"More to say:" enabling functional communication through aided language stimulation for a child with Autism.

Haylee Parfett

Speech Pathologist

HAYLEE PARFETT
SPEECH PATHOLOGY

Challenges in learning and communication for children with ASD

Children with Autism Spectrum Disorder (ASD) are commonly labelled as the most difficult of all children with disabilities to teach:

- Unusual patterns of behaviour
- Significant difficulties with social interaction
- Delayed or abnormal functioning in verbal and non-verbal communication

Contributing to this challenge is the published recognition that many children with ASD are non-verbal

- However, research is indicating that this may be changing due to intensive early intervention

Beware: Common assumptions about non-verbal children with ASD!

▶ Too "low functioning" or cognitively disabled to communicate

▶ Behaviors must first be under control

▶ Repeat the same scripts over and over

▶ Nothing to communicate – no 'intentional' communication

▶ Only capable of communicating to request or label

▶ Easier to pre-empt communication

Joanne M. Cafiero PhD, 2010

These assumptions often lead to lowered expectations of what might be possible!

Autism and Augmentative and Alternative Communication

▶ AAC has long been demonstrated to have positive effects on the communication skills of individuals with autism spectrum disorder

▶ Most research and interventions have focused on teaching children with ASD to label in response to a question or prompt, or to make a requests.

'Preponderance... on teaching individuals with ASD to use AAC symbols... to either request, terminate or avoid items, activities or events.' (Mirenda, 2003a)

"There's more to life than cookies!"

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

JUST KIDDING©

MS. SMART... CAN I INTEREST YOU IN A BOX OF GIRL GUIDE COOKIES?!

Autism and Augmentative and Alternative Communication

"… why do persons with complex communication needs… as well as individuals with autism spectrum disorders, continue to struggle to achieve **successful interaction** and the pursuit of **valued outcomes** (Johnson, Douglas, Bigby, & Iacono, 2009; Mirenda, 2014)?

Essentially the challenge is two-fold: There is a need to re-think both AAC intervention and research in order to transform these outcomes"

(Light & McNaughton, 2015, p. 2-3)

Functional Communication

The National Research Council stated in its 2001 landmark publication, 'Educating Children with Autism:'

'functional spontaneous communication is a critical skill that must be addressed in all interventions for children with ASD.'

But what is Functional Communication?

- Forms of behavior that express needs, wants, opinions, complaints, protests, feelings, and preferences
- Is it easily understood by both familiar and unfamiliar communication partners (Mirenda & Erickson, 2000)
- Does the individual use it in a generalised manner (i.e., across people and settings) over time? (Mirenda, 2003)
- Ability to express themselves without resorting to problem behavior or experiencing **communication** breakdown. http://www.asha.org/NJC/faqs-comm-dev.htm

What should 'successful interaction' and 'valued outcomes' look like for individuals with ASD and CCN's?

Child B

- Referred by Paediatrican in May 2014, aged 7;5 years
- Diagnosed with a possible undiagnosed neurodisability
  - presents with many 'autistic phenotypes'
- Global Developmental disability with presumed mild intellectual disability
- Delays in fine and gross motor skills
- Sensory processing challenges
- Recent escalation in tantrums and meltdowns
  - Kicking, hitting and pushing other children out of his way
  - Pinching adults

- Parents goals: to enable B to 'learn to communicate effectively… working to get him independent and able to communicate his needs.'

