



**New colours in the**

In many developing countries, schools are completely unfamiliar with new teaching methods.

This is also the case in Indonesia. The country's education system has run into crisis. A programme to improve primary education now offers a solution. The teachers are trained to use child-centred teaching methods. The Education Ministry has firmly established the new approaches in its education policy.

*Dierk Jensen*

In the morning, somewhere in Jakarta, the Nintendos are already buzzing. They have been ingeniously wired to a car battery that provides the digital darlings with power. The clever salesman, who is in his thirties, is sitting behind the battery, and charges a couple of rupiahs for three minutes of playing with the Nintendos. The pupils pay and hit the keys that mean everything to them. The bell for the break rings. The children give back the Nintendos and run to their classrooms.

Once they are inside the school, they delve into a world that looks no different from what it did 30 years ago. In front of them, there is the blackboard, the chalk and the teacher; to the back, the well-behaved children are sitting at their desks. This is an educational one-way street without any new media or interactive teaching aids. School life has only little to do with what Indonesian children experience in the streets, at home or on television every day.

The woman paedagogue at the state primary school in the urban district of Pejaten Timur teaches according to what she herself has been taught at the university's teachers' seminar. She preaches the contents, and her 23 pupils parrot what she has said. Instead of interactive learning, it is learning by rote that characterises Daulay's lessons. The schoolchildren sit at their desks, are well behaved and good, repeat what she has said in chorus, copy texts she has written, do handicraft work according to her patterns and sing like with one voice. For decades, the motto has been *duduk manis*: be good and sit there. Independent learning is not in demand, and even less so children's creativity and their thinking on their own.

#### At all levels

This is what the dull reality of life at school looks like in Indonesia. This is what Otto Hammes, head of the GTZ team in the Science Education Quality Improvement Project (SEQIP) is confronted with. SEQIP is a large-scale programme aimed at improving the quality of school lessons in Indonesia that the Federal Ministry for Economic Co-operation and Development has commissioned GTZ to support. The project is intended to introduce measures to enhance school education at several levels simultaneously. For experience has shown that mere upgrading of teachers has no effect.

This is why SEQIP has a wider remit. GTZ staff and their Indonesian partners are designing new teaching material, training teachers, reforming the exams system and, above all, providing advanced training for teaching staff at the universities. The heads of schools and state school inspectors are also integrated into this scheme.

#### A briefcase for the classes

The teachers participating in the project teach natural science and general knowledge lessons to third to sixth form primary school classes. They are systematically accompanied and supported in their work in order to ensure that elements of practical and action-oriented teaching enter everyday school life. For the lessons, SEQIP has developed a briefcase containing demonstration material for teachers as well as a cabinet for apparatus with class sets so that the pupils can carry out their own experiments. During advanced training, teachers learn how to integrate this material into their teaching methods.

The seminars sharpen teachers' awareness of reflective learning. New teaching methods enable pupils to adopt a more individual approach to acquiring their knowledge. The traditional method of stubborn learning by rote is one of the reasons for Indonesia's education crisis. The system's weak point is the lack of teaching and learning quality at school and in vocational training. This is where the SEQIP programme comes in. The teachers themselves hold the key to success.

In order to enable new learning qualities to enter lessons, the GTZ advisers focus on training people who in turn will be training teachers. Model classes for higher education lecturers are run at the universities and the teacher-training colleges. For this is precisely where the problems of the education system start, for 95 percent of the lecturers have never seen a primary school from inside themselves.

"It is a complete novelty in the Indonesian training system that these trainers should be required to teach in practice themselves at our advanced training seminars," says GTZ staff member Klaus Weber. All lecturers personally teach classes for two days, "putting on a reasonably brave show". For many of them, this is "a real aha-experience". Afterwards, the lecturers train consultant teachers in small groups who are to then head teacher work groups for several years. These groups are called *Kelompok Kerja Guru* (KKG), and consist of a selection of teachers from the schools that are participating in the SEQIP

▷ project. Two teachers are chosen from each institution for an individual working unit. The new title of Guru IPA enhances their status.

Klaus Weber, a 48-year-old paedagogue who has a good command of Bahasa Indonesian, teachers for the love of it. He often travels around the fourth largest country of the world to mobilise schools, local school administrations and, above all, teachers for SEQIP. Around 18,000 schools in seven provinces from Jakarta to Irian Java are participating in the scheme. As from the summer of 2000, the 18,000 experimental briefcases and 9,000 cabinets for apparatus are to be introduced. New handbooks for teachers and textbooks for pupils are being compiled, advanced training measures for teachers are run and the

promote action-oriented teaching and the associated western culture of learning will not be regarded as a threat to Islamic values, in spite of the tedious preparatory discussions with Indonesian colleagues. Here, authority and hierarchy continue to be determining factors. Islam also shapes the everyday lives of primary schools pupils in Pejaten Timur. The syllabus prescribes two hours of religious instruction a day. In the afternoon, most of the children also attend Koran school, where they read the Koran and are given compulsory lessons in Arabic.

