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Te Whare Wananga o te Upoko o te Ika a Maui



Report on a survey of
Mainstream Teachers
of 'High' & 'Very High Needs' Deaf Students
in Mainstream Schools

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1.0 Background

The larger research project of which this survey forms a part investigated the communication access and learning situations of mainstreamed Deaf students verified by SES as 'high' and 'very high' needs. These students receive the highest level of support resources via Ongoing Resourcing Scheme (ORS) funding. In addition to six case studies of primary aged deaf students, key groups involved with mainstreamed deaf students were surveyed by questionnaires posted to national populations of parents, class teachers, teacher aides, itinerant teachers of the deaf, and by interviews with Deaf mentors.

This paper reports specifically on data obtained from a written survey and interviews with mainstream class teachers of deaf students. The survey aimed to investigate three main aspects of their experience teaching a deaf student in a mainstream class: (i) perceptions of deaf students' access to communication and academic achievement, (ii) issues about teaching a deaf student, and (iii) perceptions of working with teacher aides and other support staff.

2.0 Distribution of surveys

Questionnaires were posted to 348 schools across New Zealand identified by SES as having an ORS funded deaf student enrolled, with a request for the survey to be given to the student's class teacher. 178 completed questionnaires were returned, giving a 51% response rate. Some schools receiving questionnaires reported that they no longer had a deaf student enrolled and returned the forms. The intention was to confine the sample to primary schools, however the responses revealed that a small number of secondary schools had inadvertently been included in the mail out list. Secondary school teachers' responses were included in the results, as they were considered relevant to the research questions.

3.0 Teachers and deaf students represented in the survey sample

3.1 Teachers

The majority of respondents (84.6%) were female, 15.4% were male. Teachers in the sample were mainly aged between 36 and 55 years old, with the next largest group being 26 – 35 years old.

Most were experienced teachers - 68% had more than 10 years teaching experience and 24.8% had between three and nine years; only 6.8% were new teachers with one or two years experience.

Over three-quarters (79%) of the teachers had taught this deaf student only during the year of the survey, and 69% had never previously taught a deaf student.

3.2 Student profile : hearing loss and communication modes

Teachers reported their students' level of hearing loss to be mainly profound (49) or severe (54), with 30 having moderate losses, and 22 with cochlear implants. 23 teachers (13%) were not sure of the student's level of deafness or did not answer this question, suggesting that some teachers may have access to less information about the student than other support staff (such as the teacher aide), and may lack knowledge generally about the implications of different levels of hearing loss. Although the survey did not seek data on additional disabilities, it is likely that those students with a moderate loss have other special learning needs which would qualify them for ORS funding, and thus appear in this sample of high/very high needs students. This is also suggested by the relatively low literacy levels shown for this group in Table 2.

More than three-quarters of students were reported to communicate orally (78.5%), with 15.3% using sign language, and 6.2% signing and speaking together - giving a combined total of 21.5% who could be described as 'signers'. 20.6% of the teachers said that they knew 'a few basic signs', while 1.3% said that they could sign moderately well. However, most teachers (83%) considered that they communicate well with their student (36.6% 'very well', 46.5% 'reasonably well'), with only 16.5% reporting some difficulty in communicating.

The relationship of students' communication mode to their hearing loss is shown in Table 3 which shows that sign language in some form is used by approximately half of profoundly deaf students, a quarter of those with a cochlear implant, and by 4% of severely deaf students.

Table 3 Communication mode by hearing loss level

Deaf student's mode of communication

	Oral	Signing	Speaking + signing	Total
Profound	(22) 45%	(21) 43%	(6) 12%	49
Severe	(51) 96%	(1) 2%	(1) 2%	53
Moderate	(28) 93%	(1) 3%	(1) 3%	30
Coch. Implant	(17) 77%	(2) 9%	(3) 14%	22
Not sure	(14) (93.3%)	(1) 6.7%	--	15
Total	(132) 78%	(26) 15%	(11) 7%	169

4.0 Achievement levels of students

One goal of the survey was to investigate regular class teachers' perceptions of deaf students' achievement in core curriculum areas, in relation to age level norms for students in general. 4

4.1 Teacher estimates of student achievement in relation to age level

Question 6 of the questionnaire asked "At approximately what level is your deaf student performing in core curriculum areas of literacy, math, topic studies?" Over half are reported to be achieving below age level in all areas, with the largest delays evident in literacy, as shown in Table 4.

Table 4 Student achievement levels in core curriculum areas

	<i>Above age level</i>	<i>At age level</i>	<i>Approx. 1 year below age level</i>	<i>Approx. 2+yrs below age level</i>
Literacy	11.5%	24.2%	28.7%	35.7%
Maths	5.2%	38.6%	30.1%	26.1%
Topic studies	10.4%	30.5%	25.3%	33.8%

Note: 13% of respondents said this question was not applicable or did not answer; presumably many of these were secondary school teachers. Percentages are based on valid responses only.

4.2 Literacy achievement in relation to hearing loss

The literacy skills of profoundly and severely deaf students are reported by teachers as being very similar, the largest proportion for both groups being two or more years below age level (see Table 5).

Table 5 Literacy level by hearing loss

Hearing Loss	Level of achievement in literacy				Total
	<i>Above age level</i>	<i>At age level</i>	<i>Approx 1 year below age</i>	<i>Approx 2+ yrs below age</i>	
Profound	(4) 9%	(11) 24%	(14) 30%	(17) 37%	46
Severe	(6) 12%	(11) 22%	(15) 30%	(17) 35%	49
Moderate	(1) 3%	(5) 18%	(9) 32%	(13) 46%	28
C. Implant	(4) 21%	(7) 36%	(4) 21%	(4) 21%	19
Not sure	(1) 12.5%	(1) 12.5%	(3) 40%	(3) 40%	8

4.3 Assessing deaf students

Teachers were asked (Q.7) how confident they were about assessing their deaf student's language and academic progress. Their responses, shown in Table 6, indicate that mainstream teachers generally have difficulty in measuring the achievement of deaf students accurately.

Table 6 Teachers' level of confidence in assessing deaf student achievement

Very confident	33%
Somewhat confident	54%
Not confident	13%

Problems in assessment are related to language differences and/or delays which create barriers to face-to-face and written communication, as these participants explained:

- *It's difficult to assess what's being achieved when you cannot have one to one discussions with the student (Survey 33)*

- *She won't speak or sign so difficult to assess reading level (Survey 66)*
- *Interpreting sounds/words can at times be difficult (Survey 32)*
- *Language is the barrier to getting language across (Survey 79)*

Teachers also cite a lack of knowledge about adapting and administering assessment techniques appropriately, and uncertainty about what to expect of deaf students – as this teacher put it, *“I would like tuition in this area/resources for this purpose”*.

Most commented that assessment is assisted by others such as a teacher aide (often functioning as an interpreter), an ITOD, or a Deaf Resource Person, who are seen to have closer knowledge of the deaf student's work and better communication skills:

- *Have had a lot of assistance and support from itinerant teacher of deaf in this regard” (Survey 8)*
- *I rely on his NZSL teacher to help, e.g., Videotaping of running record. (Survey 36)*
- *Have help with assessing reading level. I have an interpreter to sign so we get an accurate assessment of his comprehension.*

A few teachers commented that their deaf student is assessed in the same way as others:

- *I was able to assess his responses in a six year net test. He also completes other assessment tasks in class. (Survey 37)*
- *My student is treated and acts like a normal student with allowances made for him not always able to hear. I can use my release time to assess him in a quiet location. His hearing aid gives him some sound. (Survey 53)*

5.0 Support and advice for class teachers

Class teachers of deaf students regularly interact with other personnel connected with the student, often relying heavily on the additional support of paraprofessionals and professionals to facilitate the student's participation in the class programme and to meet IEP goals. The survey sought information on teachers' satisfaction with the support they receive through these interactions, and in particular focused on their experiences with teacher aides who have an ongoing presence in their classroom.