Key Issues for Participation and Learning

- Deficits in social communication and social interaction
  - Limited use of non-verbal behaviours such as eye contact and gestures
  - Reduced turn-taking skills
  - Difficulties establishing and maintaining relationships
- Restricted and repetitive patterns of behaviour, interests, or activities
  - Highly restricted, fixated interests; eg. going to the shops, watching TV commercials
  - Over-riding sensory seeking behaviours; spinning, head turning, hand 'flapping'
  - Repetitive behaviours due to anxiety
- Would now be rated as Level 3 in severity: requiring very substantial support

Opportunity Barriers for Participation and Learning

- Low expectations from professionals in the past

- Attends a Special Developmental School
  - Placed in a high needs classroom
  - Limited access to an academic curriculum
  - Brodie reported to have made no academic or social progress over 3 years

- No access to comprehensive communication systems
  - PECS presented as the only option for developing communication
  - PECS book remained at school
  - Reported to be 'uninterested' in using PECS
  - As not combining symbols using PECS, parents were told Brodie was 'not ready' for any other communication system
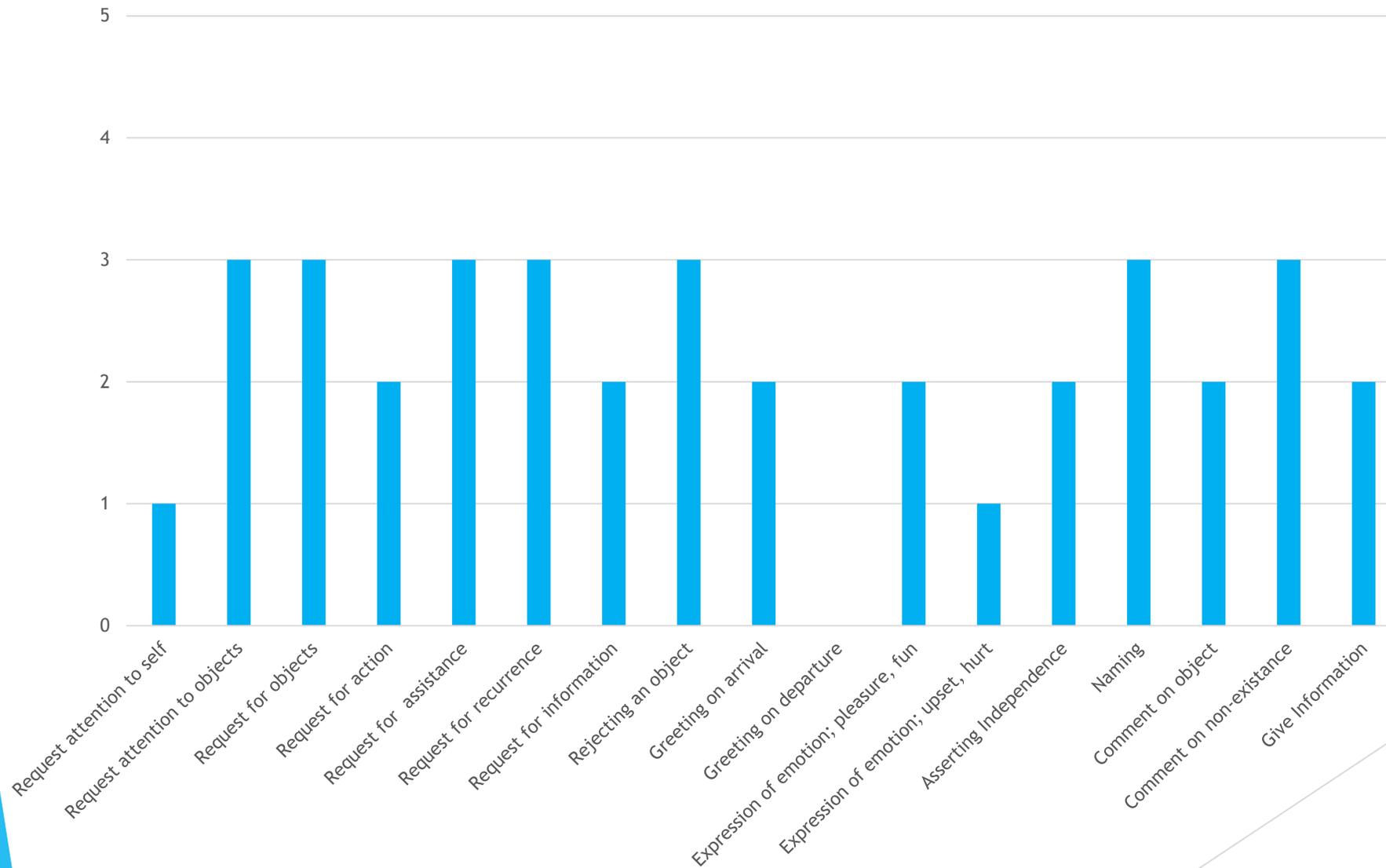
Developing a shared understanding

