Through training, a 14-year-old Swedish boy with autism was able to develop alternative and augmentative communication routes for social communication. After difficulties in using manual signs, the boy was introduced to Blissymbols, which developed his ability to communicate and his interest in written words. Although still autistic and non-speaking, the boy developed an ability to ask for things and to relate his experiences. He has become very resourceful in utilizing all the communication tools introduced to him, and he also invents new ones. The case study shows the importance of presenting a variety of communication means and the importance of being persistent in conducting communication therapy. (JDD)
Alternative and augmentative communication routes used by a non speaking autistic boy

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Margareta Jennische
Phoniatic Department
University Hospital
Uppsala
Sweden

Summary By persistent training it has been possible to assist a 14 year old autistic boy in developing alternative and augmentative communication routes for somewhat social communication. The training was filled with pessimism alternating with astonishment, discoveries and inspiration. After difficulties in using manual signs the boy was introduced to Blissymbols which strongly developed his ability to communicate and his interest in written words. Although still autistic and non speaking he has a clear desire to ask for things and to relate his experiences. He is very resourceful in utilizing all the communication tools to which he has been introduced and also invents new ones.

Those of you who were at the final session at the ISAAC conference in Cardiff 2 years ago will remember that there was expressed a wish for presentation of more case studies where augmentative and alternative communication has been used. That is what inspired me to give this presentation today.

I want to tell you about a boy called Per with whom I have worked for six years. He has the diagnosis of autism and as non speaking autistic he has had a very unusual communication development.

As the time is limited I will concentrate on his communication development and his training which for several years took place at our clinic at the hospital and later at school. I have left out other important parts of his life.

When Per was four years and a half he came for the first time to our clinic at the hospital. At that time he had already gone through many examinations in which he had been found having a mental retardation, a retarded motor development and, above all, an extensive retardation in communication development.
His interaction with the surrounding was abnormal in many ways. From his first year he had shown very little interest in contact with others. Although some body contact was accepted especially from his parents and also initiated by himself, it was obvious from his behavior that the most basic abilities in relating to other people were damaged. One year later he got the diagnosis autism.

5 y

Per was almost 5 years old when his therapy started at the clinic. Per had no interest at all in pictures and did not pay attention when spoken to. The therapist thought that gestures and manual signing would be the only way of getting his attention.

He was described as restless, secluded and absorbed in himself. He was fascinated by standing at the window looking out or looking at his mirror image. Often he used a strange humming sound. On and off he showed short instances of contact. He pulled his mother’s arm. Mostly though he was completely occupied by his own activity - running around, climbing on the furniture, searching for small hard things, playing stereotyped games.

5.5 y

After half a year with almost no feedback the therapist wrote about the therapy: "I don’t really know what I have accomplished. I have tried to stimulate him at his level. I hope that he has caught something."

Some time later she wrote: "My purpose has been to try to awaken his wish to communicate and to find means for his communication. I have presented different gestures to him and tried to play with different sounds. Hopefully he will use what he has seen me do when he really needs it."

Nevertheless Per showed a few times that he noticed and remembered what the therapist had presented to him and at the end of one year of training his day care center reported that he had used a few signs spontaneously, such as BOOK.

The progress was very slow, though, and the therapist wrote: "I have often felt desperate about the boy as he doesn’t make more progress."

6-7 y

During the following 2 years the therapy continued as before. The therapist was persistent in presenting new manual signs representing different concepts. He learned them but spontaneous use was rare. The contact between Per’s day care and the therapist was
such that the therapist told which new signs that had been presented and the day care staff tried to introduce and use them during the days.

8 y

After three years of persistent training when Per was a little more than 8 years old, the therapist wrote: "Per's ability to express himself with manual signs has really exploded. He even uses short sentences." She further described how Per's behavior had changed along with this. From having been extremely unconcentrated he had become cooperative and could work for periods of 10-15 minutes at a time. Between these periods, however, he would run around as before, investigating all desks looking for small metal things to put in his mouth.

8.5 y, school start

Per started school in a small group of children with similar problems in January 1982. Per's interest in pictures and letters which had been very small started to grow. He pointed at words in magazines that he wanted to hear. One of his favorite occupations was to sit and "study" magazines. He looked back and forth in them. He tore out the pictures and words he liked as well as those words and pictures that he disliked. He wanted to have words repeated to him 100s and 100s of times.

