valuable to have someone of Dr Marshark's calibre visit Australia to discuss how we can improve post-secondary education outcomes of deaf people in Australia.

#### b) Michael Stinson – CPrint

Michael Stinson is a well-respected deaf American researcher who developed the widely used C-Print captioning system. This system is a speech to text captioning system that is now widely used in the USA (<https://www.rit.edu/ntid/cprint/>). C-Print works extremely well in lecture style classes where there is usually one main speaker about a particular topic. The C-Print captioner is in another room, relying on an audio feed, due to the need to 're-speak' into the C-Print system. The student has a laptop or iPad which receives the C-Print feed and is able to participate in class. This type of intervention works very well for deaf students who communicate using speech and are able to ask questions as they require; the downside of this intervention is that there is a time lag in receiving the feed. For this reason, it is not a suitable solution for group / tutorial type settings.



*Image 6: National Technical Institute of the Deaf CPrint Technology*

Australian trials of C-Print were conducted by the Victorian Deaf Education Institute with an evaluation conducted in February 2016. No information from the VDEI

is available to advise if the results of this evaluation were made public. The Fellow would like to see a trial of C-Print conducted in TAFE as it is expected that as students have access to captioning in secondary school, demand for this service will be requested in the near future and students will not be satisfied with hand written notes provided by a note taker.

### c) Pepnet

PEPNet (Post-secondary Educational Programs Network) was established in 1996 through funding from the USA Department of Education. Funding was provided to establish four technical assistance centres based at different post-secondary institutions across the USA: California State University of Northbridge; St Paul College (Minnesota); Rochester Institute of Technology; and, the University of Tennessee. The Fellow visited this organisation during her Fellowship visits, meetings which broadened her knowledge of this organisation and what they offer.

In 2011, PEPNet became 'Pepnet 2' hosted at the California State University of Northbridge (CSUN) under the banner of the National Center on Deafness. Pepnet 2 (Pn2) is a federally-funded project to increase the education, career and lifetime choices available to individuals who are deaf or hard of hearing. It is a national centre bringing everyone together towards a common goal of improving post-secondary outcomes for deaf and hard of hearing students including those with additional disabilities. Individuals, educators and service providers worked together successfully through collaboration. Pn2 activities include developing resources and training material that support the transition from high school to post-secondary training, as well as understanding the systems that support national and state programs for students who are deaf and hard of hearing.

Online Pepnet 2 resources are available at <http://www.pepnet.org/>

Pepnet 2 operates within two tiers of government - national and state, with staff based in four regions across the USA. Pepnet 2's mission is to be a partner in

building futures for individuals who are deaf and hard of hearing. It does this through:

- » Building Instructional capacity
- » Connecting people with its resources and
- » Advancing the field through evidence-based practice.



*Image 7: The pepnet2 website, which has very interesting information and online learning tools*

Pepnet 2 hosts annual national Building State Capacity summits and develops relevant materials. At the time of visiting, Pn2 were preparing to partner with AHEAD (Association of Higher Education and Disability) to co-host the AHEAD/Pepnet 2 2016 Conference 'Towards

Equality'. This week-long conference has one full stream dedicated to deaf and hard of hearing students, initiatives and ideas.

In addition, Pnp 2's state-based teams work with education professionals, vocational rehabilitation professionals, disability service professionals and transition professionals as well as working with deaf and hard of hearing students. Pn2's resources include:

- » Quick classes - free 6-week online classes covering a range of topics

- » eLearning Modules - self-paced modules designed for students and professionals. Topics include: reasonable adjustments, support services, notetaking, post production captions etc
- » Evidence based resources developed from research and effective practice
- » Communities of practice - professionals can connect with each other and share ideas, practices and resources.

Pepnet 2's national portal includes a national helpline with online chat functions. A range of online classes known as 'Quick Classes' are offered and include the following (<https://dcmp.org/learning-center>):

- » Online notetaker course
- » Post production / offline captioning
- » Real-time speech-to-text services
- » The Fundamentals (understanding hearing loss and supports available)
- » Information on getting a job
- » Getting a Job
- » Map It: What comes next

The resources and the work developed by Pn2 are world class and provide a framework for deafConnectEd into the future. Some of the systemic projects that Pn2 supported through funding, collaboration and professional resources include:

- » Deaf and Hard of Hearing State Transition Team (Washington State)
- » Rural deaf and hard of hearing transition program - Ready Set Go! to Work (Idaho)
- » Reclaiming deaf and hard of hearing transition after the loss of state funding (Texas).

The NCOD managed the Pepnet 2 national contract so they were also involved in the NCOD session mentioned earlier. The team were able to provide a national overview of the supports provided in post-secondary education such as hearing strategies for connecting students who are hard of hearing (particularly those who do not identify with the deaf community). This group is often under supported in their education journey, relying on audio-visual technology such as FM systems, hearing loops etc. However as mentioned in some of the 'quick class' tutorial videos, when this cohort had access to captioning, their participation in education and academic results improved significantly. However, it still remains that this was the most challenging group to 'tap into' and ensure they are supported adequately.

