

“We are developing ICT-based lessons for each subject. Inspired by the success of this initiative so far and eager to share our expertise, we would like to help promote this innovative ICT-driven approach to education in schools nationwide.”

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University of Tsukuba Elementary School

Future classroom project shows how ICT can benefit education.

#### At a glance

Country: Japan

Industry: Education

Founded: 1873

Website: [www.elementary-s.tsukuba.ac.jp](http://www.elementary-s.tsukuba.ac.jp)

#### Challenge

The progress of ICT is expected to be a catalyst for innovation in education. The Japanese government's target is to create an educational environment where every student has a networked device by 2020.

#### Solution

The school launched the Future Classroom demonstration project in June 2013 to promote effective use of ICT in education.

#### Benefit

- Classroom is equipped with a multiscreen display on which the teacher's tablet screen and students' tablet screens can be shown
- Equipment encourages children to actively participate in class
- Teacher can send assignments to the children's tablets
- Enabling productive group discussion and collaborative learning

## Customer

The University of Tsukuba Elementary School traces its history back to a primary school established in 1873 in Tokyo that was affiliated with Japan's first national teacher training college, which eventually became the University of Tsukuba. The University of Tsukuba Elementary School has been at the forefront of advances in primary education in Japan. Every year the school is visited by more than 10,000 educators from Japan and abroad. The school's educational philosophy and techniques are introduced at numerous educational institutions.

## Products and services

■ FUJITSU Tablet STYLISTIC



## Challenge

The school began using ICT in teaching over 10 years ago. The ICT Utilization Committee established within the school has been spearheading on the practical use of ICT in the classroom.

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However, despite the government's target, most schools in Japan remain in a world of chalk and talk. Classroom facilities at many schools have been unchanged for decades. Desks are lined up facing a blackboard. Typically, the teacher lectures and the pupils are expected to passively soak up knowledge.

## Solution

The school launched the Future Classroom demonstration project in June 2013 to promote effective use of ICT in education. Office equipment supplier Uchida Yoko, application vendor Microsoft Japan, and Fujitsu are collaborating with the school for this project, drawing on their respective strengths.

For this project, a classroom is transformed into an ICT environment, equipped with ICT devices, to explore innovative learning activities that enrich primary education. In this classroom, each student has a Fujitsu Windows 8 tablet PC. The classroom is equipped with a multiscreen display on which the teacher's tablet screen and students' tablet screens can be shown, desks and chairs that can be easily and flexibly rearranged, an electronic interactive whiteboard, a wireless LAN, battery chargers for tablets, educational applications, and so on.

This equipment encourages children to actively participate in class. The teacher can send assignments to the children's tablets, children move their desks as needed for group discussion or pair work, and can use the multiscreen display to present the results of their work.

## Benefit

Taking advantage of the characteristic that each class is taught by a subject teacher, the school is developing ICT-based model lessons for each subject and researching ICT-based teaching methods to enable productive group discussion and collaborative learning, and monitoring pupils' progress over the long-term. The school is making its findings available to educators nationwide by inviting them to observe classes and through seminars.

The well-equipped classroom with its electronic whiteboard and multiscreen display is fascinating and attractive to the children. They love having their own tablets and enjoy the lessons. Today's youngsters are digital natives raised in a world where the internet, laptops, tablets, game consoles, smartphones and the like are part of the fabric of everyday life. They take to the tablets like ducks to water. When working in pairs, children tend to naturally divide their responsibilities, one doing the research while the other preparing a presentation, for example.

As the Future Classroom demonstration project suggests, tablets, not paper, will be at the heart of the future learning environment. The children use pen-input tablets that emulate paper-like usability and are suitable for classes that require handwriting and use of a ruler. Textbooks distributed online are rich in visual imagery to stimulate children's interest. Use of the tablets not only allows each child to share information with others instantaneously and keep abreast with what his or her peers are doing, but also to swiftly access resources, research and find information. Tablets are the optimum devices for collaborative learning in which children can take the initiative.

When it comes to the future of education, tablets will come into their own, transforming the world into one big classroom. In fact, tablets are already used outdoors for nature study, with children capturing images of insects and plants or recording birdsong. Tablets can link the school with the home. Children will take their tablets home so that they can continue learning at home, perhaps together with their parents, about whatever has caught their interest at school. Such behavior is expected to enrich the child's educational experience. Learning records of each child accumulated through tablets will be used to optimize education opportunities for each child.

The Future Classroom initiative helps set the ground to the next stage of ICT-driven innovation in the classroom. The educational sector is about to shift gears from the demonstration phase to widespread deployment of best practice. ICT is destined to be ever more instrumental in helping young people to get the best possible education.

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