

Speech Link: A Technological Tale from Taranaki

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Background

As Lead Practitioner for the province of Taranaki in New Zealand, I had become involved in the development of the National Assessment Framework led by Ministry of Education's Practice Advisor, Liz Doell. The purpose of the framework was to develop consistency across New Zealand in terms of defining the severity and impact of speech and language difficulties. This would allow school focused SLTs service to accurately determine the cases to be worked with – i.e. 1% of the school population. Welcoming the need for consistency, I also realised the implication for my clients if I were to apply the framework to my caseload. It would mean many children no longer being eligible for service yet still having needs.

At the 2008 SLT Conference in Auckland I had been intrigued by multimedia packages called Speech Link & Language Link. Originally developed in the UK, it was designed to provide screening and support for children with speech and receptive language difficulties without requiring a significant time commitment from an SLT. In other words it had scope to build capability in schools and early years centres to address the needs of children who might not otherwise qualify for support. I subsequently contacted Speech Link to investigate the feasibility of a trial here in New Zealand.

In the UK, schools pay individually for a licence allowing them access to all the online magic that includes assessments, results and profiles, resources, information and support. This fee is GBP is equivalent to NZD \$4000. That's a lot of money to expect one school to find on the whim of an optimistic SLT fresh from Conference. There was a significant issue that needed addressing if this project was to progress – it concerned the population difference and relative numbers of students in schools.

A proposal that cohorts be established based on RTLB cluster was sent to the UK. This meant that the cost of the licence could be shared, making the project more financially viable. Numbers were negotiated and approved. The project could begin.

Speech Link Project Goals

- 1. To build capability within the cohorts so that staff felt confident to meet the needs of children with mild and moderate speech and language difficulties**
- 2. For staff to effect a positive change in the skills of children they identified and prioritised for support**

Method

Cohort 1 comprised 3 rural primary school and 2 early years' facilities (1 Kindergarten and 1 Play centre). Cohort 2 was made up of 4 urban primary schools. Schools funded payment of the licence fee themselves and a minimum of 2 staff in each facility were trained to use the assessments. The Speech Link & Language Link licences cannot be purchased without the schools first identifying a therapist to support their implementation. My role was to ensure the Cohorts fully understood how to make the most of the packages and to provide answers to any queries that arose. I did also provide some supplementary training sessions and shadowed staff when initially assessing to give moral and technical support. I felt that to some extent this hand-holding was an important investment of my time as we were embarking on this technological adventure together. The RTLBs in each cluster also provided valuable support to staff and liaised closely with me.

Both Cohorts spent one term assessing. In the following 2 terms staff would implement Speech & Language Link recommendations and in the final term re-assessments took place.

Speech Link

- Allows staff to screen of speech production (single words)
- Appropriate for children aged 4 to 8 years
- Takes 10 minutes to administer and involves naming items as they appear on the computer screen

Following training, teachers capably carried out assessments - they inputted data and children's responses accurately. Analysis of the responses was all done by the programme and the teacher was immediately presented with results and recommendations.

With regard to the recommendations generated it could be challenged - would an SLT make the same recommendations? In the UK pilot, the results showed that 89% of screens matched independent SLT recommendations. In fact the packages tend to

fail safe and can recommend a programme when a SLT may decide it's not necessary. Prioritising who warranted support was negotiated with schools. When decided who warranted support consideration was given to the following:

- Is the error sound correctly produced elsewhere in the sample?
- Could the error sound be copied?
- Is the child understood in conversation?
- What is the level of anxiety expressed by staff/parent/child about speech?
- Is there any impact on participation and learning?
- What support time is available?

Cohort Totals

- 370 children assessed with Speech Link
- 129 had programmes recommended (35%)
- 36 prioritised for individual support
- Initial reports following assessment recommended a total of 108 programmes to be worked through
- After intervention, reports following re-assessment recommended a total of 60 programmes to be worked through

Therefore, staff brought about a 45% decrease in support programmes required.

Facilities reported that they timetabled frequent individual sessions to practise and achieve steps outlined on website. SLT provided supplementary training to explain how to implement programmes and share ideas, games and activities.

