Making play possible

Ways to create opportunities for children with disabilities

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When small children learn to move, they constantly explore the world around them. They crawl under things, they climb, and they fall, touch, taste and smell the things they come upon. Children with severe physical disabilities can't do this. In order to get the same experiences other children get by themselves, we have to help them.

Here the children experience what it's like to be under a large drama sheet, together with other children and adults. They get new clues to concepts such as up, down, in, out, under, close and together.

Knowledge of your own body is important. Jacob enjoys feeling the ball against his back.

Moving is a wonderful thing. Mathilda enjoys rolling. She takes her chance to sneak away from the others. For many children, the floor is the only place they can be truly independent, without help from people, chairs and technical aids.

But how do you see the world when you are lying down. In order to see the world as we see it, the children have to get up from the floor.

That’s why we put them in walkers and chairs and standing braces. We want them to see and access the world.
When you stand up you see the world from a different angle. You get tall, and you can reach things. It’s good for your skeleton, your lungs and your intestines as well as for your self-esteem.

Jacob needs a standing brace to get up. He waits patiently while his assistant helps him into it.

She secures him on a sort of electric wheelchair, that he can manoeuvre with one single switch. The wheelchair is called Akka, just like the goose that carried Nils Holgerson on its back. This Akka follows the tape on the floor. Now Jacob can move by himself.

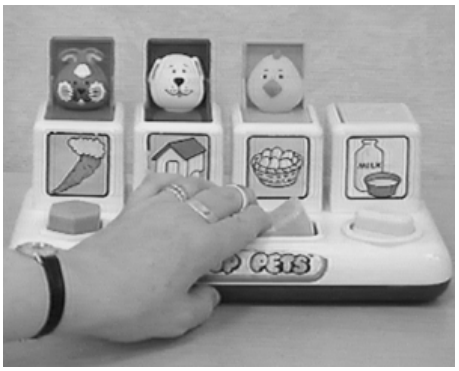
Sara also started out with an Akka. Now she's no longer limited to following a taped line. She can move anywhere in her electric wheelchair. She uses four switches. One to go forward, one to go backwards, one for turning right and one for turning left.
It's also possible to move the seat up and down with help of the switches.

When you yourself use a wheelchair, a standing brace or a walker, why don't let your doll or teddy have one. They surely need it.

Children with visual impairments may need high contrasts and bright colours, preferably neon. Some such things you can find in the stores. Others you have to create or adapt yourselves.

The pre-school teacher tells Jacob what's going to happen next. She also shows him an object to reinforce what she is saying. She holds the object against a background to help Jacob focus. There is high contrast between the object and the background.

Many children with severe physical disabilities, who can't use their hands and arms very much, can still play with some toys available in the stores. These are some of them.



Features that make these toys suitable are that they stay in the same place, they are not easily knocked over, they don't demand advanced fine motor skills and they can be drooled on.

But it's hard to find toys that are interesting to children that are not still at an early developmental age.

Many children like these popup pets. But often it's easier to put the animals back into their boxes, than to make them pop up.

This is Sara again, with a jigsaw puzzle with sturdy knobs attached to the pieces. They are great for some children. But Sara needs them smaller. The other solution works better for her. Pieces of transparent tube have been put on the regular small knobs of the pieces. Also, the puzzle is leaning against an easel, to put it in a good position in front of Sara's eyes.

Sara enjoys drawing. These short pens are perfect for her, but they are not easy to find in the stores. Other long ones are much more difficult to use.

Sometimes very simple adaptations make a lot of difference. A few pieces of tape hold the paper in place.

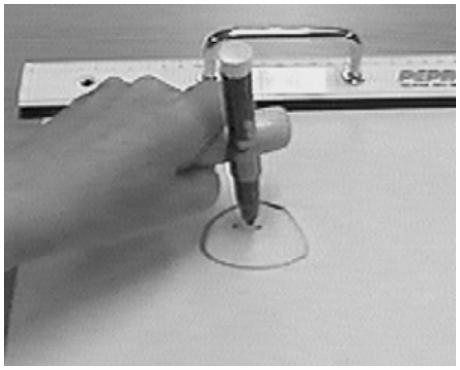
There are crayons available in the stores that have a big knob at the end that make them easy to use for some children. But they don't work for Sara.

Painting with a brush is fun, but difficult. Sara's aunt is hoping that someone might develop a device that could support Sara's arm but at the same time have some elasticity, that would make it give after when she dips the brush.

Now she is painting, using the easel. She asks her aunt for blue paint and tells her she is painting a monkey.

