



## **Project Summary**

### **The Efficacy of Models for Educational Service Delivery for Students with Autism Spectrum Disorders**

#### **What was the research project about?**

This study examined progress of children with autism spectrum disorder in primary school. We explored two autism specific support models in mainstream schools, the Autism SA Consultative Support Model in South Australia and the Aspect Satellite Class Model in NSW. In SA, students are enrolled in regular classes and Autism SA provides support and advice to schools on demand. In NSW, children are initially enrolled in an Aspect satellite class, a special class for children with ASD situated in a regular school, and then transition into a regular class with support from Aspect.

We wanted to compare the educational outcomes of the two approaches and to identify factors that facilitate and act as barriers to successful support, transition and inclusion into mainstream classes.

#### **What outcomes were investigated?**

Before the project started we decided we would collect information about the children's continuity of placement, social behaviour, the degree to which they were engaged at school and their adjustment to school. We also collected information about what school principals, teachers and parents or carers thought about service delivery, how well the child was doing at school and why.

#### **Who was involved.**

Altogether 46 SA children and 39 NSW children who were in the early years of school at the start of the project, and their parents/carers were part of the research. In addition, most teachers of these children and the principals of the schools where they were enrolled also agreed to participate.

Information about the children's degree of autism, problem behaviour, adaptive behaviour, social skills and academic skills was collected at the beginning of the project.

**The two groups** were similar on most measures at the start of the research, but SA children had a statistically higher full scale IQ (but equivalent verbal IQ), and scored higher on assessments of autism related behaviours and of problem behaviours).

Some families dropped out of the study over the three years, mostly in the last round of information collection.

### **How was information collected?**

We collected information on seven occasions, at six month intervals. The main information collection was done in Term 4 and some information was collected in Term 2. Each round we interviewed parents, principals and teachers. At the end of the year we also did playground observations and interviews with the participating children with ASD, as well as an interview with a school peer for each child (if their parents consented).

### **What were the interviews about?**

We used established rating scales with parents, teachers and principals to collect information about children's social behaviour, and how engaged and adjusted they were at school. We also asked them to rate how satisfied they were with the support from Autism SA or Aspect (NSW) and to rate how successful they thought the school placement was.

As only 13 students in NSW moved from a satellite class into a regular class, in the last year we asked parents and teachers why the student was still in a satellite class.

### **What did we find?**

Continuity of placement was high in both models. In NSW, two children moved from satellite placements into a special class, and one moved from a satellite placement to a non-Aspect special school. One child moved from a post transition placement to a non-Aspect special class at the same school, one attended school part-time post transition, and two children returned to a satellite class post transition. In addition one child moved from a satellite class placement to a base special school and one child moved to a base special school for intensive programming prior to returning to a satellite class. In SA, one child was withdrawn from school and was home schooled.

In NSW only 13 students transitioned from satellite classes over the period of the study. Parents and teachers most often thought the child was not ready for transition and preferred the level and quality of support provided in the satellite class. About half of responding parents and a third of responding teachers said they thought the child would stay in the satellite class.

Outcomes for children were very similar in both models of support. Specifically, school engagement and adjustment and teacher rated social skills were the same for both groups. This might be because both models of support are similar. They both include autism specific support (social-communication skills sensory and behaviour supports) by trained specialist educators and other allied health support staff, and both provide training and support to teachers in schools.

Ratings of success of placement from parents, teachers and principals were very high in both models, typically above 4 on a 5-point scale. In both states principal and teacher ratings were similar but parents in NSW thought their child's placement was more successful than parents in SA.

Parents and principals reported higher satisfaction with support from Aspect in NSW than they did for Autism SA. This may be because the support in SA was not continuous and depended on the school requesting support. The NSW satellite model provides more ongoing support including training for teachers and parents.