His teaching in signing was accompanied by written words and of course pictures. Per learned many common words as word pictures. He also learned the names of all the letters but was not able at all at this time to use any written words for communication. Because of Per's growing interest in words we gave him a Cannon Communicator. To copy words became a play, a fascinating activity, but most attempts to make him listen to which different sounds built up the words were rejected.

Again the therapist acted as a model by writing words, sounding all the letters.

11 y

During the following year he still loved to sit and copy words both on the communicator, on a typewriter and by hand. His handwriting improved.

appr 12 y

After some time he started to try to write words for communication. This often caused problems. He only remembered some of the letters and he got very disappointed if the listener could not understand. He could choose a book and search for words and letters that looked right.

During these years his drive to communicate grew and became very strong.
The difference between what he wanted to express and what he was able to express through signing and writing was large. This was a period of fast development. He showed an inventiveness that sometimes surprised the surroundings and he became very insistent on making his message come through by all means.

Once when he saw through the window that it was starting to rain he signed RAIN. His sign was not very clear so nobody understood what he meant. Then he ran to the water faucet, pointed at the water dripping down, and then ran back to the window.

Per's spelling always caused problems and misunderstanding. He also had problems to retrieve the words he wanted. He often ran around pointing at things, colors and textures. He blew his breath at the window pane or spat on the table to draw pictures.

Per needed a systematic presentation of all words and a support for his memory. At this time we introduced Blissymbols.

Per loved to build up the Bliss communication board. He could concentrate for a long time, constantly asking for more symbols. He looked in the Blissymbol dictionary, asked for the meaning of the symbols and chose carefully among them. A problem was to avoid putting too many symbols on the board.

As many of the Blissymbols are pictographic and easy to understand they gave an immediate support for his memory. Per was not interested in listening to long explanations of the shape of the symbols. That would probably also have been too abstract for him. He noticed, though, that the elements in one symbol came back in another which gave possibility for some explanation.

For the concepts where symbols were missing we just wrote the words on the board.

The effect on his ability to communicate was considerable. The ease with which he finds words now helps him through many difficult situations.

After two years he had a 500 symbol board. He had separate boards for the kitchen use, with tools as well as foods. He has a separate board for his sewing activity on which he also has all the different stitches that he knows. He has a separate binder with lots of symbols categorized where he puts lots of symbols/words for which
there is not room enough on his board.

This fall though he has shown more and more interest in using the alphabet on the board and he prefers to spell many words.

Per is not fixed in copying activities any longer. He writes mostly for communication. He "plays" with the words. He puts a finger over one half of a word and recognizes a new word.

Per is now 15 years old. He still is a boy with many problems. He is often worried and unsatisfied. He cannot sit in his chair when something enters his mind. He has to run to the window. He has to run to the cloak room where all the shoes are. He has to hit the wall or the table. He shows very clearly that there are things in his mind that he is not able to handle, that needs to be expressed. Sometimes he gets stuck with a thought, a feeling or an event so that a whole day's activity gets spoiled.

Sometimes he gets very aggressive and unhappy. If it then happens that he hurts someone, he immediately regrets what he has done and shows this with signs. He is unhappy and recognizes that he has problem to control his feelings.

Per also has a motor problem. His finger and hand motor skills are poor. Therefore his manual signing is difficult to understand. His movements are mostly too fast and he has worked a lot on controlling them to be able to sew, saw, paint and write. He is now almost too critical of his own work and gets stuck and frustrated.

His true motor problems are obvious when he tries to say words. Nowadays he is willing to practice sometimes. The sounds are produced with irregular pressure and he has very little coordination between breathing, phonation and articulation. His difficulties in finding different articulation positions has dyspractic character.

Periodically Per has shown very bad behavior like spitting or destroying things, breaking all the pencils and erasers he could find, using a wet finger as an eraser and destroying many books.

So, Per still has many problems. But now he has a great desire to ask, to explain and to communicate. All the different means he has to communicate helps him a lot. Most of his bad behavior has in fact disappeared and he is more open to explanations. In fact, the only way of
helping him to get further when he gets stuck, frustrated and unhappy is to calm down, open the Bliss board and by using symbols, manual signs, writings and drawings put words to his feelings and questions. It takes time. He may ask the same thing many times. It is very important to treat him seriously and it is a very well used time.

Here I want to stress the importance of using the same visual means for communication when talking to him. He understands much better when he gets the message visually and not only auditory. We understand more and more how large his auditory problems are.

Per loves to communicate. He has now a great desire to show independence. I will give some examples.