Some children may need a device like this, that works as a handle for the pen, pencil or crayon. Or for what else you choose to put into it.

This ruler is heavy. It secures that the paper stays in one place and you don't have to hold it when using it. So, you can draw a straight line using only one hand. There are also devices that allow you to fasten, for example the brush, to your hand.

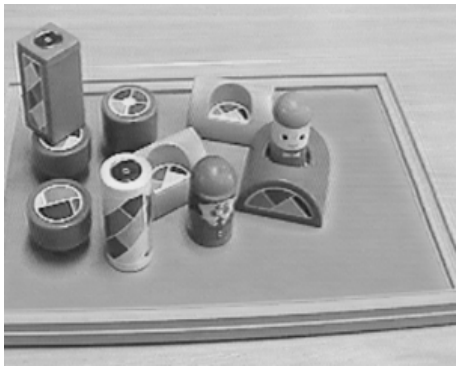


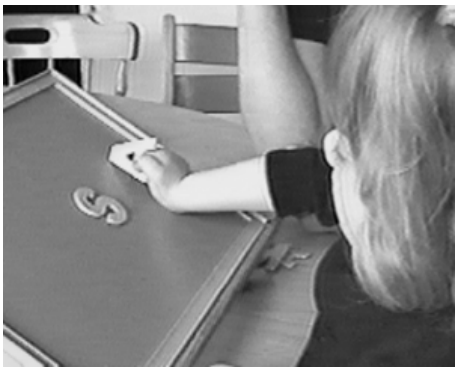
With this pair of adapted scissors Sara can cut. Her aunt helps her to hold the things she is cutting, but Sara herself makes an important contribution to the activity. It is important to find ways like this that allow the children to participate, even if they can't do every part of the activity themselves.

The scissors are attached to the table by a piece of sticky putty, or "blue tac" – which comes off easily when you remove it.
Other useful things are velcro, and paper clips.

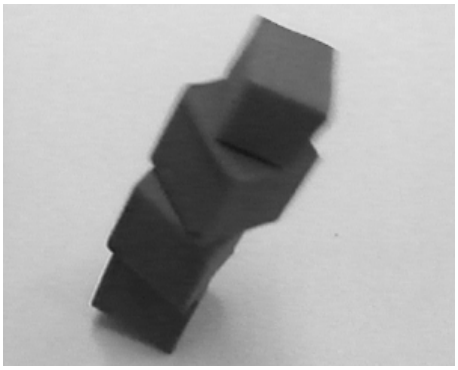
Here we have put velcro under the doll's furniture and on the dolls. We have also put velcro on this reclining book rest. Now Sara can play and the furniture and dolls stay in place, unless she deliberately throws them away.

Magnets are also useful. They also make the toys stay in place. These magnetic blocks are available in the stores, but you can also attach magnets to other toys.





Here Sara plays with magnetic letters. Without magnets it would be difficult to make the letters stay in line, and stay on the board.



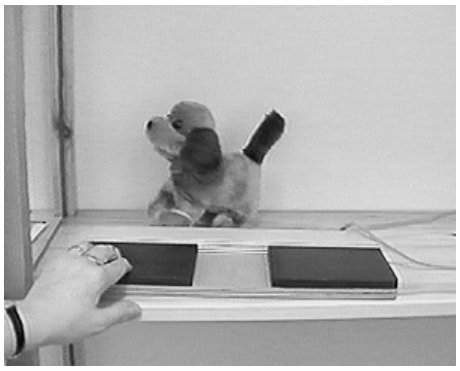
There are also other way to add friction to things. These blocks have been given a surface that makes them more difficult to knock over.

There are several ways to make book reading easier. Here we have attached the book to a reclining book support. The pages in this book are stiff, but they may sill be hard to grasp when they are close together. So we have attached a paper clip to each page. Now there is more room for the fingers between the pages.

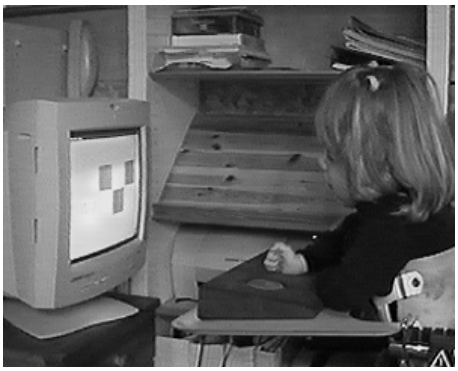
In another book, the pages were thin and fragile, so we chose to laminate them and give the book a spiral back. Here removable extra pictures on each page add space between the pages.

