

**PRINCIPAL'S SABBATICAL LEAVE REPORT 2007**  
**INVESTIGATION OF TWO EVIDENCE BASED PROGRAMMES**  
**IN INTERNATIONAL AND NEW ZEALAND**  
**SPECIAL EDUCATION SETTINGS**

**AUTHOR**

**Carmel Hoetawa**  
**Principal, Kowhai Special School & Resource Centre**

**SABBATICAL TAKEN**

**April 6<sup>th</sup> 2007 to June 22<sup>nd</sup> 2007**

**ACKNOWLEDGEMENTS**

The following are gratefully acknowledged for their support in terms of the success of the sabbatical:

- Kowhai Special School Board of Trustees, Deputy Principal and Staff
- The Woolf Fisher Trust
- Heretaunga Lions Club
- Altrusa Club
- Cathie Sohler, Special Education Advisor, Cook Islands
- Principal and Staff: Te Uki Ou School, Ngatangia, Cook Islands
- Principal and Staff: Beacon Hill School, Thurrick, London UK.
- Principal and Staff: Sunfield School Birmingham UK.
- Pyramid Educational Consultants, Delaware, USA.
- Principal and Staff: Delaware Autism Programme, Sussex Consortium, USA.
- Principal and Staff: Sommerville School, Auckland NZ.
- Principal and Staff: Sir Keith Park School, Auckland NZ.
- Principal and Staff: Brunswick Special Developmental School Melbourne
- Principal and Staff: Bulleen Heights School, Melbourne Australia
- Amanda Reed, PECS Consultant, Pyramid Australasia
- Ministry of Education, New Zealand

## EXECUTIVE SUMMARY

The investigation into the evidence based programmes; PECS (Picture Exchange Communication System) and ASDAN (Award Scheme Development Accreditation Network) took place across a range of settings and provided the author with further insights as to the efficacy of these programmes.

Observations and questioning led to similar conclusions across the settings.

The PECS and ASDAN programmes were producing and replicating positive learning outcomes for students. It was evident that in some settings the programmes were at earlier stages of development than others.

The ASDAN programmes were operating consistently in the United Kingdom and New Zealand. Other transition programmes were evident in the United States and Australia.

Principals consistently reported the following as ensuring the viability and efficacy of the programmes:

- ongoing professional development, reviews and refreshers were a high priority for staff,
- school wide commitment to developing programmes,
- training and induction for new staff,
- support for the leaders of the programmes,
- provision of funding and resourcing for sustainability,
- data gathering and research,
- establishment of lead teams to ensure implementation.

Kowhai Special School & Resource Centre will continue to develop these programmes, build on existing levels of good practice, and contribute where appropriate to national and international activity.

Information on these programmes can be sourced on the following sites:

- PECS [pyramid@pecs.com](mailto:pyramid@pecs.com)
- ASDAN [www.asdan.co.uk](http://www.asdan.co.uk)

## **PURPOSE**

*To*

- 1) Investigate how specific special education programmes are delivered in a range of special schools, i.e. PECS and ASDAN.
- 2) Compare these programmes that are designed to affect functional communication and independence development for students in a range of schools in Australia, Britain, USA and New Zealand.
- 3) Enquire as to how Principal Leadership impacts the development of these programmes.
- 4) Ascertain how Principals ensure programmes have efficacy, and how they prioritise funding and resources to programme development.
- 5) Attend the International Picture Exchange Communication System Congress in Philadelphia, on the 27<sup>th</sup> and 28<sup>th</sup> April 2007, Philadelphia.
- 6) Confirm that research in these programmes influences programme development and produces positive student outcomes.

## **BACKGROUND INFORMATION**

In 2003 two to three individual staff members at Kowhai Special School were looking into these two evidence based programmes. They made suggestions to the new Principal (author) in regard to how these programmes could be developed. Staff meetings confirmed that there was enough interest to pursue development. The Principal sought information as to the validity of the programmes and informed the Board of Trustees and school community of their development and potential.