**Per loves to show independence**

One day Per points on his Bliss board very determinedly on BIRGITTA BROWN SHOES and at himself. Then he leaves. He puts on Birgitta's brown shoes and sits down on a sofa. We ask him to come back to work. He comes back, signs REST, SLEEP and then goes back to the sofa.

He shows independence in his choice of work. He picks up the things he needs himself and puts them back again. He asks for help when needed.

**Ex 2**

It is Wednesday, the day when Per and his teacher go shopping in town. Per starts in the morning to write BUY. Then he draws a picture of an eraser and writes GREEN, PINK, PLENTY. He meant a new eraser as used ones do not have the full size. He wanted to go to town to buy an eraser with a special color and shape. He brought the telephone book and looked up a special store where he wanted to go. They went to that store, and four others, but could only find a pink and white eraser.

Per understands humour

A few days later when I am there Per draws an eraser and points several times at the Bliss board HOSPITAL, YELLOW, CAR. He wants me to drive him there to get the right kind of eraser. I point at NO, NOT. He repeats his demand HOSPITAL, YELLOW, CAR and then, very fast, he puts his hands over NO and NOT, so that I cannot give him that answer.

Then he smiles and shows that he understands that the situation is funny.

It is useful to write down what he has shown. It helps him to explain further and to discuss.
To write down helps him to explain
Ex 4  One Thursday morning Per is very eager to point on his Bliss board: MOTHER COFFEE GRANDMA FRIDAY. The teacher writes it down in a sentence and continues "Yes on Friday. But what does Per want to do on Thursday?" Per blanks out THURSDAY as if he wants it to be Friday when they will see Grandma. The teacher writes "Now? We shall not go to Grandma on Thursday." Per blanks out NOT and THURSDAY leaving WE WILL GO TO GRANDMA.

Per can anticipate strong reactions
Ex 5  Another time when Per points at MOVIE HOSPITAL CAR YELLOW PER. I remember that half a year ago he had been with me to the hospital to make a video recording. I understand that he now wants to look at that. I say and point at "NO, not today we have to stay at school and work." He insists, points at all the symbols again and then at RIGHT. I explain NO again. Per gets upset and points at FIGHT, HUG, which means that he has got so angry with me that he wants to fight and pinch my arm.

This was a big thing. It showed that he now could recognize his feeling, anticipate his reaction and express it.

Ex 6  Once during a meal when I was too eager using the board to teach him all the things on the table he pointed very meaningfully at QUIET.

Per is feeling much better nowadays. He does not get upset as easily as before. He does not destroy things as before. He does not break all the pencils. He uses the eraser to erase. What he does is right.

The Bliss board inspires Per to think and remember
Ex 7  Per likes to just study his Bliss board. The board brings forth so many thoughts in his mind and he may sit there and smile. The other day I was interrupting his thoughts and asked him to point and tell what he was smiling at. He pointed NO.

Per can now tell things to other people and not only demand and ask.

Ex 8  An example. In Per's school they got a new kitchen last Spring. Per had followed the work very carefully and knew the different steps in the work. On the day when the kitchen appliances were to arrive, Per was in a very happy mood already in the bus in the morning. Nobody knew why and looked at him. He then took up his Bliss board and pointed spontaneously at KITCHEN STOVE REFRIGERATOR. This was the first time that the people in the school bus had seen anybody use a Bliss board and they understood what he meant.
One day he pointed at HONEY SMELL and this told me that they had bought new honey that smelled good.

Another time Per and his teacher sat waiting in a waiting room. Per was smiling and looked so happy that his teacher gave him a piece of paper and told him to write down what he was thinking at. He wrote: TOILET BLUE, MOUNTAIN (He had been in the mountains during easter holiday.) Then he wrote RED CAR and pointed at mountain. He signed "go by car" and wrote: "HOUSE, SKIS, SNOW PULKA, HOUSE WHITE" and then he added "WISH (önska) and drew a crooked line describing the road they had driven. He wished to go back.

To conclude.

1. The work with Per has shown the importance of alternative means for communication to help a non speaking autistic child to be happier and to adjust better to the situation.

2. The work has also shown the importance of being persistent in presenting and giving although the feedback and response were very rare for several years so that the work seemed worthless.

3. The work has also shown the importance of presenting a variety of communication means. The different means complement each other. This gives flexibility which makes a rather fast and efficient communication possible. It gives the child the possibility to choose what is easiest for him.