Overall, teachers were largely satisfied with the practical support and advice they receive for teaching a deaf student, as shown in Table 7.

Table 7 Teacher satisfaction with practical support and advice

Very satisfied	(79) 44.6%
Satisfied	(72) 40.7%
Dissatisfied	(22) 12.4%
Very dissatisfied	(3) 1.7%
No response	(2) .6%
<i>Total</i>	(178) 100%

The following comments describe collaborative relationships with deaf education professionals who visit on a regular basis:

- *Twice weekly visits by itinerant teacher of the deaf have been invaluable (Survey 3)*
- *Excellent SES adviser, liaised well between school, home, hospital, audiologist etc. (Survey 47)*
- *Very able itinerant teacher who I communicate with quite openly. SES has been helpful with IEPs and interpreters etc. (Survey 66)*
- *Have a teacher of the deaf based at our school. Excellent classroom support, getting us to courses, filling in gaps in our knowledge about deaf children etc. Couldn't be better. I value and need this contact. (Survey 5)*

Some of those who were satisfied also suggested how things could be better, and this comment indicates that teachers' evaluation of the support may be qualified by lack of experience of teaching a deaf student and actually knowing what is needed: "*I do not know if there is further advice I could have been given.*"

Several noted the value of input from teacher aides:

- *Very supportive teacher aides and support teachers (Survey 1)*
- *Teacher aides have been effective in translating information (Survey 132)*
- *Invaluable having the help of a skilled teacher aide and the opportunity for the student to be withdrawn into a quiet space when appropriate. Invaluable having a I T O D (Survey 83)*

Others found training courses for mainstream teachers valuable:

- *At the beginning I was sent on an excellent course with my teacher aide (Survey 45)*
- *Excellent one day introductory teachers' course (Kelston) (Survey 47)*
- *Very satisfied. We have great support for the deaf in H.B, courses run for teachers of the deaf and personnel are both always willing to give help and advice (Survey 72)*

Some teachers reported variable satisfaction, depending on the particular personnel and the school's internal level of support:

- *Not enough practical support from deaf adviser. Part time teacher has provided most of support (Survey 2)*
- *Fantastic support from resource teacher but very poor in-school support- e.g., not included in I E P course attended by D P and special needs teacher and deaf adviser. It seems if I needed to be released, then the opportunity wasn't forthcoming. I felt very frustrated by lack of information from inside the school" (Survey 89)*
- *It's like pulling teeth, there seems to be a reluctance to spend money from school budgets on one particular child. This does not help the teacher (Survey 17)*

A number of teachers describe trying to negotiate teaching a deaf student without sufficient prior knowledge and without access to sources of relevant information and training, as these comments highlight:

- *Need for consultative material. How can I improve my role, aide's role, student – how are they feeling. Not I E P level but non-threatening, let's get more out of this - make it better for all of us. (Survey 164)*
- *There needs to be some form of handout, course or something available to teachers, so they can meet the needs of these kids.... Our teacher of the deaf has been awesome but please give mainstream teachers some idea about what works, ideas etc. to help these kids. Preferably 1 course or meet once a term to discuss ideas with other colleagues. (Survey 17)*
- *It was unclear what support was available through I T O D and Van Asch and resources, e.g, spelling programme for profoundly deaf (Survey 105)*

Some teachers remarked that while ITODs provide teaching support to students, that their role (or available time) did not extend to providing the 'training' that the class teacher felt was needed:

- *When I first had a deaf child I was very much in the situation of learning from experience. No special training was provided. The itinerant teacher of the deaf provides excellent support but we seldom have time to sit together for long to discuss things, discussion is usually on the run. (Survey 65)*
- *They [deaf education professionals] were there when something goes wrong. However going to a development for Teaching the Deaf would have helped. (Survey 63)*

Some teachers noted that support was not available as early as needed; many would have appreciated access to information and advice before the student had arrived in their class. Their comments convey teachers' sense of being 'thrown in the deep end' with a student requiring quite specific communication and teaching strategies for which they had no preparation.

- *I didn't receive a lot of advice and would have liked some at the start of the year. The specialist teacher came in to work with the student but didn't see her role as giving advice (Survey 73)*
- *The help is available but the time lag, delays can be frustrating (e.g. adviser visiting another area) when you want immediate assistance/advice (Survey 13)*

- *Satisfied ...though assistance was given only recently. Could have done with the excellent assistance earlier in the year (Survey 158)*
- *I would have liked more advice/support prior to my deaf student starting in my class so as to know what to expect and how to begin things on day one (Survey 37)*

Dissatisfaction with sign language support for teachers and students received specific mention:

- *Student may need signing teaching. I am relying on a dedicated teacher aide to work with him. No one else knows the signs they are learning (Survey 10)*
- *[I] did seek a sign language course. None available in area (Survey 32)*
- *While I am reasonably satisfied there are still two afternoons a week that I have no support. I still don't know enough sign language to support the student in this situation. It is just as well she is very good at copying other children (Survey 38)*
- *Feel that teachers need to learn basic signing even if student communicates mainly through speaking and listening.(Survey 156)*
- *Practical support came in form of teacher aide – not always there: seemed an expendable accessory at times. No instruction on how to deal with him, NO signing instruction etc. (Survey 162)*

A small number of teachers responded that they didn't need specific support or advice, since they viewed and treated the student the same as others in class:

- *I haven't treated/seen my student as a deaf child and thus haven't actually sought support/advice (Survey 161)*
- *I have not sought advice. The student manages quite well in a normal class situation. (Survey 165)*

6.0 Working with teacher aides

Time-wise, teacher aides have the most significant presence in supporting deaf students in mainstream classrooms. Teacher aides are often the main channel of communication and source of individualised tuition for deaf students, which potentially alters the relationship between the class teacher and that student. Given that this may be a new and involuntary situation for mainstream teachers, the survey aimed to explore their views on the role and supervision of teacher aides, (especially with regard to facilitating communication), and their perception of the effectiveness of teacher aides working with deaf students in their classrooms.

6.1 Duties of teacher aides

In order to form an overview of the roles currently performed by teacher aides of deaf students, teachers were asked to identify their duties (as summarised in Table 8).

Table 8 Duties and roles of teacher aides identified by class teachers

<i>Duty/Role</i>	<i>No. of mentions</i>
Tutoring & remedial assistance with class work	135
Support and supervision: academic & social	64
Re-explaining, relaying, (oral interpreting)	54
Sign language interpreting	39
Speech & auditory training	24
Notetaking during instruction	20
Liaison with parents	17
Hearing aid management	16
Adapting resources, general assistance to teacher	14

6.1.1 Tutoring and academic remediation

Teachers emphasised that teacher aides' primary responsibility is for *“delivering a modified programme”* for deaf students, in order to *“facilitate the child’s access to the curriculum”*. This role takes the form of one-to-one coaching in language in particular, and tutoring (or teaching) other academic subjects, as this sample of responses indicates:

- *“To modify programme where possible to suit” (Survey 25)*
- *“Teaching reading, writing and math programme, planned and prepared by the itinerant teacher of the deaf.” (Survey 6)*
- *“To support in daily work/activities, revisit reading, maths, written language work.” (Survey 32)*
- *“Pre teach and follow up classroom work. Has a vital role in the reading /language/maths programme” (Survey38)*
- *“Enrich and challenge language used by child. Explaining and following through teaching activities/curriculum as directed from teacher” (Survey 173)*
- *“Explain concepts, terms not understood.” (Survey 168)*
- *“Academic remediation. Clarification of instructions. Positioning for success.” (Survey 169)*
- *“Feeds in knowledge to assist with classroom work, e.g., topic” (Survey 171)*
- *“To feed in as much language as possible on a one to one basis” (Survey29)*
- *“Basically work one- on-one as often as they are in the classroom, working in all areas of the curriculum – usually morning sessions where Maths/ English programme is time-tabled” (Survey 61)*
- *“Taking out of classroom on one to one basis –sharing books developing language and life experiences, filling in gaps as needed from classroom teaching or following IEP tasks” (Survey 5)*

These descriptions indicate that aides have considerable responsibility for developing the language and general knowledge of deaf students and for the delivery of teaching around core curriculum skills such as literacy and maths.

