



**NZSL@School:
Te Reo-a-Tohu kei roto i nga kura o Aotearoa¹
Report**

November 2015

¹ This is a provisional name agreed upon by Kaumatua and Maori Deaf (Tamaki Makaurau) for the term “New Zealand Sign Language”.

A. SUMMARY	4
Purpose of the NZSL@School Initiative.....	4
Purpose of this report	4
NZSL@School Key Findings	4
Recommendations	6
Short term –up to two years maximum	6
Medium to long term – up to four years maximum.....	7
B. NZSL@SCHOOL BACKGROUND	8
The NZSL Project.....	8
What does NZSL@School provide and how does it work?	8
NZSL@School Data	8
Student achievement	9
Access to Teacher’s Aide.....	9
Access to Qualified Interpreters	9
Access to RTD	9
Access to NZSL Tuition.....	9
NZSL Skills	9
NZSL@School Projected Student Numbers	10
NZSL@School Funding.....	10
NZSL@School Core Service Costs Breakdown	10
The NZSL@School Project and the NZSL@School Report	11
Figure 1: NZSL@School Framework.....	13
C. REPORT: NZSL@SCHOOL FRAMEWORK COMPONENTS – DISCUSSION AND PROPOSED ACTIONS	14
1. NZSL@School DEC Leadership and Management.....	14
Recommended action	16
2. Student Achievement Data	17
Recommended actions	18
3. NZSL Learning and Assessment: Students and Adults	19
a) Deaf Students: Teaching and Learning NZSL – NZSL Curriculum Guidelines	19
b) Deaf Students: NZSL Assessment.....	19
c) Adults: Learning NZSL	20
d) Adults: NZSL Assessment	21
Recommended actions	23
4. Signed Bilingual/Trilingual Teaching Pedagogy and Bicultural Learning Environments	27
a) Bilingual/Trilingual Teaching Pedagogy	27
b) Bicultural Learning Environments.....	30
Recommended actions	31
5. National Student Assessment Framework – Language and Student Wellbeing.....	32
Recommended actions	34

6. Trilingual (NZSL, Te Reo, and English) Learning and Communication Resources	35
7. Deaf Students Learning Together	38
Recommended actions	41
8. Deaf Education Professional Roles.....	42
Recommended actions	46
9. Special Education Service provision for all Deaf students who use NZSL: Effective coordinated national/local policy/processes	48
a) The Funding Interface between NZSL@School and the Ongoing Resourcing Scheme (ORS)	48
b) Deaf Students with additional disabilities	48
c) Services for NZSL@School students not on DEC RTD caseload.....	49
d) Students not ORS verified.....	49
e) Access to NZSL@School for Deaf students who have the option of enrolling at a DEC	49
f) Children transitioning to school from First Signs.....	50
g) Access to Educational psychologists who are fluent in NZSL and understand NZSL	50
Recommended actions	51
10. DEC systems ensure effective partnerships with schools	54
Recommended actions	56
11. Deaf Students and Communication Self-Advocacy Skills	58
Recommended action	60
12. Technology.....	61
Introduction	61
a) Leadership, management and dedicated capacity	62
b) Infrastructure: Better connectivity for sharing knowledge, know-how, and resources	65
c) Building capability	66
d) Distance Education	67
e) Deaf students access to technology.....	69
Recommendations	72
13. Inter-agency support to Deaf students who use NZSL and are involved with Child, Youth, and Family	75
Recommended action	76
Appendix 1: NZSL@School Data.....	77
Table 1: NZSL@School Data	79
Appendix 2: NZSL Tuition feedback.....	81
Appendix 3: National Student Assessment Framework	84
Appendix 4: The State of Queensland, Department of Education, Training and Employment, Auslan Assessment Framework	85
Appendix 5: Assistive Technology Flowchart.....	86
Appendix 6: Glossary of acronyms.....	88

A. SUMMARY

Purpose of the NZSL@School Initiative

- The purpose of the NZSL@School Initiative (NZSL@School) is to strengthen the education sector to provide New Zealand Sign Language (NZSL) for Deaf students whose primary face-to-face language is NZSL and to strengthen the use of NZSL by these students. The aim is to raise these Deaf students' educational achievement and wellbeing to that equivalent of their hearing peers. NZSL@School is available for Deaf students who are not enrolled at either Deaf Education Centre (DEC)². It is one of Government and Ministry of Education's (the Ministry) NZSL responses to the 2013 Human Rights Commission report, *A New Era in the Right to Sign*, on Government implementation of the New Zealand Sign Language Act 2006. The provision of NZSL also sits under the Ministry's Statement of Intent (Sol) 2014-2018 Priority Three: 'Target resources to address disparity in achievement'.
- The implementation of NZSL@School by Kelston Deaf Education Centre and van Asch Deaf Education Centre (the DEC), was overseen by a Steering Committee³ consisting of the Ministry of Education (the Ministry) representatives, the DEC Principals and the DEC Maori Development Manager, and Deaf⁴ and Māori community representatives during 2015.
- To support the implementation of NZSL@School across both DEC's, a NZSL@School Project Team (the project team⁵) was appointed for 15 months (2014/15). The project team's work was overseen by the Steering Committee and the Project Manager was directly responsible to the Combined Board of Kelston and van Asch Deaf Education Centres (the Board) Chairperson.

Purpose of this report

- A key principle that the implementation of NZSL@School is working under is "learning as we go forward"⁶. As a result, the project team was responsible for capturing the "learnings" as the work progressed during 2015, as well as supporting the implementation. To "capture the learnings", the project team met with the schools (96.5 percent), parents/whānau, and students who were accessing NZSL@School, as well as Deaf education professionals. The schools etc. provided feedback to the project team on the effectiveness of NZSL@School and what further improvements they believe are required. The project team also reviewed relevant Deaf education national/international research/effective practice.
- This report summarises the feedback from the project team meetings with schools, parents/whānau, and Deaf students etc and refers to relevant Deaf education research and practice. This report also provides recommendations on further work to strengthen the education system including the Deaf Education Centres, so that Deaf students' educational achievement and wellbeing is equal to that of hearing students.

NZSL@School Key Findings

- The key purpose of NZSL@School is to raise the Deaf students' educational achievement and wellbeing to that equivalent of their hearing peers. As a result, one of the intentions of NZSL@School is to increase the provision of Teacher's Aides (TA) whose purpose is to interpret⁷ spoken/written language (i.e. English and/or Te Reo) into NZSL (and vice versa). NZSL@School students currently have access to TAs for an average of 24 hours of a school week which is an increase from the average of 15 hours a week they were previously receiving (refer to p.9).

² This includes all mainstream schools, Kura Kaupapa, Māori medium, special schools etc.

³ The NZSL@School Steering Committee reports to the Combined Board of the DEC's and to the NZSL Sector Advisory Group.

⁴ Capital "D" is used to describe people who identify as having a language (sign language) and a culture (Deaf culture) as opposed to only having a hearing loss.

⁵ The NZSL@School Project team was a NZSL bilingual/bicultural team comprising of 4 Deaf and hearing education professionals all of whom are NZSL users. The project team was also supported by the Manager – Māori Development (Kelston Deaf Education Centre) when working with Maori parents/students/whānau particularly those in Kura Kaupapa education settings.

⁶ This principle was agreed to the NZSL@School Steering Committee Oct 2014.

⁷ The majority of Teacher's Aide are not qualified NZSL interpreters.

- NZSL@School has also raised the access of parents/whānau (whose children are on NZSL@School) and the education professionals to regular NZSL tuition to enable them to increase their fluency in NZSL. For the majority of parents, TAs etc who want NZSL tuition, they are able to access weekly/fortnightly tuition.
- With NZSL@School, TAs are the key ‘tool’ used to provide Deaf students to access to learning via NZSL. However, although the “quantity” of access to NZSL for Deaf students has increased through the increased TAs hours, a key finding of this report is that the majority of TAs are not fluent in NZSL and are learning NZSL ‘on the job’ i.e. receiving an average of 75 minutes of NZSL tuition a week (refer to section 8). Many of the TAs potentially know less NZSL than the students they are working with. They also have very limited training to learn the separate skill of interpreting all spoken/written communication into NZSL⁸ or vice versa (e.g. 2 day training courses once or twice a year). The review has also confirmed that it is not possible to attract qualified NZSL Interpreters to work under TA employment conditions (i.e. \$23.93 an hour for 25 hours a week and 40 weeks a year).
- A further challenge to raising these student’s achievement is added when a TA is often the only NZSL ‘role model’ for the students (due to student being the only Deaf person at their school/in their community). Deaf students achieving academically at the same level as their hearing peers will not be achieved with the use TAs as the “key language bridge”.
- Another issue which this report confirms is that Deaf students, for whom NZSL is their primary language, require a sign bilingual/bicultural teaching programme in order to learn NZSL and to learn a written/spoken language, as a second language, through NZSL (refer to section 4). However, the teaching and assessment tools required do not exist in New Zealand (for the compulsory education *and* early childhood sectors). These include:
 - NZSL Curriculum Guidelines: There are no national NZSL Curriculum Guidelines for teachers working with Deaf students. There are national English and Te Reo Curriculum Guidelines for teachers (produced by the Ministry), which set the direction for student learning and provide guidance for schools as they design and review their curriculum (refer to section 3). It is critical that national NZSL Curriculum Guidelines are developed by the Ministry to support the teaching of Deaf students for whom NZSL is their primary language.
 - Sign Bilingual/Bicultural Pedagogical Guidelines: There are no published, evidenced based sign bilingual/bicultural pedagogical guidelines which support deaf education/classroom teachers to effectively teach NZSL as a first language (L1) and to teach English and/or Te Reo as a second language (L2) through NZSL so that students acquire age appropriate NZSL and/or English/Te Reo language skills.
 - NZSL Student Assessments: There are no NZSL student assessment tools which enables teachers to determine if a Deaf student is acquiring NZSL at age-appropriate levels (refer to section 3).
- The lack of these resources/tools and deaf education professionals trained in their use, is one of the key impediments to Deaf students who use NZSL, achieving academically at the same level as their hearing peers. It is critical that these teaching/learning and assessment tools are developed and implemented (including staff training), at maximum, within the next four years.
- This report has also confirmed that in order to raise student achievement, the students require access to professionals who are: fluent NZSL users, able to teach through NZSL, trained in NZSL interpreting skills and have a thorough understanding of sign bilingual/bicultural pedagogy (refer to section 8).
- The current roles which are able to work with NZSL@School students i.e. Resource Teachers of the Deaf and Teacher’s Aide do not have the training and therefore the range and in-depth skills and knowledge required to teach Deaf students within a sign bilingual/bicultural pedagogy and enable them to have full access to the learning via NZSL. There is also no clear view within Deaf education as to the type of professional role that should work with these students e.g. Deaf teachers of the Deaf, NZSL Educational Interpreters (no training for this type of role exists in New Zealand currently), hearing Teachers of the Deaf etc. or an entirely new role or a blend of these roles.

⁸TAs have access to a maximum of two hours a week tuition for 40 weeks a year and are paid up to \$23.95 an hour. The only NZSL Interpreter Training course in New Zealand, offered by the Auckland University of Technology, is a 3-year, full time degree. This degree programme includes the learning NZSL as well as learning how to interpret. The hourly rate for a qualified interpreter can range from anywhere from \$50 to \$95 an hour excluding travel costs.

- It is recommended that work is urgently undertaken by the Ministry and the DEC's to agree to the role and the skill set required of the professionals working with NZSL@School students to raise their educational achievement and to put in place a plan to implement the required roles.
- The final key finding of this report is that Deaf students need to be part of a cultural linguistic community to develop their language and cultural identity (refer to section 7). The current Ministry and DEC's policies and processes do not easily enable NZSL@School students living in the same region (e.g. an hour away from each other) to be educated together. Deaf students being educated together is also a cost effective way of providing highly specialised services instead of trying to replicate them in individual schools.
- It is recommended that the Ministry of Education and the DEC's work together during 2016 to review policies and processes and establish trials of 2 or more Deaf students being educated in the same school and undertake this work in conjunction with a review of the deaf education professional roles.

Early Childhood Education (ECE) and Deaf Education

- Deaf students in ECE and for whom NZSL is their primary language, were outside the scope of the NZSL@School Project Team review. A key aspect to raising NZSL@School Deaf students achievement and wellbeing is ensuring that as pre-schoolers they develop age appropriate NZSL skills and the normal level of second (spoken and/or written) language acquisition expected of any child learning two languages by the age of 5 yrs.
- This report has identified many critical elements which need to be in place to effectively educate Deaf students in the compulsory education sector. However many of the issues identified which need to be resolved within the compulsory education, are equally required in the early childhood sector i.e. the development of NZSL Curriculum Guidelines, sign bilingual/bicultural pedagogical guidelines, NZSL student assessments, professionals working with students who are fluent in NZSL and able to teach within a sign bilingual/bicultural framework and undertake NZSL student assessments etc.
- As the Ministry is largely responsible for Deaf education service delivery to ECE students, it is recommended that the Ministry review the provision of services/resources to ECE Deaf students who use NZSL as their primary language to ensure that these Deaf students develop age appropriate NZSL (L1) and spoken and/or written language skills (L2) by the time they start school.

Recommendations

Below is a summary of the key recommendations. NB: This report contains 45 recommendations and are contained in each section of the report.

Short term –up to two years maximum

- Sign bilingual pedagogy: establish an action research process, in partnership with local/international universities and international Deaf education providers, to identify effective sign bilingual pedagogical practices and develop internal management systems which will enable the training and dissemination of evidenced based sign bilingual pedagogy.
- The DEC's, in partnership with the Ministry, establish policies and processes that enable Deaf students to learn together including:
 - two or more students on NZSL@School being educated either in the same school or "virtually" with the use of technology
 - trialling a "Deaf School within school" in two or more areas outside of Auckland and Christchurch).
- The DEC's and the Ministry review and determine the roles, skill sets, and training required of professionals working with students on NZSL@School who require professionals who are fluent in NZSL and trained in sign bilingual/bicultural teaching pedagogy.
- Training: continue to provide targeted training on NZSL, sign bilingual pedagogy, bicultural learning environments to DEC staff and school staff working with NZSL@School students.
- The DEC establish processes to annually review systems to determine and ensure their staff are trained and supported to work in culturally 'intelligent' or responsive ways and communicate with schools/parents/ whānau in ways that maintain collaborative and effective partnerships. NB: This work

should be linked to DEC Te Rautaki Maatauranga Māori strategic plan due to 47.3% of students in NZSL@School are Māori.

- NZSL Tutors: the DEC's continue to set up the management infrastructure and resources required to enable NZSL Tutors to deliver quality NZSL training, which will raise the skill level of all professionals and parents/whānau working with Deaf students.
- English Language Assessments and Student Outcome data:
 - the DEC's to complete work on using the same English language student assessments by all DEC staff
 - the DEC's to establish processes for obtaining NZSL@School students National Standards data
 - the DEC's and the Ministry agree on the NZSL@School students' achievement and wellbeing outcome data that will be reported to the Ministry and when the various data can be reported on (e.g. NZSL student assessment data cannot be reported upon until the NZSL assessment tool is developed and implemented).
- The DEC's and the Ministry, as part of the continuing implementation of NZSL@School, undertake a review of the NZSL@School policy and funding to determine any further changes required in order to raise Deaf student educational achievement.
- NZSL@School management: the Deaf Education Centres (DEC's) establish a joint national strategic planning and day to day management system, and staffing required to effectively manage the ongoing work programme.

Medium to long term – up to four years maximum

- NZSL student/adult assessment tools: the DEC's develop and/or implement NZSL student and adult assessment tools.
- NZSL Curriculum: the Ministry, in partnership with the DEC's and local/international universities, develop national NZSL Curriculum Guidelines for students for whom NZSL is their first language.
- The Ministry and the DEC's, in partnership with other organisations working with Deaf children, jointly establish a National Student Assessment framework for children ages 0–17years to monitor student outcomes.
- The DEC to establish processes to determine and ensure that parents/whānau are confident, fluent NZSL users and able to fully communicate with their child, as their child grows and matures and able to support their child's language development in NZSL and a spoken/written language e.g. English and/or Te Reo.
- The Ministry of Education (which is responsible for the provision of services to Deaf children under the age of 5 yrs) review to determine if they have the right configuration of services (including training and skills to deliver sign bilingual pedagogy) which enable children under 5 yrs become bilingual in NZSL and English and or Te Reo at age appropriate levels and the tools (e.g. NZSL Student Assessment, NZSL Curriculum).

B. NZSL@SCHOOL BACKGROUND

The NZSL Project

- In July 2013, the Ministry set up a Sector Advisory Group (SAG) for New Zealand Sign Language (NZSL) led by Secretary for Education⁹. The role of SAG is to work together to help the Ministry achieve its NZSL outcomes for the sector. It provides advice and guidance to the Ministry's NZSL Project. The Project responds to the education recommendations of the 2013 Human Rights Commission report, *A New Era in the Right to Sign*, on Government implementation of the New Zealand Sign Language Act 2006.
- The NZSL@School Initiative is one of the "work streams" within the Ministry's NZSL Project. The purpose of NZSL@School is to strengthen the education sector to provide a quality, communication based education system for Deaf students whose primary face-to-face communication language is NZSL and who are not enrolled at either DEC.
- The NZSL@School Initiative "work stream" of the NZSL Project began in schools with NZSL@School students in mid-2014.

What does NZSL@School provide and how does it work?

- The DECs are responsible for the implementation of NZSL@School. They work with schools and parents/whānau with students on NZSL@School to create and maintain bilingual/bicultural learning environments that enable Deaf students to learn. This service is provided by trained Resource Teachers of the Deaf (RTD). In conjunction with providing specialist Deaf education, and advice and support, NZSL@School enables the DECs to provide "in-class" (TAs/Interpreters) support to Deaf students and NZSL tuition to Deaf students, their parents/whānau, and their wider team) services.
- Deaf students who are not enrolled in a DEC and receiving the special education funding known as the Ongoing Resourcing Scheme (ORS) have access to a .1 or .2 of a specialist teacher (employed by the school the student is enrolled in or by the DEC), TA funding and specialist support e.g. educational psychologist, speech language therapy etc. The Ministry is responsible for the allocation of the TA funding and the provision of the specialist services to these students.
- With the introduction of NZSL@School, any other special education resources/funding that a Deaf student is receiving such as ORS can and should be combined with the NZSL@School resources and funding to provide the complete range of services and the level of support Deaf students require i.e. up to 25 TA hours of week for NZSL communication.¹⁰

NZSL@School Data

- During 2015, there were a total of 57 students accessing NZSL@School. Two students came onto NZSL@School after the project team had completed their visits of 55 students, hence this report provides data on the 55 students only.
- An overview of the NZSL@School data¹¹ is presented below. Further discussion of the student data occurs throughout the report.
- 55 students – 34 students are in the Kelston Deaf Education Centre (KDEC) region and 21 in the van Asch Deaf Education Centre (VADEC) region. In the KDEC region, the areas with the highest number of Deaf students under NZSL@School are Auckland, Hamilton, and Rotorua. In the VADEC region Deaf students are widely spread with somewhat higher concentrations in the Wellington region and Dunedin.

⁹ NZSL SAG includes representatives from: the Ministry (Advisors on Deaf Children), Deaf Aotearoa (First Signs Service), NZ Federation for Deaf Children, Deaf parents, Māori Deaf, Victoria University of Wellington, Deaf Education Centre Board of Trustees (Kelston DEC, Van Asch DEC, NZSL@School Initiative), NZ Principals Federation, NZ Secondary Principals' Association, Ministry of Health, and the Ministry of Social Development.

¹⁰ NB: A small number of Deaf students on NZSL@School are not able to access any other special education funding and this will be discussed in the report.

¹¹ For a full overview of the NZSL@School data, see Appendix 1.

- The only substantive difference between the DEC's regarding NZSL@School appears to be that more Deaf students in the VADEC region tend to be more geographically dispersed and as a result isolated from other Deaf students and adult Deaf communities than students in the KDEC region.
- 47.3 percent of students under NZSL@School identify as being Māori (73 percent of these students are within the KDEC region). 40 percent of students identify as being New Zealand European (NZE), 5.5 percent as Asian, 5.5 percent as Pasifika, and 1.8 percent as Middle Eastern, Latin American or African.
- 50 of the 55 students were verified under the Ongoing Resourcing Scheme (ORS), with 36 (72%) verified as having 'very high' needs, 14 (28%) are verified as 'high' and 3 (5.7%) students are not verified. A further 2 students who were not verified were under 5yrs and not eligible for ORS.
- There are 20 students (36 percent) who are reported to have an additional disability which impacts on their learning and/or communication.

Student achievement

- National Standards: the majority of the students are achieving "well below" for Reading (69.6 percent) and Writing (69.6 percent). Only 5.3 percent of students are achieving "at level" or "above" for Reading. Only 7.1 percent of students are achieving "at level" or "above" the National Standards for Writing.

Access to Teacher's Aide

- On average, NZSL@School is providing 10 hours per week of TA time to each student.
- For the students who are receiving ORS TA funding support from the Ministry, they receive an average of 15 hours of TA funding per week.
- NZSL@School students receive an average of 24 hours TA hours per week i.e. ORS and NZSL@School TA funding combined.

Access to Qualified Interpreters

- During 2015, one student had access to a qualified interpreter paid for by NZSL@School. Funding was budgeted for two other students in the same school but it was difficult to find an interpreter in the rural area where the students were located. The average rate which NZSL@School pays schools to provide a qualified interpreter is \$50 an hour. For these students, any other funding they receive i.e. ORS TA funding and the ORS specialist teacher time are 'cashed up' and combined with the NZSL@School funding to pay for a qualified interpreter which can cost a minimum of \$50k per annum per student.
- NZSL@School at \$1.74m at per annum makes it extremely difficult to provide Interpreter services (refer to the NZSL@School Finance section p.9).

Access to RTD

- The RTD provide an average of four hours of teaching support to the classroom teacher per week per student.

Access to NZSL Tuition

- 50 students receive NZSL tuition from the NZSL Tutor.
- NZSL Tutors spend an average of 1 hour 15 mins per week supporting the schools with their NZSL development. A large portion of this time is used to support the TA NZSL development, as well as supporting the classroom teacher and hearing peers.
- An average of 50 mins per week is spent supporting the Deaf student to learn NZSL.
- An average of 22 mins per week are spent supporting the parents/whānau.

NZSL Skills¹²

- TA: 56 percent are reported to be signing at a "beginner" level, 18 percent at an "intermediate" level and 21.8 percent at a "fluent" level.

¹² There is no formal NZSL adult language assessment and any judgment about the NZSL proficiency of any deaf education professional/paraprofessional, is judgment made by a Deaf Education staff member and is based upon observation of a person and/or self assessment as opposed to any form of standardised formal assessment.

