## Language Songs for Children with Autism and/or Developmental Delay

WITH a big smile five-year-old Saiful runs up the steps to the 3rd floor of a special school, hangs up his bag at the hanger with his photo, gives his teacher a big hug and joins the circle of children -all ready for a new day in the STEP-Programme.

STEP stands for Structured Teaching for Exceptional Pupils and is a one-to-one programme serving children with autistic behaviours. During the daily two and a half hours teaching-sessions children learn basic social, communicative, play and self-help skills and some of these skills by singing.

Along the melody of "Where is Thumbkin..." six children and their one-to-one teachers greet Saiful by "Hello Saiful, hello Saiful, how are you, how are you..." When all continue with "Let's shake hands with Adrian, let's shake hands with Adrian", the boy gets up to greet his peer.



Saiful imitating an action-song.

Saiful is a child with autistic behaviours. He does not talk, but communicates by pictures, wordcards and sometimes by the tune of a song. He loves songs and he has learned a variety of body-imitations by so-called 'language-songs'.

Pulling his little finger the boy initiates a counting song: "One little, two little, three little fingers" sung along the melody of "One little, two little, three little Indians". (He is much more familiar with fingers than Indians!) Picking up his toes he gets his teacher to count and gently massage his toes to the same tune.

In interacting with a peer he tries to 'pedal feet' with another child to the melody of "This is the way we ... push our legs, push our legs, push our

legs..." Since coordinating movements with a peer is quite difficult, he tries to finish this fast and move on to his favorite circle game "The circle goes round, goes round" holding hands with the other children and teachers, sitting down, jumping up, walking fast and slow and ... best of all swinging! Saiful uses a handsign to get his favourite activity being picked up by his teacher and a peer and swinging to the song "This is the way, Saiful swings, Saiful swings..." Now he is ready to start the more serious part of the school morning!

Crystal is a verbal child with autistic behaviours. When she first joined the STEP-Programme, she always wanted to sit on a certain chair and would throw tantrums if the teacher did not follow her song-sequence. To help her become more adaptive, rules were established on turn-taking and choice of songs. Allowing another child to sit on her favourite chair was made easier by singing the song "Terry sits in the middle..."

In using the aforementioned song "This is the way..." Crystal learned to imitate and label self-help activities like "Brush my teeth...", "...comb my hair. ..", "...put on shoes ...".

Opposites were taught with songs like "Open shut hands/arms, hands up - hands down, stand up - sit down..." Being a little vain, she specially enjoyed to watch herself in the mirror, singing and performing the corresponding body-movements. With this she pioneered the Aerobic sessions, expanding the song by "...shoulders up...shoulders down..." Tantrums are now past history in Crystal's life. She makes sure that all children get their turn and is flexible in the choice of chairs, songs, clothing, food and other things.

While traditional children's songs like "Mary had a little lamb" are non-functional for children in this part of the world, the alternative text "Crystal has two hands, two hands, two hands...clap, clap, clap clap..." is closer related to the children's experience.

Language-songs were developed within the behavioural teaching programme of STEP, focusing on functional skill development. Meaningless rhymes of songs can be devastating especially for autistic children, who lack communicative speech. Functionality of songs on the other hand can contribute to their communicative development.

In interacting with the students, the staff have developed a series of songs aimed at specific language structures: names, object-labels, verbs, prepositions, numbers, colours and other language goals. A song collection consisting of a booklet and a tape has been developed with melodies derived from well-known American, German, French and

English children's songs. While the melodies were kept, texts have been changed for the purpose of teaching. Teaching goals are indicated in the following checklist:

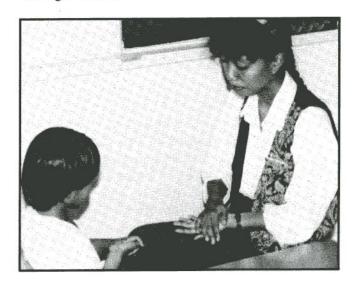
	Body parts Melody: Mary had a little lamb LANGUAGE CONCEPT					14
IMITA TION		Body-	Objects Colours	Oppo- Verbs	Prepo- sitions	PRE- ACADEM
Х	х	X		X		Х
			(child's name) has two hands two hands, two hands has two hands clap, clap, clap, clap. Alternative: two feet/stamp two legs/walk one nose/sniff 10 fingers/wiggle etc.			

Like Saiful and Crystal many autistic children are found to be very interested in music and songs. Some nonverbal children are able to memorize melodies or repeat tunes. Others have been described as having better musical abilities than age-matched normal peers (Applebaum et al, 1979). Early research on hemispheric dominance has indicated a preference of autistic children for music compared to verbal stimuli (Blackstock, 1978). It has been demonstrated that autistic children lack the usual dominance of the left hemisphere for linguistic functions (Dawson, Warrenburg & Fuller, 1983). On the other hand visuospatial and musical skills, which are predominantly coded in the right hemisphere, seem intact in this population. Even though methodological questions on anomalous dominance in autistic children have been raised (Leboyer, et al, 1988), it has been demonstrated that individual subjects can benefit from music (Miller & Toca, 1979, Nelson, Andersen & Gonzales, 1984). For nonverbal children melodies and songs might facilitate the development of communication just as much as visual systems have done (like handsigns, picture or wordcard communication, Schuler, 1985). For verbal children motivation problems might be reduced by using songs for teaching. Some children have shown better compliance when instructions have a specific intonation. So far systematic research in this area is still missing.

While normal children manage to learn without a lot of repetition, children with autistic behaviours or developmental delay frequently need massed training trials. On the other hand making them point to an object or body-part five times in a row can be quite boring for the student as well as the teacher. Songs can follow the format of massed

trials without risking boredom and declining interest.

Teaching specific parts of language in songs is an open ended process. Parents, teachers and therapists should implement their own ideas in the development of songs. Often the children themselves have great ideas!



It is self-understanding, that language songs are just one of a series of methods, fitting well into a behavioural framework. As such they might just be the right approach for a very special child -- be it in Europe, Asia, the U.S.A. or anywhere else.

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## References

Applebaum, E., Egel, A.L., Koegel, R.L. & Imhoff, B. (1979). Measuring musical abilities of autistic children. Journal of Autism and Childhood Schizophrenia, 9, 279-285.

Blackstock, E.G. (1978). Cerebral asymmetry and the development of early infantile autism. Journal of Autism and Childhood Schizophrenia, 8, 339-353.

Dawson, G., Warrenburg, S. & Fuller, P. (1982) Cerebral lateralization in individuals diagnosed as autistic in early childhood. **Brain and Language**, 15(2), 353-368.

Leboyer, M., Osherson, D.N., Nosten, M. & Roubertoux, P. (1988). Is autism associated with anomalous dominance? Journal of Autism and Developmental Disorders, 18, 539-551.

Miller, S. & Toca, J.M. (1979). Adapted melodic intonation therapy: A case study of an experimental language program for an autistic child. Journal of Clinical Psychiatry, 40(4), 201-203.

Nelson, D.L., Anderson, V.G. & Gonzales, A.D. (1984). Music pervasive developmental disorders. **Journal** of Music Therapy, 1989, 21(3), 100-116.

Schuler, A.L. (1985). Selecting alternative communication systems on the basis of current communicative means and functions. Australian Journal of Communication Disorders, 13, 99-116.