There are several ways to help children participate in book reading. This speaking device that Sara uses, is especially helpful for non-speaking children, who with help of devices like this can join in reading the story. When they press a button on the device it speaks.

This device, that can hold only one message, can give the child the opportunity to join in saying a repetitive line in a story.



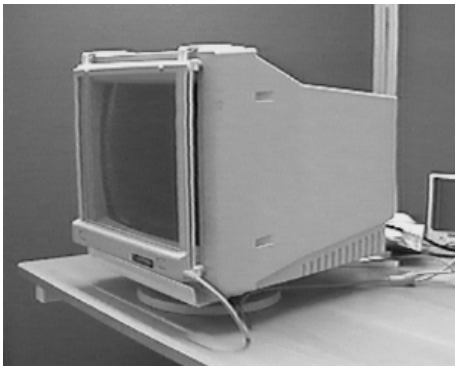
Switches can be attached to electric toys, lamps, radios and also kitchen devices like mixers. They allow children with limited physical abilities to play.

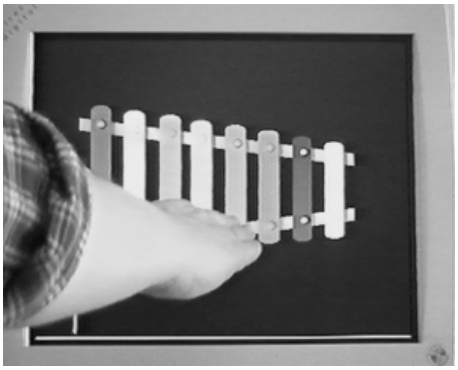


Two switches give Sara access to the computer. She can't use the ordinary keyboard or the mouse but with the switches she can do a lot of things. Here she plays a game of memory. With the left switch she moves the focus from one square to another. With the right she activates the square that holds the focus. Here she is the only one playing the game, but it would be just as easy for a friend to join in and take turns with her.

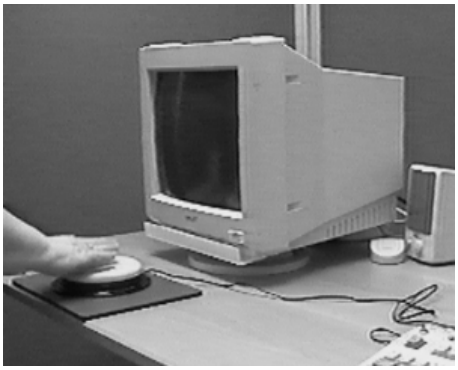
Computer Play

In Sweden we have Children's Computer Centers called "Datatek". To the Datatek parents come with their disabled children to play, try different computer programs and adaptations, and at a low cost rent programs and/or a computer that has been adapted to their child.





Here you see a computer adapted with a touch screen. You can touch directly on the screen and it gives a clear answer. This is an easy way to introduce computer play.



A special keyboard called "Octopus" is designed so that the computer can be controlled by switch guiding. You press a button that you have attached to the Octopus and something happens.

With two switches you can choose. Do you want to play with the airplane or the accordion? I choose the accordion!
You then get to hear a nice tune and can at the same time watch the accordion move on the screen. Black, white and neon colours stimulate the vision.

With a trackball it's easier to understand that the cursor can go up-down, to the left and to the right on the screen. The trackball stays in place on the table.

There are many different games you can play on the computer. In recent years quite a few programs that are adapted for children with disabilities have been developed in Sweden. With this one you can play with a jigsaw-puzzle. You can decide how many pieces the puzzle will contain (between 4 and 42 pieces). When you've marked the piece you can move it. It must not fit exactly, only come near the target. Contours will help you. No pieces fall on the floor!

With another program you can place pictures of people, animals, vehicles and many other things on the screen and play with them.

Making it possible to play in different environments will stimulate the fantasy. It's through play that children develop cognitive competence. The child can experiment and make independent choices. Perhaps a friend will join in and they can imagine and play together.

A sound from an animal is fun. The computer will never get tired, so you can hear it again and again.
Sometimes the child needs help to play. We can suggest to the child: "You can take a tree and put it in front of the house". We can help with some ideas and the play will go on….
Sometimes a child will fill the whole screen with the pictures: 10 cats, 15 dogs and 20 cars!

Together with a child in front of the screen is an excellent situation to stimulate language. You talk about all the things you do on the computer.

With a printer, you can print the screen of what you have done and show to others. This is of course especially important for children without speech.

There are many other programs, adaptations and things you can do on the computer, but this is often a good way to start.