- RTD: 25.5 percent are reported to be signing at a “beginner” NZSL level, 45 percent at an “intermediate” level and 16 percent at a “fluent” level. (For the 13.5 percent remaining staff, their NZSL skills are unknown).
- NZSL Tutors: (NB these staff are responsible for teaching NZSL) 14.5 percent are reported to be signing at a “beginner” level, 18 percent at an “intermediate” level and 62 percent are signing at a “fluent” level.¹³

NZSL@School Projected Student Numbers

The following table outlines the projected number¹⁴ of NZSL@School students over the next 3 years.

Budget Year	14/15	15/16	16/17	17/18
van Asch Deaf Education Centre	21	52	58	67
Kelston Deaf Education Centre	36	41	45	51
Total	57	93	103	118

NZSL@School Funding

The following table lists the current NZSL@School funding.

	14/15	15/16*	16/17*	17/18*
Ministry Funding	1,130,000	1,670,000	1,740,000	1,740,000
Combined Board of Trustees Funding contribution		300,000	0	0
Total	1,130,000	1,970,000	1,740,000	1,740,000

NZSL@School Core Service Costs Breakdown

The following table provides a high level breakdown of DEC NZSL@School costs for 15/16 for service provision up to 80 students.

Description	Cost
Teacher's Aide/Interpreter (\$100k) Funding	\$874,000
NZSL Tutors (10 FTE)	\$500,000
Teacher Aide Training (specialist training courses)	\$120,000
Admin costs (staff travel, administration, staff computers)	\$65,000
NZSL Tutors professional development	\$60,000
Deaf Resource Teachers of the Deaf and NZSL Resource Developer (4 FTE)	\$390,000

- NB. At the time of drafting this report, for 15/16 there was a projected deficit relating to the provision of NZSL@School core services e.g. NZSL tuition, training and the provision of Teacher's Aide hours. There was extremely limited funding available for strategic activities which are key to raising Deaf student' achievement e.g. development of NZSL Student and Adult assessment tools.

NZSL@School Potential Funding Issue

- When the NZSL@School Initiative was established it was anticipated that 100 students per annum would access the service. However, by 17/18 it is anticipated that 120 students will be accessing the

¹³ Issues relating to attracting staff that are fluent in NZSL are discussed in the NZSL Teaching and Assessment Section.

¹⁴ The Ministry Advisors on Deaf Children (AODC) provided this information Oct 2015.

service¹⁵ and as the majority of students are aged between 5-12 years old, it will take some time for the current students to transition out of secondary school. This will potentially result in a significant highly number of students in NZSL@School over the next 5-8 years than anticipated. This has the potential to put the DEC's under financial pressure with the current level of funding.

Recommendation

- It is recommended that further work is undertaken by the DEC's, in partnership with the Ministry, to review the projected number of students, the NZSL@School costs and funding for 2016/17 onwards.

Teacher's Aide Costing Details

- The average funding allocation for TA funding is 10 hours per week per student. The highest rate that TAs can be paid by schools is \$23.95 per hour. The DEC's budget the average funding per student as follows:
 - 10 hours per week x \$23.95 per hour = \$239.50 per week
 - Annual TA funding per pupil = 39 weeks x \$239.50 per week = \$9,340.50 per annum per pupil.
 - 10 students per annum = \$98,405
 - 50 students per annum = \$467,025
 - 100 students per annum = \$934,050
- Currently included in the TA funding allocation to schools is payment for TAs who require NZSL tuition during after school hours due to not all NZSL tuition being able to be delivered during school hours.
- TA funding is currently also budgeted for students to have, for students to attend such activities as school sports practise, camps and one-off school events such as school prize giving.

Interpreter Costing Details

- The hourly cost of qualified NZSL Interpreters is a minimum of \$50 per hour¹⁶.
- During 2015, NZSL@School was able to provide funding for 1 student only at 10 hours per week at \$50 per hour, which is \$500 per week for 39 weeks, or \$19,500 per annum. (NB a NZSL Interpreter at 25 hours a week, at \$50 an hour, would cost \$48,750 per annum.)
- The DEC's have budgeted \$50k per annum each for a small number of qualified Interpreter's hours.

NZSL Tutor Costing Detail

- The DEC's employ a total of 10 FTE staff as NZSL Tutors at a total of \$500k per annum. NB: For a NZSL Tutor, one Deaf student can generate between 1 to 60 people each who want or need to access NZSL tuition (TA, school staff, classroom teacher, school hearing peers, parents/ whānau).

The NZSL@School Project and the NZSL@School Report

- To support the implementation of NZSL@School across both DEC's, an NZSL@School project team was appointed for 15 months (2014/15).
- In conjunction with supporting the implementation of NZSL@School, the project team was responsible for identifying issues and opportunities to strengthen the provision of NZSL to Deaf students in order to raise their educational achievement and wellbeing to levels equal to those of their hearing peers.
- The project team met with most of the schools, parents/whānau, Deaf students and Deaf educational professionals involved with NZSL@School who provided feedback on the effectiveness of NZSL@School and what further improvements they believe are required. The project team also reviewed relevant Deaf education national/international research/effective practice. This report will discuss what is working well, what could be improved, and recommendations for further strengthening the New Zealand education system so that Deaf students' educational achievement and wellbeing is equal to that of hearing students.
- The key components of NZSL@School which require further work to be undertaken in order to raise Deaf students' achievement and wellbeing are identified in Figure1 overleaf. It is recognised that all of

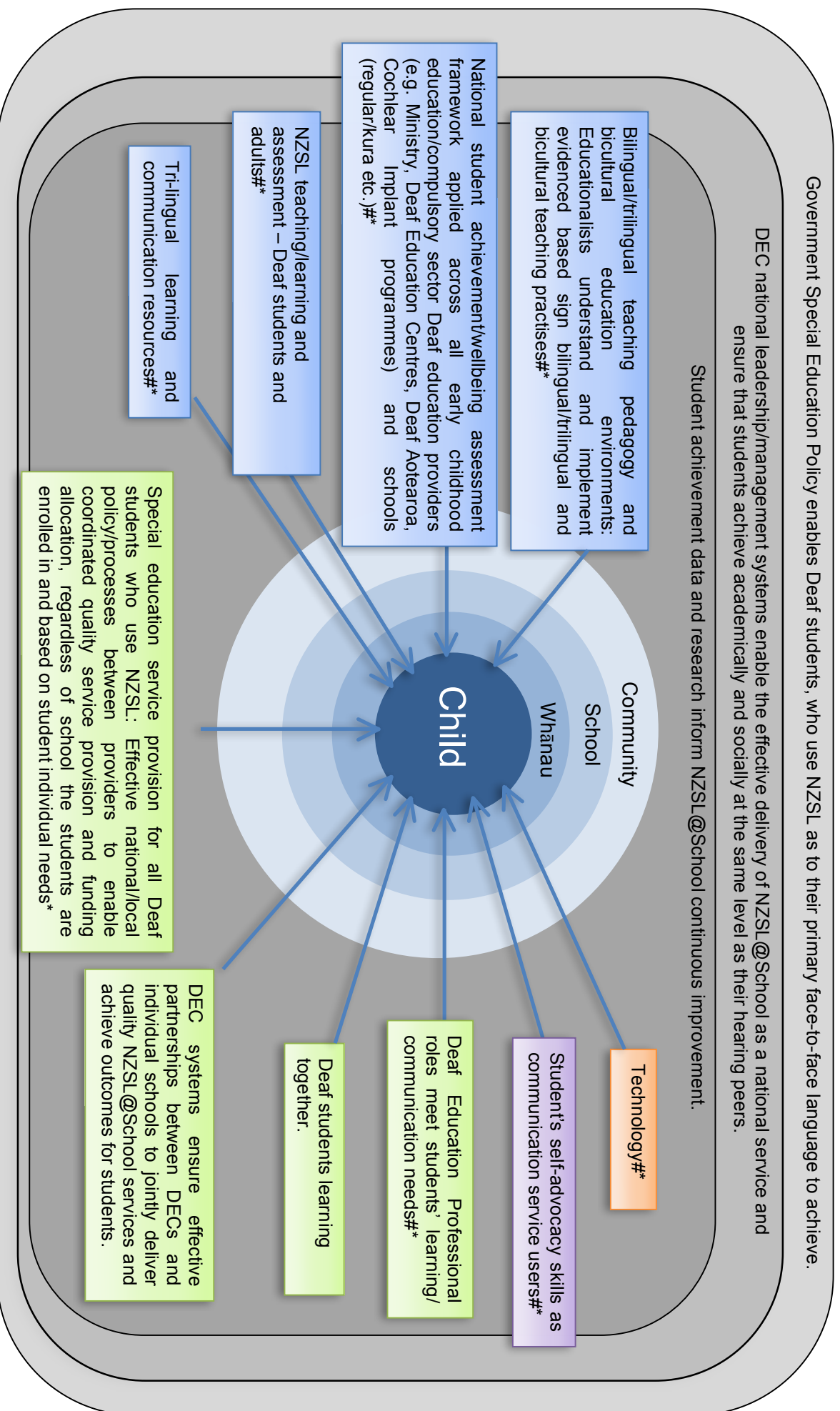
¹⁵ Based upon data obtained from the Ministry of Education Advisors on Deaf Children, Oct 2015 by the NZSL@School Project Manager.

¹⁶ \$50 is the average hourly cost that the DEC currently have set the rate at. The normal average hourly cost of a qualified NZSL interpreter can range up to \$95 per hour excluding booking fee and travel costs.

the components identified in this report are interconnected, and that any change in one has the potential to link/impact upon other components. Where this potential occurs, it will be noted in the tables under “Linkages to Other Work Streams” in each section.

- With the majority of the components identified, any changes to one of these also have the potential to impact positively not only for students on NZSL@School but on all Deaf students who use NZSL in any education setting in the early childhood sector and the compulsory education sectors. Therefore this report will identify where there is potential for any recommended changes to impact on any Deaf students who use NZSL as their primary language as well as those on NZSL@School.

Figure 1: NZSL@School Framework



NB: While this framework applies to NZSL@School, any recommended changes to the components (#) above have the potential to impact on all children for whom NZSL is their primary language whether they are enrolled at a Deaf Education Centre (DEC) or are accessing NZSL@School. Recommended changes to components (*) also have the potential to impact upon all Deaf and hard-of-hearing children in the Early Childhood Education (ECE) sector.

C. REPORT: NZSL@SCHOOL FRAMEWORK COMPONENTS – DISCUSSION AND PROPOSED ACTIONS

1. NZSL@School DEC Leadership and Management

How are we doing?

- The delivery of NZSL@School by each DEC has been in operation since 2013. During 2015 the DEC have been working to implement NZSL@School so it becomes “business as per usual”. They are working under the principle of “learning as we go forward” and are working, wherever possible, within best evidence, to enable all involved to operate with purposeful and informed urgency. Each DEC has focussed on developing their individual infrastructures to enable them to work with schools and parents/whānau to increase students’ access to NZSL in each of their regions. For example: 10 full time equivalent (FTE) NZSL tutor positions will be in by place (5 FTE each DEC) by December 2015, a national process for allocating Teacher’s Aide funding to schools has been established, a national system for managing new applications has been established, and ongoing training for TA has been developed and delivered by each DEC.
- There has been limited work between the DEC’s to jointly manage NZSL@School. The DEC Principals work together to determine annual NZSL@School activities and the associated budget. A committee of managers from each DEC who are responsible for NZSL@School services has also been established within the past 3 months. The purpose is to manage new applications to access NZSL@School and to equitably allocate TA funding to schools that have students on NZSL@School. The DEC’s will review the purpose of this committee in early 2016 and determine if it should be maintained.
- Outside of these activities, there are no other processes in place that result in the joint strategic and operational management of NZSL@School.

What is needed now?

- It is recommended that the DEC’s establish a national system that enables joint strategic planning and operational (including budget) management of NZSL@School across both DEC’s. As part of this, it is also recommended that the DEC’s establish a management position responsible for the development and implementation of NZSL@School strategic planning across both DEC’s. This position would be a member of the senior leadership teams across both DEC’s. The person would be fluent in NZSL, have full knowledge of Deaf culture and be a signed bilingual educational visionary. Given the current predominance of hearing people in the senior management teams across both schools, it is also recommended that a Deaf professional be considered for this position.
- It is recommended that a NZSL@School strategic plan be developed. A Project Manager has been working across both DEC’s (under a project plan approved by the Combined Board) during the past 15 months to support the further implementation of NZSL@School. As the work moves from a project focus to “business as usual”, a strategic plan is required for NZSL@School.
- There are several drivers that make it sensible for a joint strategic plan rather than each DEC developing their own plan.
 - The first driver is the need to avoid duplication of activities and resources that have very high costs (e.g. development of bilingual pedagogy and training of staff, development of NZSL Guidelines, NZSL resources etc.). The duplication of these high cost activities/resources could be avoided if joint planning and management is undertaken.
 - A second driver is the limited resources each DEC has and the need to pool these resources e.g. the limited number of teaching staff who are fluent NZSL users, have full knowledge of NZSL linguistics, and are able to develop bilingual teaching pedagogy (practises). There is a need to plan to “combine forces” to maximise the resources each DEC has to undertake the ongoing NZSL@School work programme.
 - Thirdly, from a Deaf community/culture and student wellbeing perspective, there is also need to manage the connection of the NZSL@School students across New Zealand to learn together (either physically or online), to establish meaningful positive relationships, and to support the development of positive Deaf identities. With the potentially small population of 100 to 200 students (over the next four to five years) with an average of 100 students per DEC region, it is

very easy for these students to become isolated from the Deaf community and peers of similar ages, interests, learning needs, let alone being isolated in a hearing world. Currently separate DEC's day-to-day operational management systems prevent the students from being connected, learning together, and strengthening Deaf community connections across New Zealand.

- Another significant driver for joint planning and management is the DEC's national Māori strategy [Te Rautaki Maatauranga Māori](#). The Combined Board of Kelston Deaf Education Centre and Van Asch Deaf Education Centre have approved this strategy. It is recognised by the DEC's that they are challenged by capacity and capability issues regarding responsiveness to Māori Deaf students and their parents/whānau e.g. an extremely low number of Māori RTD (hearing), no Māori Deaf teachers of the Deaf., no staff fluent NZSL and Te Reo, limited teaching resources in Te Reo/NZSL, the need for staff training on cultural responsiveness to Māori etc.
- Te Rautaki Maatauranga Māori has been developed as the DEC's strategic response to the Treaty of Waitangi, and to address the particular issues they have identified within the DEC's. The DEC's are in the early stages of implementing this strategy and the KDEC Manager of Māori Development has recently been assigned to work across both DEC's.
- Students enrolled at the DEC's, as well as those receiving services from RTD, including NZSL@School students, are the focus of Te Rautaki Maatauranga Māori. This strategy is important to NZSL@School as nearly 50 percent of the students on NZSL@School are Māori. Feedback from parents/whānau and schools involved in NZSL@School regarding the DEC's responsiveness to Māori Deaf and their parents/whānau (refer to other sections of this report) has reinforced what the DEC's have identified they need to achieve regarding responsiveness to Māori.
- Consequently the development of a national NZSL@School strategic plan must be inextricably linked to the national Te Rautaki Maatauranga Māori strategic plan in order to raise the achievement of Māori Deaf students on NZSL@School. (NB. As Te Rautaki Maatauranga Māori was written in early 2015, it is recommended that it is reviewed at the same time that the NZSL@School strategic plan is drafted so they are both aligned).

See Table 1 for a summary of recommended action for NZSL@School DEC Leadership and Management.

Recommended action

Table 1: NZSL@School DEC Leadership and Management

Issue	Implications	Recommendation	Outcome	Prioritisation When to implement	Change Enabler	Linkages to other work streams
NZSL@School is predominantly managed separately within each Deaf Education Centre.	Separate DEC strategic and operational management does not maximise resources, creates the risk of costly duplication, and creates the potential to impact negatively on DEC's ability to lift Deaf students' achievement academically and socially to the same level as their hearing peers.	a) Establishment of NZSL@School national management infrastructure with a NZSL@School national manager working across both DEC's to enable effective service planning and implementation to raise student achievement.	A nationally effective NZSL@School service that is managed effectively and raises Deaf students' achievement to equal that of their hearing peers.	Very high priority For immediate implementation.	The Combined Board and DEC Principals.	Linked with all other work streams listed in this paper.

2. Student Achievement Data

How are we doing?

- The collection, collation, analysis, and reporting of student achievement outcome data is recognised by all educationalists as critical. The DEC's have undertaken various activities to collect, collate, and report on the same type of student achievement data for all Deaf students, which will assist in the consistent reporting of NZSL@School student achievement data. These actions include:
 - Work being undertaken to establish a national student data system (KAMAR). It is anticipated that KAMAR will be fully functioning by the end of 2016.
 - The staff responsible for this work have been working with the NZSL@School project team to determine what NZSL@School student data can be reported on from KAMAR.
 - A spreadsheet has been setup in the meantime to capture and report on all student outcomes and output data for students on NZSL@School.
 - Work has begun to establish the use of the same English language assessments across both schools. This will result in the consistent reporting of student achievement data (English reading/writing) being reported on at a national level.
 - See also section 2 "NZSL Learning and Assessment", where the work required to be undertaken on a NZSL student assessment is discussed, and section 3 "Bilingual pedagogy", where Te Reo language assessments are discussed.

What is needed now?

- Further work is required to be undertaken by the DEC's to determine what and if all NZSL@School student outcome/output data can be collected and reported on from KAMAR (including e.g. the level and type of services students are receiving) or if an additional database should be set up to enable the full NZSL@School data analysis and reporting required.
- National Standards data is held by the schools that NZSL@School students are enrolled at. This information is currently being collected by RTD requesting the information from the individual schools. A more efficient system for the collecting and collating of NZSL@School National Standards should be considered by the DEC's. (For further issues associated with National Standards Assessments, refer to Section 5 National Student Assessment Framework).
- The DEC's should continue discussions and to reach agreement with the Ministry on when they will begin to consistently report on NZSL@School student achievement outcome and output data.
- See Table 2 for a summary of recommended action for Student Achievement Data.

Recommended actions

Table 2: Student Achievement Data

Issue	Implications	Recommendation	Outcome	Prioritisation When to implement	Change Enabler	Linkages to other work streams
The DECs are not able to easily and efficiently capture, collate, analyse, and report on NZSL@School student achievement outcome and output data.	The current inability to efficiently capture, collate, and analyse NZSL@School student achievement data, and not having standardised English assessments across both DECs, is impacting upon reporting at a national level the impact of implementing NZSL@School upon student achievement.	<p>a) The DECs will continue setting up the national student database (KAMAR) and ensure it is able to report efficiently on NZSL@School students.</p> <p>b) The DECs will identify (in consultation with the Ministry) the NZSL@School outcome/output data which cannot be collected within KAMAR, and setup data management processes to capture, collate, analyse, and report on all NZSL@School data required.</p> <p>c) The DECs will complete work on standardising the use of English assessments between both DECs and will begin to report this data to the Ministry.</p>	<p>NZSL@School student achievement outcome and output data can be analysed and reported on to determine the impact of NZSL@School upon student achievement.</p>	<p>Completed by Feb 2016.</p> <p>By June 2016.</p>	DEC Principals	<p>National student assessment framework.</p> <p>NZSL student assessment.</p>

3. NZSL Learning and Assessment: Students and Adults

a) Deaf Students: Teaching and Learning NZSL – NZSL Curriculum Guidelines

How are we doing?

- The DEC's have developed some materials, to support Resource Teachers of the Deaf (RTD) to teach NZSL as a first language (L1) to Deaf students, but these are not a standardised national Curriculum Guidelines similar to the Ministry national Curriculum Guidelines for English and Te Reo developed to support early childhood and compulsory schooling (Years 1–9) educators.
- The Ministry, in partnership with the DEC's, are developing NCEA Assessment Standards for NZSL for use in secondary schools for Deaf and hearing students.
- The Ministry has developed [NZSL Curriculum](#) Guidelines that support the teaching and learning of NZSL by hearing students as a second language (L2).

What is needed now?

- National NZSL Curriculum Guidelines for the early childhood and compulsory schooling (Years 1–9) education sectors need to be drafted by the Ministry to support the teaching and learning of NZSL as a L1 to Deaf students.
- This will take potentially three years to complete and implement (without consideration of the training required). The work would be led by the Ministry in the same way that the Ministry is responsible for the [English](#) and [Te Reo](#) Curriculum Guidelines. These guidelines would be developed in partnership with the DEC's. It is recommended that this work is also done in partnership with local and overseas universities/Deaf education providers who have expertise and experience regarding sign language: linguistics/curriculum for children.
- The NZSL Curriculum Guidelines would focus on the teaching of NZSL and NZSL linguistics (which is critical knowledge to support the teaching of a second/third language (L2/L3)). The guidelines should also focus on teaching Deaf culture. In particular the NZSL Curriculum Guidelines would need to recognise and incorporate not only Deaf culture but also the home cultures of Deaf students including a significant focus on Māori tikanaga.
- Bilingual teaching practices or pedagogy i.e. how to teach a written/spoken language (L2/L3) through NZSL (L1) will need to be drafted at the same time that the NZSL Curriculum Guidelines document is being drafted. (See section 4 “Bilingual Pedagogy” for discussion regarding the development bilingual/trilingual teaching pedagogy).
- Other critical components to ensure that Deaf children acquire full NZSL fluency such as a) whose role is it to teach (including assessments, programme design) NZSL to Deaf students in mainstream settings and b) the service design required to support NZSL language teaching to Deaf children and c) early childhood education (ECE) children learning NZSL are discussed in other sections of this report.
- The development of a national NZSL curriculum would benefit and impact positively not only Deaf students in the NZSL@School initiative but all Deaf children whose primary face-to-face language is NZSL, enrolled in any ECE or compulsory education setting, including the DEC's.

b) Deaf Students: NZSL Assessment

How are we doing?

- There are no standardised NZSL assessment tools (receptive and expressive language) in New Zealand to enable Deaf education professionals to determine and report on Deaf students' NZSL language skills, and plan individualised language programmes.
- Work has been undertaken over the past year by the DEC's to train a small number of Deaf education professionals in the use of two Australasian Sign Language (Auslan) language assessment tools (modified from two British Sign Language (BSL) tools). The training of DEC staff in the use of the two Auslan tools has enabled the DEC's to determine that NZSL versions of these two assessment tools should be developed and implemented. In order for this to occur, the two 'parent' BSL tools need to be adapted to NZSL. (Although it has its linguistic “roots” in BSL, NZSL has some different signs and grammatical structures to BSL, hence the need for adaptation).

What is needed now?

