



Research in the classroom: Clemens Hillenbrand observes the goings-on in a school class.

With Help from Outer Space

A school for everyone. Inclusive teaching is particularly important at a time when there are so many refugees, Prof. Dr. Clemens Hillenbrand believes. The special needs educator and his team take to the classroom to research and test how to make lessons work for everybody

Leon* moves from table to table, a look of deep concentration on his face. The eight-year-old who was born with Down Syndrome hands out pieces of a puzzle to his fellow pupils. The girls and boys in 2a have arranged their tables into groups on this Thursday morning. They wait expectantly until Leon has handed out all the pieces of

the puzzle and taken his seat again. Then the special needs educator Carolin Reinck gives the go-ahead and each group fits its pieces together to complete a puzzle. Leon works alongside other pupils who find tasks like this one easy. And so, quite naturally, he learns from them. Igor, Kimberly and Niko also look for guidance to the

children in their group who find school easier than they do: Igor is learning German as a second language, Kimberly struggles with solving problems step by step and Niko is often agitated and even aggressive.

Until a few years ago children like Leon, Igor, Kimberly and Niko would have attended a special needs school.

Today girls and boys with disabilities or challenging behaviours form a normal part of ordinary schools – the buzzword here is inclusion. It means that everyone has the possibility to participate everywhere: at school, at work and in leisure activities. And the respective institutions should adapt to the various needs of their users instead of the other way round. The United Nations has defined inclusion as a human right in the Convention on the Rights of Persons with Disabilities. Germany has signed the agreement.

Scientists in the classroom

In many places it has become the norm for pupils with and without disabilities to share lessons. This is the case in Leon's school, too, but something is different here. His classroom receives regular visits from researchers at Oldenburg University who want to find out how the challenge of inclusion can best be tackled. But they are not only in the classroom to observe; they also bring their knowledge and experience to bear. Every Thursday special needs educator Carolin Reinck structures the lessons in 2a. Here she pays particular attention to children who need help with learning, whether or not they have been diagnosed as such. "The other children are important role models whom they can use for orientation," Reinck says. But the children who are higher achievers also benefit from the shared lessons, Reinck adds, because they learn to work with children of different abilities and to accept and make use of the different strengths and weaknesses within the classroom community.

Reinck completed her doc-

torate at Oldenburg University and now works closely here with Prof. Dr. Clemens Hillenbrand. Hillenbrand is conducting research on teaching children with learning disabilities at the University's Department of Special Needs Education and Rehabilitation. The special needs educator knows that the new diversity in the classroom can entail a number of challenges. "Every now and then situations arise that can be very difficult for teachers to control," he says. Hillenbrand is referring in particular to children with challenging behaviour, such as aggression and attention deficit disorder. "It can ruin the entire lesson, especially if there are a few such children in one class. International studies also corroborate this," the researcher says.

To pre-empt such situations his team,

together with researchers from Cologne, has initiated a number of projects that aim to improve children's emotional-social skills and basically help them learn to get along with others. A key "member" of this preventative team is "Lubo from outer space" – a bright green hand puppet with multicoloured hair, wonky flying goggles and a broken spaceship. "After an emergency landing on Planet Earth Lubo needs friends to help him repair his spaceship," Hillenbrand explains. He takes this story into classrooms – in Northern Germany and beyond. Lubo has now become a highly successful export and visits kindergartens and schools all across Germany, and even in a number of neighbouring countries. The idea is that the children show Lubo how to make friends here on Earth. In this situation they are

the experts who share their knowledge. "That's the trick.

They are called upon to share their skills, and this is very good for learning," the pedagogue explains.

Lubo's classroom visit demonstrates how this works. The children in 2a are a little too old for hand puppets but after Lubo landed here several times last year all of them were keen to see him again. Lina remembers it well: "Each time we spent an hour with Lubo. We talked about being brave and things like that." Today Lubo has brought along lots of coloured puzzle pieces for the children to put

together. A task which requires them to work together. Each group places its puzzle in the middle of the classroom in a circle.

The teacher calls it "Lubo's problem-solving circle" – it is meant to be a guide for difficult situations. "Imagine you're in the cor-





Better together:
the children solve tasks in teams.



How do you feel when
another child pushes you?



Carolin Reinck and Leon take
a look at what Lubo brought along.

ridor and someone pushes you. How do you feel and what do you want to happen?" asks the special needs educator. Theresa knows the feeling and points to the appropriate Lubo picture. "I feel angry and I want them to say sorry." The teacher nods in approval. The cuddly little alien has helped the children to become aware of their feelings and shown them how to solve a potentially tricky situation.

