

Creating enabling communication environments for children with autism and minimal or no speech

Research in the past has often focused on the communication 'deficits' of children with autism and minimal or no speech. This study, by Carol Potter and Chris Whittaker, took a different approach and explored both the children's communication *capabilities* and the ways in which communication environments in schools can enable or disable them in their attempts to become spontaneous communicators. The researchers found that:

- f** All of the children in the study could and did communicate spontaneously with adults and, in some cases, with other children.
- f** The rate and quality of communication did *not* depend on a child's age, degree of autism, degree of additional impairments, understanding of language, or classroom staffing ratios.
- f** Levels of spontaneous communication were directly related to the nature of the wider communication environment provided for them, not to the degree of the child's impairment *per se*.
- f** Introducing key changes to the communication environment could sometimes immediately and significantly promote greater spontaneous communication.
- f** Successful strategies adopted by teachers and other professionals included:
 - major reduction in the use of speech by adults through adoption of a minimal speech approach;
 - an explicit and consistent focus on creating frequent and high quality opportunities for children to initiate communication;
 - greater use of carefully structured non-verbal interactions with children involving rough-and-tumble play, imitation and pauses between bursts of activity in games;
 - access to a conventional communication system, such as pointing/multi-pointing.
- f** Teachers in this study believed that the current National Curriculum does not recognise the central importance of teaching children with autism with minimal or no speech to communicate. Yet spontaneous communication, and a conventional communication system, plays a key role in supporting children with autism to enjoy their rights as set out in the UN Convention on The Rights of the Child (1989).

Background

Autism is a complex impairment, which affects a person's ability to communicate and to interact socially with others. It usually becomes apparent in the first three years of life. Autism can occur along with other impairments such as learning difficulties and/or language disorders. The children with severe autism involved in this study used little or no speech, and had extreme difficulties in understanding speech.

Spontaneous communication and why it matters

The UN Convention on the Rights of the Child (1989) established the principle that all children should enjoy "freedom to seek, receive and impart information and ideas of all kinds". To enable children to enjoy this right, they need to be supported to communicate spontaneously - that is, to initiate interactions with others in order to convey their wishes and feelings, needs and wants. Children have a right to learn how to communicate spontaneously, in conventional ways, and to exercise that ability.

Unfortunately, common misconceptions about the communication and interaction abilities of children with autism and little or no speech can mean that these children are not receiving the professional support they need to learn how to initiate communication. This is often compounded where the children's communication environment does not enable spontaneous communication.

Unhelpful attitudes and beliefs

Attitudes and expectations about what children with autism can or cannot do can be inappropriate and negative. Many of the professionals (teachers, speech and language therapists) involved in our study talked about the mismatch between these popularly held beliefs and their own experiences of children's abilities.

"I think the general public regard people with autism as enclosed and trapped within their own world - so I think I came in [to teaching] with that expectation ... I expected them not to be able to communicate with me ... and found out very quickly that it wasn't true."

"When you read about autism it seems very black and white: 'These children do not form relationships, these children do not interact, these children do not play' and I don't feel it's like that at all - I think that's very misleading."

These professionals felt strongly that children with autism, who have little or no speech, can and do communicate with others. This view was fully supported by evidence from the research, which also highlighted the potential (often untapped) to enable

children with autism to communicate spontaneously using conventional means.

Children with severe autism and minimal speech can communicate

The children in this study could and did communicate spontaneously with others. They used a number of effective ways of doing so, most of which were non-verbal.

Many children used what have been termed non-conventional ways of communicating, such as 'physical manipulation' (e.g. taking an adult's hand over to a desired object) and 're-enactment' (i.e. repeating part of an activity as a signal for it to be continued) to convey what they wanted. Only a few children had been taught to use more conventional ways of communicating, such as pointing and multi-pointing, although these systems proved highly effective, enabling children to convey more complex messages to adults.

It is important to introduce children with autism and minimal or no speech to more conventional ways of communicating as quickly as possible to ensure that they reach their maximum effectiveness as communicators, and to give them access to a wider range of academic tasks.

The 'communication environment'

Talking about 'communication environments' is a helpful way to consider all the influences that may impact upon someone's ability to communicate, such as adult ways of interacting and talking, a communication system, opportunities to communicate, adult attitudes, expectations and the physical environment.

This study found strong evidence that the rate and quality of children's spontaneous communication were directly related to the nature of their communication environments, not to their degree of autism or other impairments *per se*. Some children communicated much more often than others and for more social purposes. Those children who communicated most were not less autistic, nor did they differ in age from the other children, while their degree of learning difficulty and everyday living skills were similar. The significant factor that differentiated them was the quality of their communication environments, and how far these helped or hindered spontaneous communication.

Creating a communication-enabling environment

The level and quality of spontaneous communication by the children in this study could sometimes be immediately and significantly enhanced by changing aspects of the wider communication environment through encouraging professionals to use a range of communication-enabling strategies and approaches.

Figure 1: Example of a minimal speech approach

Context	Everyday speech	A minimal speech approach
Asking what a child wants to drink	An adult holds up two bottles of juice in front of a child with autism and severe difficulties understanding speech and says, "Do you want orange or apple juice?" If the child doesn't respond quickly, the adult says, "Which one do you want, the orange or apple?"	An adult holds up two bottles of juice in front of the child and <i>does not say anything</i> . If the child does not respond, the adult takes his finger and prompts him to point to one of the bottles, again without speaking. Later, when the communicative exchange is established, she may say 'drink' as the child chooses one.

One of the most successful ways of doing this was to reduce the amount of spoken language used by adults - to adopt a minimal speech approach.