- The adaptation of the two expressive and receptive BSL tools into NZSL is required. (NB. The tools are for students aged 3–14 years.). Based upon the recent Australian experience of adapting the BSL tools into Auslan, it will take up to a year to adapt the BSL tools. This will include working with the English BSL team responsible for the two tools, to ensure the NZSL versions of the BSL "parent" assessment tools retains the integrity of the BSL tools. It will then take a further year to identify and train Deaf education professionals to provide an NZSL assessment service within the DEC's. Training will also have to be provided to staff to support them to understand and develop NZSL teaching and learning programmes based upon the assessment information. A proposal to adapt the BSL tools is being prepared for the Board and the Ministry to consider.
- As the pool of people able to do the NZSL student assessments is small (i.e. fully fluent in NZSL and have a teaching background) and the children that require the assessment are spread across New Zealand, the DEC's will need to develop ongoing processes which enable the assessment of all Deaf students, regardless of where they live, to be undertaken.
- The DEC's also need to continue to determine the wider range of sign language assessment tools required beyond the two BSL tools being considered for implementation. In the same way that there are multiple spoken/written/reading language assessments for English and Te Reo to determine the acquisition of different components of these languages, there needs to be a similar variety of NZSL assessment tools. It is recommended that the DEC's develop a planning process for the ongoing identification and adaptation of overseas sign language assessment tools which provide the means for Deaf education professionals to determine student's NZSL abilities, and then develop appropriate teaching interventions based upon the standardised student assessment data. (refer to Appendix 4 for an overview of sign language assessment tools used by the Department of Queensland, Australia).
- The two adapted BSL tools would not only benefit the NZSL@School students but also all other Deaf students using NZSL throughout New Zealand. There are several other Deaf education providers, apart from the DEC's, who could benefit from the using sign language assessment tools (e.g. the Ministry (Special Education), special schools, Deaf education early childhood educators, Cochlear Implant programmes etc). A tool kit of standardised NZSL assessment tools used in association with English and/or Te Reo language assessment tools would contribute significantly to raising the achievement levels of Deaf children. Consideration of the use of NZSL assessment tools across the Deaf education sector is also discussed in section 5 "National Student Assessment Framework".

c) Adults: Learning NZSL

How are we doing?

- The DEC's have employed staff for over 25 years to deliver NZSL tuition to people connected with Deaf students enrolled at the DEC's. The introduction of NZSL@School in 2013 has resulted in Deaf students not enrolled at a DEC, their parents/whānau, hearing peers, teachers and TAs having access to free, ongoing NZSL tuition from tutors employed by the DEC's. The provision of NZSL teaching can also include Deaf culture education.
- NZSL tutors spend an average of 1 hour 15 minutes per week supporting schools with their NZSL development. A large portion of this time is used to support TAs' NZSL development, as well as supporting the classroom teacher and hearing peers. An average of 50 minutes per week is spent supporting the Deaf student to learn NZSL, and an average of 22 minutes per week is spent supporting the family/whānau.
- In general, school staff, parents/whānau, Deaf students, RTD who need to learn NZSL reported that they are hugely appreciative of being able to access NZSL tutoring in their schools, marae and homes, especially in rural areas. The consistent feedback from parents, schools, students, and RTD is that the NZSL tuition is critical to raise their skills.
- Since 2013, as the level of demand is becoming increasingly understood, the DEC's have increased their capacity to employ 10 NZSL tutors to deliver services under NZSL@School from 2016 onwards.
- Several opportunities to strengthen the teaching of NZSL have been identified by schools, parents/whānau, and DEC staff. This feedback has been summarised in Appendix 2.
- An issue arose for a parent during 2015 when their child transitioned out of NZSL@School due to enrolling at the DEC. The parent still wanted to access NZSL tuition so they could continue to learn how to communicate with their child when they returned on the weekend and during the holidays.

Consideration of access to NZSL tuition for the small number of parents in this situation should be considered by the DEC's.

What is needed now?

- The DEC's recognise that there is a need to strengthen systems to support the delivery of effective NZSL tutoring initiatives and have already begun to consider ways to strengthen the joint management of NZSL tutoring services. The DEC are considering establishing a national NZSL tutoring management staffing position to work across both schools to manage the NZSL@School NZSL tuition service.
- NZSL@School needs to ensure that it is strongly focussed on developing the NZSL skills of parents/whānau as much as the professionals working with Deaf students. It is hugely important that as a result of NZSL@School that we have parents/whānau who report that they are able to confidently communicate with their deaf child/sibling etc and they feel supported to establish family environments that support them to communicate and be the language role model for their child in sign and spoken/written languages in the same way that all parents expect to be involved in supporting their child to acquire language.
- The DEC's do not currently capture feedback from parents/whānau on the effectiveness of the NZSL services they are receiving i.e. are the services enabling them to communicate confidently, fluently with age appropriate language/content. This information would be invaluable to the DEC's to inform ongoing service improvement and determine the impact of the services being provided.
- It is recommended that the DEC's establish systems to obtain regular feedback from parents/whānau if the NZSL services are supporting them to communicate fluently with their child as their child grows and matures and to support the language development of their child in the same way that all parents want to be involved with their child and be a language role model. NB: This work should be linked to the DEC Te Rautaki Maatauranga Māori to ensure that this process engages with Maori parents/whānau effectively.
- The work required to improve NZSL tuition services to school staff, parents/whānau, and DEC regional staff within NZSL@School has the potential to link/impact on the provision of NZSL tuition provided to students (and their parents/whānau) enrolled at both DEC's (e.g. online resources and teaching, revised curriculum etc).
- It is recommended that work undertaken on NZSL tutoring within NZSL@School, considers the interface with the existing DEC NZSL tutoring services so that all DEC NZSL tutoring services and the resources required are able to be maximised across both DEC's.

d) Adults: NZSL Assessment

How are we doing?

- There is no robust, standardised NZSL adult proficiency assessment tool in New Zealand. As a result, there is no ability to objectively determine an adult's sign language ability. This has negative implications for determining and raising the quality of NZSL that Deaf children are receiving and for having a workforce that is highly skilled in NZSL.
- Work has been undertaken over the past year by the DEC's to identify and trial an adult sign language tool known as the Sign Language Proficiency Instrument (SLPI). The SLPI has been developed, and in use, at the National Technical Institute for the Deaf (NTID), Rochester, England, for over 30 years. It has also been implemented in many other countries. Ten Deaf education professionals in New Zealand have undertaken the initial SLPI training as part of the NZSL@School project work this year.
- Holland has recently implemented SLPI and has confirmed that it has taken a three to four year process to adapt, train in, and implement the SLPI.

What is needed now?

- The SLPI tool needs to be adapted and implemented in New Zealand. A proposal regarding this work is being prepared for the Combined Board to consider.
- The implementation of a NZSL adult assessment tool will benefit other organisations e.g. the Teacher of the Deaf training programme (assessment of trainee Teachers of the Deaf NZSL skills).
- A reference group has been established under NZSL@School to support the implementation of SLPI. The membership of this group consists of:

- Auckland University of Technology – Interpreter training
- Victoria University – Deaf Studies
- Canterbury University – Teacher of the Deaf training programme
- The New Zealand Sign Language Tutors Association
- The DEC's
- The pool of people able to do the NZSL assessments will be small (i.e. fully fluent in NZSL and have the skills required to administer the assessment), and the people that will require to be assessed are spread across New Zealand. This presents challenges for the implementation of the tool, which will be need resolved by those organisations who use the tool.
- As part of implementing the NZSL adult assessment tool, the DEC's will also need to determine if there are any employment implications related to having their employees' NZSL skills being assessed and setting the level of skill required to be attained to work with Deaf students who use NZSL .

See Table 3 for a summary of recommended actions for NZSL Learning and Assessment: Students and Adults.

Recommended actions

Table 3: NZSL Learning and Assessment: Students and Adults

Issue	Implications	Recommendation	Outcome	Prioritisation When to implement	Change Enabler	Linkages to other work streams
There are no national NZSL Curriculum Guidelines to support the teaching of NZSL as a first language to Deaf children from 0-14 yrs.	The lack of NZSL Curriculum Guidelines, similar to the Ministry of Education's English Curriculum , Reo Curriculum and Te Kōwhiri Guidelines , prevents the planning and delivery of high-quality programmes for teaching and learning NZSL to Deaf students.	a) The Ministry, in partnership with the DECs and NZSL Language experts, develop NZSL Curriculum Guidelines to support the teaching and learning of age-appropriate sign language acquisition, sign linguistics and Deaf culture by Deaf children and young people.	A national NZSL curriculum, which supports high quality teaching and learning of NZSL language and Deaf culture by Deaf children and raises Deaf students' achievement.	High 3 year timeframe: to be completed 2019.	Ministry, in partnership with DECs, universities (local and international) and Deaf education international partners	Bilingual education pedagogy development and training. NZSL Student Assessment NZSL (language and linguistics) training of Deaf education professionals. Student Achievement data.
There are no NZSL student assessment tools.	The DECs and the Ministry of Education staff (working with preschool Deaf children) do not have the ability to determine if individual students are acquiring age appropriate NZSL.	b) The DECs work in partnership with the British Sign Language (BSL) tool developers to adapt the two BSL tools into NZSL. c) The DECs continue to identify other overseas sign language student assessment tools that can be adapted into NZSL to provide teachers with the full	Assessment tools inform NZSL teaching and learning programmes and raise student achievement.	High The 2 BSL tools – one year to set up, ongoing strategic planning process (including people responsible) and initiate work programme including training of staff responsible for administering the tool.	DECs, overseas sign language assessment tool experts, and other Deaf Education providers (local and national who are using sign language assessment tools e.g. local- The Ministry of Education (AODC) and overseas e.g. Queensland Department of Education and	National standardised assessments. Student Achievement data

		range of assessment tools required to understand whether Deaf students are acquiring age appropriate NZSL.			Training.	
DECs NZSL Tutors, schools, RTD, parents/ whānau in the regions have identified a range of NZSL tuition issues (see Appendix 2).	The range of NZSL tuition issues are impacting negatively upon people acquiring NZSL skills to the best of their abilities.	d) A national DECS NZSL Tutor strategic planning and management process is implemented, including the appointment of a National Manager: NZSL Tutors, working across both DECS.	School staff, parents/whānau, and RTD working with students who are NZSL users; are fluent in NZSL.	High 1 year (Jan 2017)	DEC Principals	National Adult and Student assessments. Resources Technology Student Achievement data
There are no adult NZSL Assessment tools in New Zealand.	The lack of an adult NZSL proficiency tool does not allow for the determination of the NZSL skills of any adult NZSL users working with Deaf children and adults. While doing a formal assessments of parents may not be appropriate, the DEC do not understand if the NZSL tuition being provided to parents/whānau is increasing their confidence and ability to communicate fluently	e) Working in partnership with other key Deaf organisations, to adapt the Sign Language Proficiency Instrument (SLPI) and enable the implementation of the NZSL SLPI tool in New Zealand. f) Develop a joint ongoing process for determining and reporting upon parents/whānau confidence and skills using NZSL and if the NZSL services	A robust adult NZSL proficiency assessment tool will enable the determination of people's NZSL skills and lift the capability of adults working with Deaf children. An annual process is established that enables the DECS to continually determine if their NZSL services to parents/whānau are meeting their needs and parents/whānau are able to confidently communicate with	High 2 years to adapt and train the first round of staff and set up an administration process.	DECS in partnership with e.g. local universities.	NZSL adult teaching. Student Achievement data

	with their child and that the NZSL tuition being provided is meeting their needs (especially as their child grows older).	are meeting the parents/whānau needs in terms of communicating with their child and enabling them to be their child's language 'teacher' in the same way that all parents expect to be involved with their child's language development especially regarding their child acquiring 2 or more languages.	their child (link with Te Rautaki Maatauranga Māori).			
If a child on NZSL@School transitions to a DEC, they are no longer eligible for NZSL@School services but for the parents they still want to access NZSL tuition so they can continue to learn how to communicate with their child when they come home and the weekends/holidays.	Lack of access to NZSL tuition for the parents in this situation could result in them not being able to communicate effectively with their child.	g) The DEC's consider on a case by case basis if parents in this situation could continue to access NZSL tuition.	Parents/whānau are able to communicate fluently with their child at age appropriate levels.	2016.	DEC NZSL@School managers.	N/A
The DEC's do not have a process in place that allows them to understand if parents/whānau are continuously increasing in their confidence to	Lack of obtaining information from parents/whānau on their communication needs and if their NZSL skills are improving, does not inform DEC service	h) The DEC's establish a process for annually seeking feedback from parents/whānau on how confident they are communicating with their child/sibling	Parents/whānau are able to communicate fluently with their child at age appropriate levels.	2016	NZSL managers/s Tutor	N/A

communicate fluently with their child especially as their child grows up.	improvements for parents/whānau. There is also a risk that parents/whānau are not improving their NZSL skills and not able to communicate fluently.	etc.					
---	--	------	--	--	--	--	--

4. Signed Bilingual/Trilingual Teaching Pedagogy¹⁷ and Bicultural Learning Environments

a) Bilingual/Trilingual Teaching Pedagogy

What is Signed Bilingual Pedagogy and why is important?

- Sign bilingual pedagogy is the methods of teaching, or the teaching practises (pedagogy), needed to support a child to learn a second spoken/written language (L2) through their first language (L1), which is visual. There is a significant amount of research on how hearing people can be taught effectively to learn a second language (L2) (spoken/written) through their first language (written/spoken). Sign language, as a visual language, requires different teaching pedagogy to enable the teaching from a visual language (L1) to a written/spoken language (L2¹⁸) so that Deaf students become fluent in both languages. There is a great of research on Deaf bilingual education¹⁹ and its importance for raising student achievement for those Deaf students for whom sign language is their first language.

How are we doing?

- Schools, parents, and Deaf education professionals spoken to by the NZSL@School project team agreed that NZSL@School was invaluable in terms of increasing Deaf students' access to learning and communication via NZSL. The majority of these people also stated that they wanted professional guidance from the DEC's on how to teach NZSL to Deaf students, and how to teach English as a second language through NZSL. For the few Deaf students in Kura Kaupapa, staff and parent/whānau also wanted to know how to teach Te Reo through NZSL.
- The majority of RTDs, in particular, stated that they wanted support and training on sign bilingual pedagogy. Many appeared to be struggling to understand signed bilingual pedagogy, as evidenced by a wide range of views and understandings. Some RTD stated that they viewed NZSL as a "tool" to teach English spoken/written language and were working towards "phasing out" NZSL as the written/spoken language is acquired by the student/s. Some RTD view NZSL as a language that is equal to English or Te Reo and want to understand how to teach NZSL as well as how to teach a written/spoken language through NZSL.
- Schools, parents, and Deaf education professionals are also seeking guidance on:
 - signed English (SE) and its use within sign bilingual pedagogy – if and how should SE be used to support the teaching of a written/spoken language including:
 - does signing and speaking in English or Te Reo lead to full proficiency in both languages by students and should this be maintained and if so- how (i.e. how is it done rather than individuals deciding for themselves how to speak/sign at the same time
 - when teaching English, how to teach English language rules, grammar, vocabulary that is not used in NZSL etc.
 - what to do when there is no sign, and who is responsible for developing signs when there are no signs for English/Te Reo vocabulary, particularly at a secondary school level where there is a significant amount of English terminology for which there are no signs; do they fingerspell instead of "making up" a sign
 - students with highly individual needs especially those with other learning and/or physical or communication disabilities that are impacting upon students NZSL acquisition and learning – and specialised expertise is required to support schools and parents.

¹⁷ For the purposes of this report, "signed bilingual education", which is the common phrase when discussing Deaf bilingual education internationally, will be used to refer to Deaf students in New Zealand learning NZSL, Te Reo and/or English. When a specific language is being discussed, the language will be stated to avoid any confusion about which language is being referred to.

¹⁸ Bilingualism and Bilingual Deaf Education (*Perspectives on Deafness*, Marschark, Tang, Knoors, Oxford University Press, 2014)

¹⁹ *ibid*

- Cochlear Implant (CI) habilitation/spoken language etc and learning NZSL – how to do this so a child can become bilingual and also having time in the child's school program to learn NZSL and have CI habilitation so that it does not compromise learning other key subjects
- where/how can professionals go to share forums to share/discuss sign bilingual pedagogy
- how can we ensure that all Māori Deaf students have access to tikanga Māori and their own personal whakapapa through NZSL etc.
- Parents want more in-depth information that:
 - helps inform their decision about using a bilingual language approach with their child
 - offers practical strategies to support their child's bilingual language learning from early childhood and compulsory schooling.
 - facilitates discussion with other parents
- For Māori students, either in Kura Kaupapa or mainstream schools, specific questions regarding Te Reo from schools, parents, or Deaf education professionals were:
 - is a Māori sign language being developed? Why/Why not?
 - who has the skills and knowledge to teach Māori children NZSL, English, and/or Te Reo?
 - can the DEC's deliver on Māori Deaf children becoming bilingual or trilingual with current capacity/capability?
 - who leads these conversations with parents/whānau?
 - the need for the DEC's to provide expertise on how to teach Māori Deaf students become trilingual

What is needed now?

- It is recommended that the DEC's develop and publish sign bilingual teaching practice guidelines for all educational professionals working with Deaf students for whom NZSL is their first language. Sign bilingual pedagogical guidelines are important as they would support teachers to teach a sign language as an L1 and how to teach a written/spoken L2/L3 through L1 so that Deaf students become fully fluent in both languages.
- There is a great deal of theoretical research²⁰ on Deaf bilingual education but there is no evidenced based research available on the practical teaching methods that enable teachers to teach Deaf students to learn a written/spoken language as an L2 through a signed L1²¹. There is also little to no research about teaching a Deaf student to learn an L3 as well as an L2 (e.g. a Deaf student learning NZSL, Te Reo, and English). The option of Māori Deaf children learning NZSL as well as English and/or Te Reo is an issue that must be openly discussed, and a way forward determined, as some Māori parents/whānau of Deaf children want their children to learn Te Reo and are enrolling their children in Kura Kaupapa.
- The NZSL@School project was not responsible for investigating the provision of Deaf education to children under 5yrs, but would suggest that the Ministry staff who work with Deaf students would be in the same situation as the DEC's i.e. the Ministry does not have sign bilingual teaching pedagogical guidelines for staff working with Deaf students. It is strongly recommended that the Ministry partner with the DEC's to develop sign bilingual teaching pedagogy guidelines which can be used with students from ages 0–14years.
- It is also recommended that the Ministry review whose role it is, and the skills required by professionals working with Deaf students under 5yrs, to support the teaching and learning of L1/L2. This is critical as we want Deaf children to start school with age appropriate NZSL (L1) and as proficient in a L2 as any other hearing child who is learning two languages at the same age. This is particularly important if we want to raise Deaf student achievement levels. This will be discussed further in section 8 “Deaf Education Professional Roles”.

²⁰ Bilingualism and Bilingual Deaf Education, *Perspectives on Deafness*, Marschark, Tang, Knoors, Oxford University Press, 2014)

²¹ Marschark, M., personal communication with NZSL@School Project Manager, 2015.

- There are also a few Deaf students whose home language is neither English nor Te Reo. These students potentially face challenges being exposed to three languages (NZSL, English, and their home language) on a daily basis and not having sufficient exposure to develop fluency in any one of the languages. This population must be understood, especially as New Zealand has an increasing immigrant, migrant, and refugee population. Sign bilingual pedagogy guidelines must include these children so that they do not become an “island” within Deaf education.
- It is internationally recognised that research needs to be undertaken on signed bilingual pedagogy, and shared with “reflective, critical, and questioning practitioners²²” Ruth Swanwick stated that to progress the development of sign bilingualism pedagogy in the United Kingdom (UK) there was a need to not only undertake research in the UK but also to partner with other countries, such as North America and Scandinavia, that are also conducting this work, to leverage off each other²³. It is strongly recommended that New Zealand also seek to partner with overseas universities and Deaf schools to leverage off others and maximise scarce resources in the area of Deaf education research on sign pedagogy.
- It is recommended that the DEC's:
 - develop sign bilingual pedagogical guidelines in partnership with local/international universities and overseas Deaf educators
 - develop a strategic plan for this work which includes the training of staff
 - put in place a long term action research process (up to 20 years) in partnership with local/overseas universities to support the implementation, monitoring, and informing of changes to sign bilingual pedagogy (this is especially important with the ongoing technological developments, Cochlear Implants (CI) and the research in relation to students with CI and learning sign language)
 - work with the Ministry Advisers on Deaf Children (AoDC), Māori parents, Deaf Māori etc to determine and implement a sign bilingual plan for Māori Deaf students to access Te Reo (including addressing staffing capacity and capability issues), and to determine if Māori Deaf children are at present able to be provided with quality sign bilingual programmes in Kohunga/Kura, supported by AODC and DEC staff, that meet the aspirations of their parents to learn at minimum two languages
 - be part of, or initiate, discussions with the Deaf Māori community about the concept a Māori sign language being developed. This needs to be openly discussed and a way forward determined as there appear to be many views, and if this is not resolved it will be difficult to achieve the previous point
 - include a focus on teaching strategies for Deaf students whose home language is not Te Reo or English
 - as part of developing sign bilingual pedagogical guidelines, identify all of the issues, and work towards resolving them, including:
 - a process for identifying and developing a new NZSL vocabulary for the education sector
 - determine whether signed English and/or signed Te Reo have a place in supporting the teaching of written/spoken language, and if so, describe effective practises
 - describe the role of finger spelling to support access to written/spoken language when no NZSL vocabulary exists
 - as soon as possible set up a website so that all those working with Deaf students (DECs as well as Ministry staff etc) have a forum to discuss and share practises; have this website moderated by a person appointed by the DEC's to do this work
 - work in partnership with Canterbury University Trainee Teacher of the Deaf programme so that the trainee Teachers of the Deaf are trained in the sign bilingual pedagogy that the DEC's are using

²² Swanwick, R, March 2010, Policy and practice in sign bilingual education: development, challenges and directions, p.156 in *International Journal of Bilingual Education and Bilingualism*, Vol 13, No 2, March 2010, 147-158.

²³ Ibid

- develop a “graduated” training programme for staff e.g. a 101 course on the sign bilingual education philosophy and sign bilingual pedagogy which all staff undertake
- identify staff to undertake overseas training/qualifications on sign bilingual pedagogy to build up the body of qualified professional leaders in New Zealand (see section 8 “Deaf Education Professional Roles” for further discussion).
- develop a communication plan that ensures that all DEC communication/documentation to parents/staff etc that is focussed on “language” is explicit about which language is being referred to, so that the intended audience is not confused. For example, many DEC documents use the word “language” when they are actually referring to English language only, and as a result, information being provided may not actually be applicable to NZSL, Te Reo or any other language.
- The development of a national sign bilingual language teaching pedagogy has the potential to impact upon all Deaf students who use NZSL as their first language in any ECE and compulsory education setting.

b) Bicultural Learning Environments

How are we doing?