Language Link

- Allows staff to screen receptive language skills
- Appropriate for children aged 4 to 5 ½ years
- Takes 15 minutes to administer (return to test option)
- Investigates understanding of pronouns, prepositions, verb tenses, cause and effect, following instructions, basic concepts, negation and question forms
- Creates a class language profile (in addition to individual profile)
- Gives specific classroom strategies for developing understanding

Cohort Totals

- 172 children assessed using Language Link
- 50 identified within normal limits but benefitting from attention to particular areas of comprehension
- 23 students prioritised for support

The middle figure is an interesting one suggesting that 3 in every 10 children can struggle with understanding some parts of language. Analysis of these in order of difficulty revealed which caused the most problems:

- Basic Concepts, Verb tenses and Questions
- Following Instructions & Cause and Effect
- Pronouns
- Prepositions
- Negatives

These findings may have implications for teachers and their practice. Being aware of what is challenging for children in their class will allow teachers to consider modifying how information is presented, requested and use support strategies to help secure knowledge and understanding. Unlike Speech Link, the intervention strategies for Language Link are classroom- based with results of assessments informing teachers' practice. Class profiles revealing all children's performances were available online. Having specific information about which areas of language their class weren't secure with allowed them to incorporate activities to reinforce learning in class by modelling language for students, e.g. Concept corner, lining up, Question time, Teachers were able to guide support staff's work in class – again providing more focus for those struggling with understanding particular aspects of language

During 6 months staff were able to bring about an average 20% increase in comprehension for the children they prioritised.

Reflecting on the Speech Link Project goals:

- 1. To build capability within the cohorts so that staff felt confident to meet the needs of children with mild and moderate speech and language difficulties**
- 2. For staff to effect a positive change in the skills of children they identified and prioritised for support**

Considering the results of both Speech Link and Language Link assessments, it can be established that goal 2 has been achieved. As for goal 1, participants completed pre and post project confidence ratings.

When initially questioned about their confidence to identify and support children with speech difficulties, respondents gave an average centile rating of 55. After becoming familiar with and using the Speech Link programme, their average centile rating shifted positively to 85. With regard to identifying and supporting children with receptive language problems, respondents at the start of the project gave an average

centile rating of 58. By the end of the year, **confidence levels had increased** to an average centile rating of 83. Goal 1 has also been achieved.

Comments made included:

“I feel confident because I know when I help them I can see the difference it makes”

“Having Speech Link & Language Link available gives me confidence. Noticing deficits during a normal classroom activity without a tool is hard.”

“We know exactly where the gaps are/can work on these areas with the class and often the whole class benefits”

“After using Language Link, seeing the results of assessments I can see that by using a programme it can pick up far more than I ever could.”

Speech Link “I know when someone needs help but this CONFIRMS it for me”

“My knowledge of speech has increased significantly”

Evaluation

Computer based assessment such as Speech Link & Language Link may prove highly motivating for the children. Many children involved in this project thought some one to one time was a pretty special treat. Staff generally felt that the images were appealing and elicited positive reactions and comments from the children. Ward (2008) documents the role of computers as a valid tool for assessment.

Implementation required awareness of the following:

- Considering variations in the NZ accent e.g. lack of release of final plosives and often medial /t/ becomes /d/ e.g. ‘computer’
- Editing details are controlled in the UK so there is no ability to amend minor details such as gender errors, spelling mistakes.
- Technical glitches e.g. logging on, user errors, accessing and saving reports

Support from the UK was very efficient with prompt response to requests quickly followed up.

Because of the unique nature of RTLB clusters, cohorts were also aware of need to respect confidentiality of results. Forums provided a way of sharing communication among those involved in the cohorts. For Cohort 1 which included Early Years facilities feeding into the Primary schools, there was good coordination of information about speech and language around transition thanks to the Speech & Language Link information.

Resources available on the website are appealing but did need supplementing.

Sustainability

Both cohorts are renewing their licences for 2010

Impact on referrals

Whilst no change in number of referrals was specifically measured, Speech Link project allowed for better communication and negotiation around students highlighted by the programme. In fact, reassuringly some of the more severe cases were already known to the SE SLT service. It also allowed for a clearer understanding of which children were funded for service and the National Assessment Framework definitions of mild/moderate and severe proved as helpful in this respect. It also allowed for some cases to be closed and responsibility for meeting their needs to be handed over to the facility.

Time spent

During 2009 Diary sheet entries indicate the time required to support the 9 facilities initial implementation of Speech & Language Link programmes equated to 3hrs per week or 1 session per week of SLT time per year. During the second year, facilities have become much more autonomous and are relying on SLT support significantly less. According to Liz Doell, 16% of time in School Focus SLT service is funded for Professional Development for teachers and systemic support for addressing mild and moderate needs.