At the time of the Fellow's visit, Pepnet 2 staff were anxiously waiting to find out the results of a competitive tender process to extend the post school support for deaf and hard of hearing people. They were competing against another consortium and there was some anxiety as to whether their work would continue. A few months after returning home, it was announced that the Pepnet 2 team were not successful in their bid and preparations were commencing to hand their resources and work to the National Deaf Center for Post-Secondary Outcomes (NDC - <https://www.nationaldeafcenter.org/>). Many of the online resources are hosted on the Described and Captioned Media Program (DCMP - <https://dcmp.org/>).

#### **d) AHEAD Conference 2016 (Indiana, USA)**

The AHEAD Conference is an annual conference for anyone interested in promoting the full participation of people with disability in post-secondary education. Every two years, the conference partners with Pepnet 2 to offer a full stream focused on deaf post-secondary education and inclusion. Australia has a bi-annual conference called 'Pathways' but often there are only one or two presentations related to the needs of deaf and hard of hearing students. The Fellow gained considerable knowledge and insight from attending this international conference and would recommend attendance by anyone working in the disability post-secondary education sector.

Presentation topics included:

- » Quality is no accident: Raising quality standards for Deaf/hard of hearing accommodations without raising costs
- » Trending Now: Distance Learning
- » Make it memorable: Fostering an equivalent experience for Deaf individuals on your college
- » Post-production captioning – one university's model for success
- » Building self-advocacy skills during transition – Tools for your toolbox
- » Deaf and hard of hearing individuals in health care fields
- » Resources for teachers, students, parents, counsellors and employers for improving access to STEM education and employment for deaf and hard of hearing students
- » Learning to accommodate deaf students with multiple disabilities.

## 6. Recommendations

The Fellow has been able to identify several possibilities of models which could be applied in Australia to ameliorate the impact that unsuccessful vocational educational outcomes has on deaf students.

The Fellow strongly recommends the following:

### 1. A national post-secondary Centre of Excellence be established.

One suggested change is the establishment of a national specialist Centre of Excellence for post-secondary education to improve outcomes for our students. Using a co-design model in partnership with the education provider, this Centre of Excellence could provide a range of services such as funding and resources for specialist tutoring, literacy and numeracy support services to deaf students to increase the student experience of post-secondary education and foster an appreciation of lifelong learning.

### 2. New technology solutions such as CPrint be trialled in post secondary education settings.

In 2016, the Victorian Deaf Education Institute trialed CPrint with a small cohort of deaf students in Victorian schools. The goals of the trial were threefold:

- » To improve students' access to curriculum material,
- » To improve students' inclusion in the learning process, and
- » To enable greater communication and participation with peers and educators in the classroom.

An evaluation report (Punch R, 2016) on the trial concluded there was evidence that students' classroom interaction, participation, engagement and academic attainment had improved during the trial period.

### 3. A comprehensive assessment measure be developed to ensure students are provided with the appropriate supports for success.

A recent literature review conducted by the University of Melbourne on research relating to the learning strategies of deaf people who use Auslan concluded that current interventions were not supported by a rigorous and strong evidence base. The report also reported that there were still significant gaps in knowledge about effective literacy strategies for this cohort and that more research was needed in order to confirm the tentative evidence analysed in this report.

### 4. A strengths-based framework built on inclusion and participation be developed.

The 2016 Victorian Governments response to the 'Review of Program for Students with Disabilities Report' indicated that inclusive education for all students with disabilities and additional needs is required and that a strength based framework should be applied, which builds on the NDIS's "Choice and Control" philosophy.

Currently, the post-secondary education works from a deficit model of exclusion whereby if an institute is unable to fully financially resource and support the participation of a students with a disability then they are excluded from fully participating.

To effectively allow students to transition from school into post-secondary education and employment, we need to extend the Government's policy on 'inclusion for all' to include the vocational education and training sector and remove disadvantage and barriers to participation.

## 7. Acknowledgements

Catherine Clark would like to thank the following organisations and individuals who are generously given their time to assist, advise and contribute to the body of knowledge contained in this fellowship report.

### International Specialised Skills Institute

The ISS Institute exists to foster an aspirational, skilled and smart Australia by cultivating the mastery and knowledge of talented Australians through international research Fellowships.

The International Specialised Skills Institute (ISS Institute) is proud of its heritage. The organisation was founded over 25 years ago by Sir James Gobbo AC CVO QC, former Governor of Victoria, to encourage investment in the development of Australia's specialised skills. Its international Fellowship program supports many Australians and international leaders across a broad cross-section of industries to undertake applied research that will benefit economic development through vocational training, industry innovation and advancement. To date, over 350 Australian and international Fellows have undertaken Fellowships facilitated through ISS Institute. The program encourages mutual and shared learning, leadership and communities of practice.