6.1.2 Support and supervision: academic and social

Teacher aides are seen by teachers to have a ‘supervisory’ role by keeping the student on task with their class work, which often entails behaviour management.

The following comments suggests a potential tension between overseeing that the student can do the set tasks, while encouraging independent work habits.

- *To sit with him to ensure he can complete tasks as independently as possible (20)*
- *Listening to class lesson. Allowing the child to first try by himself- reinforcing if needed.(Survey 5)*

Teacher aides are also expected to guide and manage the deaf student’s social interactions at times taking on an advocacy or mentoring role, both in and out of the classroom.

- *Advocate for student, identifying any problems he may be having” (Survey 57)*
- *Supporting student through frustrating situations (Survey 89)*
- *To give encouragement (Survey 112)*
- *To “mentor” student (Survey 162)*
- *Helps with management/discipline of student (Survey 163)*
- *Guidance, support (Survey 168)*
- *Monitor overall wellbeing of child. Communicate with home. (Survey45)*

A number of comments within this set specifically described teacher aides assisting deaf students with socialisation, in both structured and informal ways. References to ‘behaviour management’, ‘playtime supervision’, and resolving communication barriers with other children signal teachers’ observation that deaf students often encounter difficulties interacting independently with peers in and out of the classroom:

- *Socialization, weekly practice with a group of children to allow the deaf child an opportunity to play games and learn to take turns (Survey 12)*
- *Social skills - both playground and classroom (Survey 15)*
- *Monitoring playtime behavior sometimes (Survey 58)*
- *Model appropriate behaviors(Survey 85)*
- *Sorting out problems in and out of class (Survey 94)*
- *Responsibility for effective signed communication between child and others (Survey 173)*

6.1.3 Interpreting – oral

Teachers’ frequent reference to oral interpretation (often described as ‘clarifying’, ‘re-explaining’, ‘repeating’) indicates that they rely heavily on teacher aides to pass on verbal instructions and information to deaf students in class.

Teachers' main emphasis is on the aide as a channel for communication directed from teacher to student:

- *...to ensure [student] has understood whole class instructions.* (Survey 20)
- *To pass on verbal communication to the students*(Survey 43)
- *To ensure he has gathered necessary instructions* (Survey 52)
- *Some oral interpretation as appropriate* (Survey 55)
- *To explain what is said in class, to explain work to her* (Survey 28)
- *Interpret instructions and communicate to the student.* (Survey 160)
- *Repeat missed instruction* (Survey 168)
- *Ensure communication from and to teacher is understood. Interpret when necessary* (Survey 170)
- *She supports the student at times when her implant is not working eg. At the pool, outside.* (Survey 96)

Teachers express an expectation that the aide's interpreting role (whether oral or signing) extends to ensuring that the student responds appropriately to instructions and information about learning tasks:

- *To support the pupil to follow instructions* (Survey 29)
- *Asks questions when the student hasn't understood* (Survey 115)
- *Checking that student understands what I have said. Usually taken out to make sure* (Survey 77)
- *To interpret what I say and explain what's required in the context of work* (Survey 33)

A few teachers noted that the aide interprets not just from teacher to student, but between deaf and hearing students (in the context of learning tasks), as follows:

- *To assist student to communicate with others* (Survey 54)
- *Aide helps with making sure student understands what has gone on in class discussions* (Survey 92)

6.1.4 Sign language interpreting

Descriptions of teacher aides performing sign language interpreting again focus mainly on the transfer of information from teacher to student. Interpreting is often described by teachers in terms of 'communicating' or simply 'signing', reflecting the fact that teacher aides are not trained or titled as interpreters, and that teachers may not be conscious of this as a distinct role and function.

- *Be the vehicle through which the student understands the content and how to do the content* (Survey 163)
- *Signing* (Survey 166)
- *Communicator* (Survey 9)
- *Has some signing to communicate with him* (Survey 32)
- *To sign for the teacher during instruction* (Survey 36)
- *Work with and sign to deaf student*
- *Interpret* (Survey 56)

- *To pass on what I say to the class (Survey 106)*

A few teachers indicated that aides also interpret from sign language into English, from the deaf student to teacher and other class members.

- *Translation from sign into verbal communication as student contributes ideas/answers (Survey 159)*

There was some indirect reference to the fact that aides often interpret more than just formal instruction, but also may be expected to communicate less explicit (behaviour or task-related) expectations, and ‘school culture’ knowledge to the deaf student:

- *Translation into sign of information and expectations. (Survey 159)*
- *To explain what is happening, notices etc. in assembly... make sure student knows what is expected and has understood instructions (we are surprised at times by the misunderstanding of the meaning of some words) (Survey 53)*

6.1.5 Speech & auditory training

Teachers report that aides’ duties include the implementation of speech and language therapy, as follows:

- *Speech lessons (Survey 79)*
- *Oral language, talking to each other-conversing rather than pupil just nodding, modeling of difficult sounds, speed of speech etc. (Survey 158)*
- *Presently teaching speech patterns (Survey 171)*
- *Speech therapy work-individual.(Survey 15)*

The descriptions above suggest that, in some cases, teacher aides have sole responsibility for speech and oral language development activities, while in other cases they provide follow up for a programme determined by a therapist or a teacher of the deaf

6.1.6 Notetaking during instruction

Some teacher aides take notes for deaf students during whole-class instruction and discussions.

- *Takes notes of verbal comments made, this has had to be necessary in the last two years with a school certificate class ...with 29 students in the class. (Survey 116)*
- *To make a record of the information covered so that it can be recovered on an individual basis (Survey 106)*

Presumably, notetaking is done by aides who are not interpreting; in some cases, the notetaking function appears to be a substitute for interpreting, giving the student delayed written access to spoken communication – as this description indicates:

- *Writing notes, writing oral instructions, keeping student on task, page numbers etc. (Survey 172)*

6.1.7 Liaison with parents

A survey of parents found that they generally see the class teacher as their main source of information about their child's progress at school; however, case study data as well as class teacher's responses in this survey, (as illustrated below), point to the fact that teacher aides actually have a very significant role in carrying out day-to-day liaison between school and home.

- *“Ensuring communication with home on requirements” (Survey 22)*
- *“Write in her home/school notebook” (Survey 66)*
- *“Liaise with both staff/student's family” (Survey 2)*
- *“Liaison with parents” (Survey 5)*
- *“Communicate with parents re. Math topic. Seat homework twice weekly.” (Survey 16)*
- *“Often acts as an intermediary between home and school i.e. passes on parental concerns etc.” (Survey 95)*

Teacher aide's liaison function includes communicating with parents about academic, extra-curricular, and social matters to do with the deaf student. This role arises from the aide's close knowledge of what the student is doing in class from their one-to-one tutorial work with the student, and because the aide probably has more time to do this than a class teacher who must meet the needs of a large number of students and their parents.

6.1.8 Hearing aid management

The effective use and maintenance of the deaf student's hearing aids and other equipment is identified by teachers as a duty of teacher aides. Aides are described as being responsible for “checking hearing aids regularly”, and “ensuring that the student's F M etc. are working and being used correctly.” Teacher aides tend to acquire more hands-on experience with the equipment than the teacher (and have more regular communication with visiting specialists who can advise on technical matters), and management of hearing aids is seen as being within their general capacity for overseeing the student's particular needs in class.