So is this a happy ever after?

Staff in the Cohorts have built capability to meet the needs of mild and moderate speech and language difficulties successfully. Best Evidence Synthesis states that professional development and learning for staff must be:

- Undertaken within the context of the learner
- Related to real contexts and scenarios
- Be self-driven
- Include ongoing monitoring and support

All of the above characteristics are evident in the use of Speech Link and Language Link. As a result of its implementation, staff have developed their knowledge, built their skills, increased their experience and confidence and made a significant difference for the children they identified and supported. Any professional development that is provided to staff around speech and language needs to have measurable positive outcomes for the students, like those evident in this project. The following quote sums up the value of Speech Link & Language Link for one of the schools involved,

“In the past there has been very little in the way of speech and language assessment tools for classroom teachers to use. The one or two minor tools available to schools only gave a test total. No analysis of results was available and no programme of support suggested. The only support offered was through the speech language therapist whose criteria for intake only permitted her to see the most severe or complex cases. Children with minor or moderate speech needs were unable to be included in a programme. Those with minor language delays were often undiagnosed and went on to have difficulties accessing learning in the classroom.

- *This programme has admirably addressed this deficit*
- *A key advantage has been that teachers are more knowledgeable about speech and language needs and are able to access the resources needed to address the problems*
- *The assessment tools are easy to administer and analysis is provided for the teacher*
- *The programme acts as a screen so that only the most severe or complex needs are referred on to the speech language therapist*
- *When referrals are made to the speech language therapist, teachers now have solid data to back up their concerns instead of a vague worry that something is wrong*
- *The programme materials have been easy to use*
- *The school now feels equipped to meet most minor and moderate speech needs*
- *Programmes for meeting language needs are easily adaptable to class programmes”*

Lifted with permission from *Central School Annual Report* November 2009

My thanks go to:

The principals and all staff involved in this project for their belief and commitment.
Dawn, Tash and Vicki, RTLBs, for their enthusiasm and support
District Management Team at Special Education for their approval to progress this project
Nettie and the UK Speech Link team

www.speechlink.net

Speech Link Summaries

Cohort 1 (Opunake)

- 168 children were assessed with Speech Link
- 67 had programmes recommended
- 15 prioritised for individual support
- 10 with pre and post test data
- For those 10, initial reports following assessment recommended a total of 44 programmes to be worked through
- After intervention, reports following re-assessment recommended a total of 25 programmes to be worked through

Cohort 2

- 202 children were assessed using Speech Link
- 62 had programmes recommended
- 26 prioritised for individual support
- Initial reports following assessment recommended a total of 64 programmes to be worked through

After intervention, reports following re-assessment recommended a total of 35 programmes to be worked through

Language Link summaries

Cohort 1

- 83 children assessed using Language Link
- 27 identified within normal limits but benefitting from attention to particular areas of comprehension
- 9 students requiring programmes (included 1 ESOL, 2 ORRS)

Cohort 2

- 89 children assessed using Language Link
- 23 identified as within normal limits but benefitting from attention to particular areas of comprehension
- 14 students prioritised for support (included 4 ESOL, 1 ORRS + 2 Dev. delay)

Confidence Measures

Staff	Pre Speech	Post Speech	Pre Lang	Post Lang
Teacher @ Central	5/10	8/10	6/10	8/10
Teacher @ Central	5/10	7/10	4/10	10/10
Teacher @ Central	4/10	7/10	6/10	8/10
AP @ Merrilands	7/10	9/10	6/10	9/10
Teacher @	5/10	9/10	6/10	9/10

Central				
Teacher @ Central	6/10	8/10	6/10	6/10
TA @ St. Jo	7/10		7/10	
TA @ Rahotu	5/10	9/10	4/10	9/10
TA @ Opunake	6/10	9/10	4/10	7/10
TA @ Opunake	7/10	10/10	7/10	10/10
Teacher @ St. Jo			6/10	
TA @ St. Jo	6/10		4/10	
TA @ St. Jo	6/10		6/10	
Teacher @ Opunake	7/10	9/10	7/10	10/10
Kindy	4/10	10/10	6/10	6/10
TA	5/10	7/10	8/10	8/10
Kindy	6/10		5/10	
TA	7/10		6/10	
Parent @ Rahotu	8/10		8/10	
Parent @ rahotu	5/10		5/10	