- Many schools reported to the project team on how they try to integrate the Deaf culture into their schools not only in the classroom but also within the wider school. For example, in some schools, the Principal, as well as the administration staff, were learning and using NZSL, or schools wanted their school song and karakia translated into NZSL so that everyone could sign these at school assemblies. Beyond this there was little mention of creating bicultural learning environments that could reflect/celebrate hearing and Deaf culture in the schools.
- It could be that this was because schools and RTD etc “don’t know what they need to know” to create bicultural environments that recognise and incorporate Deaf culture into the day-to-day life of a school. There a range of things that could be implemented e.g. Deaf students having equal access to emergency notifications, Deaf students and hearing adults/peers to have their mobile devices set up to enable two way communication in written/spoken English or Te Reo, allowing Deaf students to be the message ‘runner’ like any other student using their mobile device to convey messages, educational digital resources (e.g. videos) shown with sound, pictures, and word captions etc.
- The opportunities to create bicultural environments are endless particularly due to the ongoing advancements in technology.

What is needed now?

- It is recommended that the DEC’s develop, and put in place, ongoing systems to develop and provide information to schools on how implement and maintain bicultural learning environments. The DEC’s should ensure the systems they establish also enable them to capture ongoing changes to technology that support schools to maintain effective bicultural learning environments.

See Table 4 for a summary of recommended actions for Signed Bilingual/Trilingual Teaching Pedagogy and Bicultural Learning Environments.

Recommended actions

Table 4: Signed Bilingual/Trilingual Teaching Pedagogy and Bicultural Learning Environments

Issues	Implications	Recommendations	Outcomes	Prioritisation When to implement	Change Enabler	Linkages to other work streams
Deaf education in New Zealand does not have sign bilingual teaching pedagogy guidelines which support educationalists to teach NZSL and English and/or Te Reo to Deaf students.	The lack of an understanding of effective practises which support the teaching of signed and written/spoken languages so that Deaf children can become fluent in both is impacting negatively upon raising Deaf students' achievement.	a) The DECs undertake a long term programme to research and implement effective sign bilingual practices. b) Appoint a leader to work across both DECs to develop and lead the sign bilingual work programme.	Effective, evidenced based teaching and learning practices that result in Deaf students becoming fluent in a minimum of two languages are identified, and implemented by educationalists.	Begin 2016, then ongoing	DECs in partnership with the Ministry, overseas Deaf educationalists, and local/international universities.	NZSL Curriculum Guidelines (including Deaf Studies). Student Achievement data Technology.
The DECs do not provide guidelines to schools which support, create and maintain bicultural learning environments in the schools.	The lack of provision of effective guidelines does not support schools to create bicultural education environments and is impacting negatively on raising Deaf student achievement, and in particular, student wellbeing and connectedness.	c) The DECs undertake an ongoing process to develop guidelines to support mainstream schools to implement bicultural learning environments which also keep up to date with how technology is changing, and enable positive changes to bicultural learning environments.	Schools with students on NZSL@School are supported to create and maintain effective bicultural practices that result in raising Deaf student achievement and students wellbeing.	Begin 2016 then ongoing.	DECs	NZSL Curriculum Guidelines. Student Achievement data Technology

5. National Student Assessment Framework – Language and Student Wellbeing

How are we doing?

- The DEC's are working on establishing an English language assessment framework i.e. all DEC staff nationally will use the same English language assessments. The use of standard assessments will enable the consistent reporting by the DEC's on English language achievement data to the Combined Board and the Ministry. This will enable the Board and the Ministry to determine student outcomes and the impact of any changes on raising Deaf students' achievement.
- As noted in Section 3 "NZSL Learning and Learning Assessment", work needs to be undertaken to develop and implement NZSL student assessment tools.
- Deaf Education in Queensland Australia (the Auslan Project²⁴) has faced the same opportunities and challenges as Deaf education in New Zealand is undergoing in relation to sign language and the need to improve the provision of sign language in schools. The Department of Education and Training Queensland (the Department) is responsible for developing and implementing the Auslan project to increase Deaf students' access to Australian sign language (Auslan). To determine individual student and national progress for Deaf students, it was determined that Queensland needed to implement a student assessment framework for Auslan. The Department specifies when and what sign language assessments Deaf education professionals should undertake. This data is then collated to determine overall student achievement progress in the area of Auslan language acquisition.
- In New Zealand, we do not have agreement between all professionals/organisations i.e. DEC's, the Ministry AoDC, First Signs and the Cochlear Implant Programmes who work with Deaf children ages of 0–17 years (either within or across organisations) on not only what sign language assessments could be used and reported against but also what standardised English and Te Reo, assessments should be used to monitor and report on a Deaf children's language achievement at an organisation/national level.

What is needed now?

- Within New Zealand, a national student assessment framework for students aged 0–17 years should be established to report against English Language acquisition, NZSL language action, and also other key student outcome indicators for example:
 - Deaf student wellbeing and engagement
 - Te Reo
 - National standards – Reading, Writing, Maths
 - NCEA
- The use of the same standardised language assessments by all Deaf education organisations in such a small country as New Zealand, and with such a small population of Deaf children would be an enormous advantage for all involved with Deaf children, in order to monitor and determine student achievement and support cross fertilisation of effective language teaching and learning practices. For a summary of the benefits and disadvantages refer to Appendix 3.
- Work also needs to be undertaken by the DEC's and the Ministry to consider other assessment areas:
 - i. Social/emotional assessment**
 - is this type of assessment required, why and by whom?
 - if this is required – what assessments, who/when/how is it undertaken?
 - should this information be reported at a national level?
 - ii. Te Reo language assessments**
 - is this type of assessment required, why and by whom?
 - if this is required – what assessments, who/when/how is it undertaken?
 - should this information be reported at a national level?

²⁴ <http://education.qld.gov.au/studentservices/staff/workshops/auslan.html>

iii. National Standards, NCEA assessments

- These are designed for hearing children and are undertaken by Deaf students for whom NZSL is their first language.
- Do we know enough about how these assessments are being conducted to ensure that Deaf students' results are not being compromised i.e. is the assessment more a reflection of the adults' signing abilities (or lack thereof) as opposed to the Deaf student's knowledge?

Implications for Deaf Education in general

- The development of a national student assessment framework will impact upon students enrolled at DEC's as well as those in NZSL@School. It will also have the potential to impact upon Deaf students who receive a service from other Deaf education providers (e.g. ORS fund holder schools, Ministry of Education staff who work with Deaf children, Cochlear Implant programmes etc) in the compulsory and ECE sectors.

See Table 5 for a summary of recommended actions for National Student Assessment Framework – Language and Student Wellbeing.

Recommended actions

Table 5: National Deaf Student Assessment Framework – Language and Student Wellbeing

Issues	Implications	Recommendations	Outcomes	Prioritisation When to implement	Change Enablers	Linkages to other work streams
There is no agreement organisations (either within or across organisations who work with Deaf children ages of 0–17 years, on what standardised language assessments should be used to monitor Deaf children's language achievement and if other assessments regarding e.g. student wellbeing should be use and reported at an organisational/national level.	The lack of use of standardised language assessments by all Deaf education organisations in such a small country is failing to capitalize on a unique opportunity to use the same assessment data to monitor and determine the effectiveness of interventions student achievement/well being (0–17 years).	a) Ministry and the DECs determine whether they wish to jointly develop a national assessment framework, and invite other parties e.g. the Cochlear Implant programmes and First Signs to be included.	National standardised data is collated, analysed and reported by all Deaf education organisations to inform policy/service delivery decisions that raise student achievement.	High Framework agreed to and implemented by Dec 2016	Ministry and DECs	Student Achievement data.
It is unclear how National Standards/NCEA assessments are undertaken with students on NZSL@School, and whether the students' results are an accurate reflection of the student's abilities or indicative of the adults' NZSL communication abilities	Deaf students on NZSL@School National Standards and NCEA assessments may be being compromised due to their teacher's/TA's lack of NZSL skills and/or lack of understanding how to adapt assessment conditions for Deaf students.	b) The DECs investigate how National Standard/NCEA assessments are being undertaken to ensure assessment results are not being compromised by the way the assessments are being conducted.	Deaf students' assessment results are an accurate reflection of their abilities.	Medium Complete by Dec 2016	DECs senior managers	Student Achievement data

6. Trilingual (NZSL, Te Reo, and English) Learning and Communication Resources

How are we doing?

- The provision of resources is recognised as a core DEC service. The DECs develop and provide a wide range of resources on all aspects of Deaf education for their staff, other schools, parents, other Deaf education professionals etc.
- Work has been undertaken over the past year to conduct a stock take of the resources provided by the DECs (funded by the Ministry).
- The Ministry developed the first set of electronic books (e-books) in NZSL/English in 2014. The Ministry is now developing, in partnership with the DECs, the first Te Reo/NZSL e-book. This venture will inform future development of trilingual e-books.
- Schools/parents reported that they appreciate the NZSL resources that both DECs provide. They requested that the DECs should urgently improve access to, and the type of, NZSL resources available to provide effective support for the teaching and learning of Deaf students who use NZSL, and to enable them to learn NZSL.
- The key issues regarding resources to support the teaching and learning of students reported by schools/parents and some RTD are:

a) Access to NZSL resources

- being charged for NZSL resources was seen as a barrier and they want the DECs to remove the charging for all NZSL resources
- a “one stop shop” for all NZSL material rather than having to go to VADEC and KDEC separately
- all resources online so people can download what they want and manipulate easily for their purpose
- online software that can be used to develop teaching language resources e.g. copying a video of a sign, inserting the relevant written word and inserting an image representing the word (many reported they are spending too much time printing signs, cutting, pasting, and photocopying)
- software that enables a student to sign a story, and insert a written version and images
- ability to share online resources developed by people along with information on how to use the resources (this presupposes a good search function on any website for resources)
- development of links to software apps that support NZSL teaching and learning
- all online resources/apps developed to meet universal design principles (sign, captioned (English/Te Reo), sound etc) especially to support Deaf students with other learning and/or physical disabilities e.g. adaptation of the Picture Exchange Communication System (PECS) to include a video version of a sign (many people appear to be trying to do this individually)

b) Types of NZSL resources

- NZSL resources that include English and Māori
- many schools would like support to have their waiata and karakia translated into NZSL and available on line
- DECs to annually identify and develop national topics of the year e.g. WW11, ANZAC day, national events – World Cup etc
- consulting with schools on the types of e-book they need to meet the learning needs of the students
- people prefer to use the Victoria University video signs and pictures and want the DECs to use these to develop resources

c) Health Curriculum

- this is the one specific curriculum topic that people requested resources for all ages. A recent study in America concluded that “communication and language barriers isolate Deaf American Sign Language (ASL) users from mass media, health care messages, and health care communication, which, when coupled with social marginalization, places them at a high risk for inadequate health

literacy”²⁵. It could easily be argued that the same issue exists in New Zealand. There is very limited health curriculum translated into NZSL available to educators working with Deaf students, and it is recommended that the development of such curriculum resources on the following topics are jointly developed as a priority by the DEC’s:

- sex education, sexuality education, personal wellbeing/safety, finance education, cyber safety, personal care, driver’s license, life skills, puberty, drugs, etc
- signs for these topics in one place, in the same way as “maths” sign etc
- materials to support parents to talk to their children about these topics.
- For opportunities to improve the type of resources to support NZSL Tutors to teach NZSL, refer to section 3 “NZSL Learning and Assessment”.

What is needed now?

- The DEC’s need to develop a national resourcing strategic plan that supports the continued improvement of the provision of trilingual teaching resources which support the effective teaching and learning of Deaf students, and the provision of resources which support people to teach and learn NZSL.
- Work on continued improvement of the provision of resources for students who use NZSL will impact upon students enrolled at DEC’s as well as those on NZSL@School. It will also have the potential to impact upon Deaf students who receive a service from other Deaf education providers (e.g. special schools, ORS fund holder schools, Ministry (AoDC) etc) in the compulsory and the early childhood sector.

See Table 6 for a summary of recommended actions for Trilingual Learning and Communication Resources.

²⁵ Michael M. McKee, Michael K. Paasche-Orlow, Paul C. Winters, Kevin Fiscella, Philip Zazove, Ananda Sen & Thomas Pearson, Assessing Health Literacy in Deaf American Sign Language Users, *Journal of Health Communication: International Perspectives*, Volume 20, Supplement 2, 2015, pages 92-100.

Recommended actions

Table 6: Trilingual Learning and Communication Resources

Issues	Implications	Recommendations	Outcome	Prioritisation Implementation	Change Enabler	Linkages to other work streams
<p>The DECs do not have a joint plan for the development and provision of easy access to NZSL resources that support:</p> <ul style="list-style-type: none"> a) the teaching and learning of Deaf students who use NZSL b) the teaching of NZSL. <p>The charging for NZSL resources is seen as a barrier by schools/parents to the support of teaching and learning for students who use NZSL.</p>	<p>The continued development of separate resources risks costly duplication and failure to provide schools and parents with easy access to the NZSL resources they require to enable student achievement.</p>	<ul style="list-style-type: none"> a) The DECs develop a national NZSL resources strategic plan and management process, including a review of charging for NZSL resources. This should include a focus on: <ul style="list-style-type: none"> a) Health curriculum – development of a health curriculum to support teachers to teach this material and to support parents to discuss health topics with their children. b) PECS – adaptation of PECS to include either picture or video of sign to support students with intellectual or physical disabilities to be able to use on a computer. c) The provision of school songs etc translated into Te Reo and online. 	<p>Schools and parents/whānau are able to easily access with no fee, NZSL resources they require to teach students who use NZSL and to learn NZSL.</p>	<p>completed by December 2016</p>	<p>The DEC</p>	<p>NZSL teaching and assessment. Bilingual Pedagogy</p>

7. Deaf Students Learning Together

How are we doing?

- It is recognised that Deaf students learning together is extremely important for fostering language, culture/community, and self-identify. “Not only finding others ‘like me’ confirms their sense of being okay and stems loneliness, but it also [has] a positive effect on their self-esteem that it also pave[s] the way to improve friendships with hearing peers”²⁶.
- While many of the students on NZSL@School may be the only Deaf person in their local community, many of the students do live within an hour or two of other Deaf students. VADEC has the larger number of students who are currently more geographically dispersed from each other, particularly in the South Island for whom travelling daily to be educated with other Deaf students is not a practical option.
- A small number of the NZSL@School students are supported to have online connections, and a larger number have face-to-face connections with other Deaf students through “Keep in Touch” (KIT) days/ NZSL Day Schools (Deaf students from within a region have the opportunity to meet other Deaf students e.g. once a term) or the DEC’s provide programmes which bring in small numbers of students to the DEC for an average of 3 days once a year.
- The majority of parents, schools, and students want more opportunities for the students to be together to develop friendships, learn with other Deaf students with similar ages/interests, and connect with the wider Deaf community.
- Some parents also stated that they wanted opportunities to be connected with other parents with students of similar ages/needs, and opportunities to maintain these connections as their children grew up so they can share/support each other when they are dealing with similar issues related to children growing up.
- There have been repeated calls from Deaf representatives on the NZSL SAG for systems to be implemented that enable Deaf students outside of Auckland (KDEC) and Christchurch (VADEC) to be educated together. A recent presentation to the NZSL SAG²⁷ outlined the concept of a “Deaf school within a school” operating in regions (see overleaf).
- The Ministry and DEC’s current policies and processes do not easily support two or more Deaf children within an hour of each other to be educated in the same school, even if parents are supportive of this option for their child.
- Not only does educating Deaf students in the same school make sense from a cultural/linguistic perspective, it is also a more cost effective way of providing deaf education services and resources to Deaf students and their parents/whānau who live near each other.

What is needed now?

- Recommendations that enable Deaf students to be educated together are:
 - a) **Improve data collected to forecast/plan NZSL@School service design/delivery**
 - It is recommended that the DEC’s and the Ministry further strengthen data systems to identify students who may transition into NZSL@School to enable service planning forecasting i.e. planning for opportunities where students could be educated together prior to student’s starting school.
 - The DEC’s and the Ministry have data sharing systems regarding preschool students. While this data assists the DEC’s with service delivery forecasting for all Deaf students, it does not support the identification of preschool students who use NZSL. This prevents forecasting and proactive planning service delivery for these students and their parents/whānau.
 - It is also recommended that the DEC’s jointly develop a forecasting tool that enables them to determine and analyse the number of students in NZSL@School, predict the long term level/type of resourcing (including funding) required, and where the resourcing is required, especially with regards to opportunities for Deaf students being able to learn together.

²⁶ Oliva, G. & Risser Lytle, L., *Turning the Tide: Making Life Better for Deaf and Hard of Hearing School Children*, p. 65, 2014.

²⁷ NZSL SAG Meeting Minutes 28 August 2015.

b) Ministry and DEC policies/processes and systems to enable Deaf students to be educated together

- It is recommended that the Ministry and the DEC develop policies/processes that enable Deaf students who live near each other to have the option of being educated together. This includes:
 - Work between the Ministry and the DEC needs to be undertaken to ensure policy/processes enable Ministry (e.g. AoDC) and DEC staff to effectively and easily develop enrolment options for two or more Deaf children living up to an hour away from each other, to be educated in the same school. Consideration of the Deaf student's siblings attending the same schools must also be considered (e.g. Ministry funding to transport siblings) as part of this work.
 - Establishing a "Deaf school within a school" or a "hub" for three or more Deaf students - A recent presentation to the NZSL SAG by the Deaf representatives outlined the concept of establishing Deaf schools led by "Deaf education professionals with a Deaf heart" (i.e. Deaf/hearing professionals who are fluent NZSL users, understand/enable sign bilingual teaching practises etc) in a partnership arrangement with the mainstream school that they are set up in. These Deaf schools would enable parents of Deaf students in the regions to have the option of their children educated in a school for the Deaf.
 - The scoping and trialling of two areas in New Zealand that a "Deaf School within School" by the DEC and the Ministry could be undertaken over the next two years to determine their effectiveness and viability.
 - Other items for consideration with the establishment of a "Deaf school within a school" concept are:
 - able to easily set up and disestablish at low to medium costs in response to changes in Deaf student population
 - able to respond to the highly individualised needs of these students – e.g. students who are Deaf and have other disabilities
 - working in partnership with Māori parent/whānau and being highly responsive to the aspirations of Māori parents/whānau
 - providing a connection for the parents/whānau/students to Deaf culture where this does not exist
 - continued establishment of national DEC technology systems and the deliberate connecting of students through technology with other NZSL students across New Zealand for learning and communication e.g. students with similar learning needs/school subjects etc
 - able to be fully integrated into an existing school who wants to support the enablement/maintenance of a bicultural learning environment across both schools
 - able to access and provide educational psychological services by trained staff who can sign (when required) to students, staff, parents
 - provide ongoing support/training etc to parents
 - connecting preschool deaf students and parents into these 'deaf school's to support the development of a culture/linguistic community for the entire deaf community in an area etc and further maximise the cost effectiveness of these schools.

c) DEC improve systems to connect Deaf students and their parents/whānau where they are geographically isolated

- It is recommended that the DEC continue to urgently set up systems so that RTD are able to easily identify and connect students, who are geographically isolated, and by using technology to enable them to regularly learn together and connect with each other.
- It is recommended that the DEC (in partnership with the Parent Federation and/or Deaf Aotearoa as a possibility) jointly provide regular weekend/holiday immersion programmes for parents and/or Deaf students of similar ages and interests across New Zealand, especially for those students who are geographically isolated. In light of feedback on schools/parents wanting support etc on "health curriculum" topics, these "immersion" programmes could include health as well as a Deaf culture

programme. These could be run in such a way that students attending regularly, by the time they leave school, would have had the opportunity to access age appropriate health education, NZSL and Deaf culture etc. Parents could attend these “immersion” weekends and have their own workshops that respond to the issues that they are dealing with as their child grows up.

See Table 7 for a summary of recommended actions for Deaf Students Learning Together.

Recommended actions

Table 7: Deaf Students Learning Together

Issue	Implications	Recommendations	Outcomes	Prioritisation When to implement	Change Enabler	Linkages to other work streams
Ministry of Education and DEC policy and DEC processes do not easily support two or more Deaf children who live within an hour of each other to be educated in the same school, even if parents are supportive of this option for their child.	Opportunities for Deaf students to be educated together are not able to be initiated.	<p>a) Improve data systems to identify potential NZSL@School students and forecast service delivery.</p> <p>b) Ministry/DECs change policy/processes/ systems to enable Deaf students in regions to be educated together</p> <p>c) Scope and trial two 'Deaf Schools within a school'.</p> <p>d) Regular immersion courses for parents and/or their Deaf children at similar ages to connect and learn together.</p>	Wherever possible Deaf students are able to be educated together maximises the benefits of Deaf education resources, supports students to develop a language, culture, and contributes to raising student achievement.	High Planning undertaken in 2016.	DECs and the Ministry.	<p>Deaf Education Professional Roles</p> <p>Effective co-ordination between all special education providers.</p> <p>Student Achievement data</p>

8. Deaf Education Professional Roles

How are we doing?

- The change that NZSL@School has signalled in terms of valuing NZSL and the work that has been undertaken in a short time to order to effect a positive change regarding raising Deaf student achievement cannot be underestimated. The issue that must be considered now is whether the current roles (i.e. TA, RTD, and NZSL Tutor) are able to bring about the change to Deaf students' achievement that parents, the Deaf community, Deaf educationalists, and the government are seeking?²⁸.
- Knoors and Marschark²⁹, describe the key elements required for Deaf students to reach their full academic and wellbeing potential:
 - students have full access to all classroom instruction/social interactions in fluent sign language
 - taught by professionals trained in sign bilingual teaching strategies
 - taught by professionals who can not only educate but can teach through sign language
 - professionals whose sign language skills are at a trained interpreter level
- To support schools to create bilingual/bicultural learning environments, the following resources and support are provided to schools under NZSL@School.

Teacher's Aides (TAs)

- NZSL@School has created the opportunity for Deaf students to have full access to classroom instructions/social interactions i.e. on average students on NZSL@School have 24 TA hours functioning as NZSL 'interpreters' per week.
- Under NZSL@School TAs are *the* communication bridge between a Deaf student and the school staff/peers under NZSL@School. While some classroom teachers reported that they know some NZSL, and some hearing peers have relationships with the Deaf students, TAs appear to be the main communication conduit for the majority of Deaf students on NZSL@School. All of the TAs work extremely hard and are very conscious of the importance of lifting their NZSL skills to provide Deaf students full access to classroom learning and school activities.
- A "stock take"³⁰ of NZSL skills of TAs working with the NZSL@School students this year has determined that 56 percent are at a beginner level, 18 percent are at an intermediate level, and 22 percent are fluent. While the ability of TAs to translate a spoken/written language to the students are at the aforementioned levels, it is estimated that a maximum of 5 percent (i.e. three to five TAs) are able to understand and translate what a Deaf student is signing to their teacher/peers etc. Therefore 95 percent of the students are not able to have what they want to communicate understood by their TAs and in turn their teacher/peers. Deaf students in effect do not have "a voice" in their mainstream classrooms, so the NZSL communication is one way (i.e. to the student only), and the quality of the NZSL is extremely low. NB. DEC's NZSL training for TAs must not only include training to express NZSL accurately, but also how to read NZSL and accurately convey what a Deaf student is signing.
- Even if the current TA workforce remained working with each student for four to five years and continued to receive the amount of NZSL tuition that the funding currently allows for (i.e. one to two hours a week or 40 to 80 hours per person per year), this would not be fully sufficient for TAs to become fluent NZSL users. Previous research³¹ in New Zealand has also questioned the effectiveness of TA in educating Deaf students.
- So while the quantity of access to NZSL has improved for students, it is difficult to see TAs (earning up to \$23.95 per hour) as the key access to communication will create the required shifts in Deaf student's educational achievement.