Developed a shared understanding with B's parents about:

- Communication autonomy
- Communication accessibility
- Importance of developing spontaneous, functional communication for a wide range of purposes

Discussed the need for a communication system that would enable B to communicate:

- effectively,
- efficiently,
- intelligibly,
- as independently as possible,
- in a socially valued manner (Porter)

Starting small;
jumping in and giving it a go!

Engineered the environment for communication at any time using aided language

- ▶ Use of a General Interactive Aided Language Display (ALD's) to develop the HABIT
- ▶ Positioning ALD's for routines and activities around the home

Explained and modelled how to provide aided language stimulation throughout the day

- ▶ For a wide range of functions and purposes
- ▶ Throughout genuine interaction
- ▶ In the mess of real-life!

Started making deposits in the language bank before
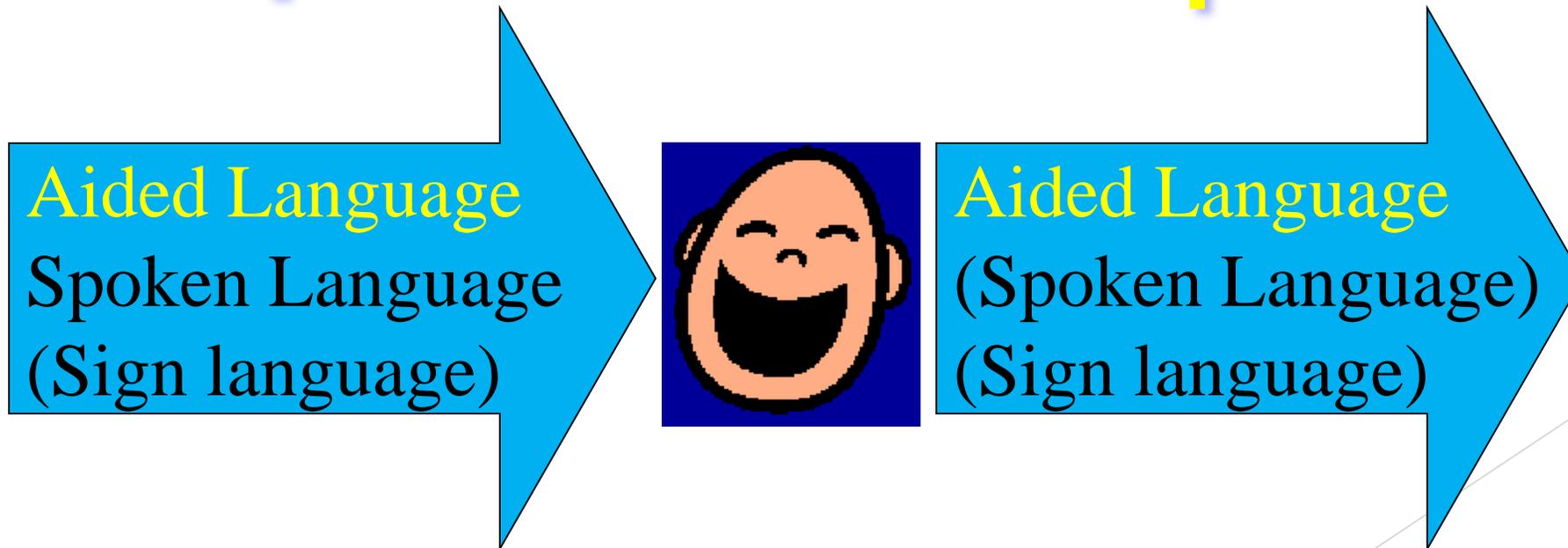**we even thought about withdrawing!**