In the capital Jakarta, the environment of the pupils is still relatively liberal-minded. However, things are stricter in the rural areas. In the village Gumuk Limo, close to the city of Jember in the province of East Java, none of the primary school teachers have taken part in a KKG work group for teachers. Teaching is still conducted with simple means. Almost all the pupils are children of farmers cultivating maize, rice, tobacco, peanuts and tapioca. Their lives in the 3,000-inhabitant village is determined more by the harvest cycle in the fields and the call of the muezzin than by Nintendos.



school heads and inspectors are familiarised with the basic notions of a new concept of learning in natural sciences classes. In the longer term, the antiquated exams system at national, regional and school level is to be reformed as well.

These high aspirations are colliding with the “inflated, cumbersome school administration”. This is really putting the patience of the GTZ team and its partners in Jakarta to the test. All that gives them impetus is the enthusiasm among the teachers themselves. While the gigantic school apparatus, which is in charge of two million teachers and 35 million pupils, is still sleeping, the heads of the ministry are already considering extending the SEQIP range of instruments to lessons in mathematics and politics. From the angle of the Indonesian project heads, SEQIP has evolved into a development centre for innovation carrying the hopes for necessary reforms.

Nevertheless, a lot of this is still a pie in the sky. School today is still determined by formalisms. Standing lined up in front of a senior official, staff members of the ministry still listen patiently as he addresses them once a month, inoculating them with the corporate spirit of the Indonesian school system.

The GTZ advisers warn against any premature expectations. “We do not know whether there will be conflicts with traditionalists,” says Otto Hammes. All the people participating in the project have to ask themselves whether efforts to



*Kids and suitcases. Is the new teaching and learning style reconcilable with Indonesian culture?*

Therefore, the SEQIP programme is attempting to integrate experience and knowledge that is specified according to regions into the teaching material. “This is the only way we will reach the pupils,” says woman teacher Marijatoel Koetsijah. Based in the regional capital of Surabaya, she organises the KKG groups for teachers at the 2,000 schools in East Java. In spite of current tensions between Christians and Muslims, the dedicated paedagogue sees no problems arising between Muslim and state-run schools. “There is no animosity. I have noticed that the teachers coming to our SEQIP advanced training measures are highly motivated,” says the convinced Muslim.

The Indonesian woman Sulistorini is responsible for the form and contents of new textbooks for the form four to six classes. She has already

## Practical teaching in schools

been involved in developing them for two years. "We intend to break new ground with our books. Whereas they used to be tailored to the teachers, we now want to orient them on the pupils," says the former lecturer at the University of Terbuka, one of the few women in Indonesia who have studied abroad. She uses colours, photos and small, lively stories addressing what the children experience every day. The topic of air is presented with a funny drawing of children blowing up balloons and flying kites. The children understand this image language.

In the meantime, at the primary school of Pejaten Timur, Muhani, Fiqhi and Muhamed, all three of them fifth-form pupils, are inquisitively watching the prisms and magnifying glasses lying on the table. They come from the experimenting briefcases that woman teacher Daulay has opened for test purposes for the first time. The children touch the little objects and turn them around keenly to look at them from all sides. Eleven-year-old Muhani holds the prism up against the window and is fascinated to see the light disperse into its spectral colours. And seen through the magnifying glass, the



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problems. Together, they form a global network of sustainable development. The project aimed at improving lessons in natural sciences in Indonesia's primary schools presented here is part of this network.

**Context:** Impractical and traditionally authoritarian teaching and learning methods are preventing the pupils at Indonesia's primary schools from developing the ability to think independently.

**Goal:** Teaching structures, methods and instruments that make sense in pedagogical terms enable reflective learning and contribute to practical natural science and technology education in the country.

**Concept:** To support educational reform, GTZ is promoting the setting up and extension of decentralised and continuous advanced training for teaching staff as well as the administrative expertise of the education system's administration.

**Partners:** The Education Ministry, teacher-training colleges and teacher work groups.

**Costs:** The BMZ has been supporting Technical Co-operation to improve primary education with a total of 10.75 million marks and Financial Co-operation (KfW) with 24 million marks so far.

**EXPO site:** BMZ presentation in the Global House (EXPO Plaza); topic: Knowledge and Education - Assets for the Future.

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writing in the exercise books is suddenly twice as big.

It is exciting observations of this kind that have contributed to improving performance at school among the children participating in the SEQIP programme. The pupils learn how to systematically approach things they are learning and draw their own conclusions. The children are changing their behaviour because they are learning how to think independently and question what they are confronted with. SEQIP is also eager to learn. What has not yet been established is to what degree the new teaching and learning style is reconcilable with Indonesian culture. ■

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