²⁹ Knoors, H, & Marschark, M , Language Planning for the 21st Century: Revisiting Bilingual Language Policy for Deaf Children, *Journal of Deaf Studies and Deaf Education*, 2012, p. 301

³⁰ As stated in this report, there is no formal NZSL adult language assessment and any judgment about the proficiency of a TA or any other hearing person, is judgment made by a Deaf Education staff member and is based upon observation of a person as opposed to any form of standardised formal assessment.

³¹ McKee, R., Deaf Paraprofessionals' Perspectives on Mainstream Learning Contexts for Deaf students in New Zealand, Deaf Studies Research Unit Research Report No. 5, School of Linguistics and Applied Language Studies, 2003

- NB: There have been attempts by the DEC's to encourage schools to employ trained NZSL interpreters in the TA roles, but no interpreters have shown an interest in being employed in the TA roles. Anecdotally, it is believed that qualified NZSL Interpreters are not interested in working in a job which paying \$23.95 an hour, at 25 hours a week and only 40 weeks a year.

NZSL Tutors

- Under NZSL@School, NZSL Tutors are also provided to teach schools, parents, Deaf students etc. A "stock take"³² of the NZSL skills of NZSL Tutors working with the NZSL@School students this year has determined that 14.5 percent are at a beginner level, 18 percent are at an intermediate level, and 62 percent are fluent; i.e., approximately 40 percent of NZSL Tutors are not fluent in NZSL.
- As noted in a previous section, the DEC's are challenged to employ NZSL Tutors who are fluent in NZSL and there is a range of work which needs to be undertaken to lift their capability to deliver quality NZSL teaching.
- Another issue that needs to be considered is whose role is it to teach Deaf students NZSL? At present, the NZSL Tutors appear to be the predominant person teaching the Deaf students (an average of an hour a week) NZSL. However, these staff are not trained teachers and their NZSL skills range from learner to native skills. It is also not clear how many of these staff have undertaken NZSL linguistics study, which is an important component of successful sign bilingual programmes. NZSL Tutors are also not responsible for setting the language learning goals for students. This issue needs to be addressed as part of determining what skills are required of professional working with Deaf students.

Resource Teachers of the Deaf

- Another key staffing resource that is provided to Deaf students and their classroom teacher is the Resource Teachers of the Deaf (RTD). This resourcing is available to Deaf students who are on the Ongoing Resourcing Scheme (ORS). (NB: Deaf students not on ORS but on NZSL@School only, do not have access to the .1/.2 specialist teacher time and as a result, they only have access to TA and NZSL Tutors). The role of the RTD is to provide specialist knowledge to support the classroom teacher to plan for and teach the Deaf student. RTD provide a maximum of 5 hours per week per student.
- A "stock take" of the NZSL skills of the RTD working with the NZSL@School students this year has determined that 25 percent are at a beginner level, 45 percent are at an intermediate level, and 16 percent are fluent i.e. the majority of RTD are not able to act as a NZSL role model and do not have an understanding of NZSL linguistics. Common issues that were raised by RTD who wanted to use NZSL to teach Deaf students are:
 - they do not consistently have Deaf students who are NZSL users on their caseload and it is therefore difficult to learn and maintain NZSL skills
 - they are not fluent enough teach in NZSL or assess student's NZSL abilities
 - they do not know NZSL linguistics and sign bilingual pedagogy but do want training.
- Even if RTD who work with Deaf students on NZSL@School were fully fluent in NZSL, fully trained in NZSL linguistics and sign bilingual teaching pedagogy, the other issue is, whether a maximum of 5 RTD hours per week working with a student and their classroom teacher/TA will deliver the significant improvement in Deaf student's achievement being sought? This especially so if the model of using TAs as the key communication "tool" is maintained.
- Given the low incidence of Deaf students who use NZSL, as stated by RTD, it is also very difficult for them to develop and maintain NZSL/sign bilingual skills, and this impacts negatively on the DEC's in terms of workforce capability.

What is needed now?

- In order to raise student achievement, the Deaf students require access to professionals who are: fluent NZSL users, able to teach through NZSL, trained in NZSL interpreting skills and have a thorough understanding of sign bilingual/bicultural pedagogy.
- It is recommended that the DEC's and the Ministry review and determine the professional roles required by Deaf students in mainstream settings that will raise student achievement.

³² As stated in this report, there is no formal NZSL adult language assessment and any judgment about the proficiency of a TA or any other Deaf education professional hearing, is judgment made by Deaf Education staff member based upon observation of a person as opposed to any form of standardised formal assessment.

- The use of qualified sign language interpreters working alongside a mainstream classroom teacher is seen as a possible answer to providing Deaf students with access to fluent NZSL. It is also recognised that the skills required of an educational interpreter are different from the skills required from traditional sign language interpreters. Also in New Zealand, there is no training in educational interpreting.
- Oliva and Risser Lytle³³ argue that, to raise student achievement, Deaf students not only need professionals who are fluent in sign language and have interpreting skills, but that these professionals must have a knowledge of the education system, language development, sign bilingual teaching pedagogy, and the social development of Deaf children. i.e. their role is not just to be a “communication bridge”. The skill set described here could be considered as a blending of the current RTD and interpreter roles into one. In conjunction with interpreting, this person would need to be able to teach NZSL to the student, assess the student’s NZSL skills, and work with the classroom teacher to support them to plan and deliver the programme for a Deaf student using sign bilingual pedagogy. Their understanding of Deaf culture and social development would ensure that culturally appropriate “pastoral” care is also provided.
- It is recommended that the DEC and the Ministry consider, and plan for, a significant shift in the type of roles (including the training of these professionals) required by Deaf students who use NZSL and who are not enrolled at the DEC. Work should also be done on who would employ any new professionals and how these roles would work in equal partnership with mainstream teachers to create bilingual/cultural environments.
- While determining, and potentially planning, a shift in the professional roles to raise student achievement in the medium to long term, every effort must be made to lift the capability of RTD, NZSL Tutors, TAs, and classroom teachers.
- The Queensland Department of Education and Training have faced the same issues as New Zealand regarding lifting their response to students who use sign language³⁴. Training has been one of the key focus areas and to lift the skills of TAs and teachers of the Deaf, Queensland has focussed on:
 - sign language proficiency and interpreting skills
 - sign bilingual pedagogy
 - sign language assessments and how to use the assessment data to inform developing language programmes for students.
- In the short term, it is recommended that the DEC:

NZSL Tutors

- Review and implement the suggested actions in section 3 “NZSL Learning and Assessment” regarding lifting the capacity and capability of NZSL tuition to schools, parents, and Deaf students.

Teacher’s Aides

- Jointly work together across the DEC to continue to develop and implement ongoing TA training for TAs working in primary and secondary school settings (NZSL, interpreting skills, bilingual pedagogy, and Deaf culture) to support classroom teachers and Deaf students as effectively as possible.
- Encourage schools to use a standard TA job description recently developed by VADEC.
- NB: The issue of TAs working with Deaf students on NZSL@School being employed by the DEC as opposed to the mainstream schools as been raised throughout the project team’s work by Deaf education professionals. This would enable the DEC to have the responsibility of determining that a person who is employed as a TA has NZSL skills etc.
- If this proposal was to proceed it would require a significant amount of work to achieve. It is proposed that a more important issue to consider is if the role of the TA is the right role which is going to lift Deaf student’s achievement. It is recommended that work focus on determining the skills set required of staff working with students as opposed to who should employ the TAs who work with NZSL@School students.

³³ Oliva, G & Risser Lytle, L., *Turning the Tide: Making Life Better for Deaf and Hard of Hearing School Children*, p.197, 2014.

³⁴ <http://education.qld.gov.au/schools/grants/state/core/auslan.html>

Classroom Teachers

- Jointly work together across the DEC's to develop and implement training (bilingual pedagogy in particular) to classroom teachers to become as effective as possible in developing and implementing learning programmes for Deaf students that meet the learning needs of Deaf students.

Resource Teachers of the Deaf

- set up an online forum for staff working with NZSL@School students to share and disseminate bilingual teaching pedagogy, resources etc.
- develop and deliver a '101' sign bilingual pedagogy (and bicultural learning environments) training programme for RTD to undertake face-to-face and online.
- review and provide the level of NZSL training required by individual RTD working with NZSL@School students, including NZSL linguistics.

Early Childhood Education (ECE)

- The same conditions outlined above for Deaf students in compulsory schooling need to be replicated in the ECE sector to ensure that Deaf children enter school aged 5 years with age appropriate fluency in NZSL (L1) and the normal level L2 acquisition that any other child learning a second language at 5 years is expected to have i.e. it is problematic if we only provide services which teach children to learn NZSL and if these students start school with no knowledge of a written or spoken language and the age appropriate understanding of learning a spoken/written language through sign language.
- The Ministry, as part of working with the DEC's, should review and determine if the right services (including roles and skills) are being provided to Deaf children under the age of 5 years and their parents/whanau, to enable them to develop age appropriate signed L1 and spoken/written L2 skills (or vice versa) and knowledge. In particular it should be determined who should be providing bilingual teaching practise information/support to parents, early childhood educators etc and who should be trained to monitor and assess these student's acquisition of NZSL.

Education psychologists

- Although this issue was not raised by parents and schools to the NZSL@School project team, the lack of access to educational psychologists who can sign and have knowledge of Deaf culture to fully inform their work with the Deaf student is an issue.
- Mainstream Deaf students are at risk of social/emotional issues as a result of being the only Deaf child, or a significant minority, in a school.³⁵ Although, at minimum, a Deaf student should be able to access a educational psychologist who cannot sign but will work with an interpreter, research is strongly indicating that a mediated process i.e. a psychologist (who does not understand Deaf culture) with an interpreter is far less effective as an intervention when compared to a Deaf student working directly with a professional who can sign and has an understanding of Deaf culture³⁶.
- The potential for educational psychologists who do not understand Deaf culture and sign language to misinterpret behaviour/communication and subsequently plan interventions that will fail is high.
- As part of the work of reviewing effective roles that support Deaf students, consideration of students' social/emotional needs and learning/communication for Deaf students on NZSL@School, work needs to be undertaken to establish effective educational psychology services for these students. Further discussion on NZSL@School students' access educational psychologist is discussed in Section 9 "Special Education Service Provision".

See Table 8 for a summary of recommended actions for Deaf Education Professional Roles.

³⁵ Gascon-Ramos, M. (2008). Wellbeing in Deaf children: a framework of understanding. *Educational & Child Psychology*, 25(2), 57-71; Punch, R & Hyde, M. (2011); Social Participation of Children and Adolescents With Cochlear Implants: A Qualitative Analysis of Parent, Teacher, and Child Interviews, *Journal of Deaf Studies and Deaf Education*, 16(4)

³⁶ Wilson & Schild. (2014). Provision of Mental Health Care Services to Deaf Individuals Using Telehealth. *Professional Psychology: Research and Practice*, 45(5), 324-331; National Association of School Psychologists (2012). NASP Position statement: serving students who are Deaf or hard of hearing; National Deaf Children's Society (2013). Mental Health services for Deaf children

Recommended actions

Table 8: Deaf Education Professional Roles

Issues	Implications	Recommendations	Outcomes	Prioritisation When to implement	Change Enabler	Linkages to other work streams
NZSL@School has raised the capacity of the DEC's and schools to deliver sign bilingual/bicultural learning environments but there is limited capability amongst Teacher's Aides, Resource Teachers of the Deaf and NZSL Tutors regarding NZSL/sign bilingual teaching knowledge/skills and it is difficult to raise the level of NZSL skills of people working with these students.	The type of roles, and the limited NZSL/sign bilingual teaching knowledge/skills, impact negatively on the ability of the DEC's to raise Deaf student achievement.	<p>a) DEC's and the Ministry work together to determine and implement the roles required to lift achievement of Deaf students on NZSL@School.</p> <p>b) The DEC's develop NZSL/sign bilingual pedagogy resources/training required to lift the skills of staff who work with students who use NZSL.</p> <p>c) DEC's deliver training and resources required to lift current skills of DEC and schools' workforce who work with Deaf students who use NZSL.</p> <p>d) The Ministry review their</p>	Professionals responsible for working with Deaf students have the NZSL/sign bilingual teaching knowledge/skills required to raise Deaf student achievement to that equal of their hearing peers.	2016 and ongoing.	DEC's and Ministry.	<p>NZSL Curriculum.</p> <p>Bilingual pedagogy.</p> <p>Deaf students learning together.</p> <p>Student Achievement data</p>
The Ministry staff working with	Limited sign bilingual teaching		Professionals responsible for	2016 ongoing	The Ministry	NZSL Curriculum.

preschool Deaf students who are using NZSL may not have necessary sign bilingual skills/knowledge.	knowledge/skills impacts negatively on ensuring Deaf students start school with age appropriate NZSL and second language skills.	workforce's capacity and capability regarding sign bilingual pedagogical skills/knowledge.	working with pre-school Deaf children have the NZSL/sign bilingual teaching knowledge/skills required to raise Deaf student achievement to that equal of their hearing peers.			Bilingual pedagogy. National Student Assessment Framework.
--	--	--	---	--	--	--

9. Special Education Service provision for all Deaf students who use NZSL: Effective coordinated national/local policy/processes

There are some special education policy/process issues that require further work/investigation and these are outlined below:

a) The Funding Interface between NZSL@School and the Ongoing Resourcing Scheme (ORS)

How are we doing?

- NZSL@School is required to work with the ORS to provide the level of services that meet the needs of Deaf students for whom NZSL is their primary language.
- The majority of students on NZSL@School are also on ORS and schools are therefore able to combine the funds together to provide, for example, 25 hours of TA resourcing per week per student (ORS provides an average of 15 hours of TA funding per week per pupil and NZSL@School provides an average of an additional nine hours of TA funding per week per pupil.)
- Administrative challenges are posed by having two different funding streams (ORS and NZSL@School), managed by two different organisations (the DEC and the Ministry) being provided to schools to employ TAs for students. A great deal of administration time is being taken up by the DEC to try and determine what funding a student is receiving from ORS and “topping up” exactly the additional TA funding required by each student.
- The separate funding also results in school principals receiving two different letters from two different organisations to regarding providing services to one student. Each organisation also has different administrative processes for the funding. This is an example of the administrative tension created by the good intention of NZSL@School “topping up” the ORS funding of each NZSL@School student. (NB: There is not enough funding within NZSL@School to fund the students outright without using their ORS funding entitlement as well, and the system is not designed for this to occur.)

What is needed now?

- It is recommended that further work between the Ministry and the DEC occurs to determine if ORS TA funding for NZSL@School students should be transfer to the DEC.

b) Deaf Students with additional disabilities

How are we doing?

- There appears to be an issue for students who are Deaf that are using NZSL and have other learning and communication disabilities (or a special education professional has determined they should be using NZSL). There appears to be a view, held by some Deaf/special education professionals, that a student who has, for example Downs Syndrome or Cerebral Palsy, and is Deaf, is verified by “the additional disability as opposed to their hearing loss” so is therefore not able to access DEC RTD services or NZSL@School.
- It is unclear why some Deaf/special education professionals hold the view that students with additional disabilities are not able to access DEC services, if this is in fact occurring, and, if so, what the size of the issue is – i.e. how many students are in this situation. The reality is that with the advent of NZSL@School, some people working with these students are not accessing DEC RTD services, and some see NZSL@School as an opportunity to access some form of Deaf education services where previously they appear to have been unable to access any. The challenge with only being able to access NZSL@School is that the students will only be provided with access to learning NZSL (i.e. access to a NZSL Tutor). As stated throughout this report, sign bilingual teaching practices need to be understood and used with students to ensure student achievement.
- Another issue that was often raised with the NZSL@School project team was the apparent lack of specialist teaching knowledge regarding Deaf students with additional disabilities who use NZSL (or potentially could/should be using NZSL). This is regardless of whether the students are enrolled with a DEC or not. Deaf/special education professionals want to understand how to work with Deaf students who have autism, Downs Syndrome, Cerebral Palsy etc. The professionals recognise the need for, and

want to access, information about sign bilingual pedagogy for these students and they require “tailored” sign bilingual teaching strategies to meet the individual student needs.

- As it has been identified that we do not have a sign bilingual pedagogy in New Zealand, it is reasonable to assume that Deaf/special education professionals are currently challenged to understand how to effectively teach Deaf students who use NZSL and have additional disabilities.

What is needed now?

- It is recommended that the issue of Deaf students with additional disabilities is investigated Ministry in partnership with the DEC to determine if there are service access issues, the size of the issue, and the provision of effective specialist language teaching and learning support for these students.

c) Services for NZSL@School students not on DEC RTD caseload

How are we doing?

- For the majority of schools that have students on NZSL@School, the DEC has their .1 or .2 specialist teacher time and, as a result, provides RTD time to the Deaf students in those schools, as well as NZSL Tutors and Deaf education specialists. The Ministry holds the responsibility for providing all the specialist services for these schools e.g. speech language therapy, educational psychologist etc.
- There are some schools where the .1 or .2 specialist teacher position is held by the schools and, as a result, the schools are required to provide the specialist Deaf education the students require. The Ministry again holds the responsibility of providing all specialist services to the schools. In these circumstances the NZSL Tutor is the only DEC professional working with that school.
- It is difficult to see how the provision of NZSL tutoring alone could lift the student achievement of Deaf students who use NZSL in schools that are not accessing specialist service advice, especially regarding bilingual/bicultural teaching practices.

What is needed now?

- It is recommended that the Ministry undertake policy work to understand if this is an actual issue, and that this work is undertaken in conjunction with the work on Deaf students with additional disabilities.
- Is it recommended that work is undertaken in 2016 to determine if the DEC can/should hold the ORS and NZSL@School TA funding for NZSL@School students to streamline and reduce the administration for all parties. However, there will still be some schools who are ORS fund holder schools or simply do not wish to transfer themselves to the DEC. In these circumstances, those schools will need to be encouraged by the Ministry to purchase the sign bilingual support the students require and not just access NZSL tuition from the DEC.

d) Students not ORS verified

- There are three students who are Deaf and are accessing NZSL@School but who are not ORS verified. This entitles them to a NZSL Tutor and additional TA time. The challenge with these students is that access to NZSL Tutor and TA time is not the full Deaf specialist services package they may require. The students also require full access to their TA hours entitlement but there is no ORS funding available for this. This has the potential to put pressure on the NZSL@School funding which is able to fund currently an average of 11 hours of TA time per week at a maximum of \$23.95 an hour. Non-verified students' access to NZSL@School will need ongoing monitoring by the DEC and work with the Ministry if there is an increase in the number of non-verified students.

e) Access to NZSL@School for Deaf students who have the option of enrolling at a DEC

How are we doing?

- Some parents in Auckland and Christchurch appear to want to enrol their children in their local schools when enrolment at a DEC is an option. There is not enough data to understand what is occurring in these circumstances.
- The challenge is that the NZSL@School resourcing required by Deaf students in rural areas where there are very low student numbers is high, particularly for those under 13 years, and they have no other schooling option³⁷.

³⁷ Students over the age of 13 years may have the option of becoming a residential student at either of the DEC.

- Allocating limited NZSL@School resources to students in areas such as Auckland and Christchurch where the DEC are an enrolment option has the potential to dilute the NZSL@School resources to students who rural areas of New Zealand who have no other enrolment options.

What is needed now?

- It is recommended that DEC managers understand if, and why, there may be a desire by parents to not enrol their children at the DEC.
- More work is required by the DEC to understand and determine if and what type of response is required as there are now several parents indicating that they do not wish to enrol their child at a DEC and want to access NZSL@School.
- It is recommended that the Ministry and the DEC undertake further policy work regarding access to NZSL@School.

f) Children transitioning to school from First Signs

- First Signs for pre-school Deaf children support these children to learn NZSL as a L1 or L2/L3. Parents of these Deaf children who are learning NZSL as a second language may wish to continue accessing NZSL when their child transitions to school so that their child retains NZSL as a second language. The challenge at present is that NZSL@School is just "keeping up" with the resources/funding required to provide services to Deaf students for whom NZSL is their first language.
- It is recommended that further policy work to be undertaken by the Ministry to understand the impact of First Signs and the provision of services to Deaf children with NZSL as a second language, to support these students achieve as Deaf persons.

g) Access to Educational psychologists who are fluent in NZSL and understand NZSL

- The issues of Deaf students access to educational psychologists regardless of who was responsible for providing the service (i.e. Ministry or the DEC) was not raised as an issue to the NZSL@School project team by parents, schools etc. However, one of the NZSL@School team members is a qualified educational psychologist and fluent in NZSL. This person raised concerns about professionals' lack of understanding of a Deaf child's communication and/or culture, and the resulting mixed messages or inaccurate understandings being formed by the hearing professionals about the Deaf student/s learning, behaviour and wellbeing.
- As noted in the previous section, Deaf students are at risk of social/emotional issues due to a range of factors such as social isolation despite being "part" of a group of people³⁸. Refer also to section 8 "Deaf Education Professional Roles".
- It is strongly recommended that the DEC and the Ministry work in partnership to review the level of access and quality of educational psychologist services being provided to Deaf students on NZSL@School i.e. staff who are able to sign fluently and understand Deaf culture in order to provide effective educational psychologist services to Deaf students, their teachers, RTD, and their parents/whānau.

See Table 9 for a summary of recommended actions for the Special Education Service provision for all Deaf students who use NZSL: Effective coordinated national/local policy/processes.

³⁸ Punch, R & Hyde, M. (2011). Social Participation of Children and Adolescents with Cochlear Implants: A Qualitative Analysis of Parent, Teacher, and Child Interviews, *Journal of Deaf Studies and Deaf Education*, 16(4); Gascon-Ramos, M. (2008). Wellbeing in Deaf children: a framework of understanding, *Educational & Child Psychology*, 25(2), 57-71, p.43.