6.1.9 Adapting resources, general assistance to teacher

Teacher aides provide general assistance to the teacher - such as preparation of materials, or helping other students in class – usually when the deaf student is occupied. This matches teacher aide's own accounts of their duties, and case study observation. Teachers and class members may experience incidental benefits of having a teacher aide in class that did not show up specifically in these survey responses - such as the aide teaching sign language to the class, and being available to work with small groups of students who, along with the deaf student, need remedial support with reading or maths.

6.2 Monitoring and direction of teacher aides' work

6.2.1 Evaluation of teacher aides

The majority of class teachers (59.4%) stated that they do not evaluate the teacher aide's job performance. Of the 65 teachers who responded that they do evaluate the teacher aide, only 60% felt 'confident' to do so. These results suggest that teachers probably lack knowledge of the specialised competencies needed for working effectively with deaf students and the ability to assess whether these are in evidence or not.

6.2.2 Responsibility for student's communication access

32% of teachers stated that their teacher aide normally uses sign language to pass on information to the deaf student in class. In other words, these teacher aides have a recognised 'interpreting' role. The survey sought to find out who, in such situations, do teachers perceive to be responsible for determining which spoken communication in class is conveyed to the deaf student? Their responses are shown in Table 9.

Table 9 Who decides what the teacher aide should pass on?

Teacher	2
Teacher Aide	18
Joint decision	33
Student	1
<i>Total</i>	54

The majority of teachers regard this as a joint decision. In teaching situations observed in the case study data, it appeared that Teacher Aides generally take the initiative to interpret (or not) at any given time in class, although teachers would sometimes indicate to the aide to move into position, ready to interpret during a whole-class instruction session. Teacher's perception that the selection of what is relayed is more often a joint decision may refer to a generalised, prior understanding with the teacher aide as to the kinds of communication that should be conveyed in class rather than to specific instances of interpreting during the school day.

It is difficult to understand how a teacher could regard a deaf student as responsible for determining this, given that they would be unlikely to know what spoken communication was taking place.

6.3 *Teacher aides' impact on access to communication and learning*

6.3.1 Access to classroom communication

Question 16 of the survey asked teachers to rate, "How important is the aide to the deaf child's access to communication and information in your class?" Results are shown in Table 10

Table 10 Importance of teacher aide to deaf student's access to communication

Vital	83 (50.9%)
Very important	40 (24.5%)
Important	26 (16%)
Somewhat important	14 (8.6%)
(No response)	(15)

These responses demonstrate that teachers see teacher aides as having a high level of responsibility for facilitating students' communication access to class activities. Their comments on this questions make reference to not being able to do without the teacher aide, or needing more teacher aide time for this purpose.

Teachers' perception of the extent of deaf students' overall access to classroom communication was optimistic; results shown in Table 11 indicate that 61.5% of teachers who responded to this question believe that the deaf student has access to more than half or almost all of classroom communication, while 37% believe the student can access less than half of communication.

Table 11 How much of the overall classroom communication can the student access?

Almost everything	39 (23%)
More than half	65 (38.5%)
About half or less	47 (27.8%)
Very little	16 (9.5%)
Don't know	2 (1.2%)
(No response)	(9)
<i>Valid total</i>	169

These results are similar to teacher aides' estimation, although teacher aide estimations were slightly higher – possibly because they tend to be responsible for facilitating communication access and may thus be more inclined to report positively on the outcome.

6.3.2 Importance of Teacher Aides to student learning

Given that teacher aides have a major role in supporting deaf students' communication access to learning activities, the survey also investigated teacher perceptions of the extent to which teacher aides positively impact the student's academic progress. Their responses are shown in Table 12.

Table 12 Importance of teacher aide to deaf student's academic learning

Vital	85 (51.8%)
Very important	46 (28%)
Important	22 (13.4 %)
Somewhat important	11 (6.7%)
(No response)	(14)
<i>Valid Total</i>	164

6.4 Overall experience of working with a teacher aide

Teachers were asked (Q. 18): “How would you rate the overall experience of working with a teacher aide in your class?” Their responses were overwhelmingly positive, as shown in Table 13 below:

Table 13 Overall experience of working with a teacher aide

Very satisfactory	118 (73.3%)
Satisfactory	40 (24.8%)
Unsatisfactory	1 (0.6 %)
Very unsatisfactory	0
(No response)	(14)

This question prompted a range of general comments from teachers, as illustrated below:

- *It is important that the teacher aide has some training. I have found that there is a fine line between supporting the student and allowing for student independence. (Survey 138).*
- *Limited finance to enable aides to upskill themselves or to provide ongoing professional development. Aides poorly paid for the work that they do. (Survey 98)*
- *I would not be able to successfully teach the child without the support of a teacher aide. The child requires lots of one to one time which I cannot give with 31 children in my class. (Survey 142).*
- *It takes the pressure off me: a) to ensure understanding of task, b) to keep on task. (Survey 145)*
- *Could be improved with greater and regular evaluation. Meeting at beginning of year with clear outline of expectations would be great and subsequent three- way evaluation: student of staff (What was great/not so good?), teacher of aide, aide of teacher/student (Survey 164)*
- *Sometimes the teacher aide can be negative towards the student, and her ideas are somewhat old fashioned. Occasionally she will “remove” the student when it’s not necessary, and the student doesn’t like it (Survey 39)*

7.0 Benefits of mainstream placement

Teachers were asked to describe the main benefits and disadvantages to their deaf student of being in a mainstream class. Overall, their responses accord quite closely with points raised by parents, ITODs and Teacher Aides, but with slightly different emphasis. For example, they rank the benefit to other people’s awareness and tolerance of deaf people more highly than other groups, and are more overt in characterising the mainstream setting as representing the ‘real’ or ‘normal’ world into which deaf students need to assimilate.

Table 14 Perceived benefits of mainstreaming to deaf student

<i>Perceived Benefit</i>	<i>No. of mentions</i>
--------------------------	------------------------

Social interaction with hearing peers/ Self esteem	124
Normalisation - assimilation into the 'real world'	92
Developing others' awareness/acceptance of deaf	56
Access to curriculum/academic expectations	52
Oral language & communication development	37
Right to attend local school/be part of community	10
None	1

7.1. Social interaction with hearing peers

Teachers generally believe that interaction with hearing peers at school enables deaf students to acquire normal (i.e., age- appropriate and hearing world) social skills and conventions which will equip them for adult life. The following comments express this theme:

- *He has learnt by seeing others his age what is expected and how to behave. He is able to mix with many different children and build strategies of how to cope in a hearing world. He has to learn how to communicate to those hearing and is used to seeing hearing people look frustrated as he explains things. So when he is out in the hearing world/community he will be able to meet these challenges positively. (Survey 37)*
- *She enjoys being with others. Raises her expectations. Motivation to interact and communicate with others. She stays within her community (Survey 25)*
- *The student makes stronger friendships (Survey 52)*
- *Helps normal social interaction (Survey 65)*
- *Social interact ion- although this is more difficult as she becomes a teenager and the social interaction is more complex (Survey 41)*

Mixing with hearing peers is also seen to build positive self-esteem (although some participants later identified self-esteem as a problem for their deaf student). Developing confidence and independence is an element in the perceived social benefits:

- *She is a strong and independent young woman whose self esteem would be knocked if she was not able to be in a mainstream class (Survey 168)*
- *Social skills can be reinforced. Helps their self esteem (Survey 15)*
- *Building confidence and social skills (Survey 4)*
- *Learning to develop independence (Survey 36)*
- *He is confident and is encouraged to mix and use appropriate social conventions (Survey 71)*

7.2 Normalisation

A teacher's comment that mainstream placement represents "A realistic setting for future employment and social skills" summarises the common theme that school is a microcosm of the 'real' world into which a deaf student will ultimately

integrate, and must therefore learn to cope and identify with through their school experience.