Over the next three years the following occurred:

- strategic and annual planning documents reflected the inclusion of these programmes,
- project groups were formed including management and teaching staff,
- student achievement data was collated from individual education plans(IEPS),
- professional development in both programmes was planned and delivered,
- significant outcomes for students including verification in ASDAN modules achieved,.
- analysis of data confirmed validity of programmes.

*Were these programmes having the same type of success for students elsewhere?*

## METHODOLOGY AND ACTIVITIES UNDERTAKEN

In appreciation of time constraints and knowledge of school culture the following approaches were used in this process:

- observation via school site visits,
- informal interviews,
- photo evidence where permissible,
- discussion, feedback and reflection with, Deputy Principal (who travelled with author to Cook Islands, UK and the USA) on observations and interviews.

## FINDINGS

### Cook Islands, Rarotonga

Cathie Sohler, Special Education Advisor, outlined the position of Special Education in the Cook Islands over the past four years. There had been a unit at Avarua Primary School that had four to five students. Some of those students were wrongly placed in this unit; e.g. a student without developmental delay or cognitive disability was placed in this unit. The closure of this unit enabled a mainstream/inclusion option for the remaining students.

An example of this was at, Te Uki Ou School, in Ngatangia. Observations took place of several students with very high needs and information of two students with Autism was discussed.

It was clear that the school had evidence based practise but not in the two programmes in this investigation. The school had accessed assistance for two students with specific educational needs via applying to NZ Aid. This was in the form of specialist teachers visiting and giving advice and teachers visiting schools in NZ. The school was accessing the MOVE programme, a programme to assist students gain independence in movement with specialised equipment.

The Principal was providing resources in an environment which had limitations. The school had condemned buildings and as it was a private school, it had reduced government funding. The impact of government bankruptcy from years earlier was still mentioned as having had an impact on educational outcomes in the Cook Islands.

### United Kingdom, London, Beacon Hill School, Thurrick

This school had mainly students, five years to nineteen years of age, whose profiles closely aligned with our high and very high ORRS (Ongoing Reviewable Resource Scheme) funded students. They did not have students with autism spectrum disorder; they were in another special school sharing a site with Beacon Hill.

The ASDAN programme was used in this school and we observed senior students engaging in the programme in similar settings as we would do in NZ. We observed a range of visual support which they aligned with PECS.

Older students in transition were situated in classes modelled on senior high school common rooms. Sound organization and programming was observed. Discussion took place on the global issue of adequate, sustainable post school adult placements.

An interview with the school Principal highlighted resourcing and issues of professional leadership. Apart from the level of resourcing, issues of professional leadership and evidence based practice were similar to NZ. The Principal delegated curriculum to two Deputy Principals and reported that human resources constituted the largest aspect of finance. The Deputy Principal reported that sending people to professional development was somewhat difficult.

An interview with the teacher who ran the ASDAN programme revealed how students' work was presented for accreditation. We met students working on ASDAN modules, and Teacher Assistants / Aides were positive about the students work.

### United Kingdom, Sunfield School, Birmingham

The Principal and members of the Sunfield School team had run professional development workshops for special education in Hamilton prior to the sabbatical been undertaken. The author and accompanying Deputy Principal were able to attend these and make initial contact and enquiries prior to the school site visit.

The first interview was held with the ASDAN coordinator. Evidence of both data analysis and research projects gave assurance that ASDAN conducted in this school was sustainable. The programme, as outlined, displayed on going reflective practise and student achievement was evident through verification processes.

Based on a three year programme, students worked at the various levels including a regular cycle of verification. Organisation of students' files was impressive and functional. The use of PECS and visual strategies was apparent in these classes especially in assisting students to transition from activity to activity. This highly structured environment / programme was most supportive for students with autism.