Recommended actions

Table 9: Special Education Service provision for all Deaf students who use NZSL: Effective coordinated national/local policy/processes

Issues	Implications	Recommendations	Outcomes	Prioritisation When to implement	Change Enabler	Linkages to other work streams
NZSL@School and ORS funding is provided separately to schools by two different funding sources i.e. DECs and Ministry of Education.	TA funding to NZSL@School students from two different funding sources is inefficient and creates additional transactional costs for schools and the DECs.	a) Further work between the Ministry and the DECs to determine if ORS TA funding for NZSL@School students should be transfer to the DECs.	Reduced transactional costs for schools and the DECs.	By 2017.	The DECs and Ministry.	
Schools where the DEC does not hold the .1 or .2 specialist teaching position for a Deaf student who uses NZSL.	While these students in these are now able to access NZSL@School, to raise Deaf students achievement they need specialist bilingual teaching as well as NZSL tuition and increased TA hours. As a result, these schools need to purchase or provide specialist skills regarding bilingual teaching pedagogy. Failure to provide bilingual teaching pedagogy	b) Policy work to be undertaken by the Ministry on Deaf students that are in schools, using NZSL and not receiving an RTD service to understand i) the size of this population ii) the quality and quantity of services they are currently receiving to raise student achievement including specialist teaching knowledge.	Deaf students for whom NZSL is their first language regardless of whether the "non DEC" school they are enrolled in receives quality bilingual/bicultural education services which ensure student achievement.	Policy review 2016	The Ministry	Link with work on "Deaf students with other disabilities" and all other work regarding changes to service delivery.

	will not raise the students' achievement.					Student Achievement data
There appears to be an issue with Deaf students with other disabilities accessing a bilingual/bicultural education if they require it.	Deaf students with other disabilities appear not to be able to access the level and quantity of services they require to meet their learning needs.	c) Policy work to be undertaken by the Ministry on Deaf students that are in schools, using NZSL but not receiving an RTD service, to understand i) the size of this population ii) the quality and quantity of services they are currently receiving to raise student achievement iii) the level and type of skills currently available and the skills actually required to meet student learning needs.	Deaf students with disabilities for whom NZSL is their first language' regardless of the school they enrolled in receive quality education services which meet their individualised learning needs.	Review 2016.	The Ministry.	
There appears to be an issue regarding the lack of educationalists in New Zealand that have skills and knowledge to assist teachers to develop and provide effective programmes for Deaf students with other disabilities e.g. Deaf/autistic, Deaf/Downs Syndrome, Deaf/Cerebral Palsy etc.						
There is only one educational psychologist employed or contracted by the DECs who is fluent in NZSL and understands Deaf culture.	Failure to provide Educational Psychologist services/support to RTD, schools, parents etc. by an educational psychologist who is fluent in NZSL and	d) Ministry and DECs work in partnership to provide educational psychologist services from staff who are fluent in NZSL and who understand Deaf culture to	Students receive culturally appropriate and timely educational psychologist services which meets their needs regardless of the school they are enrolled in.	By Dec 2016	The DEC and Ministry of Education.	Deaf Education Professional Roles.

The Ministry is not providing educational psychologists (who are fluent in NZSL and understand Deaf culture) to Deaf students they are responsible for.	who understands Deaf culture, regardless of where they are supposed to receive specialist services from, puts Deaf students at risk of receiving an ineffective service.	provide effective services to Deaf children, regular teachers, RTD, parents/whānau.				
Parents with children who are on First Signs (pre-school) whose first language is not NZSL but rather is a spoken language, and who are transitioning to school may wish to continue accessing NZSL so that their child retains NZSL as a second language.	NZSL@School is struggling to fund the needs to Deaf students for whom NZSL is their first language and Deaf students who want to continue accessing NZSL as a second language may not be able to be provided with this service.	e) Further policy work to be undertaken by the Ministry to understand the impact of First Signs and the provision of services to Deaf children with NZSL as a second language, to support these students achieve as Deaf person.	Deaf children regardless of whether NZSL is their first or second language are able to access the appropriate services to become bilingual/bicultural.	2016	The Ministry	Deaf students learning together.

10. DEC systems ensure effective partnerships with schools

How are we doing?

- Schools and parents/whānau appreciate the services that the DEC provides to support the learning and communication of the Deaf students. It was recognised that a large number of people can be involved with a student who is on NZSL@School and that good communication systems between the DEC, schools and parents/whānau are required to ensure that things are working smoothly.
- A range of feedback was provided by schools and parents/whānau regarding things that they would like the DEC to provide or improve upon:

Schools would like:

- A starter pack (provided at end of year for following year) on how to set up the school environment and how to work with a student who uses sign language to help the school set up school wide bicultural/bilingual processes.
- NZSL Tutors working with new teachers in Term 4 of the year before student starts in class, where possible
- The DEC to revise the information the RTD provides to schools regarding who does what and how they would like to work with schools including:
 - role clarity – who is responsible for what between the school and the DEC, what is the responsibility of the different DEC staff, what/who is the process for escalating concerns
 - clarity about withdrawal of the student by the RTD and why (some) RTD need to withdraw the student – ongoing discussion between the RTD and the classroom teacher about a student's programme and, if the student is being withdrawn, what progress the student is making, connection with IP goals, and when the withdrawal will cease
- Once/twice a year, review meetings on how the systems are working between the DEC staff and school, separate from the IEP meetings, to keep communication channels open
- NZSL Tutors – where they are the only DEC person going into a school – schools would like these people to be supported by their manager and to use an interpreter, when required, to avoid communication issues
- Online PD for TA/classroom teachers
- Transfer of staffing (ToS) – when this occurs, the schools want an identified DEC liaison person responsible for co-ordinating service provision and co-ordination from the DEC
- Guidance/support re: the TA employment process to find a suitable person, professional development guidance, position description support
- The RTD to operate as the key link or facilitator as part of their role

Parents would like:

- To be asked if they want to connect with other parents and to be supported by the DEC to make these connections
- Information and support to Māori parents considering Kura so they have full information to make an informed choice

Parents/Schools would like:

- Good communication/information systems with the DEC, particularly regarding any changes to staffing
- Good systems for notifying schools/parents/whānau well in advance regarding DEC staff visits – date and reason for visit.
- Working with Māori whānau and Kura – Deaf education staff who are culturally responsive/intelligent and able to work effectively with Māori staff, students and parents/whānau.

What is needed now?

- It is recommended that the DEC Regional Managers annually review systems to ensure their staff are trained and supported to work and communicate with schools/parents/whānau in ways that maintain collaborative and effective partnerships.
- This work should be strongly linked to the DEC Te Rautaki Maatauranga Māori strategy especially with regards to the training of staff to work with Maori students, parents/ whānau and Maori medium schools, Kura etc in ways which are culturally intelligent and effective (which includes staff knowledge of Maori teaching pedagogy – world view, preferred learning styles and models of engagement). This is particularly critical for RTD working with students on NZSL@School as 47.3 percent of students are Māori.
- It is recommended that RTD, with leadership provided by their lead teachers and senior managers, meet at minimum once a year with each school/parents/whānau they are working with to review how well they are working together to support the implementation of each student's IEP. It is also recommended that this meeting is held separately from an IEP meeting (as the focus of an IEP meeting is the child rather than how the adults are working together), and that information from these meetings is communicated to lead teachers and onto DEC Regional Managers.
- It is recommended that where a Transfer of (Specialist .1/.2) Staffing (ToS) is in place from a DEC to a school is in place, or where a school has chosen not to transfer their .1 or .2 ORS specialist teacher position to the DEC, or where a NZSL Tutor may be the only DEC person working with a school, that the DEC appoint a key DEC liaison for these schools who acts as a service facilitator between the DEC and the school/parents/whānau and other specialist education providers.

See Table 10 for a summary of recommended actions for DEC systems ensure effective partnerships with schools.

Recommended actions

Table 10: DEC systems ensure effective partnerships with schools

Issue	Implications	Recommendations	Outcome	Prioritisation When to implement	Change Enabler	Linkages to other work streams
There is opportunity for communication/relationship issues to arise between DEC staff/schools/parents/whānau due to: NZSL@School being a new policy, the large number of people that can be involved with students on NZSL@School, the complexity of service needs required, the range of schools that RTDs are working in (Kura, Maori-medium, regular schools and the cultures of students, parents/whānau (i.e. 47.3% Maori and Deaf parents of deaf children etc)	Any breakdown in communication/relationships between DEC/school/parents/whānau and other Deaf education professionals can impact negatively upon achievement outcomes for students.	a) DEC Regional Managers establish processes to annually review training and systems which enable their staff to be trained and supported to work and communicate with schools/parents/whānau in ways that maintain collaborative and effective partnerships. This work should be linked to Te Rautaki Maatauranga Māori. b) RTD meet at minimum once a year with each school/parents/whānau they are working with to review how well they are working together	Effective relationships between DEC/school/parents/whānau are enabled, maintained and contribute to raising achievement outcomes for individual students.	High During 2016	DEC Regional Managers and DEC Maori Development Manager.	Student Achievement data

		<p>to support the implementation of each student's IEP.</p> <p>c) Where an RTD is not working in a school with a student on NZSL@School, the DEC should appoint a DEC liaison person for the school/parents.</p>				
--	--	--	--	--	--	--

11. Deaf Students and Communication Self-Advocacy Skills

How are we doing?

- Deaf educationalists, Oliva and Risser Lytle (*Turning the Tide*, 2014, Chapter 4) state that a key component in raising Deaf students achievement is teaching them to understand what quality communication services (e.g. interpreting, note taking) look like and teaching them skills that enable them to positively advocate for these services. Deaf students should be purposefully taught this skill from an early age and enabled, during their schools years, to discuss and provide constructive feedback on the communication services they are receiving to the person directly providing the service and the person responsible for coordinating the service. Students who understand their communication requirements and what a quality communication looks like (e.g. interpreting service) are able to directly influence the quality of their access to information and learning.
- In conjunction with teaching student's self advocacy skills, Oliva and Risser Lytle³⁹ (p. 204) recommend that the people responsible for providing communication services (such as interpreters or TAs) not be included in IEP meetings so that students are able to comment freely on the quality of service they are receiving and how the services may be improved. (NB: Interpreters/TAs should instead provide any written information required by the class teacher etc for before meetings such as IEP).
- The DEC's have developed Deaf study programmes for Deaf students to support an understanding of themselves as a Deaf person and an understanding of Deaf culture and community. The programmes do not include teaching students to understand their individual communication needs and self-advocacy skills to ensure they can access quality communication services (e.g. interpreting, note taking etc.).
- Feedback from parents, schools, and students all indicates that the increase of TA hours from NZSL@School provides greater opportunities for students to access learning and school activities through NZSL. The NZSL@School project team often noted that many of the TAs did not understand or have the skills to interpret for Deaf students (e.g. stand next to the speaker, communicate all that is being said, continue to sign even when the student is choosing to focus on another person, allow Deaf students to choose to look away rather than insist they watch, voice for the student when they wish to communicate etc.) and that ongoing 'interpreter' training for TAs is required.
- The project team also noted that the majority of the older students (Year 5 onwards) did not appear to either know, or were not able to advocate for, their communication needs. Those that were aware that they were not receiving effective communication services were resigned to or accepting of the poor access to spoken/written language or hearing people's failure to understand them. The closest some students came trying to access full information (e.g. when the TA was not able to fully interpret in NZSL what the teacher was saying) they would chose to watch the teacher talking in an attempt to obtain information rather than watch the TA signing.
- D Powell⁴⁰ stated that communication self-advocacy skills are also important for Deaf students who go on to tertiary education settings.

"Being able to self-identify support needs confidently and knowledgeably was a valuable skill, and often one that students had not been required to implement at secondary school. [Deaf and Hard of Hearing] students need assistance to develop these skills prior to entering higher education, and therefore, decisions should be made about whose role it is to ensure these students do not 'fall through the cracks'".

What is needed now?

- It is recommended that the DEC's jointly review the self-advocacy communication training they provide to Deaf students (programme content for 5–17yrs students), when and to teach these skills, whose role is it to teach them how (e.g. Deaf student immersion course etc), and processes which enable students to become their own advocates during their compulsory schooling years. Enabling students to become their own advocates will not only prepare them for their adult years but also enable them to become advocates for quality communication services, which will support them to access quality learning during their school years.

³⁹ Oliva, G & Risser Lytle, L., *Turning the Tide: Making Life Better for Deaf and Hard of Hearing School Children*, p. 204

⁴⁰ Powell, D., Uumm....at school things were a wee bit different, *Speaking Notes*, p.8., , ICED 2015, 6-9th July 2015 Athens Greece

- The addition of a self-advocacy component to the DEC Deaf studies programme would be of benefit to Deaf students enrolled at the DEC's as well as other NZSL@School students.

See Table 11 for a summary of recommended actions for Deaf Student and Communication Self-Advocacy Skills

Recommended action

Table 11: Deaf Student and Communication Self-Advocacy Skills

Issue	Implications	Recommendation	Outcome	Prioritisation When to implement	Change Enabler	Linkages to other work streams
Deaf students are not taught to understand and articulate their individual communication needs and to understand and advocate for quality communication (e.g. interpreting) services.	The failure to educate Deaf students to understand and advocate for quality communication services significantly limits their ability to access learning.	a) The DEC Deaf studies programmes i.e. content, how they are delivered, who should deliver this training etc should be revised to include enabling Deaf students to become effective communication self-advocates.	Deaf students are effective and positive advocates for quality communication services.	Medium Complete by Dec 2016 Strategic plan developed and implemented to support any identified changes required – Feb 2017	DEC management.	Deaf Education Professional roles. Student Achievement data

12. Technology

Introduction

- Educators worldwide are focusing on what 21st Century teaching and learning should look like. The 21st Century Learning Reference Group has established a vision where

*“Every young New Zealander is a confident, connected, lifelong learner equipped to live a full and active life, and contribute to a thriving and prosperous economy”.*⁴¹

- In New Zealand, as elsewhere, technology is a key element of modern systems design. The Ministry takes the position that we must lead with pedagogy, accelerate with technology, but recognise that *technology changes everything*.
- This is the case for education generally, but is even more important for distance education providers such as the DECs, and absolutely critical to enabling the small numbers of geographically dispersed students, who are unable to access social and cultural connections and who are the focus of NZSL@School, to achieve the vision above.

How are we doing?

- We have identified some instances of excellence in the use of technology by individual RTDs and students. For example, a student using “Book Creator” to sign a brief message about what they have learnt that day at school; this goes home to share that learning and this supports communication between the child and their parents/whānau.
- Some RTDs are also taking the initiative and are leading work around technology training and resource development amongst their peers at a regional level but these efforts appear to be sporadic and uncoordinated. For example, in one region a lead RTD has created video tutorials to support their team in how to use an iPad and has provided a list of suitable apps they can use with their students. On a national level KDEC has recently released an eLearning platform that is focused on professional learning for RTDs.
- On the whole, however, it is fair to say that the development and the use of technology is isolated and uncoordinated between VADEC and KDEC, and also siloed at both regional and individual levels.
- RTDs’ passion for Deaf education, commitment to excellence, and willingness to come to grips with technology will be a significant asset in successfully implementing the recommendations in this report.
- Although some progress in improving the use of technology has been made by the DECs, few of the opportunities that technology provides for improved student outcomes, rewarding teaching, and more efficient ways of working are unlikely to be realised on the current trajectory.
- Although this advice is provided in the context of the NZSL@School, it proposes a broader initiative to leverage the opportunities that technology provides to improve outcomes for all students enrolled with, and receiving a service from, the DECs as well as to improve the DECs overall organisational technology performance.

What is needed now?

- A strategic approach and strong work programme is needed to build necessary infrastructure, capacity, and capability. This will require investment.
- Based on the NZSL@School project team’s exploration of how technology is being used in other educational settings and other jurisdictions, and in consultation with others involved in identifying ways to leverage the vast potential of technology, we have identified four key components that need to be focussed on:
 - a) **Leadership, management, and dedicated capacity:** including strong signals from the Board and Principals about the importance of leveraging technology, commitment to support staff, and dedicated specialist capacity at a senior management level to drive necessary change.
 - b) **Infrastructure:** better connectivity for building virtual communities, sharing knowledge, know-how, and resources – including a single Information Technology (IT) platform for staff and students.

⁴¹ The 21st Century Learning Reference Group, May 2014, *Future - focused learning in connected communities*, p4.

- c) **Building capability:** staff feel well-supported to develop and maintain competencies in using a range of digital technologies in diverse and creative ways.
- d) **Distance Education:** successfully using technology to connect and educate Deaf students together through a virtual medium and ensuring students have access to staff with the right skills to support educational achievement.
- These components are inextricably linked and none will succeed without the other components being in place and being effectively developed. As a result they should be implemented together as a complementary package of initiatives. Tables 12a, b, c, and d outline in more detail how this might be achieved.

a) Leadership, management and dedicated capacity

How are we doing?

- Currently each DEC has one permanent staff member assigned to eLearning on a part-time basis. Both are extremely capable practitioners with interest and knowledge in technology and both are confident working within a digital environment. They have good ideas and are able to adapt IT resources to meet the needs of Deaf students. However, their jobs are not well positioned to drive systems level change as they have limited strategic influence. Moreover they have very limited time to devote to this challenging work, which severely constrains what they are able to achieve.
- Currently both DECs are working collegially not collaboratively, therefore each is working inefficiently, creating duplications and not maximising the dissemination of knowledge and know how. The DECs need to work together to construct national goals, leadership, and skills in this area to capitalise on the individual expertise to build a successful team with a diverse skill mix to ensure implementation is effectual.

What is needed now?

- We recommend the establishment of a dedicated team to implement the initiatives proposed in this report. An overview of how the team could operate is outlined in Figure 2 and discussed in further detail below.

Technology Development Manager (TD Manager)

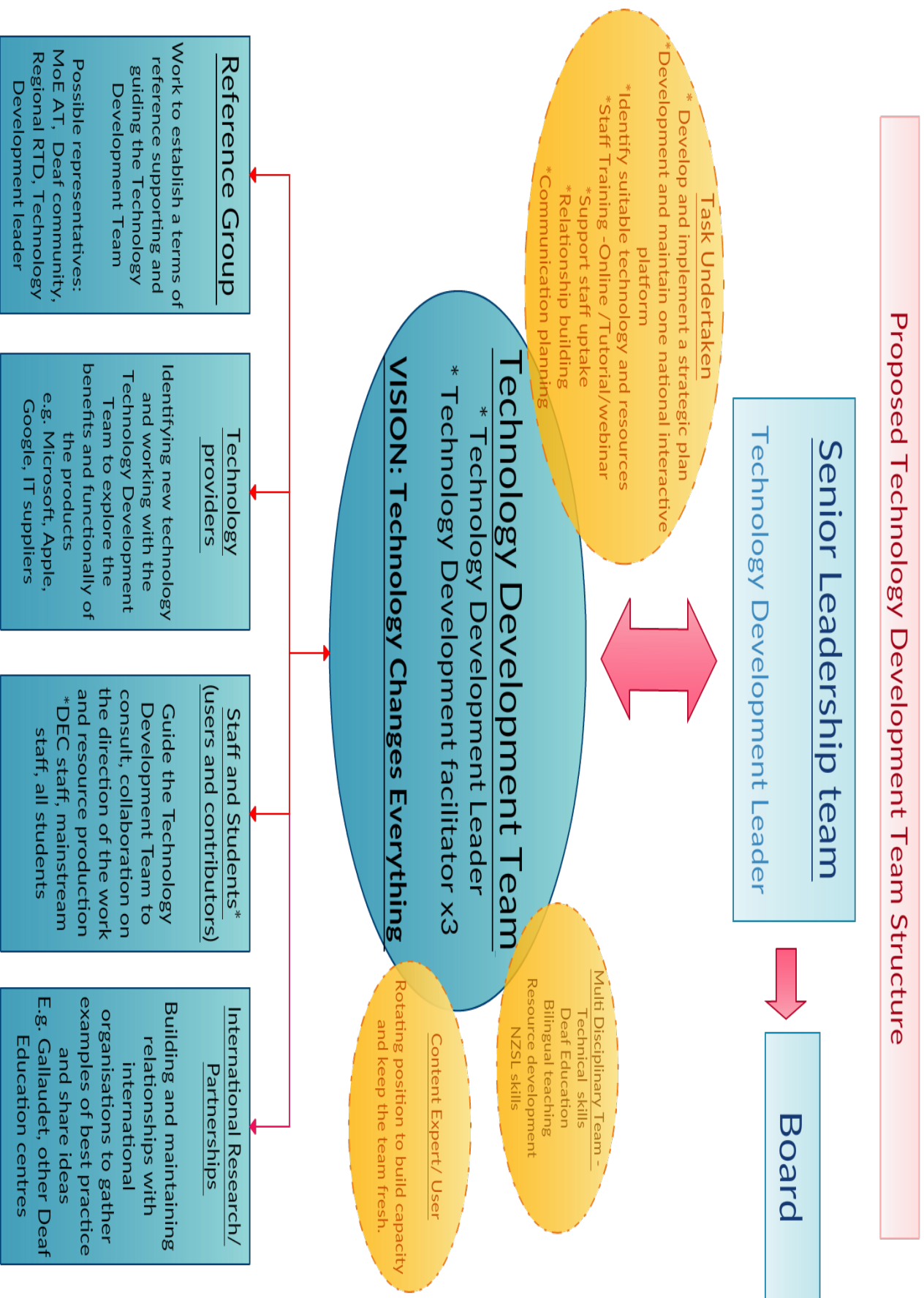
- We propose the appointment of a full-time dedicated business manager (i.e. Technology Development Manager) who would be part of the combined DECs Senior Leadership Team(s), working directly with the Principals and Board. A full-time position is required to drive the implementation of an agreed strategy and intensive work programme. The first task would be to work alongside the Principals and across the organisation to facilitate the development of a strategic vision and implementation plan for improving the DECs' use of digital technologies for Board sign-off.
- The TD Manager could be a fixed-term contract for one year, renewable for a second year subject to satisfactory performance, with review of the role to be undertaken before the 2 year period expires. The successful candidate would need to be an excellent communicator and relationship manager, with a good working knowledge of digital technology and its application in education, the ability to forge strategic alliances across a range of different sectors and organisations, and to facilitate a culture of continuous improvement and innovation by working respectfully and collaboratively with staff at all levels and with other interested parties. They would not need expertise in Deaf education as this would be provided through other members of the Technology Development Team and by working in close collaboration with the proposed reference group and DEC staff.

Technology Development Team (TD Team)

- The TD Manager would lead a small national multidisciplinary team with strong technical expertise. Composition of the team would need to be aligned with the strategy and work programme. Without wanting to pre-empt future decisions we consider that the team would need sufficient critical mass to achieve fast, full, and effective implementation.
- To capitalise on existing strengths and enable timely commencement it would be ideal for any existing IT experts to be appointed as key members of this team. The team will probably need to include a digital technology technician and communications expert to ensure the workforce is effectively informed and engaged, and using social marketing strategies to facilitate desired shifts in behaviour.

- Additional staff from the DEC's could be co-opted into the team for short periods of time (e.g. 6 to 12 months) to lend their specialist expertise and to provide them with the opportunity to extend their technology knowledge and experience. For example, a Deaf RTD could join the team to contribute their knowledge and expertise around bilingual pedagogy, supporting the team to create online tutorials or facilitate live web chats to share best practice, teaching strategies, and to create resources for RTD to adapt for use in their own practice.