(Mirenda, 2014)

Aided language acquisition

▶ The language learning environment (Porter, 2007)

Input

Output

Aided Language
Spoken Language
(Sign language)

Aided Language
(Spoken Language)
(Sign language)

A communication system for interaction and valued outcomes

Expanded pool of vocabulary through provision of a 40 per page expanded key word PODD communication book

Provided 'friendly teaching' on features of the PODD book to enable family to provide receptive input

Actively modelled how to provide receptive input:

- Modelling a range of language functions
- Expanding messages
- Adapting communication style to create communication opportunities
- Attributing meaning and mapping language
- Natural feedback

Lots of opportunities to practice and receive feedback

Processes of aided language acquisition

▶ Varying comprehension of spoken language by children with complex communication needs

▶ Two main developmental paths

   1. Based on the comprehension of speech. Similar to second language learning.

   2. Very limited or no comprehension of spoken language and acquire a communication system without reference to speech. Independent creation of a meaning system with AAC language forms. (similar to first language learning)

(see von Tetzchner & Grove 2003)

Processes of aided language acquisition

▶ Varying comprehension of spoken language by children with complex communication needs

▶ Two main developmental paths

1. Based on the comprehension of speech. Similar to second language learning.

2. Very limited or no comprehension of spoken language and acquire a communication system without reference to speech. Independent creation of a meaning system with AAC language forms. (similar to first language learning)

(see von Tetzchner & Grove 2003)

"More to Say!"

- ▶ Focused on the interaction
- ▶ Used his mode of communication
- ▶ Attributed meaning to his messages
- ▶ Expanded his messages to develop language
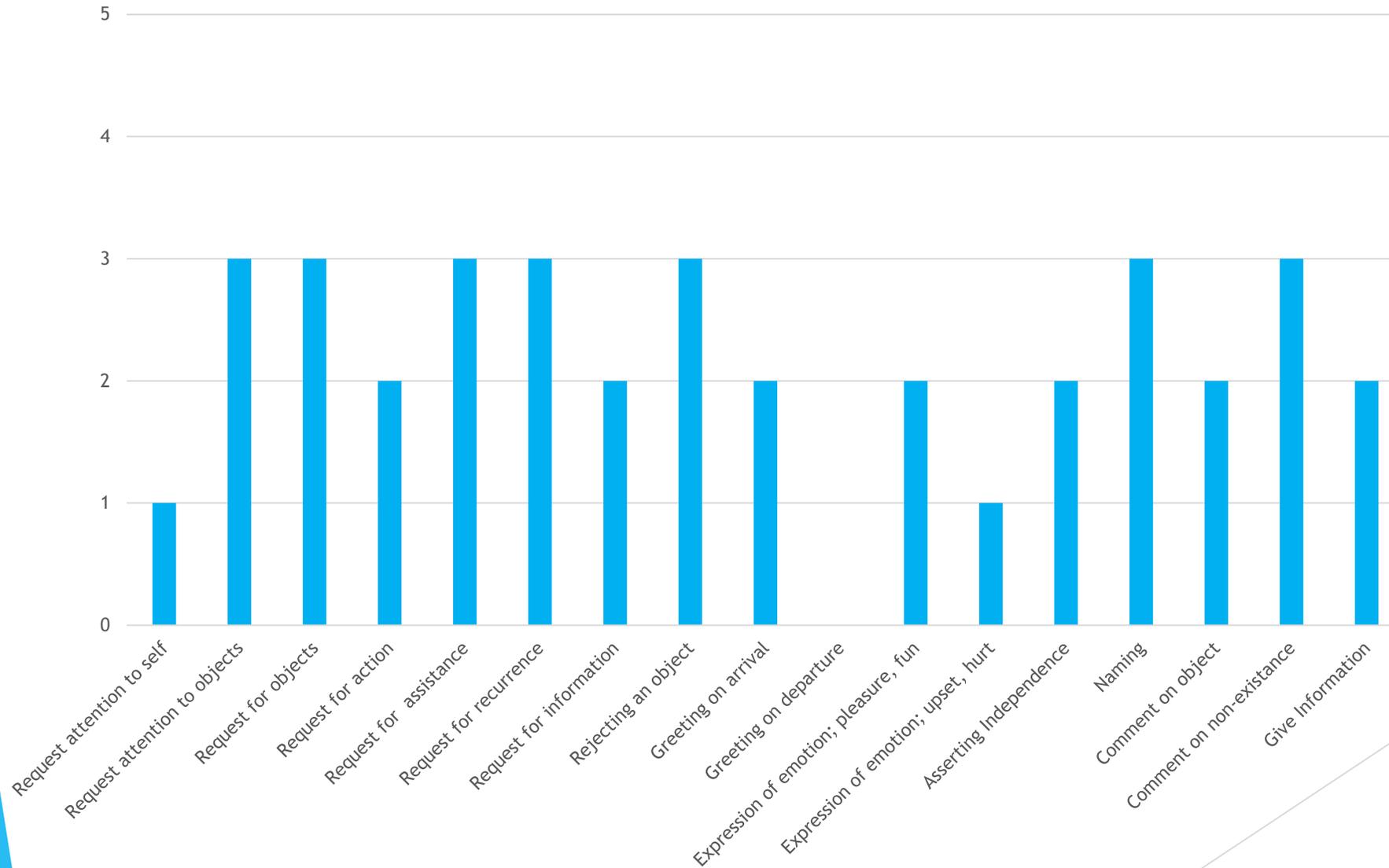- ▶ Acknowledged and valued multi-model communication