The success of the Lubo programme has been proven in a number of studies involving some 700 pre- and primary school children. "We observed a positive impact especially when it came to solving social problems and prosocial behaviour," Hillenbrand explains. The results also show that children with risk factors benefit even more than others. "It seems that we reach precisely the children who need it the most. As special needs educators this is of course music to our ears."

A targeted approach to promoting learning

Of course, Lubo is just one of many building blocks. The Oldenburg researchers are also focussed on targeted teaching support so that no one

falls behind in class. Here they make use of the so-called "Advance Organizer" – a learning method that orders new information according to existing thought structures and thus aids memory retrieval. "It is based on cognitive psychology," Hillenbrand explains. Carolin Reinck is applying the method today in a religious education class to teach children about the Creation story. While she recites a passage from the Bible the children place corresponding objects, words and pictures in the middle of a circle of chairs. When God creates the seas, Leon lays down a bowl of water. A little later Niko is allowed to add some small wooden trees, and Theresa takes care of the cows which represent "the animals of the earth". "The objects help the children remember the Creation story later on – especially those who are less confident readers and would have problems with a printed text," Reinck says.

The researchers also use other Oldenburg projects for assisting learning: they teach kindergarten children a basic understanding of numbers using the children's book "The Hungry Caterpillar" or, once children have transitioned into class 5, they use "Olympic Number Games" to train basic arithmetic skills. Progress is charted

using questionnaires, teachers' assessments and targeted parent surveys. Here, too, Hillenbrand says that if the methods are right, in particular children with learning difficulties benefit significantly. A further key point for Hillenbrand is that they should learn in a group rather than be singled out and "schooled" separately. "What's the best way to learn? Not with a work sheet but through interaction with others," the pedagogue emphasises.

Learning as part of a heterogeneous group – for Hillenbrand the idea has never been more relevant than it is today. He is thinking in particular about the children with a refugee background who are currently being integrated into the German school system. "Many of the children initially end up in so-called "welcome classes" where they are meant to learn German. This strikes me as problematic in the long term," the expert says. The problem is that these children are supposed to make an effort to learn a new language, but unless they have contact with German-speaking children the idea will remain completely abstract, he observes. According to Hillenbrand, after a brief, intensive practice period the refugee children should be integrated into normal classes as quickly

as possible. He even regards their learning German as enriching for the rest of the class. "When the teacher points out specific features of the language, incorporates a grammar or vocabulary exercise here and there, all the children benefit."

Extending inclusion to refugees

Learning together – the underlying concept of inclusion – also applies for refugee children, Hillenbrand says. "The general structure is there after all." In many primary schools special needs teachers teach reading, writing and arithmetic to children with learning difficulties in small groups. So it makes sense to integrate refugee children into these groups. In the "welcome classes" by contrast, according to media reports, the children are rarely taught by trained teachers. The staff are very committed and are provided with suitable teaching materials – but that cannot replace proper teacher training, the researcher believes. A number of Oldenburg projects have shown that there are better ways to successfully implement inclusion, Hillenbrand points out. This is something

the researchers teach in various continuing education courses. In a focus project for North Rhine-Westphalia, for example, they train teachers to be "inclusion experts" who then pass on their knowledge to their colleagues. "We have already trained 300 teachers, and a further 150 are currently in the process of obtaining their qualification," says Hillenbrand. They also offer special courses for head teachers in Lower Saxony, who are likewise confronted with the challenges of inclusion, in issues such as legal matters. "We were preaching to the converted in schools. There seems to be huge demand for a more objective approach to the issue and concrete support," Hillenbrand says.

Schools come under additional pressure due to a general shortage of teachers in Germany. In many places there are simply not enough trained professionals – and special needs teachers are in even shorter supply. Hillenbrand points out that in Lower Saxony since the education act on inclusion was passed in 2012 most primary schools are obliged to make basic teaching provisions for children with special needs. "But this is just an extra two to five hours maximum with a special needs teacher – in primary schools,

Many secondary schools are not even able to provide this basic support," Hillenbrand explains. The government of Lower Saxony has now taken initial steps to address the shortage of teachers, considerably increasing the number of places on courses at Oldenburg University's Department of Special Needs Education and Rehabilitation. In a few years' time three times as many young people will be trained as special needs educators here as have been up to now. And nine new professorships are being created to help teach them.

This is one of the reasons why Hillenbrand is confident that the German education system will be able to meet the challenge of "schools for everyone". Recently he visited a class in Oldenburg that offers basic special needs support in which refugee children sat next to children with learning difficulties. He was very encouraged to see how well the pupils worked together. "One of our students works there voluntarily. She is Kurdish and can translate for them. She doesn't understand all the children but if need be they translate among themselves. For me that shows that it's always possible to find a way to put good ideas into action." (bb)

* The children's names were changed