Figure 2: Overview of IT team



Technology Development Reference Group (Reference Group)

- The role of the proposed Reference Group is to provide a sounding board / feedback mechanism for the TD Manager and Team to ensure that implementation of the work programme is carried out in a way that leverages all opportunities, and responds to the priorities and needs of students, staff, and the wider organisation. The TD Manager is responsible for establishing and maintaining this group. Representatives are likely to include:
 - Students and staff with a strong interest in digital technology – some already highly skilled and others with emerging skills
 - Leaders in use of digital technology for educational purposes (e.g. from OtagoNet and the Ministry (Assistive Technology (AT), Curriculum, Teaching and Learning) and Student Achievement))
 - One or two representatives from the regional Technology Champions Network (see below)
 - Successful Deaf adults with a strong interest in digital technology

Regional Digital Technology Champions Network (Champions Network)

- A Regional Champions Network could be established to build on local expertise and initiative, and to facilitate local engagement with the national TD Team. The TD Manager is responsible for establishing and maintaining this group. This would recognise and encourage local initiatives, facilitate coordination and collaboration, while ensuring that they drew on, and are aligned with, the national strategy and work programme, to ensure efficient use of resources, avoid duplication of effort, and maximise the dissemination of knowledge and know-how.

b) Infrastructure: Better connectivity for sharing knowledge, know-how, and resources

How are we doing?

- Both DEC's have static external and internal websites designed to appeal to a wide target audience (staff, whānau, students). The sites have an array of resources and are a great source of information for all, with a variety of purposes. However, as both are saturated with information (some of which is inaccessible) they can be difficult to navigate and it can be hard to determine what information is current and relevant. This, reduces the functionality and searchability of the sites, and means that both DEC's replicate work and content. With the sites being static there are no interactive areas for staff to connect, discuss, or share know-how. There is also only limited strategic communication directing staff back to the websites when new resources/ideas are added.
- KDEC have recently released the eLearning platform specifically designed to support RTD to understand and learn about modern learning practices. This is a key development in the progress of the DEC moving towards supporting staff through a virtual medium. VADEC staff now have access to the website so collaboration between the two eLearning teams has begun. The website is in its first phase and there are further plans to discuss the ongoing resourcing needed. Each centre also has their own YouTube channel and some presence on social media and blogs, but these avenues are currently largely under-developed. There are plans to discuss increasing social media visibility across the two DEC's, and the recent purchases of film studio equipment will further support this.

What is needed now?

- The DEC's need to use the opportunity offered by digital technology to development and create a national platform to identify and define the purpose of the website, and what outcomes they are trying to achieve. This should be done in consultation with the RTD and mainstream schools. The website should be dynamic and interactive. Staff should be encouraged to be engaged and confident in using the website and social media on a regular basis, building their own knowledge and networks independently. A strong communication plan, with a commitment to promoting social media use, are intended to actively sustain staff to habitually use online media to support their practice, giving them the confidence to be reflective practitioners and do their own independent PD online, seeking out new opportunities and current research.

National website

- A national website that is multifaceted and interactive is required. It should be developed using a firm understanding of systems architecture and user interface. It needs to be easy to navigate with good searchability. To encourage and sustain traffic through the website, its content needs to be regularly

moderated to guarantee it is constantly current, relevant, accessible, and useful. The website could host a range of information including tutorials, resources, help, and guides, including an area where staff can contribute, discuss, generate conversation, encourage, and give instant feedback.

Ongoing and effective use of communications to support engagement

- An IT communication plan needs to be developed and implemented that encourages staff and students to engage, and issues frequent reminders to sustain their engagement over time. Such a plan will help staff build their IT capability and confidence; identify the common issues they experience; identify who the resource people are in their local communities, nationally, and online; identify who they can go to for ideas, support, and advice; and what other resources and opportunities they can access. For students, for example it could support them to learn about, know, and understand how to use IT software that is being used by the Deaf community that can help support their communication with other Deaf people and hearing people.

Building virtual communities

- This can encourage staff to share their knowledge, ideas, and best practice. It will help to build networks and develop pockets of “go to” people who can support staff to become more independent learners. It can help engagement by keeping topics and discussions fresh. It will also assist with making connections nationally and internationally. Fully utilising social media will help with accessing up-to-date information, research tips and ideas, and enable following prevalence educators and service providers (e.g. GAFE on twitter).

Sharing Knowledge, Know-how, and Resources

- A dedicated area will enable staff to share ideas, trouble shoot, and discuss concerns or successes. They will also be able to access training and professional learning and development (PLD) resources to support their practice, avoiding duplication, and capitalising on expertise available nationally and internationally.

YouTube

- YouTube could be seen as a repository for any video resources made. The site is easily accessible and searchable for all staff and students. With both DEC's having TV channels this is a great avenue to exploit, where resources can be stored and replayed again at individual convenience. This is especially relevant, and hugely beneficial, for the NZSL@School cohort and the professionals working with these students to enable them to access visual resources and share their work.

c) Building capability

How are we doing?

- Both DEC's are making a concerted effort to up-skill their staff in the use of digital technology. Across the two centres there are currently three people fulfilling this role in a part-time capacity. KDEC eLearning facilitators have visited each region and delivered face-to-face training, support, and guidance to increase confidence and to successfully integrate technology into RTD practice. VADEC offers remote support to staff out in the regions to implement new ideas and connect Deaf students. However, the capacity to deliver regular training and sustain engagement is lacking.
- DEC staff recognise the need to build their capability to make better use of technology as a tool to support students' learning. In an NZSL@School Project staff survey:
 - On a scale where 1 is high and 5 is very low, 75 percent of DEC staff rate their confidence in using technology at 3 or 4, with one rating themselves at 5.
 - Eighty-four percent of respondents said they would like more training, such as how to use iPads, which is a fairly low level of technological skill.
- Staff also wanted more technical support when they encountered difficulties, and assistance with staying up-to-date in an area where technologies and related resources, and ways of using them, are evolving rapidly.

What is needed now?

- As described above, many staff members are starting from a low baseline level of competency and confidence in using digital technologies, much less incorporating them in their teaching pedagogy. A more intensive strategy is required to lift staff capability and to develop the skills and confidence

required to sustain the ongoing, often self-directed, learning needed to stay abreast of rapidly emerging opportunities to use new digital technologies (or older technologies in new ways) to improve teaching and learning.

- The scope of training also needs to be considerably widened, making sure that options available match the identified needs of staff. Opportunities to exploit digital technologies include online teaching and learning pedagogies and the use of social media (such as vlogging/blogging) to engage students and staff and to share knowledge and know-how with other practitioners across Deaf education, both nationally and internationally. The application of digital technologies for the current and future Deaf cohort will be particularly challenging for most, if not all, teachers, but will significantly enhance student outcomes and professional satisfaction.
- We have identified several key areas for potential development.

i. Face-to-face (F2F) training

- This is especially important in the short term to engage staff in building their capability for using digital technologies. It would be a key role for some of the members of the national TD Team, and led locally by the Champions Network. A training plan should be developed that is aligned with the national Digital Technologies Implementation Plan. Increased capacity is needed to expand national training coverage. However, F2F is a costly strategy in the long-term, and should be progressively substituted with increased amounts of online learning. F2F training will always be needed however, especially for complex tasks. Extended immersion courses for DT champions might be an effective strategy for targeting national training using a “train the trainers” approach.

ii. Better Professional Learning and Development resources

- This includes identifying relevant high quality, off-the-shelf resources, making these readily available, and developing bespoke resources where required.

iii. Online learning opportunities

- This includes facilitated (remote F2F), peer-to-peer (online peer tutorials), and independent self-directed learning (e.g. viewing webinars, completing guided tasks, reading research). The interactive platform discussed above will provide an easy-to-use platform to support online learning. The TD Team could develop online tutorials/guides/blogs covering a range of topics, including:
 - How to use technology
 - How apps/software etc. can be used in the classroom
 - How to support students to use technology effectively and creatively
 - When and how to apply for assistive technology – tips for success
 - How others have responded to common challenges
 - How to continue building knowledge and expertise through self-directed independent learning
 - Stories and contacts about exciting applications of technology in education, both in New Zealand and overseas
 - What to do if they have a great idea for using technology that they want support to develop or to share with others.
- The development of online opportunities for DEC staff should also be extended to students, mainstream teachers, and parents/whānau.

iv. Ongoing and effective use of communications to support engagement

- As above in the Infrastructure: Better connectivity for sharing knowledge, know-how and resources section.

d) Distance Education

How are we doing?

- Keep In Touch (KIT) days have been the long standing approach to bring mainstream Deaf students together on a monthly basis. These are a great way for Deaf students to meet with other Deaf peers, making connections and building relationships, supporting social–emotional and identity development.

However, these are not taking place frequently enough and many students in the NZSL@School project would benefit from having access to other sign language using peers and positive Deaf role models, which are not always available at a regional level. Both centres are exploring different ways to connect students. VADEC has established a small virtual network that connects four students virtually through Zoom. KDEC have the day school in the Waikato. Both DEC's have a focus of encouraging learning and socialising between students in NZSL.

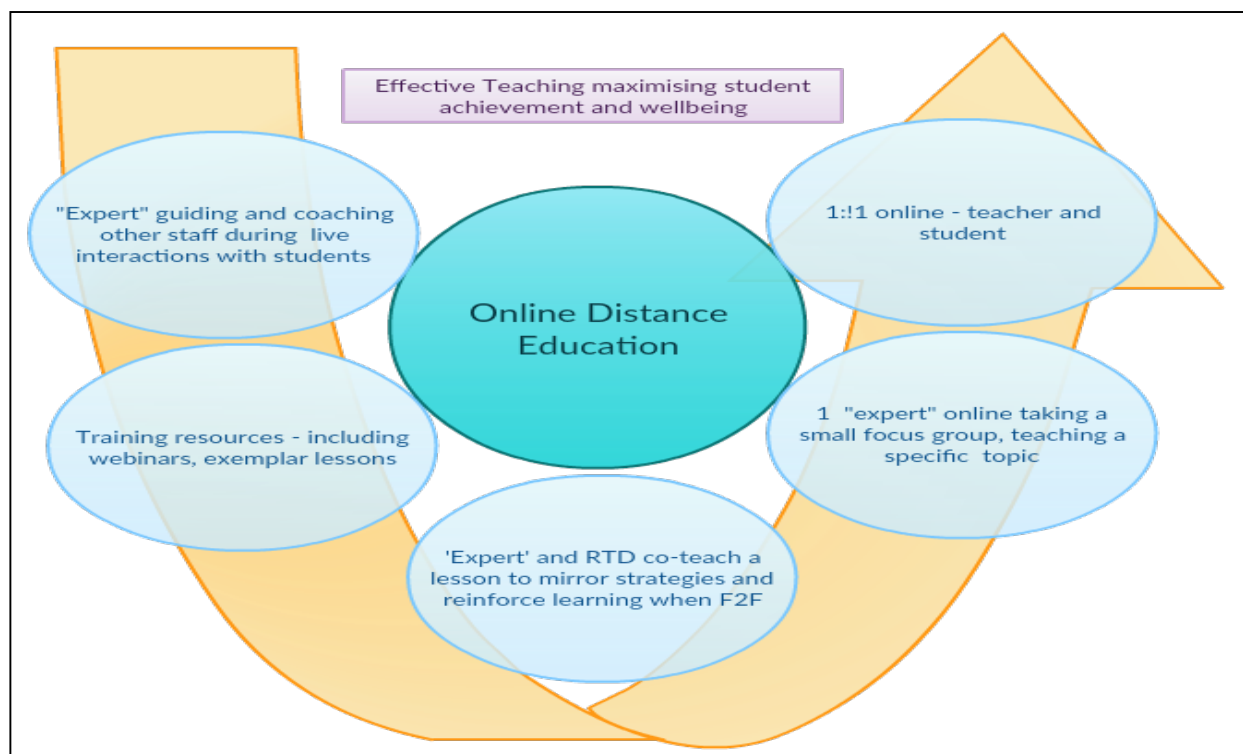
- Currently the kind of service a student receives, and the number of Deaf peers they meet, are determined by what is available geographically rather than their needs, RTD have a range of students with different needs and they can't be expected to effectively meet all the needs of all the students. The DEC's need to optimise and exploit the expertise they already have by effectively using individuals' knowledge and skill sets, allowing maximum impact learning and achievement. This may be best achieved through fully utilising the opportunities offered by digital technology including sharing teaching and ideas.

What is needed now?

- The DEC's need to research and scope reputable distance education providers that they can potentially learn from and adapt their approaches, looking at how this can "improve student outcomes through curriculum access and enhancement, student engagement and peer interactions and connecting learning for geographically isolated students⁴²". There are significant benefits of implementing a national distance education programme, which could include:
 - Optimising and taking full advantage of the staff capacity and capability, already available, through technology, increasing student achievement by matching staff skills to student's needs e.g. small groups of NZSL using student can be taught virtually by professionals that are capable NZSL users and understand bilingual pedagogy.
 - Deaf students are connected and educated together, building positive networks to support wellbeing.
 - Distance professional development for staff – skills, support, and feedback.
- Distance education options will be integrated and supplemented within the matrix already provided by the DEC's, combining face-to-face, immersion courses, camps, and an online, flexible approach to education, becoming more of a blended approach. Programmes could focus on particular areas of support needed and could be delivered by professionals with the skills needed to successfully facilitate directed learning. This could, in essence, develop a group of specialist teachers to support both RTD and students out in the regions.
- As explained previously all four IT components are inextricably linked. This component aligns with the training component. Figure 3 shows potential ways distance education could be delivered/integrated into Deaf education. This is not an exclusive list and would require the Technology Development Team to scope and research further applications.

⁴² NSW Country Areas Program Page 3 Booklet.

Figure 3: Potential ways distance learning could be integrated into Deaf education



Research and scope existing models:

- The TD Manager and TD Team need to explore models that have already been established and work to develop the purpose of any new system and how this could be successfully implemented in Deaf education. They need to discover examples of best practice from the models and learn from these, identifying potential pitfalls and cost implications associated with setting up the infrastructure. The Ministry have already conducted research into this area and would be a good avenue to investigate, encouraging them to share their findings. An initial environment scan has highlighted OtagoNet, [Royal Institute for Deaf and Blind Children](#) (RIDBC), and NSW Country Areas Programme as possible connections for further investigation.

Research and scope potential user platforms:

- There are many different modes for the delivery for distance education, all of which have pros and cons. These would all need to be robustly analysed, looking at the functionality they offer, and how these would best suit our students' learning needs e.g. video capability, high definition for easy differentiation of hand shape for signing. A suite of prospective modes could be available for staff and students to use depending on purpose of use, mixing these to best meet the purpose/focus of the intended meeting. For example, Adobe Connect acts as a smart board but with the extra functionality of video and recording options. Participants have access to the full recorded lesson to go back to and reinforce their learning. Other options are Google Hangouts where students can work collaboratively on a shared document, Video conferencing or video calling applications for more social calls e.g. Skype/Zoom.

e) Deaf students access to technology

What is working well?

- The NZSL@School project team identified through the RTD IT survey and the project work in general during the year⁴³, that many RTD are unaware that a student's Assistive Technology (AT) (Information technology (IT) i.e. computer hardware/software) can be funded through the Ministry of Education. As a result many students do not have access to IT to support their learning and communication. A national

⁴³ During 2015, it was identified that the majority of the NZSL@School students either had no IT equipment, inappropriate or ineffectively used equipment.

team (Kerry Wood (VADEC) and Daniel Greenwood (KDEC)) has initiated a work programme with the NZSL@School project team to address to this issue. This team now has a firm understanding of the Ministry's of Education's AT application process for IT, what a successful application looks like, what support RTD require to identify and initiate an IT application and have begun to develop resources to support RTD to go through the process.

- The work completed to date also includes the team attending the Ministry's AT regional moderation meetings and building relationships with the Ministry's AT team. This is the first time that such a relationship between the DEC and the Ministry's AT has been established re: IT⁴⁴.
- The development of a relationship between the DEC and the Ministry's AT team is of significant benefit to the DEC. It is also hugely beneficial to the Ministry's AT team as it has the potential to assist them to understand the IT AT needs of Deaf students as the Ministry does not have Deaf education expertise and the ability to capture the wide range of Deaf education IT learning/communication innovation that is occurring. Understanding the size of the total Deaf student population i.e. not just the NZSL@School population, has also enabled the Ministry of Education to undertake some initial AT budget forecasting for Deaf students.

What is needed next?

- The AT IT knowledge and work undertaken to date by the team needs to be maintained and integrated into the development of the recommended national strategic plan. An ongoing communication plan also needs to be developed so RTD are fully informed of the AT process, how they can apply and where they can find continued support to submit a successful application.
- A member of the TD team could take responsibility for this work, becoming a key contact for all Teachers of the Deaf (ToD) and supporting them to identify the right technology for students. There is the opportunity for this team member to continue to strengthen the existing relationship with the Ministry of Education (e.g. AT budget forecasting, IT developments etc) and network with other IT organisations and overseas Deaf organisations/schools to identify emerging technologies (hardware/software) that could be trialled, with the potential to improve access to learning and communication for Deaf students.
- It is recommended that an AT process⁴⁵ which has been developed by the NZSL@School project team, in consultation with the DEC IT team and the Ministry of Education's AT team is implemented. The process is designed to support the effective identification and trialling of IT equipment by all ToD (refer to Appendix 5 for a flowchart diagram of the process) and partnering with the Ministry of Education. RTD will also be required to effectively engage with the AT process. A training programme needs to be developed, how this would be delivered (online tutorials, live chats etc) would be at the discretion of the TD manager.
- There are two other barriers to students having access to IT. The first is that RTDs are not clear that it is their role as a special educationalists to initiate and take a lead role in determining if a student requires IT. They should also take responsibility for an AT (IT) application in partnership with a school. DEC's need to inform their staff of their role in relation to AT (IT) applications and provide training to staff in this process. Failure to do this will continuously result in Deaf students having no access IT.
- The other barrier that the project team identified is that where students do have IT, RTDs and/or classroom teachers believe that student is unable/or should not take a device home. It is important that students are able to access IT 24/7 to support their communication and learning in the same that any other child has access to IT '24/7'. The Ministry of Education actively encourages and has policies in place to ensure that IT devices are able to be taken home and replaced/repared if anything occurs. RTDs should be informed of this by the DEC's and be responsible for actively encouraging schools to allow the students to take home their IT device.

⁴⁴ Previous to now, AT applications to the Ministry of Education for Deaf students has primarily focused on devices such as FM hearing devices.

⁴⁵ A version of this process has already been established and operating successfully between the Blind and Low Vision Education Network and the Ministry of Education.

- NB: This work would benefit all Deaf and hard-of hearing students throughout New Zealand including the NZSL@School students.

See Tables 12a, b, c, d and e for summaries of recommended actions for Technology.

Recommendations

Table 12a: Leadership, management and dedicated capacity

Issue	Implications	Recommendation	Outcome	Prioritisation H/M/L When to implement
Technology leadership/management and dedicated capacity is lacking a strategic focus, with each DEC working in isolation.	There is no capacity to leverage off technology to maximise the opportunity it provides to improve student achievement.	a) Appoint a Technology Development Manager to lead the establishment of a team to draft and implement a national strategic vision and plan for Digital Technology	The DECs will have technology systems, which allow students to learn and communicate using the right technology at the right time.	Very high priority For immediate implementation.

Recommendation

Table 12b: Infrastructure: Better connectivity for sharing knowledge, know-how and resources

Issue	Implications	Recommendation	Outcome	Prioritisation H/M/L When to implement
Recently established a single entry point (eLearning platform) that is only available for RTD, with minimum agreed strategic management, planning, monitoring, communications, structure and limited staffing capacity.	The potential opportunities a shared portal could provide are not being fully realised and therefore the sharing of skills and knowledge is continuing to be sporadic and uncoordinated	a) The Technology Development Manager to spearhead the development of a national interactive eLearning portal and communications plan.	People value and use the eLearning platform to support their teaching, interact, share ideas, and progress their own professional development.	Very high priority For immediate implementation.

Recommendation

Table 12c: Building capability

Issue	Implications	Recommendation	Outcome	Prioritisation H/M/L When to implement
Staff are not confident or capable at using technology to enhance students learning and communication.	Staff are currently not taking full advantage of the opportunities that technology can provide to improve student achievement.	a) Technology Development Manager to develop a national training plan (including training resources), as part of the Digital Technology Implementation Plan, which enables the training of staff that are geographically dispersed (e.g. webinars, online tutorials).	DECs will have a training programme which results in staff becoming confident, sophisticated technology users and committed self-directed learners.	Very high priority For immediate implementation.

Recommendations

Table 12d Distance Learning

Issue	Implications	Recommendation	Outcome	Prioritisation H/M/L When to implement
There is no system to support staff to use technology that is already available (Skype/hangouts) to connect students.	Staff are not able to recognise and leverage opportunities to use technology to connect students.	a) Technology Development Manager to develop a National Training Plan (including training resources) as part of the Digital Technology Implementation Plan	Staff are aware of technology available and are able to confidently connect students.	High Priority By Dec 2017
There is limited online infrastructure to support staff to connect students through age, common interest, learning needs, or role models	DECs are providing limited online opportunities for students to build peer networks an, resulting in many student's being isolated.	b) Technology Development Manager to assign the creation and coordination of a national network to connect students.	Student driven connections (if they choose to be) facilitating a strong support network.	High Priority By Dec 2017
Students have limited access to the specialised skills and knowledge of individual staff due to geographical constraints.	The provision of services is determined by the geographical location of staff and students, as opposed to the staff having the skill sets	c) Explore and plan the delivery of matching teacher skill set to student need through a distance model.	Greater flexibility of the work force, fully utilising the staff skill sets across the national network to meet learning needs, educating small	High Priority By Dec 2017

	that meet the students' needs.		groups together to maximise learning outcomes.	
--	--------------------------------	--	--	--

Recommendations

Table 12de Deaf Students Access to Technology

Issue	Implications	Recommendation	Outcome	Prioritisation Implementation completed
Teachers of the Deaf are either unaware or not confident about the Ministry of Education's Assistive Technology (computers) application and trialling process.	Deaf students are not being provided with IT hardware/software that supports their access to learning and communication.	a) Technology Development manager to implement a national process which supports all DEC staff to successfully apply for Assistive Technology for students they are responsible for.	Deaf students will have access to the right technology at the right time that supports their individual learning and communication needs.	Dec 2016

13. Inter-agency support to Deaf students who use NZSL and are involved with Child, Youth, and Family

How we are doing?

- Approximately 9 percent of students on NZSL@School have involvement with Child, Youth, and Family (CYF). The majority of caregivers stated that they would like information about the communication and learning needs of Deaf students as soon as the child or young person was placed with them so that they are able to understand as much as possible. They would also like the DEC, the Ministry, and CYF to work together from the beginning to ensure they are provided with co-ordinated support and information. The caregivers also wanted full information on the range and types of services available to them.