- *Social interaction and having to learn to survive in the real world where she is eventually heading. (Survey 49)*
- *By being in the mainstream class he learns to cope more adequately in the real world.*
- *It normalises his life. Gives him experiences for the real world he will work in when he matures. Gives him important experiences as peers provide language and social skill models (Survey 55)*
- *Learning to cope in a speaking world. Moving out of an insular deaf culture (Survey 36)*
- *Being treated as a normal child. Expectations are those of normal children. She herself wants to do what other children do (Survey 38)*
- *The deaf child has to learn to fit into a hearing world at an early age (Survey 2)*
- *Some parents request that their child be treated no differently from others and want them not to sign, and [to] fit into society. This does help. (Survey 5)*

In this set of comments, terms such as ‘real world’, ‘normal’, ‘survive’, and ‘being part of/being like’ are contrasted with concepts like ‘isolation’, ‘being different’, and ‘disabled’. The clear implication is that these negative experiences would be the inevitable result of being outside of a mainstream class, rather than within one, as this comment makes explicit:

- *Not being isolated from her peers just because of her hearing loss and being made to feel different (Survey 156)*

Teachers’ comments later in the survey also identify, however, that feelings of isolation, difference, and disablement may be directly attributable to the deaf student’s social and linguistic position within a ‘normal’ peer group.

7.3 Other students’ awareness

Having a deaf classmate is seen to enrich the experience of other students, mainly by sensitising them to difference in others and providing opportunities to relate compassionately to someone with a disability. A few responses mentioned the opportunity to gain an understanding of deaf people’s needs, specifically, and in some cases, sign language.

- *Having to make mainstream educators/children aware of your own needs. Acceptance by other children in the class i.e., not being abnormal (Survey 36)*
- *Social growth and the chance for the other children to learn to relate to and cope with a disabled person. The children have taken to learning sign language as well and are ever ready to help. It’s been of two-way benefit in our case. (Survey 40)*
- *Benefits to others- showing tolerance and compassion (Survey 45)*
- *Helps other students’ acceptance of others not like themselves (Survey 5)*
- *Other students’ understanding of deaf people and their unique needs in society. (Survey 174)*
- *It gives other children the chance to learn signing so they can communicate with her (Survey 38)*

- *Good for others to see the progress despite the disability and the personal effort required. (Survey 116)*

The implication of these benefits to others appears to be that the deaf child (or adult) will ultimately gain from the increased awareness and tolerance of others towards them.

7.4 Access to curriculum and normal academic expectations

About one third of teachers commented that deaf students have better access to the national curriculum and are motivated by exposure to the achievement levels of mainstream students at their own age level. Some stated that their deaf student is able to work at the class pace, and that their exposure to general world knowledge and subject specific resources is enhanced by being part of a mainstream programme.

- *Viewing other children's work and standards. Hopefully feeling part of a normal group and being treated as a normal student. (Survey 165)*
- *She is getting the same education as any other child in class. (Survey 14)*
- *Access current skills and knowledge*
- *Can show their strengths, can do some things better than the hearing child, e.g. PE. (Survey 7)*
- *The student can take advantage of the expertise of different subject teachers at secondary level (Survey 178)*
- *Able to work with and be assessed according to national cohort (Survey 110)*
- *Academic progress is evident and comparable to hearing children (Survey 20)*

7.5 Oral communication development

Being surrounded by spoken language in the mainstream classroom is widely regarded as benefiting the development of deaf students' oral language and communication skills.

- *His ability to communicate has developed enormously, because he has to be like the others (Survey 71)*
- *She does not use sign language. Her future is in the speaking community and she lipreads well. Can make good progress in mainstream.*
- *Excellent language and communication for her to learn to work with (Survey 10)*

Some responses indicate that teachers may not be accurately informed about how much a deaf student can hear and understand in a classroom context, or that 'exposure' is equated with language intake, as these comments suggest:

- *Being able to hear normal speech from other students must help her speech to improve (Survey 65) (Profoundly deaf student)*
- *He is constantly exposed to language (Survey 157) (Severely deaf student)*

7.6 Right to attend local school, and being part of community

The right, or need, or parental desire for deaf students to attend a local school along with family members and neighbours was expressed as a positive aspect of mainstream placement, in responses such as these:

- *Family support, not being removed from the family circle (Survey 1)*
- *Being at school with siblings (Survey 30)*
- *With his peers – mainly whanau (Survey 68)*
- *She stays within her community (Survey 25)*
- *He needs to be mainstreamed- not other option (Survey 78)*

8.0 Disadvantages of the mainstream situation

The survey asked teachers, “What do you see as disadvantages or difficulties for the student in this situation?” Again, the responses mirror those of other groups, though presented slightly differently through a classroom teacher’s eyes - for instance, the demand on teacher’s time and perceived need for more support, and the apparent gap between deaf student and class programme are given more emphasis. Common themes in their responses are summarised in Table 15, in order of their emphasis in the data.

Table 15 Disadvantages of mainstream situation

<i>Perceived Disadvantage</i>	<i>No. of mentions</i>
Communication barriers/missing out	74
Burden on teacher: not enough time, resources	47
Physical environment/ teaching adaptations	36
Academic gap between student & programme	34
Lack of deaf peers/self esteem/identity	27
None	21
Social difficulties and isolation	18
Student dependence on others	11
Negative responses of others	10

8.1 Communication barriers “missing out”

Teachers main concern is that deaf students (whether oral and signing) inevitably miss out on a great deal of spoken information related to instruction, and that they have more limited opportunities for connecting with others through informal communication. This group of responses highlight the following points: (i) children’s (and teachers’) uncertainty about what has been said and understood, (ii) the incompleteness of information received, and (iii) particular difficulty in group interactions, which are frequent at school.

- *Not being sure he understands what is being asked of him and whether he is confident enough to ask for assistance if he so requires it (Survey 158)*
- *The information they receive is only as good as the aide conveys (Survey 106)*
- *Coping during class interchanges - children from other classes do not know sign language (Survey 36)*
- *Use of language not yet acquired (Survey 76)*
- *Some group activities because of everyone talking at once (Survey 63)*
- *She needs to communicate to the teacher if she has not understood task. She failed to do this, thus left her behind the rest of the class. (Survey 176)*
- *The student may not hear the answers of other students when answering questions (Survey 178)*
- *Missing out on general conversations children have (Survey 4)*
- *Missing humour (Survey 109)*
- *Can miss vital pieces of information, e.g. not being aware of due dates (Survey 170)*
- *Not surrounded [by] a signing environment (Survey 173)*

Teachers also make frequent reference to the emotional and social effects of communication barriers, such as the child feeling frustrated, confused, left out, not being confident, and needing to concentrate harder than others:

- *There are times when she is unsupported and must wonder what is going on, e.g. assemblies, singing, etc. (Survey 38)*
- *Relating to others is frustrating for her as there are not enough people with signing knowledge that would extend her vocabulary (Survey 25)*
- *He needs to be three times more alert than others to pick up the necessary information (Survey 82)*
- *The frustration of not being able to communicate or be understood by others (Survey 139)*
- *Often lots of plans for games etc are made at times when the child cannot hear/lipread – over lunch for example. So she is often left out. (Survey 26)*
- *Fitting into groups when she has to concentrate on watching the sign language (Survey 41)*

8.2 Burden on teacher: not enough time or resources

One teacher described her problem as - “Having time to attend to his individual learning needs while teaching a class of Year 2 and 3 children” - summing up many teachers’ concern about the impact of a deaf student on themselves and about not being able to adequately meet the student’s learning needs. This group of responses express a perception of insufficient human resources, and a lack of teacher time and knowledge of adapted teaching strategies needed by the deaf student. The following comments illustrate these points:

- *One- to-one adult help not always available when he requires it (Survey 171)*
- *Difficulty getting suitable communicators (Survey 9)*
- *Lack of resources specific to needs (Survey 25)*
- *Missing out on comments/instructions by not having enough support through sign language (Survey 32)*
- *Number of children, insufficient teacher time (Survey 58)*

- *Definitely need support in the classroom. Busy teachers have difficulty finding time to give the students a 'fair go'. E.g., running records were a difficulty due to poor language development. (Support from resource teacher was vital here). (Survey 96)*
- *Sometimes difficult for teacher to attend to hearing aids (batteries, problems) immediately (Survey 64).*

8.3 Physical environment and need for teaching adaptations

The environment of an acoustically and visually 'noisy' classroom is seen to create problems for deaf students:

- *The F.M. aide T. and pupil is not totally reliable and the extra noise generated for the deaf pupil can sometimes be very distracting. She is getting wise enough to switch it off but this then means we (she and I) are out of contact. (Survey 40)*
- *Background noise can make it difficult for the student to hear the teacher and the other students (Survey 178)*
- *The plurality of noise in a classroom – confusing. (Survey 76)*
- *Remembering to always take the microphone with me wherever I go (Survey 90)*

Some teachers were also aware that the deaf student has competing demands on their visual (and auditory) attention during teaching designed for hearing children:

- *Watching diagrams on the board and watching signers as well (Survey 41)*
- *They have to concentrate on the aide rather than me (Survey 106)*
- *Harder for him to keep up because he has to watch signing- can't listen and work (Survey 56)*
- *Teacher has to be aware that lots of lessons need to be visual to reinforce learning and child must be placed suitably for best listening (Survey 5)*
- *Having to look at the interpreter while high level interest activities are going on. (Survey 36)*

8.4 Academic gap between student and class programme

Teachers report that deaf students are often working on curriculum goals at a level below other students in class and may not share their background knowledge. Academic and language delays require extra effort in the adaptation of instruction on the part of teachers (and/or teacher aides), or withdrawing the child for separate work and therefore missing other aspects of class activities. Teachers express concern that the deaf student's full participation and comparable achievement in the class programme often seems impossible

- *Does not work with other students in the class because works at a slower pace (Survey 114)*
- *Multiple level instruction and significant delays, adaptations to the class room programme and curriculum. (Survey 169)*
- *His level of learning is well below that of the class (Survey 8)*
- *Instructions moving too fast at times. As I don't sign I'm quite often unsure how much my student has understood. We often talk about things the deaf student doesn't know about (Survey 93)*

- *Needs more one-to-one to make progress. Will not make up lost ground in the classroom. Misses too much of the information, even with strategies in place and a teacher aide. Particularly difficult for her in class/group discussions where a lot of learning takes place. (Survey 120)*
- *Pace of lessons sometimes too fast. If withdrawal occurs, may miss out on vital information in the class. (Survey 126)*
- *Difficulty for student in understanding and comprehending issues, especially during topic work, when there is no teacher aide time. (Survey 112)*
- *The large size of classes makes it nearly impossible to give her the amount of time necessary to inform and check for her understanding of the subject. She is not benefiting academically from mainstream (without aide present).*

8.5 Lack of deaf peers: effect on identity and self-esteem

Teachers observe some deaf students to exhibit low self-esteem, which they link mainly to the child's experience of being 'different' among hearing peers – in terms of identity, communication skills, and academic achievement. Although teachers generally stress the value of deaf students participating in the hearing world, some also identify negative effects of their lack of opportunity to identify with deaf peers at school. They observe the positive impact on deaf children's self-esteem of contact with other deaf people, and see this as a missing element in the mainstream situation.

- *Lack of deaf culture experiences for child. Very limited deaf socialisation. (Survey 9)*
- *He did enjoy the one trip he had to meet other deaf students. (The specialist took him) I think it's nice for children with similarities to get together sometimes and share their ideas and worries. I think he would have liked this more often (Survey 73)*
- *Hasn't got the role model of other deaf children, e.g. won't wear hearing aids (Survey 38)*
- *Lack of opportunity to socialise with other hearing impaired students who use sign language (Survey 87)*
- *Self perception of underachieving against peers (Survey 25)*
- *Reluctance to participate in class discussions even though she knew the correct answer to questions that were asked by the teacher. Perhaps it was shyness and possibly she thought that the other students would not understand her speech. (Survey 113)*
- *Sensitivity is required by the communicator if her signing is going to draw too much attention to the deaf student who may not be in the mood for such attention! (Survey 167)*

8.6 Social difficulties and isolation

Communication barriers and a sense of difference are seen to contribute to the social isolation that teachers observe of many deaf students. Even where friendships are formed, and peers are generally supportive, deaf students (of all levels of hearing loss, according to this data) typically have marginal access to the kind of group-talk between children which functions to establish a sense of membership and inclusion.

- *Not really possible for him to feel like a real class member [with] all the banter and social interplay*
- *Misses subtleties, repartee, humour of situation, large group dynamics, communication, classroom chatter (Survey 130)*
- *The student is isolated, tends to be left alone by other students (Survey 107)*
- *Misses social cues- especially important at adolescence (Survey 110)*

8.7 Student dependence

A high degree of reliance on a teacher aide (or a student 'buddy') for communication access and assistance with class work is described by teachers as a disadvantage created for deaf students in a mainstream class. The three aspects of this problem that teachers raise are (i) hindrance to the student developing independent work habits, (ii) the social constraints and pressure for a child of having constant adult attention and surveillance, and (iii) difficulty for the teacher in determining which work has been achieved independently or with significant assistance from others.

- *Very dependent on teacher aides, buddy workers. (Survey 61)*
- *A teacher aide needs to be with a deaf child most of the time otherwise he would be lost (Survey 71)*
- *Having an adult with her all the time isolates the student and defeats the benefits (Survey 155)*
- *Cannot 'goof off' as aide is constantly there and keeping her on task, concentrating all the time (Survey 131).*
- *She tends to follow others (Survey 177)*

8.8 Negative responses from others

Although many teachers describe a good level of peer acceptance and support shown towards a deaf student, others note that deaf students also encounter rejection and exclusion from classmates and the wider school community.

- *Some children from other classes see her as different and teasing has occurred (Survey 95)*
- *Rejection by hearing students (Survey 28)*
- *Other students sometimes get intolerant, e.g. when student interrupts or requires extra explanations (Survey 136)*
- *Being perceived as special (or different) by others (Survey 142)*

8.9 None (no disadvantages perceived)

21 responses indicated that the teacher perceives no disadvantages in the deaf student's situation. They attribute a positive situation to the assistance of support staff, use of a hearing aid, the student's early stage of learning (e.g. Year One student), or the student's apparent ability.

- *No difficulty as long as the hearing aid is on (Survey 160)*

- *None- she is coping remarkably well. She is currently ranked second in her fourth form maths class. (Survey 168)*
- *Because of the extra help she is not disadvantaged in any way. Any instruction she misses out on gets picked up by one or other of the staff working with her (Survey 15)*
- *None really, apart from being slightly dependent on the whims and wishes of her teacher aide. However the student has learned to 'challenge' some things in a positive way if she disagrees with them.(Survey 39)*
- *None at present, at the Year One level (Survey 29)*
- *None, but this is due to the teacher aide working with the deaf student.*

9.0 Benefits and disadvantages compared

Many of the disadvantages and problems described in section 7.0 are in direct contradiction to the social and academic benefits cited in section 8.0. This pattern is apparent within the data set overall, and also within individual survey responses. For example, one respondent identifies as a benefit for a profoundly deaf student, “The chance to be like everyone else, do what they do” alongside the observation that for this student, “maintaining friendships has been difficult...she is often left out”. Another teacher observes of her student - “She likes to be the same as her peers, and being mainstreamed helps her be the same as a normal child”, but also expresses concern about “No provision for signing instruction so that she can share more in this aspect of deaf community life.” These two juxtaposed comments point to an unresolved tension between two potentially conflicting goals for the child’s social and language identity; and some of the circumstances that teachers describe for deaf children in mainstream classes suggest that in many cases neither goal is adequately addressed by the learning context.

