

More to Say: Enabling functional communication for a child with Autism



Haylee Parfett, Speech Pathologist

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Challenges in Communication for Children with Autism Spectrum Disorders (ASD)

All people diagnosed with ASD will experience a communication impairment of some type. Interventions that address the critical skills of functional communication are widely recommended (National Research Council, 2001). This includes providing access to and opportunities to learn;

- how to express needs, wants, opinions, complaints, protests, feelings, and preferences,
- to express themselves without resorting to problem behaviour or experiencing communication breakdown.
- to generate messages which are easily understood by familiar and unfamiliar communication partners
- modes of communication which are used in a generalised manner over time (Mirenda, 2003)

As approximately half of all individuals with autism are non-verbal or develop limited speech and language abilities the development of functional communication skills will require access to Augmentative and Alternative communication (AAC) strategies (Centres for Disease Control and Prevention, 2007).

AAC is any aide, strategy or technology that compensates, enhances, expands or helps develop communication (ASHA, 1991). There is now a wide array of high and low-tech AAC tools, hardware and software available for use with this population.

AAC is widely recognised as a 'powerful tool' for individuals with ASD due to a range of published benefits:

- development of expressive language skills
- increases in understanding of spoken language and routines
- improvements in behaviour regulation and decreases in challenging behaviours
- improvements in self-esteem and concept of self
- increases in the ability to participate in home, school, and the community (Cafiero & Meyer, 2008; Mirenda, 2003; Drager et al., 2006)

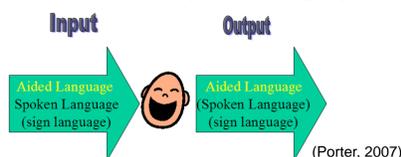
Aided AAC strategies are techniques which require a physical object (eg. communication board or book). Picture-based aided AAC systems are frequently implemented with individuals with ASD as they provide a concrete, visual referent which is easier to understand and physically access (Mirenda, 2001).

Aided Language Stimulation

Aided Language Stimulation is a naturalistic strategy in which the communication partner points to symbols in the individuals aided AAC system while interacting with them (Goossens, Crain, & Elder, 1992). Intervention is embedded into meaningful contexts, involves family and other caregivers and is carried out in the individuals' natural environments (Drager, 2009).

Models of aided language as an input modality provide an opportunity for the user to learn what could be said and how, using the same mode of communication which they are learning to use expressively.

Aim for Child Learning Aided Language



It has been reported that "aided modelling interventions offer a simple approach that may significantly increase the language and communication skills of children with ASD who require AAC" (Drager, 2009, p. 119).

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Commonly Held Assumptions

Despite early diagnosis and AAC intervention it is widely documented that people with ASD who are non-verbal are failing to achieve successful interactions and valued outcomes (Light & McNaughton, 2015).

Researchers suggest that this is due to a range of commonly held assumptions about this population which have now been disproved by research:

- too 'low functioning' or cognitively disabled to communicate
- behaviors must first be under control
- nothing to communicate – no 'intentional' communication
- only capable of communicating to request or label (Cafiero, 2010).

These assumptions often result in the provision of speech pathology interventions focused on basic life skills and the use of AAC to make simple requests and terminate or avoid items (Mirenda, 2008).

"There is more to life than cookies!"

(Light, Parsons, & Drager, 2002, p. 187)

Brodie: Barriers for Participation and Learning

Brodie was referred for an AAC Assessment by his Paediatrician in May 2014. He was 7 years of age. Brodie had been diagnosed with:

- ASD
- Global developmental disability
- moderate intellectual disability
- possible undiagnosed neurodisability.



Brodie was non-verbal and relied on informal modes of communication such as gesture, facial expression and bodily movements. He frequently experienced breakdowns in his communication.