What is needed now?

- The Ministry and Child, Youth, and Family need to work together to improve information and co-ordination of services to caregivers of Deaf children/young people.
- See Table 13 for a summary of recommended actions for Inter-agency support of Deaf students

Recommended action

Table 13: Inter-agency support to Deaf students who use NZSL and are involved with Child, Youth and Family

Issue	Implications	Recommendation	Outcome	Prioritisation Implementation completed	Change Enabler	Linkages to other work streams
Caregivers with children/young people on NZSL@School reported that they needed fuller information and coordinated services from CYF and the Ministry to provide effective care for a child or young person whose first language is NZSL.	Failure to provide full information and effective co-ordinated support to caregivers from CYF and the Ministry can impact negatively on the placement of a child for whom NZSL is their first language.	a) Ministry and CYF work together to develop a standard information package for caregivers, information on support systems advice for CYF social workers and Ministry staff.	Deaf children/young people experience positive placements with their caregivers as they are supported to help them to communicate using NZSL, and remain connected and continuing to develop their identity as a Deaf person.	Medium priority Jan 2017.	Ministry Child Youth, and Family	N/A

Appendix 1: NZSL@School Data

- Fifty-five students are on the NZSL@School initiative during 2015. Thirty-four students are in the Kelston Deaf Education Centre (KDEC) region and 21 are in the van Asch Deaf Education Centre (VADEC) region. In the KDEC region, the areas with the highest number of Deaf students under NZSL@School are Auckland, Hamilton, and Rotorua. In the VADEC region Deaf students are widely spread with higher concentrations in Wellington and Dunedin.
- The students range in year levels from early childhood (two students) to Year 11, with a higher number of students around Year 3, Year 5, and Year 6.
- Fifty students are attending a mainstream school, two are attending Kura Kaupapa Māori, 1 student attends a special school, and two are in early childhood settings.
- 47.3 percent of students under NZSL@School identify as being Māori and 73 percent of these students are within the KDEC region. Forty percent of students identify as being New Zealand European (NZE), 5.5 percent as Asian, 5.5 percent as Pasifika, and 1.8 percent as Middle Eastern, Latin American, or African.
- Fifty-three of the students were verified under the Ongoing Resourcing Scheme (ORS), with 36 (72 percent) verified as having “very high” needs, 14 (28 percent) are verified as “high” needs, and three (5.7 percent) of the students are not verified.
- Twenty students (36 percent) are reported to have an additional disability that impacts on their learning and/or communication.
- Child, Youth, and Family services (CYF) have care and protection involvement for five (9 percent) students.
- According to the National Standards data, the majority of the students are achieving “well below” for Reading (69.6 percent) and Writing (69.6 percent). Only 5.3 percent of students are achieving “at level” or “above” for Reading. 7.1 percent of students are achieving or above the National Standards for Writing.
- The signing fluency of the people working with the Deaf students were reported on and indicate that the majority of the hearing professionals and support workers are functioning at a “beginner” or “intermediate” level of NZSL proficiency. A significant limitation of this data is the variability around how the information has been collected and assessed, as there is no current NZSL assessment tool.
 - 25.5 percent of Resource Teachers of the Deaf (RTD) are reported to have a “beginner” level of NZSL proficiency, with 45 percent reported to be signing at an “intermediate” level and 16 percent at a “fluent” level.
 - For TAs, who support the students for the majority of the school day, 56 percent are reported to be signing at a “beginner” level, 18 percent at an “intermediate” level and 21.8 percent at a “fluent” level.
 - For NZSL Tutors, 14.5 percent are signing at a “beginner” level, 18 percent at an “intermediate” level and 62 percent are signing at a “fluent” level. Three students are receiving support from a qualified NZSL interpreter. For further discussion of this issue refer to the “NZSL Learning and Assessment” section.
- On average, NZSL@School is providing an additional 9 hours every week of TA time.
- On average, for the students who are verified under the Ongoing Resourcing Scheme (ORS), they are receiving an average of 15 hours a week of TA time.
- For the majority of the students who are receiving funding support from ORS and NZSL@School, the average TA hours a student is receiving every week is 24 hours.
- The RTD are providing an average of four hours of teaching support every week per student. Five (9 percent) students are not currently receiving support from an RTD employed by a DEC, but through a Transfer of Staffing (ToS) to the school where the student is enrolled (for a discussion of ToS, refer to section 10 DEC systems ensure effective partnerships with schools).
- 50 students are receiving some form of support from a NZSL Tutor. 8 students are receiving support from an NZSL Tutor, but not receiving the additional NZSL@School TA hours. The NZSL Tutors spend

an average of 1 hour 15 minutes per week supporting the schools with their NZSL development. A large portion of this time is used to support the TA's NZSL development, as well as supporting the classroom teacher and hearing peers. An average of 50 minutes per week is spent supporting the Deaf student to learn NZSL, and an average of 22 minutes per week are spent supporting the family/whānau.

- See table 1 overleaf for NZSL@School data.

Table 1: NZSL@School Data

What	Number	%
Total number of NZSL@School students	55	
Year level/ethnicity/age and location NZE = New Zealand European MELAA = Middle Eastern, Latin American, American	KDEC – 34 VADEC – 21	Māori – 47.3% (KDEC 19, VADEC 7) NZE – 40% Asian – 5.5% Pacifica – 5.5% MELAA – 1.8%
Early Childhood students receiving NZSL@School service	2	3.6%
ORS verification	36 VH	72%
53 school aged students	14 high 3 not verified	28% 5.7%
Students in school not verified	4 (1 ECE)	7%
Type of School – mainstream (MS), special school (SS), Kura (K)	MS – 52 SS – 1 K – 2	94.5% 1.8% 3.5%
Ministry is the ORS fund holder		
Number of students with a disability that impacts upon learning and/or communication	18 students	32.7%
Cochlear Implant		
Involved with CYF		7%
National Standards Reading and Writing	<u>Reading:</u> Well Below: 39 Below: 9 At: 1 Above: 2 N/A: 4 <u>Writing:</u> Well Below: 39 Below: 8 At: 3 Above: 1 N/A: 4	69.6% 15.8% 1.8% 3.5% 7% 69.6% 14.5% 5.3% 1.8% 7%
Signing ability of RTD, NZSL Tutors, and Teacher Aides (TA)	RTD Beg: 14	25.5%

	<p>Inter: 25 Fluent: 9 Not recorded: 6 ?: 1</p> <p><u>NZSL Tutors</u> Beg: 8 Int: 10 Fluent: 34 N/A: 3</p> <p><u>TA</u> Beg: 31 Int: 10 Fluent: 12 N/A: 1 ?: 1</p>	<p>45% 16% 10.5% 1.8%</p> <p>14.5% 18% 62% 5.4%</p> <p>56% 18% 21.8% 1.8% 1.8%</p>
Average level of ORS TA hours	15 hours per week	
Average level and \$ of NZSL@School TA funding per student	9 hours per week \$152.55 per week	
Average total hours per pupil	24 hours a week	
RTD hours – average per pupil	4 hours per pupil	
How many students have a Transfer of Staffing (ToS) teacher	5	9%
Students only requiring NZSL tuition or not requiring TA NZSL	8	
NZSL tutoring - average hours tuition to school, whānau, student	School: 1 hr 15mins: Class teacher: 11 mins, H Peers: 22mins, TA: 41mins Whānau: 22mins Student: 50mins	
Students accessing interpreter and when interpreter is required	3 students	5%

Appendix 2: NZSL Tuition feedback

A) This section contains the feedback provided to the NZSL@School Project Team from schools/parents/whānau on their views on what is required by the DEC to improve the quality of NZSL tuition, to support educationalists working with Deaf students and parents/whānau to become fluent in NZSL.

Parents/Whānau/Schools

- A key issue raised by both schools and parents/whānau is that they feel one to two hours once a week or fortnight was not enough to lift their NZSL skills. The majority stated that they do not have the fluency to communicate with the Deaf students that had a higher level of NZSL than they have, or that they needed a higher level of fluency to be a language model to a Deaf student, to support their language development. Schools and parents want more access to NZSL to develop their NZSL fluency to the level they know is required to enable the full acquisition of NZSL by Deaf students.
- The DEC's should consider providing online NZSL tuition and resources in addition to face-to-face training.

Parents

- Some parents/whānau reported that they would like the DEC's to consider how they might access NZSL tuition outside of 9 to 5/Monday to Friday and provide a range of options from face-to-face to using video technology and online learning resources.
- Parents/whānau would like the DEC's to ask when and where they would like to access NZSL teaching so that the DEC's understand the parent/whānau needs, and provide the tutoring when/where the parents/whānau would best be able to access it.
- **NB:** A parent whose child transferred from NZSL@School to being enrolled at a DEC asked that their access to the NZSL tutor was maintained so that when their child come home on the weekend and during the holidays, they were able to continue to maintain communication with their child.

Schools

- Many schools reported that they would like a full understanding of the role of the NZSL Tutor, especially within the student's team, who NZSL Tutors are responsible to, and systems to support early identification and resolution of issues to ensure ongoing successful working relationships.
- They also want to know who they, and the parents, can talk to change any aspect of the service provided, or when there are any changes to NZSL tutoring that they do not agree with. They want to know who else to contact where a NZSL Tutor may be the only DEC staff member going into a school (see section #Service Design).
- Schools and parents both reported that they prefer a mixture of learning new vocal as well as signed phrases. They do not want a focus on learning sign vocabulary only.

B) This section contains the feedback provided to the NZSL@School Project Team by DEC staff on opportunities for the DEC's to improve the quality of NZSL tuition, to support educationalists working with Deaf students and parents/whānau to become fluent in NZSL.

DEC NZSL Management

- DEC Managers responsible for managing NZSL tuition report that it is difficult to employ people in rural areas who are fluent in NZSL and who are able to teach the wide range of people (hearing/Deaf children, teachers, parents/whānau) with highly individualised needs that change over time. In many circumstances the people employed are not fully fluent in NZSL, and/or they have not had training to teach NZSL, or no one has been available to be employed. This has resulted in irregular NZSL tuition services to some schools/parents or the employment of staff that are not fluent NZSL users.

RTD

- Some RTD stated the key challenges for them developing and retaining their NZSL skills were the low frequency of students using NZSL on their individual caseloads and/or their inability to access regular, ongoing NZSL tuition themselves. This impacted upon their ability to develop and retain NZSL skill.

- Some RTD have worked as groups or individuals to set up their personal NZSL tuition with the new tutors in the regions. The large numbers of people who wish to access the NZSL tuition services challenges the tutors to provide adequate service.
- The DEC's have expectations that RTD develop/maintain their NZSL skills, particularly those with students using NZSL on their caseload. However, if the DEC's want RTD to be capable and confident NZSL users, it is suggested that the DEC managers responsible for RTDs and NZSL Tutors annually review RTD NZSL learning needs and prioritise the provision of NZSL tuition to RTDs, schools, parents/whānau etc within the available NZSL tuition funding.

NZSL Tutors

- As DEC employees, NZSL Tutors identified several operational issues that they feel are preventing them from providing quality service. Some of these issues overlap with issues identified by schools. The NZSL Tutors have identified a range of opportunities for change which they believe need to be considered to provide quality NZSL tutoring to lift the NZSL ability of parents, school staff, and students. These include:

a) Management/Leadership

- review of DEC NZSL Tutor leadership/management to ensure that effective systems are in place to manage NZSL tutoring services including consideration of appointing a manager to oversee NZSL tutoring to the regions
- DEC management to revisit and clarify the role of the NZSL Tutor role especially with regards to whose role is it to assess/develop NZSL individualised programmes and teach NZSL to Deaf students
- determining the roles in a team – RTD, TA, classroom teacher – and how NZSL Tutors work with these other team members, especially with regards to whose responsibility is to determine the NZSL programme for Deaf students
- management support/guidance re caseload sizes given that one Deaf student has the potential generate anywhere between 3 and 60+ people learning NZSL. With resource preparation and planning in addition to actual teaching, this work load puts NZSL Tutors under pressure. It also precludes them teaching the RTD who are supposed to be working with these students because of time and resource constraints
- management planning and provision of NZSL tutoring to DEC staff – whose role is it to teach those RTD with students on NZSL@School, some of whom want to learn NZSL, but some others don't. Support for NZSL Tutors when issues arise regarding some RTD negative attitude to NZSL or learning NZSL
- factoring in time to work with teacher/parents/whānau to identify sign vocabulary for school topics etc so that what people need to learn can be delivered to them
- access to interpreters for: some planning meetings, particularly first meetings with hearing staff/families or where issues have arisen with the schools etc to avoid communication barriers and facilitate working as a team to identify and plan for professional development training needs (e.g. child language development, teaching strategies with adults, children etc) and to receive training, as a team, which meets tutors needs etc. NB: Schools also raised this an issue. They would like to be able to negotiate with a tutor when they would like an interpreter to be available
- develop systems to easily record information on clients, about what has been taught, so records can be maintained, which supports tracking people's learning and supports any transference of clients to new tutors
- improved communication systems with schools so tutors can identify quickly what schools need to learn and provide what they require when they require it. This includes systems to support identifying and tutoring new teachers in the term before they start working with the Deaf student
- development of a feedback process so that tutors know that they are meeting people's needs e.g. people have said they don't just want focus on vocabulary, they want to know how to construct sentences.
- planning with RTDs/AoDCs in regions to provide regional workshops to parents and school staff
- home visits – need to have further discussions and planning policy/processes with management on this (NB: For the NZSL Tutors, one Deaf student has the potential to generate anywhere between 3

learners to a whole school as well as whānau per week per student. The tutors reported that the number of people and the travel required across regions can put them under pressure to meet the large numbers and the wide variety of learning needs)

- NZSL Tutor involvement on work on student and adult assessment so that they understand what is required and so their role in this work can be discussed and determine
- Deaf studies – review what should be taught to students vs. adults, identify the resources required, and determine the professional development needs of tutors to deliver this
- DEC management support to a tutor when they are the only DEC professional working in a school i.e. when the school or the Ministry holds the students ORS funding or the DEC has transferred staffing to a school.

b) NZSL Resources

- access to both DEC's NZSL resources
- moving away from developing resources by hand as soon as possible, moving as soon as possible to using online software that enables tutors to produce and provide resources quickly to the range people they work with
- a process to work with DEC technology staff to understand what software the tutors can use and/or get people to develop software to meet their NZSL resource production needs
- Māori sign resources are urgently needed and connection/guidance from Māori and Deaf community for Māori vocabulary that is not in the NZSL dictionary
- input into NZSL resource development by the people who will be using them so that the resources developed meet the learning needs of the people the users are working with (many resources are being developed by hand and resources currently available or being developed do not always meet their needs)
- being able to develop and share a national online “bank” of NZSL teaching resources across both DEC's, access to technology to support distance learning and groups of people learning together (e.g. schools/parents having access to large screens and software that supports online face-to-face tuition so that less time is spent travelling. (NB this is linked with DEC technology strategic planning).

c) Professional Development

- ongoing professional development for tutors and combined across both schools
- Victoria University Deaf Studies, this is seen as critical for staff to understand NZSL linguistics
- technology training for distance tutoring and the development of NZSL resources
- child development and bilingual pedagogy
- teaching skills to meet the wide range and number of student and adult learning needs

Appendix 3: National Student Assessment Framework

This section outlines the benefits and disadvantages of implementing a National Student Assessment Framework.

Benefits

- parents and schools get information on the same assessments regardless of which professional they are working with and when. This could potentially increase their confidence, understanding, and most importantly, use of the assessment information.
- Ministry and Ministry of Health, at a national level, would have data reported to them based upon the same assessments regardless of the profession/organisation, which would increase their confidence and the power/usefulness of the data they, and everyone else, are reviewing to inform policy decisions
- ensures that all assessments used are standardised, evidenced based assessment tools, which again adds to the confidence of all
- enables Deaf education professionals to fully understand how to administer and read an assessment based on an agreed set of tests rather than trying to use or understand a whole range of different assessments
- consistent use of the same tools across professionals improves the reliability of the assessments
- maximises all Deaf education providers' resources by having a set pool of tools that could also result in shared training of staff and improved economy from joint purchasing of assessment tools
- supports effective student transitions from one organisation, learning environment or Deaf education profession to another with the provision of assessment material that all professions are familiar and confident with the consequence that they are more likely to use the assessment data

Disadvantages

- short term cost for any organisations that have to purchase the assessments and train staff in the use of new assessments
- each organisation may be required to update their computer systems to record and collate any new assessment data.

Appendix 4: The State of Queensland, Department of Education, Training and Employment, Auslan Assessment Framework⁴⁶

Table 2: Sign Language Assessments

Early Phase	Middle Phase	Secondary Phases
BSL Vocabulary Test	BSL Vocabulary Test	BSL Vocabulary Test
Pilot Auslan Receptive Skills Test	Pilot Auslan Receptive Skills Test	SA Auslan Mapping Checklist
BSL Production Test	BSL Production Test	
SA Auslan Mapping Checklist	SA Auslan Mapping Checklist	
BSL MacArthur Inventory		
UK Monitoring Protocols		

Table 3: The State of Queensland Sign Language Assessment Schedule*

	Age of Testing																
TEST	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Mac Inventory: BSL																	
UK Monitoring Protocols																	
SA Mapping Checklist													*				*
PARST/BSLRST				*	*		*		*		*		*				
BSL Production Test				*		*		*		*							

*© The State of Queensland (Department of Education, Training and Employment) 2012.

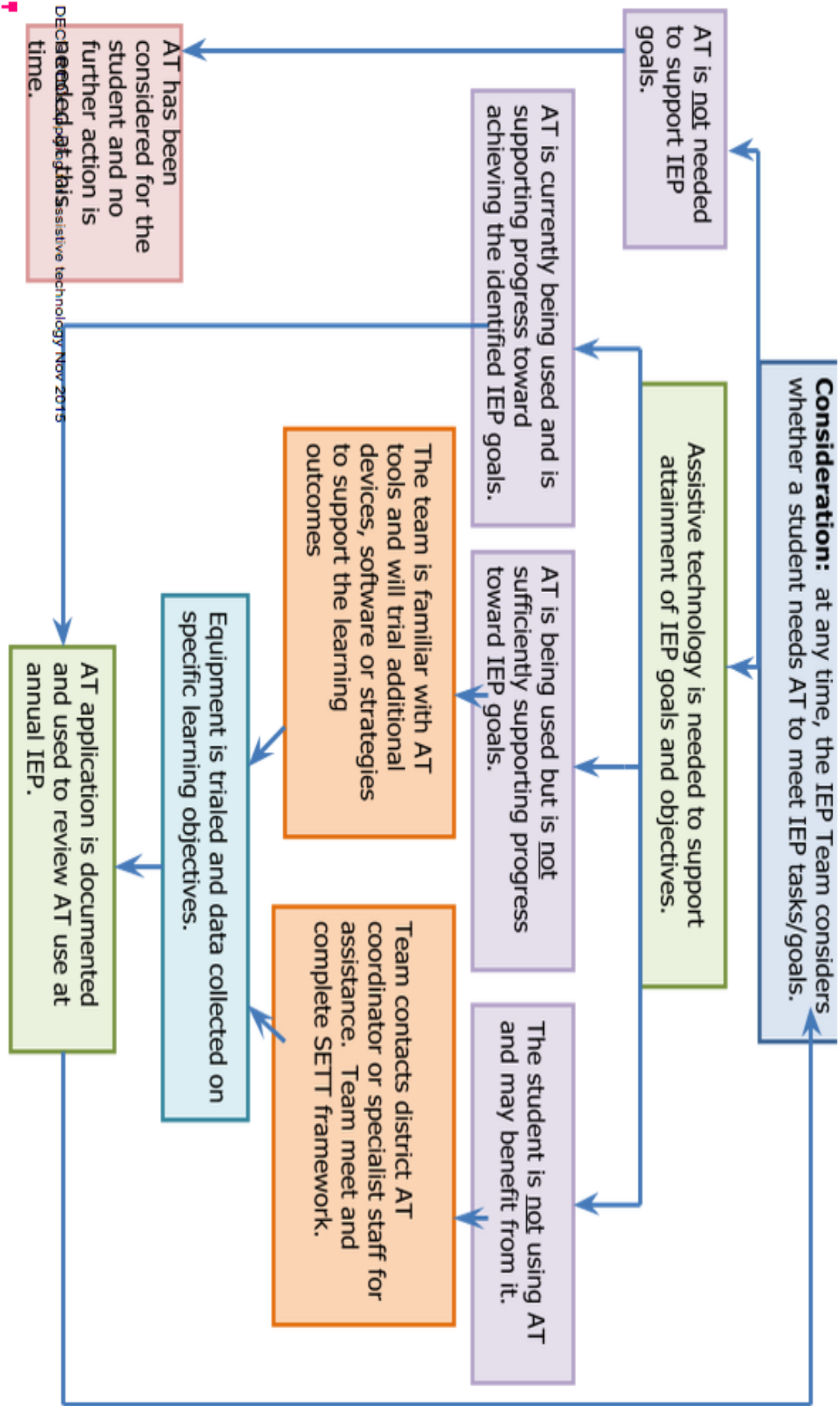
- Appropriate for use with this age group, TODs use at their own discretion (seek support from Deaf Education specialist as necessary)
- Appropriate for use with this age group, TODs to administer in conjunction with Deaf Education specialist /Regional Assessment Team as accreditation to carry out the assessment is required.

*Suggested testing age for purpose of collating/sharing state wide data

⁴⁶ Presented by B Green, Auslan Project Manager, Department of Education, Training and Employment, The State of Queensland, to a New Zealand Deaf Education Educators Workshop, May, 2015, Wellington, New Zealand.

Appendix 5: Assistive Technology Flowchart

Assistive technology process



Appendix 6: Glossary of acronyms

AoDC	Advisors on Deaf Children
ASL	American Sign Language
Auslan	Australian Sign Language
BSL	British Sign Language
CI	Cochlear Implant
DEC	Deaf Education Centre
ECE	Early Childhood Education
FTE	Full Time Equivalent
HRC	Human Rights Commission
KDEC	Kelston Deaf Education Centre
KIT	Keep In Touch
L1	First language
L2	Second language
L3	Third Language
Ministry	The Ministry of Education
NCEA	National Certificate of Educational Achievement
NTID	Rochester Technical Institute for the Deaf
NZSL	New Zealand Sign Language
ORS	Ongoing Resource Scheme
PD	Professional Development
PECS	Picture Exchange Communication System
PLD	Professional Learning and Development
RTD	Resource Teachers of the Deaf
SAG	Sector Advisory Group
SLPI	Sign Language Proficiency Instrument
TA	Teacher's Aide
ToS	Transfer of Staffing
VADEC	van Asch Deaf Education Centre