

## Reducing negative emotional reactions in a child with autism through AAC: Experiences from China

Augmentative and alternative communication (AAC) is relatively new in China. There is still a need to document *how* AAC may benefit children with little or no speech. This study shows that frustration and negative emotional reactions are reduced when a child with autism spectrum disorder learned to use graphic symbols and gestures.

**Method:** Case study design with assessment, intervention and registration of communicative achievement, language development, social skills and behavior problems.

### Yue Yue

Yue Yue did not pass the developmental milestones in the usual manner and was diagnosed with autism spectrum disorder when he was 3½ years old. The physician recommended ordinary kindergarten but Yue Yue failed to integrate into the group. One month later the parents took him out of kindergarten and kept him at home. New assessments showed that his abilities, except motor skills, were equivalent to those of a two-year-old. At four years, he would say *baba* (father) and *mama* (mother) but did not appear to understand them. He occasionally said a word when prompted to do so.

Yue Yue came to Wucailu when he was five years old. Completion of the Chinese version of *The MacArthur-Bates Communicative Development Inventory* (CDI, Fenson et al., 1993) by Yue Yue's father and teacher at Wucailu indicated that he could understand about 200 words and say 20 words intelligibly. He indicated some fruit sorts and animals, his arms, legs, eyes and ears, and distinguished between people he knew. He followed very simple instructions but spoke only when prompted and seldom initiated communication. He occasionally used gestures to ask for something but mostly took the thing himself. He expressed rejection by pushing the partner's hands away or pointing to something else. When he did not find what he wanted and the adult did not understand, Yue Yue often showed negative emotional reactions.

*Assessment of Basic Language and Learning Skills* (ABLLS, Partington, 2006) indicated good perceptual ability in tasks such as picture matching, order arrangement and block building. He put on socks and shoes and washed hands by himself. He recognized the symbols on his day schedule. Assessment was made with different tasks and Yue Yue's performance indicated that he understood the nature of the tasks. He could follow the teacher's instructions to act like a cat or other animal, or pretend to sleep or drink.

Yue Yue often reacted with anxiety and negative emotions when he failed to make himself understood and when others tried to involve him in activities or

make him do something. He frequently showed frustration, anger or anxiety when there was noise, when he did not want to do a task he was asked to do, and when he seemed to want to go home. It was hypothesized that his negative emotional reactions were the result of a lack of communication means.

### **Intervention**

The communication intervention was based on principles described by von Tetzchner and Martinsen (2011), the first Chinese textbook on AAC. The vocabulary was based on Yue Yue's interests and activities, and the family's needs. He was fond of snacks, scratching, telephones and clocks. One positive feature was his interest in pictures, including graphic symbols. He used some gestures and this was encouraged.

The teachers trained comprehension and expression of graphic symbols, mostly through helping him use symbols to obtain something, and guided his gaze and attention to relevant aspects of the situation. Modelling was used to demonstrate how Yue Yue could use graphic symbols to communicate. At home, his parents encouraged the use of graphic symbols and also used 'incidental teaching' in natural situations. For example, when Yue Yue was in the kitchen, they named objects and food items.

### **Results**

After one month of AAC intervention, Yue Yue appeared more content than before. He sometimes looked really happy and excited when holding his communication book and even kissed it. He seemed to have learned that he could use it to ask for things, and that made him less anxious. He quickly learned more than five symbols for snacks and *TELEPHONE*, *CELLPHONE* and *CALCULATOR*, things he liked at that time.

After five months, Yue Yue had acquired basic usages of about 60 graphic symbols. He used ten more but seemed somewhat confused about their meaning and use. For example, when he seemed depressed during training, he sometimes gave *SCHOOL* to the teacher and then looked out of the classroom, seemingly meaning "home", maybe because there is a picture of a building on *SCHOOL*.

At school, Yue Yue uses his communication book in individual training and in class: He initiates interaction with his parents and teachers, but mostly when he wants something. During the same period, Yue Yue's spoken language has developed. A new CDI indicates that Yue Yue uses new 20 words and his earlier words have become easier to understand. He occasionally uses short sentences and has become more intelligible without support from the communication book. He has more interests, uses *READ* and *BOOK* to ask to for books, and maintains concentration longer when his father reads to him. Negative emotional reactions are much less frequent than before. He is more social, seeks interaction with others, and has better understanding of other

people's emotional expressions. For instance, he behaves when he sees his parents or teachers become serious or angry, although he is still a little mischievous when he is with his mother, who has a tendency to 'spoil' him.

### **Conclusions**

Yue Yue's communicative, emotional and language development after only a few months of intervention indicates considerable developmental potential. The reduction in negative emotional reactions and behavior problems support the hypothesis that these were a result of frustration due to lack of communicative means. His progress in spoken language shows the positive influence AAC may have on speech development. His positive development emphasizes the importance of providing AAC to children in China who have little or no speech, to support both communication with any means *and* spoken language development.

### **Declaration of Conflicting Interest**

The authors disclose they have no financial or other interest in objects or entities mentioned in this paper.

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Program Planner/Instructional Personnel's Name: *Menglin Sun*

Course Title: *Reducing negative emotional reactions in a child with autism through ISAAC, Experiences from China*

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Signature *Menglin Sun*

Date *2015.11.9.*



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Program Planner/Instructional Personnel's Name: *Xiaoning Wang*

Course Title: *Reducing negative emotional reactions in a child with autism through AAC, Experiences from China*

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Signature *Xiaoning Wang*

Date *8/11-2015*



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Course Title:

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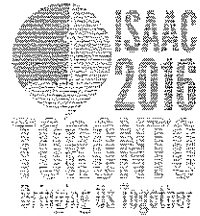
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Program Planner/Instructional Personnel's Name: *Stephen von Tetzchner*

Course Title: *Reducing emotional reactions in a child with autism through AAC; Experiences from China*

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