This sometimes conflicting set of perceptions might reflect a tendency for teachers (and others) to identify benefits more on the basis of professed ideals of inclusive education, whereas disadvantages are more likely to be grounded in observed problems, which depart from ideal outcomes.

An appended chart (Appendix B) sets out comments from within individual survey responses, some of which juxtapose apparently contradictory outcomes or conflicting needs inherent in the mainstream situation. Similar sets of themes and contrasts were found in the survey data collected from parents, ITODs, and Teacher Aides.

10.0 Summary and Conclusions

10.1 *The survey sample: teachers and students*

This paper reported findings from a survey of 178 mainstream class teachers (mainly at primary level) which aimed to investigate their experiences and perceptions of the teaching/learning situation for a ‘very high/high needs’ deaf student currently in their class. Most of these teachers had more than 10 years teaching experience, and had never previously taught a deaf student.

Over half of the students taught by the teachers surveyed were reported to be profoundly or severely deaf, with the remainder having a moderate loss, a cochlear implant, or a level of hearing loss unknown to the teacher.

More than three-quarters of students were reported to communicate orally, with less than a quarter using sign language in some form. (20.6% of the teachers knew ‘a few basic signs’, while 1.3% said that they could sign moderately well.) Most considered that they could communicate at least reasonably well with their student.

10.2 *Achievement*

Over half of the deaf students were reported to be achieving one or more years below age level in literacy, maths, and topic studies, with the biggest delay in literacy. The reported literacy achievement of profoundly and severely deaf students is very similar, the largest proportion for both groups being two or more years below age level. The fact that 55% of profoundly deaf children use sign language at school and only 4% of severely deaf do so, (see Table 2), suggests that regardless of communication mode, these children’s learning environments do not afford language development opportunities which adequately support literacy and contingent academic skills.

Teachers experience some difficulty in assessing the achievement of deaf students in their classes. Problems with assessment stem mainly from language differences and/or delays (i.e., a general lack of language skills, incomprehensible speech, or use of sign language) which interfere with students’ ability to demonstrate their learning through face-to-face or written communication in a manner that the teacher can comprehend. Teachers also express uncertainty about appropriate developmental benchmarks for deaf learners and how to adapt testing strategies. The extent of

teacher aide input into student work can also be a factor that obscures accurate assessment of the deaf student's achievement. Most teachers require assistance from an ITOD, the teacher aide, or an Advisor in assessing IEP and other learning goals.

10.3 Support and advice to teachers

Teachers generally report positive experiences of receiving support and advice from other professionals about teaching a deaf student. They particularly value regular input from ITODs and teacher aides, although they note that these forms of support are more directed to the student than towards extending the class teacher's skills for dealing with the student. There is little scheduled time for teachers and visiting deaf education professionals to collaborate in a formal manner.

Short courses and other forms of information provided by specialist educators were found to be very valuable, but insufficiently available in many cases. Teachers strongly expressed a need for orientation and advice prior to having the deaf student placed in their class at the start of the year, rather than some time later, as was generally their experience. Teachers of signing students were less satisfied with the support received – in terms of both the amount of direct communication support and resources available to the student in class, and a lack of opportunity to learn NZSL themselves.

A small proportion of teachers stated that they did not need any advice relating to teaching a deaf student, believing it best to treat the deaf student like all others in class. This is potentially of concern, given that all students in this survey have been verified by SES as having high or very high learning needs that presumably distinguish them from other learners in quite specific ways.

10.4 Working with Teacher Aides

Teacher aides are generally viewed by teachers as an indispensable source of support to deaf students and to themselves; aides are seen to take a high level of responsibility for enabling deaf students to access communication and undertake learning tasks in class. Their main role is described as delivery of a modified or remedial academic programme for the deaf student, with responsibility for adapting tasks and coaching the student's work in virtually all curriculum areas – with a heavy emphasis on supporting language skills, literacy and numeracy.

Teachers widely expect teacher aides to take a supervisory role in keeping the deaf student on task with academic work, and managing their social interaction, both in and out of the classroom.

Teachers rely on aides to relay much of the spoken communication in class (and other school events) to the deaf student by oral or signed interpreting (mainly orally). The majority of teachers estimate that deaf students can access approximately half of the communication in their classroom. They note the difficulty of finding suitably skilled teacher aides to perform the interpreting role effectively.

Other duties of Teacher Aides reported by teachers include speech and auditory training, day to day management of hearing aid technology, liaising with parents (e.g. in a home-school book), notetaking, teaching sign language to hearing students, and providing general assistance to the teacher and other students in class.

Over half of teachers are not directly responsible for evaluating Teacher Aides' performance; of those who do, only 60% feel confident to assess the aide's effectiveness in meeting the deaf student's needs. Overall, teachers rate their experience of working with teacher aides as very satisfactory or satisfactory. However, they also identify a need for aides to receive more training in the various skills demanded of them, to have more clearly specified expectations and evaluation of their work, and more generous employment conditions. The amount of teacher aide coverage is seen as inadequate by some teachers, who feel that both they and the student are somewhat 'stranded' during the times when an aide is not present.

Teachers observe a risk of the student-aide relationship becoming overly dependent and in some cases stifling the student's social and academic independence.

10.5 Perceived benefits and disadvantages of the student's mainstream situation

Mainstream teachers overwhelmingly emphasise the social goal of assimilation into hearing society as the chief benefit of their deaf student being in a mainstream school placement. They believe that interaction with hearing peers at school will ultimately equip the deaf student with communication and social skills needed for adult integration into the hearing world of the workplace and community life. A frequently expressed idea is that deaf students' experience of negotiating relationships with hearing peers in a regular school community will encourage them to perceive themselves as normal and capable, rather than as different or disabled (or 'deaf'). Teachers' comments on this theme reveal a strong belief in the normalising effect of

mainstream education and the social value of deaf students being part of the 'real' or 'normal' world from an early age.

Other major benefits cited by teachers include: firstly, exposure to the regular curriculum and measurement (by self and teachers) against age-appropriate achievement standards; secondly, the opportunity for hearing students to become sensitised to and tolerant of social diversity through their experience of deafness/disability within their peer group; and thirdly, immersion in a spoken language environment which is seen as ideal for fostering 'normal' language and communication skills in deaf students.

Disadvantages and problems observed by mainstream teachers were numerous. Chief among these is the obvious communication barrier, and the extent to which deaf students miss out on instructional and social information conveyed through spoken language, both in and out of class. Although teachers mention teacher aides as having an important role in bridging this gap, they acknowledge that in many cases, deaf students are unable to access much group communication at school; this is compounded where the student does not have the depth of (English) language skills to comprehend the information conveyed, nor to pick up or respond to subtle pragmatic cues in social interactions. In the case of deaf students who are signers, teachers note the lack of a community of peers in which they can interact freely in sign language.

Linked to the experience of 'missing out' through linguistic isolation, teachers also observe some students to experience social isolation, frustration, confusion, and a lack of academic and social confidence. More regular and significant contact with deaf people was mentioned by some teachers as a potentially important element in counteracting this disadvantage of the student's social situation in a mainstream setting.

The level of academic delay and the need for an individualised programme for many deaf students was seen to place extra demands on teachers who are both busy, and may also lack the knowledge to feel competent in meeting a deaf student's learning needs. In some cases, teachers perceive the gap between a deaf student and the pace/style of the class programme to be inadequately addressed, in terms of needing more support staff coverage, and the teacher's practical inability to adapt whole-class teaching to suit a deaf student's different level of knowledge and language. While many praised the efforts of teacher aides in redressing this gap, some

teachers also believe that, for these reasons, mainstream placement is not necessarily of academic benefit to their student.