Observation of a student in an individual PECS session with a speech language therapist highlighted the school's commitment to developing PECS. The therapist had observed over use of staff prompting in class and the student had ceased initiating . This lesson was at Phase One of the programme.

Students whose class was based on the Intensive Interaction teaching approach were able to engage with the ASDAN programme, with the majority of students completing modules on a 1:1 basis. This approach was student led, taking opportunities with the student as they arise. This programme was part of a project group and in its second year it had seen very positive results. Progress is evaluated daily.

The Principal and senior management team at Sunfield reported that a large and significant part of their budget was assigned to human resources and research. Sunfield is a private school. The school employs a number of people to fundraise. Students are funded much like they are here in NZ, but there are no grants for buildings, maintenance and research. Students enrol through a strict criterion. This was also a residential school. Mostly students have been unable to remain in other special schools and settings, due to environmental and severe behavioural issues. Many of the students had autism and other disabilities.

Sunfield School have also had strong commitment to staff induction and professional development.

Sunfield School is a charitable trust that has earned a reputation as innovative, with researched based programmes.

### PECS International Congress, Philadelphia, 27<sup>th</sup> April – 29<sup>th</sup> April 2007

Eighty six people from around the world met to share information and research about the development of PECS. This programme has been developing for twenty years. The programme developers and key note speakers, Andy Bondy and Lori Frost presented papers; 'PECS: Past, Present and Future' and 'PECS and Verbal Behaviour'.

A range of other papers were delivered over the two days supported with relevant research and measures. Future directions for research and application of the PECS Programme beyond working with students with autism spectrum disorder were strong themes throughout the congress.

Another paper, 'PECS: Signs, Language, and the Developing Brain', by Joe McCleery gave participants insights into recent research of the role of mirror neurons, neural basis of language development in individuals with autism, and the neural basis of PECS.

The Deputy Principal of Kowhai Special School & Resource Centre, Judy Cossey presented her paper: 'An Experienced Teacher's Transition'. This was recently evaluated as the second most popular paper presented at Congress.

The Congress produced examples of effective evidenced based practice with PECS from a range of international settings.

### Delaware Autism Programme, Sussex Consortium

In class observations and interviews with the director and staff of the Delaware Autism Programme took place in three school sites where students had entered the programme after both medical and educational assessments and diagnosis.

These sites were located within mainstream school settings. The Pyramid Teaching Model, based on applied behaviour analysis was consistently used with pre-schoolers to late teens. On school entry, students were taught PECS, as students mastered communication the curriculum was woven into the programme.

All adults in the students' environments used exchanges as a basis of communication. Observations took place with students from the pre-school level to late teens. It was outstanding to encounter a range of students using functional communication who had entered the programme as non-verbal individuals with extremely challenging behaviour. The students demonstrated an ability to ask questions in an appropriate manner. Students who had received PECS and who had developed speech were observed working in curriculum, with teachers reporting that they were achieving with state exams.

Programme strength was demonstrated by the ongoing data gathering across the day that informed the teachers of student progress. This was undertaken by both teachers and teacher assistants.

Funding and resourcing issues were discussed and human resources were a priority for this programme.

Of all the overseas programmes this stood out as a consistent, research based programme that was producing significant gains for students.

### **Sommerville School, New Zealand**

Observations of both PECS and ASDAN Programmes were undertaken. Informal interviews and discussions took place with the Principal and senior management.

This school had started with PECS in one classroom with a speech language therapist a few years earlier. With staff training in PECS the programme had spread into other classrooms. Students were observed using sentence strips and exchanges.

ASDAN was well developed. The use of ICT was also evident with student portfolios, whiteboards and digital displays supporting an overall highly visual environment. Student work had been presented for verification and achievement outcomes were produced.

A noted strength of the school was the utilisation of a house for ASDAN Transition Programme modules.

The Principal placed a high importance on human resources and shared issues of funding priorities.