The importance of using a minimal speech approach

Many children with autism, like those in this study, experience extreme difficulties in understanding speech and use little or no speech themselves. Several teachers commented on the ways that some children "just tune out from speech and voices" or "definitely cut out any language input". When adults used everyday speech with these children, they often withdrew from the social interaction by turning away, protesting or simply by "switching off".

The essence of a minimal speech approach is straightforward. It means that adults should *consistently* use only one or two relevant concrete words when interacting with children who understand little speech. Figure 1 highlights the difference between minimal speech and everyday speech in a snack session.

A minimal speech approach can be highly effective. When professionals used little or even no speech with children in this study, using non-verbal means of interaction instead, then children became more socially engaged and communicated more often. Maintaining a consistent minimal speech approach is often easier said than done: even when professionals recognise the need to limit their speech output to key words alone, it is often hard to keep this up in practice. Appropriate training and supportive monitoring will be necessary to ensure the consistent implementation of this approach.

In addition to the consistent use of a minimal speech approach, there are several other specific strategies and approaches that can be used to promote spontaneous communication.

Proximal communication

Proximal communication involves adults using a range of generally non-verbal strategies to encourage children to initiate communication. Examples of the major strategies are: appropriate rough-and-tumble play; imitation of the child, and the use of bursts of

activity contrasted with frequent pauses, along with the use of a minimal speech approach.

The two case studies illustrate the beneficial effects of employing proximal communication as an enabling approach.

Creating opportunities for communication

Children in the study communicated most often when they were provided with frequent high quality opportunities for communication throughout the day. High quality communication opportunities were:

Case study 1: Jo

We observed Jo, a five-year-old child with severe autism and no speech, for a full school day. During that time, he communicated only 39 times - an average of seven communications per hour. Nine of Jo's communications were to request food or objects, whilst the other 30 were to protest or reject actions of adults. These interactions lasted no more than a few seconds with any attempt to prolong them leading to him becoming distressed. By contrast, during a continuous 40 minute videotaped interaction session with an adult, who was using proximal communication strategies, Jo communicated 164 times - *all* of these communications were requests for social interaction, and were accompanied by laughter and appropriate eye-contact.

Case study 2: Tony

Tony is also five years old and has severe autism and minimal speech. He communicated spontaneously an average of 9 times per hour across the school day. Only three communications during the day were requests for social interaction. Again, during a videotaped interaction, using proximal communication techniques, he communicated 71 times in a four-minute period. All of these communications were requests for social interaction.

These case studies are not isolated examples. All the children who were observed in proximal communication settings showed significantly more intentional communication than in other situations.

- embedded in everyday activities throughout the day, not only in specially designated communication sessions;
- conducted using a minimal speech approach;
- very motivating for individual children;
- well structured, making it clear to children in non-verbal ways, when it was their turn to communicate and what there was to communicate about;
- characterised by the adult's use of long pauses at critical points in the interaction to give children time and opportunity to communicate.

Giving children the initiative by reducing spoken prompts

To communicate spontaneously, children must be given time to notice themselves that there is something to communicate about in their immediate environment. Children are often not given opportunities to do this because adults verbally prompt them to communicate, using questions, for example. When adults in this study began to use long pauses instead of spoken prompts in a range of situations, children did begin to respond to what was happening in their environment and began to take the communicative initiative.

Enabling communication and the National Curriculum

Teachers in this study felt strongly that the current subject-based National Curriculum constituted a largely inappropriate educational framework for meeting the needs of children with autism and minimal or no speech. In particular, teachers felt that the National Curriculum was:

- insufficiently child-centred: children have to be fitted into the National Curriculum, rather than the National Curriculum suiting children's needs;
- inflexible and therefore inappropriate, given that children with autism and minimal or no speech have specific learning requirements and may learn, and communicate, in different ways.

All teachers believed that communication was the key curricular area for the children in this study, and argued that there should be more freedom to concentrate on this aspect of the curriculum. For children with severe autism who use little or no speech, therefore, there is a strong argument that the National Curriculum should be refocused to establish communication as the core curricular area.

Conclusion

Children with severe autism and minimal speech form one of the most communicatively disempowered groups in our society. The issue of enabling them to communicate spontaneously is a crucial one - and one that deserves to be recognised as a key educational goal. This study supports the view that the key to achieving this is the creation of communication enabling environments within school (and other) settings, using strategies and approaches that are designed to enhance children's own role as spontaneous communicators using systems such as pointing/multi-pointing. It is time to shift the focus away from talking about individual communication 'deficits', to looking at how we can develop environments, attitudes and curricula that are more communication enabling and empowering for these children.

About the study

The research involved 18 children, 16 boys and 2 girls, who had an average age of 4.5 years. All had a medical diagnosis of autism, and minimal or no speech, and were based in autism specialist classes within 5 special schools in England. Extensive information about the children's spontaneous communication was collected through both observing and videotaping them in a range of everyday school activities. Five teachers and four speech and language therapists who worked with the children were interviewed.

How to get further information

For more information, contact the project directors: Carol Potter, Centre for Applied Social Studies (CASS), 15 Old Elvet, Durham, DH1 3HL or Chris Whittaker at The School of Education, Leazes Road, University of Durham, Durham DH1 1TA.

A book, **Enabling communication in children with autism**, that examines the research in depth as well as drawing out its detailed practical implications, is to be published in March 2001 by Jessica Kingsley Publishers (116 Pentonville Rd, London. Tel: 0207 833 2307, Price: £12.99, ISBN 1 85302 956 4).