At the heart of the ISS Institute are our individual Fellows. Under the International Applied Research Fellowship Program the Fellows travel overseas and upon their return, they are required to pass on what they have learnt by:

- » Preparing a detailed report for distribution to government departments, industry and educational institutions
- » Recommending improvements to accredited educational courses
- » Delivering training activities including workshops, conferences and forums.

The organisation plays a pivotal role in creating value and opportunity, encouraging new thinking and early adoption of ideas and practice. By working with others, ISS Institute invests in individuals who wish to create an aspirational, skilled and smart Australia through innovation, mastery and knowledge cultivation.

For further information on ISS Institute Fellows, refer to [www.issinstitute.org.au](http://www.issinstitute.org.au)

Higher Education and Skills Group, Department of Education and Training, Victorian Government

The Victorian Government, through the Higher Education and Skills Group (HESG) of the Department of Education and Training, is responsible for the administration and the coordination of programs for the provision of training and further education, adult education and the employment services in Victoria and is a valued sponsor of the ISS Institute. The Fellow would like to thank them for providing funding support for this Fellowship.

**Supporters:**

- » Mr Alun Gallie (Government Skills Australia)
- » Ms Christine Mathieson (CEO, Vicdeaf)
- » Mr Andrew Fleming (Executive Officer, Community Health and Education Industry Training Advisory Board)
- » Dr Louisa Willoughby (Lecturer, Monash University)
- » Dr Linda Byrnes (Senior Honorary Fellow, University of Melbourne)

**Employer Supporters:**

- » Mr Robert Wood (CEO, Melbourne Polytechnic)
- » Ms Frances Coppolillo (Head of Programs/Deputy CEO, Melbourne Polytechnic)
- » Dr Karina Davis (Director of College, Humanities and the Arts, Melbourne Polytechnic)

**Organisations that are impacted by the Fellowship:**

- » Deaf Australia
- » Deaf Victoria
- » Vicdeaf and other state Deaf Societies
- » Deaf Children Australia
- » Victorian Deaf Education Institute
- » Victorian Department of Education and Training
- » Commonwealth Department of Education and Training
- » Australian Sign Language Interpreters Association National and Victoria
- » Victorian TAFE Association
- » Careers Education Association of Victoria

- » Australian Council for Private Education and Training
- » TAFE Disability Network
- » Victorian Deaf Educators Network
- » Australian Association of Teachers of the Deaf (national and state branches)
- » Commonwealth and other state education departments

**Community:**

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# Appendix 1: International Context, Deaf Population and the CRPD

There are approximately 70 million deaf people around the world today (source: World Federation of the Deaf). The United Nations Convention on the Rights of People with a Disability (CRPD) clearly articulates the responsibilities member countries have in ensuring people with a disability have the same right to education as those in the general population. Article 24 (1) specifies:

- a. The full development of human potential and sense of dignity and self-worth, and the strengthening of respect for human rights, fundamental freedoms and human diversity;
- b. The development by persons with disabilities of their personality, talents and creativity, as well as their mental and physical abilities, to their fullest potential;
- c. Enabling persons with disabilities to participate effectively in a free society.

There is particular reference to access to post-secondary education (Article 24:2 and 5), noted below:

- d. Persons with disabilities receive the support required, within the general education system, to facilitate their effective education;
  - e. Effective individualized support measures are provided in environments that maximize academic and social development, consistent with the goal of full inclusion.
5. States Parties shall ensure that persons with disabilities are able to access general tertiary education, vocational training, adult education and lifelong learning without discrimination and on an equal basis with others. To this end, States

Parties shall ensure that reasonable accommodation is provided to persons with disabilities.

There are also references to access to sign language in education (Article 24:3 and 4) as recorded below:

- (b) Facilitating the learning of sign language and the promotion of the linguistic identity of the deaf community;
- (c) Ensuring that the education of persons, and in particular children, who are blind, deaf or deafblind, is delivered in the most appropriate languages and modes and means of communication for the individual, and in environments which maximize academic and social development.

4. In order to help ensure the realization of this right, States Parties shall take appropriate measures to employ teachers, including teachers with disabilities, who are qualified in sign language and/or Braille, and to train professionals and staff who work at all levels of education. Such training shall incorporate disability awareness and the use of appropriate augmentative and alternative modes, means and formats of communication, educational techniques and materials to support persons with disabilities.

The quality and access to education for individual deaf people varies greatly in the same way it does for all humans depending on whether they reside in a first or a third world country. For those residing in first world countries such as Australia, the United Kingdom, New Zealand and the United State of America, access to education is a right and an opportunity, with many deaf people succeeding through

formal schooling and going onto achieve graduate and post-doctoral qualifications after school and eventually becoming leaders in the mainstream community.

Despite these successes, for everyone successful deaf person, there are many who become disengaged, remain functionally illiterate and do not fully achieve their potential in education or employment. Educational practitioners believe this is because the western education system is unable to fully cater for their needs. This is despite some wonderful advances in hearing technology and earlier diagnosis of hearing loss.



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