### **Sir Keith Park School, New Zealand**

Observations and informal interviews regarding ASDAN and PECS revealed that evidence based programmes were seen as a priority along with another programme called MOVE. A group of multi-disabled students were observed undertaking two ASDAN modules in 'Towards Independence, covering topics in printing and physiotherapy.

The PECS programme had started to be developed a year prior and students were observed engaging in exchanges at meal times as well as using PECS schedules. PECS folders were also been developed and symbol adaptation for multi-disabled students was evident by use of objects of reference rather than cards.

The Principal described the need for ongoing funding to support the growth of programmes and equipment.

The Principal keenly supported senior management who led the development of the programmes.

### **Brunswick Special Developmental School, Melbourne, Australia**

This was a school for students with intellectual and physical disabilities.

This school had a strong emphasis on the use of PECS and student PECS folders were evident throughout classes as were student individual schedules. There were labels and photos throughout the environment together with social stories and symbol stories.

Observations and informal interviews with the Principal and senior management revealed the effective use of interactive whiteboards that teachers reported as most useful for focusing students and group interaction.

The Principal discussed the ongoing need for professional development for staff and the training of new staff as a barrier to stronger PECS development. The Principal reiterated that this had not lessened the schools commitment to the programme.

The school was unaware of the ASDAN programme but it did have a transition programme in place.

### **Bulleen Heights School, Melbourne, Australia**

This was a Victorian State dual-mode specialist school for children and young people with autism spectrum disorders and / or intellectual disabilities.

This school had a staff of 129 ABA [applied behaviour analysis] graduate students from the psychology department of a local university.

This school was a large purpose built facility with extensive space. Although the school was dual mode by definition, students with autism had trended up over the last ten years.

The use of PECS had developed over three years with the staff having recently renewed a commitment to making communication a priority for all students learning.

The Principal reported that special schools had for many years put programme emphasis on behaviour. Research has demonstrated that with an ability to communicate, student behaviour of concern sharply reduces and student wellbeing and happiness increases. The school had decided to combine the ABA approach with PECS. The Principal indicated that ongoing training for staff was a funding concern and they had managed to gain full staff commitment to after school training.

They had not heard of the ASDAN programme, but did have a transition programme in place.

## **IMPLICATIONS**

As a result of the investigation Kowhai Special School & Resource Centre could evaluate the extent to which the school can further develop the following:

1. Continue to reflect on the effectiveness of teacher practise with PECS and ASDAN programmes.
2. Provide training, funding, and human resources to ensure sustainability of programmes.
3. Support of lead teachers, staff and students.
4. Strengthen data gathering, assessment and research systems to support the programmes.
5. Plan utilisation of the school's PECS implementer and ASDAN project leader.
6. Increase involvement of parents/caregivers, whanau and community.
7. Seek inclusion of under and post graduates on school placement to assist with research and programme development.



## CONCLUSIONS

It is the author's opinion that Sunfield School in the UK demonstrated a high level of effectiveness and delivery of the ASDAN and PECS programmes.

The Delaware Autism Programme within the Sussex Consortium demonstrated a very high level of effectiveness and delivery of the PECS programme.

The common elements that appear in both these settings are:

- the depth of research findings and consequent application to teaching practise,
- adherence to programme standards and protocols,
- cohesion of organisational components and structure,
- data gathering processes and use of data to make changes,
- reflective practise, monitoring and self review,
- funding and resourcing,
- use of under and/or post graduate students in programmes,
- support and commitment from Principal / Director and senior management.

PECS as observed in international settings produced outcomes for students cross-culturally.

The Principal of Sir Keith Park commented that the three programmes that have influenced and developed education in Special Schools have without a doubt been ASDAN, PECS and MOVE.

Kowhai Special School & Resource Centre continues to develop its evidence based practise and through this investigation can strengthen and enrich the programmes to bring about good practise by teachers that as research indicates, has the strongest influence on student achievement outcomes.

The author wishes to acknowledge the generosity of students in all settings who contributed to the success of the sabbatical.