

## Teaching Questioning Skills in Autistic Children

**TRADITIONAL teaching methods were compared to the Natural Language Teaching techniques in learning and generalising of questioning skills. An Honour's thesis was conducted at Margaret Drive Special School, supervised by Dr Vera Bernard-Opitz (Department of Social Work and Psychology). Miss Suelynn van der Beek reports.**

One important feature of most social and instructional exchanges is the ability to ask and answer questions. Questions-asking not only facilitates social exchanges, but also presents opportunities to learn novel information. Studies conducted on autistic children suggest that such skills are delayed and deviant. Most studies have focused on enabling the autistic child to respond to questions, but one aspect of social language notably lacking is their ability to ask questions.

Traditional teaching methods have largely been used in past studies with the presentation of mass trials during each session. However, such procedures have been criticised for their lack of generalisation of newly acquired responses from instructional contexts to spontaneous use in natural settings (Guess, Keogh, & Sailor, 1978). Reinforcers are not directly related to the meaning of the child's communication, and there is the danger of artificiality since obtaining reinforcements may be the focus of interactions, instead of learning a variety of communicative functions.

Natural Language Teaching techniques focus on encouraging language use in the natural environment, by emphasising naturalistic and functional language use, as well as "motivational" teaching strategies for children who are resistant to social interaction and communication. Some of these motivating stimuli include: (1) Simple mechanical toys that can be operated by the child to produce sensory reinforcers such as music or actions (i.e., clown that pops out of a box once a button is pressed) (2) Interesting stimuli that can be presented within the context of a "communicative temptation" (e.g., a toy rattling inside a box that the child cannot open without help) and (3) Sensory stimuli such as sand, rice or water that can be manipulated and holds fascination for some autistic children (Koegel, O'Dell & Koegel, 1987).

The central emphasis of each activity is that it must itself be reinforcing, and this follows the notion of natural reinforcement, where there is a stronger

connection between using a specific language and form and a linguistically relevant reinforcer (Carr, 1985). The four basic motivation principles that underlie the **Natural Language Teaching paradigm** are:

- 1) to capitalise on opportunities to respond for natural reinforcers
- 2) task variation
- 3) reinforcement of verbal attempts to respond
- 4) the sharing of control and turn-taking procedures (Koegel & Johnson, 1989).

The present study was based on Taylor and Harris (1995) and combined the various procedures mentioned above and compared traditional teaching methods with a setting events condition (a Natural Language Teaching strategy) to assess whether the questions "What is that?", "Where is the \_\_\_\_\_?" and "Who has the \_\_\_\_\_?" can be taught to autistic children.

### Method

Five higher-functioning autistic children participated in the study. Subjects were able to respond appropriately to the above questions but could not ask the questions. In traditional teaching as well as setting events methods, word cards were used to prompt appropriate question-asking.

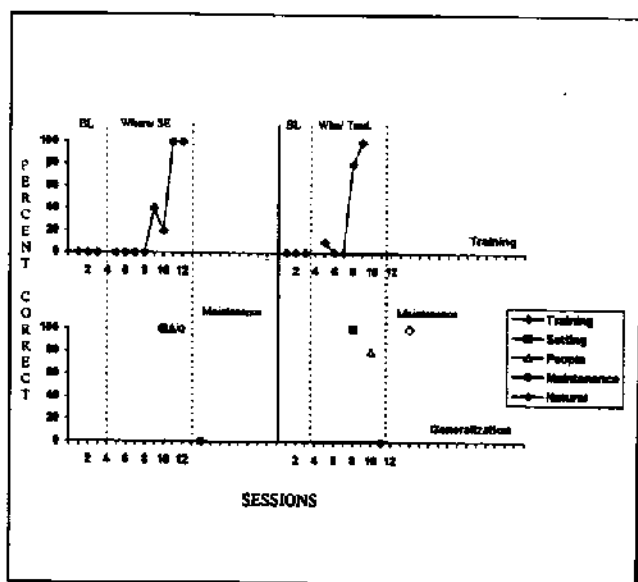
For the traditional teaching method, incomplete sentences were constructed from pictured syntax programmes, with one word covered. Children had to ask the appropriate question to uncover the hidden card, and correct responding was reinforced with edibles or tokens.

The setting events methods used a variety of stimulus materials (i.e., bags, boxes for hiding objects, puppets) under multiple exemplar training. Teaching conditions resembled game-like fun activities that required more active participation. In the *what* condition, children had to guess what was hidden underneath bags, boxes, pillow case etc. Only when they asked the appropriate question form were they then allowed access to the hidden object. Certain areas of the child's environment were manipulated under the *where* condition with the removal of objects, and the children had to learn to ask the *where* question to be given the desired object. Under the *who* condition, various puppets were used to hide reinforcers, and children had to question who held the reinforcers.

### Results

The results showed that there were equally fast rates of acquisition of question-asking in both traditional and Natural Language Teaching methods, but generalisation probes and anecdotal reports from the teachers showed that questions learnt under the Natural Language Teaching conditions led to greater generalisation in the natural context. The multiple exemplar approach ensured that using a variety of tasks in different settings, the autistic child was

given sufficient opportunities to develop a repertoire of communication forms (Alpert & Warren, 1985). Designing training sessions that closely match those of the natural environment increased the chances of greater generalisation and maintenance.



Subject 2's percentage of correct questioning asking during baseline, instruction and maintenance.

### Conclusion

These findings hold implications for the teaching strategies of both teachers and caregivers. Opportunities to respond to natural reinforcers should be capitalised on - for instance interrupting the child during the act of obtaining a reinforcer to prompt for a verbal response, after which the child is reinforced with the stated object or activity. This makes communication "functional" and establishes the generalization of questioning skills. When used together with a variety of teaching tasks, chances are good that the skill acquisition might be more efficient. A combination of the natural language approach with structured teaching seems an effective teaching strategy for teaching questioning skills to autistic children.

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