"More to Say!"

- Seeking to understand!
- Jointly constructing meaning
- Ongoing problem solving process
- intelligibility??

Improvements in:

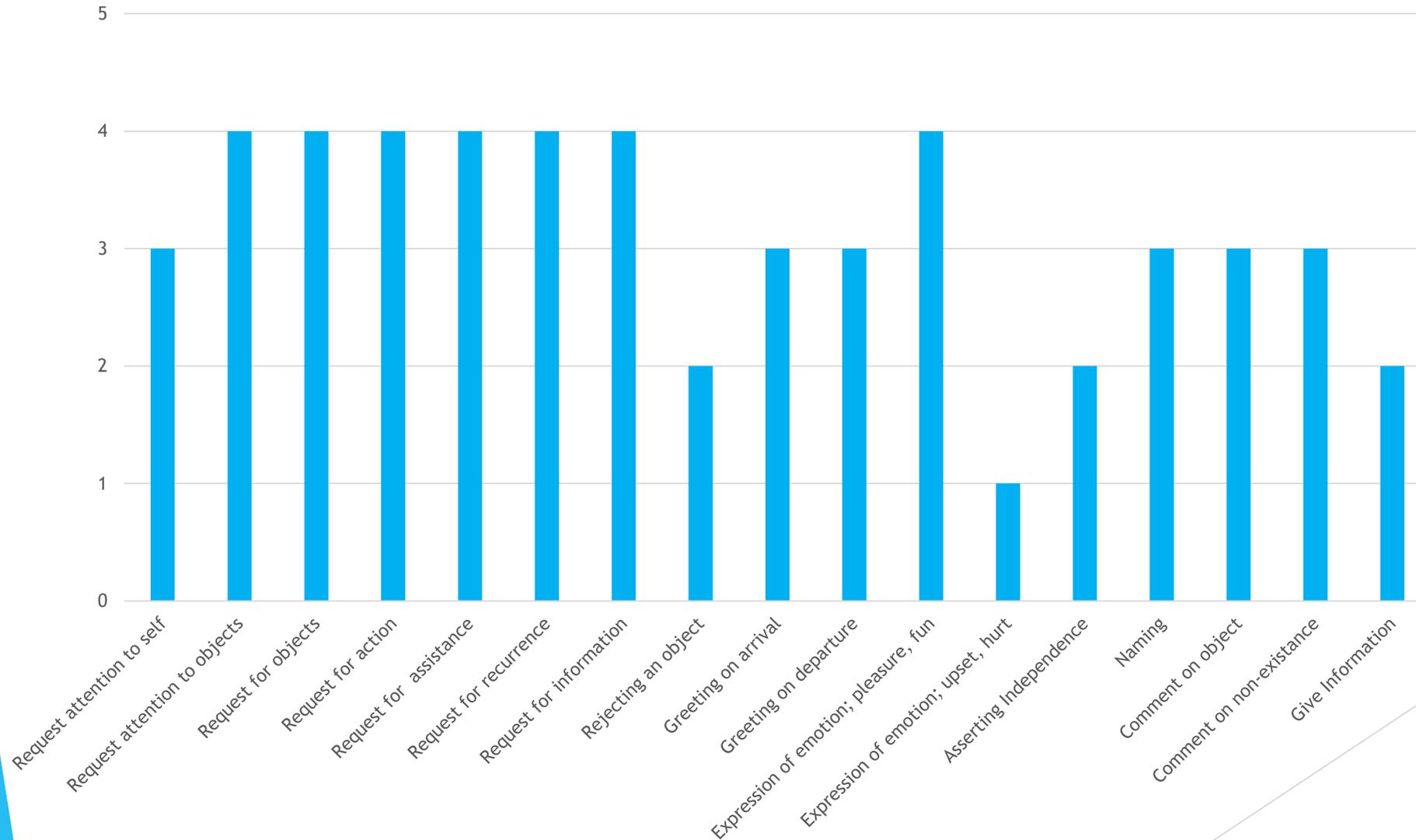- Engagement and concentration
- Topic maintenance
- Sensory seeking behaviours

Communication Skills
Pragmatics Profile, May 2015

Legend:
- 5. Sound/letter modes
- 4. Whole word modes
- 3. Conventional gesture
- 2. Informal modes – directed to partner
- 1. Informal modes – not directed to partner
- 0. Function not observed

Categories (x-axis):
- Request attention to self
- Request attention to objects
- Request for objects
- Request for action
- Request for assistance
- Request for recurrence
- Request for information
- Rejecting an object
- Greeting on arrival
- Greeting on departure
- Expression of emotion; pleasure, fun
- Expression of emotion; upset, hurt
- Asserting Independence
- Naming
- Comment on object
- Comment on non-existance
- Give Information

Things that have got better just in the short time we have been using PODD include:

- ▶ 's ability to answer questions and understand what we are saying.

- ▶ Conversations without frustration. Once B has got his message out he actually relaxes and is not on edge anymore.

- ▶ B now has an ability to communicate with others. This was one of the very big things that has been an issue, now everyone can understand what he is talking about.

- ▶ B's behaviour is improving; now he knows that if he wants to tell you something he can just get his book and he does.

- ▶ B will initiate conversation; he will go get his book and tell you what he wants.

- ▶ B would never usually concentrate on anything but PODD is a totally different story. He can tell you his message and concentrate on the book without a problem and I think it's just because he knows the quicker he uses it, the quicker he would get his message out to you.

Mum

Opportunity Barriers

- Attitudes and expectations of school staff; initially reluctant to 'listen to' or use communication system
- Interaction styles
    - questioning?
    - scaffolding?
    - opportunities to communicate
- Knowledge and skills of teachers and aides;
    - communication autonomy
    - AAC
    - Aided Language Stimulation
- Access to a sufficiently large aided vocabulary
- Efficiency of communication system
- Limited current access to technology for communication