Teachers were concerned about the impact of noisy and distracting classroom environments on deaf students' ability to comprehend communication (even with assistive devices) and to concentrate in class. They also express an awareness that many learning activities require students to attend to more than one source of visual information at a time (resulting in deaf students 'missing out' on information), or are not designed to sufficiently reinforce learning through visual means which would assist a deaf learner.

Analysis of teacher responses about benefits and problems for deaf students in mainstream classes reveals several inherently contradictory perceptions (see Appendix B). For example, the main benefits are identified as eventual social integration and the development of communication skills for interacting in the hearing world - yet language delays and communication barriers experienced by deaf students are also observed to exclude them from much of the social interaction in a mainstream school that might lead to these outcomes. Exposure to the regular curriculum and to the achievement standards of hearing role models is seen as a benefit, and a proportion of deaf students are reported to be achieving satisfactorily at age level; yet a large number of teachers also report that the extent of the academic gap between a deaf student and the class programme is a significant problem for them to effectively address in practice, leading some to consider that mainstream placement is based more upon a perception of social rather than academic benefit.

Appendix A: Questionnaire Form

Survey of Mainstream Teachers of Deaf Students

<input type="checkbox"/> Female	<input type="checkbox"/> Male	Your Age: < 24	25-35	36-45	46-55	55+
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Title of your position at school:

1. How many years teaching experience do you have? *Circle one.*
 1-2yrs 3-5yrs 6-9yrs 10-14yrs 15 plus yrs

<p>2. How long has this deaf student been in your class? <input type="checkbox"/> This year <input type="checkbox"/> This & previous year(s)</p> <p>3. Have you had another deaf student(s) in your class before? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>5. Does your deaf student - (please tick one) - <input type="checkbox"/> usually understand and express ideas by speaking & listening? <input type="checkbox"/> usually understand and express ideas through signing? <input type="checkbox"/> usually speak and sign at the same time?</p> <p>6. What is their level of hearing loss ? <input type="checkbox"/> Profound <input type="checkbox"/> Severe <input type="checkbox"/> Moderate <input type="checkbox"/> Has cochlear implant</p> <p>7. Do you see your deaf student as bilingual? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure</p>
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8. At approximately what level is the student performing in the core curriculum areas of literacy, maths, topic studies? *Please tick a level for each general area.*

	<i>Above age- level</i>	<i>At age- level</i>	<i>Approx. 1 yr below age level</i>	<i>Approx. 2+yrs below age level</i>
Literacy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maths	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Topic S.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9. How confident are you about assessing the deaf student's academic achievement?

- Very confident Somewhat confident Not confident

Comments:

10. How satisfied are you with the practical support & advice you receive for teaching a deaf child?

- Very satisfied Satisfied Dissatisfied Very dissatisfied

Comments:

11. Do you know how to sign?

- No Just a few basic signs
 Yes, moderately well Yes, fluently

12. How well do you and the deaf student generally communicate with each other?

- Very well Reasonably well
 With some difficulty With considerable difficulty

13. How much of the overall classroom communication do you think the deaf student has access to?

- Almost everything More than half
 About half or less Very little Don't know

14. What are the duties of the teacher aide who works with your deaf student? *Please list:*

15. Do you evaluate the teacher aide's job performance? Yes No

If yes, how confident are you about evaluating the T. Aide's skills and performance?

Very confident Somewhat confident Not confident

16. Does the teacher aide normally sign to the deaf student to pass on information?

Yes No

If yes, who decides what the teacher aide should pass on (or not)?

Teacher Aide Joint decision Student

17. How important is the teacher aide in relation to the deaf child's participation & learning in your class?

Vital Very important Important Somewhat important

18. How would you rate the overall experience of working with a teacher aide in your class?

Very satisfactory Satisfactory
 Unsatisfactory Very unsatisfactory

Comments:

19. What do you see as the main benefits to your deaf student of being in a mainstream class?

20. What do you see as disadvantages or difficulties for the deaf student in this situation?

Please use the space below and over the page to comment on any further aspects of the impact on you as a teacher of having a deaf student in your class, and about working with a Teacher Aide. You may wish to comment on positive or negative aspects, or both. Any advice you would give to other teachers in a similar situation would be useful. All your comments are valuable to the research.

If we need further information, may we phone you? No Yes

If yes : Your name: _____

Best time to call: _____ Your phone number: _____

Thank you very much for your participation in this survey.

Appendix B: Benefits and disadvantages stated within the same survey response

Benefits	Disadvantages
(Survey 2, Severe) Social interaction and having to learn to survive in the real world where she is eventually heading.	Conversation and class discussion are missed; even with F.M. It's just not useful for many speakers. Without conversation meaning is lost. This can be lonely. Other children understanding her disability.
(Survey 8, Severe) Socially he enjoys being part of the class and relates well to others. His team of teachers and teacher aides also bring their own strengths and ideas.	His learning level is well below most of the class. Most of his program is 1to1 on basic reading, vocab, grammar, sounds, etc.
(Survey 17, Profound) Socialization	How on earth do you expect a teacher with 20+ children in her class to really make a massive difference to a child; she can only reasonably communicate with. Socially, yes it's great but this particular child has come in to my room at such a low level of learning that there is very little that I do with my hearing children that can be relevant to this child whose reading, learning, understanding is at such a low level.
(Survey 18, Profound) She learns to mix with her peers, and develop social behaviors. She learns to communicate with others and to interact with her peers.	The frustration of not always being understood in class. The difficulty of changing from 1 to 1 attention with a teacher aide to being part of a class the rest of the time. The frustration of not always understanding what is required of her.
(Survey 19, Profound) Being able to participate in the hearing world	Misses things – communication is hard.
(Survey 21, Severe) Main benefits are the social needs of the student as well as the esteem they get from being incorporated into all class activities.	Being left behind as class develops own work independence and higher achievements.
(Survey 23, Severe) The Deaf student knows what standards able hearing students are achieving and they have a goal to reach. The deaf student has to communicate in order for peers to relate messages to get through and be understood.	They get very tired, exhausted in fact and this affects their ability to take in information. Able hearing students forget -take their own hearing for granted.
(Survey 26, Profound) The chance to be like everyone else – do what they do.	Maintaining friendships has been difficult. Often lots of plans for games etc are made at times when the child cannot hear/lip-read - over lunch for example. So she is often left out. Because she has to push herself forward to ensure that she understands everything some children see this as bossy/pushy and react negatively.
(Survey33, Profound) Interaction with mainstream children. Not being alienated by being deaf- he only has his disability and is very capable doing most things. By being in the mainstream class he learns to cope more adequately in the real world.	The teacher not being able to communicate directly to the student. They only get what the interpreter passes on. Missing out on things when other children are obviously laughing – student does not understand – guess deaf people are used to this.
(Survey 65, Profound) Being able to hear normal speech from other	Not enough time to develop all the concepts that she

<p>students must help her speech to improve.</p> <p>She likes to be the same as her peers, and being mainstreamed helps her be the same as a normal child.</p> <p>Helps normal social interaction</p>	<p>lacks understanding of- especially in topic studies. No provision for signing instruction so that she can share more in this aspect of deaf community life. Sometimes a lot of background noise. Her reluctance to be singled out from the group means it is sometimes tricky to give her extra individual support that she needs.</p>
<p>(Survey 56, Profound)</p> <p>He now feels like a normal person in society. Accepted by normal students and a member of a normal class with ordinary expectations. Interaction with ordinary kids and normal classroom environment)</p> <p>Behaviour has improved after children have modeled acceptable standards.</p>	<p>Not understanding what is happening. Missing out on children's interaction with the class. Harder for him to keep up because he has to watch the signing, can't listen and work.</p>
<p>(Survey 28, Profound)</p> <p>To be part of a group similar to being part of the world.</p>	<p>Rejection by hearing students</p>