Brodie also presented with:

- challenging behaviours eg. kicking, hitting, inching
- severe sensory processing challenges such as spinning, head turning and hand 'flapping'
- highly restricted, fixed interests; eg. going to the shops, watching TV commercials
- delays in fine and gross motor skills
- limited use of non-verbal behaviours such as eye contact

Brodie was reported to have made no academic or social progress over 3 years.

Access to Services:

Brodie attended his local Special School, where he had been placed in a high needs classroom which focused on the teaching of basic life skills. He had accessed Speech Pathology services privately from the age of 1 and later through therapists based in his school.

Brodie had been provided with a PECS® book which he was reported to have little interest in using. He had not been provided with any other forms of communication as it was believed that he was not capable of learning these.

A Language System for Functional Communication

Brodie needed access to a robust language system to enable him to develop functional communication and the ability to say what he wanted to say, when he wanted to say it and to whom he wanted to say it (Porter, 2007).

PODD is a widely used communication system which has been recommended as a 'promising practice' for developing functional communication for individuals with ASD (Porter & Cafiero, 2009).



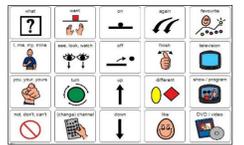
The meaning of symbols and routes used to move between pages within a PODD communication book or electronic page set are learnt through natural aided language stimulation.

Intervention

The first step in implementing Aided Language Stimulation was to engineer the home environment for communication at any time. This was done using two aided AAC strategies:

- General Interactive Aided Language Display (ALD) to develop the habit of communication at any time (Porter, 2007). This ALD was carried everywhere with Brodie.
- Activity based ALD's for routines and activities around the home eg. watching TV, reading books, playing outside. These were positioned where the activity occurred.

Brodie's parents were shown how they could use the ALD's to provide aided language stimulation for a wide range of purposes in naturally occurring contexts.



A PODD communication book with 40 symbols on a page was then selected and trialled with Brodie. The symbols in this template would enable him to combine 2-4 key words in a sentence and communication for a full range of intents (Porter, 2007).

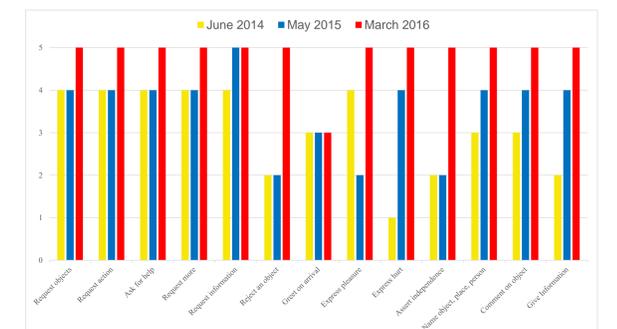
Friendly teaching on the features of the PODD book and how to model, scaffold and expand Brodie's language was provided over monthly sessions in the home environment.

Outcomes: Brodie has 'More to Say'

Brodie rapidly learnt to communicate using aided language. He was observed to initially use symbols to make requests for places, people and objects, but with further learning opportunities extended his use of symbols to express emotions, give information and make comments.

A speech generating device with Compass software and a complex electronic PODD page set was added to Brodie's AAC 'toolkit' in September 2015. He now communicates using a combination of letter and whole word modes in both light and high-tech.

The Pragmatics Profile of Everyday Communication Skills in Children (Dewart & Summers, 1995) was completed by Brodie's parents to track his progress over a two year period. The graph below shows that Brodie is using sound/letter modes to communicate for a full range of purposes.



As a result of significant improvements in Brodie's behaviour, communication and language skills, he is now placed in an academic classroom at his special school. He is making remarkable progress in literacy and social skills and is now a conventional reader and writer.



Weekend news – 10/8/15

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"I know if it wasn't for PODD Brodie would not be learning or be able to communicate effectively. It has opened our and everyone else's eyes to just how clever he is and especially to what he knows. We didn't know he knew all these things before PODD."

Brodie's Mother, September 2015