Things that either helped or acted as barriers to successful inclusion were explored for children who were in regular classes for the first round of data collection. Most people thought that the teacher's skills and practices were the most important things in helping inclusion and that characteristics of the child were most often barriers. We are currently looking at things that helped or acted as barriers for all the information collected in the study, and there may be changes over time.

### **What are the implications of the results?**

Both models are successful in supporting children with ASD, and most parents, teachers and principals were satisfied.

Given many parents in NSW wished to keep their child in the satellite classes, possibly because of the support available, Aspect may need to make the criteria for moving from a satellite to a mainstream class more clear. This would help teachers and parents decide when a child should be moved.

For Autism SA, as it is the school, not the parents, who must ask for help, it may be helpful for parents, teachers and principals to be reminded that this service is available.

### **How can people find out about the study and the results?**

The researchers who carried out the study have presented the findings at conferences related to ASD and special education. They have also published research articles in academic journals. There will be more conference presentations and articles as the results are more fully analysed. The conference presentations and publications arising from the research thus far are listed below.

### **Publications Arising from the Research**

Carter, M., Stephenson, J., Clark, T., Costley, D., Martin, J., Williams, K., . . . Bruck, S. (2014). Perspectives on regular and support class placement and factors that contribute to success of inclusion for children with ASD. *Journal of International Special Needs Education*, 17, 60-69. doi:10.9782/2159-4341-17.2.60

Carter, M., Stephenson, J., Clark, T., Costley, D., Williams, K., Martin, J., Browne, L., & Baldwin, S. Models for Supporting Children with ASD in Inclusive Classrooms (Keynote symposium) presented at the Asia Pacific Autism Conference, August 8-10, 2013, Adelaide, SA.

Carter, M., Stephenson, J., Clark, T., Costley, D., Williams, K., Martin, J., Browne, L., & Bruck, S. Approaches to Supporting Children with ASD in Inclusive School Settings presented at the Aspect Autism in Education Conference, July 31 - August 1, 2014, Sydney, NSW.

- Clark, T., Carter, M., Stephenson, J., Costley, D., Williams, K., Martin, J. Browne, L. Bruck, S. (2014) Models for Supporting Children with ASD in Inclusive Settings, AASE Conference, 17th –, 19th September, 2014, Sydney, NSW.
- Carter, M., Stephenson, J., Clark, T., Costley, D., Martin, J., Williams, K., Browne, L., Davies, I., & Bruck, S. *An investigation of models for supporting children with ASD in school settings*. Presented at the Asia Pacific Autism Conference, August 9-11, 2015, Brisbane, Queensland.
- Carter, M., Stephenson, J., Clark, T., Costley, D., Martin, J., Williams, K., Browne, L., Bruck, S., Davies, L & Sweller, N. Models for supporting children with ASD in school settings and predictors of school outcome. Presented at the Aspect Autism in Education Conference, 5 – 6 May, 2016, Melbourne, Victoria.
- \*Petrina, N., Carter, M., & Stephenson, J. (2014). The nature of friendship in children with autism spectrum disorders: A systematic review. *Research in Autism Spectrum Disorders*, 8, 111-126. doi:10.1016/j.rasd.2013.10.016
- \*Petrina, N., Carter, M., & Stephenson, J. (2015). Parental perception of the importance of friendship and other outcome priorities in children with Autism Spectrum Disorder. *European Journal of Special Needs Education*, 30, 61-74. DOI: 10.1080/08856257.2014.943566
- \*Petrina, N., Carter, M., Stephenson, J., & Sweller, N. (2016). Perceived friendship quality of children with autism spectrum disorder as compared to their peers in mixed and non-mixed dyads. *Journal of Autism and Developmental Disorders*, 46, 1334-1343.
- \*Petrina, N., Carter, M., & Stephenson, J. (in press). Teacher perception of the importance of friendship and other outcome priorities in children with autism spectrum disorder. *Education and Training in Autism and Developmental Disabilities*.

\*Doctoral scholarship student affiliated with project.