

Case Study

Himeji Board of Education

»Tablets are suitable for group learning encouraging students to work together and can be used in a wide variety of locations. By linking these two types of PCs, we are seeking to improve the educational effect.«

Mr. Koji Inoue, Education Supervisor for training planning and ICT of the Educational Training Section, Himeji General Education Center, Himeji Board of Education



The customer

Country: Japan
Industry: Education
Website: www.city.himeji.lg.jp/sosiki/info_edu



The challenge

In order to nurture children in a manner that responds to the demands of the times, the Himeji Board of Education wanted to promote ICT-based education in elementary and junior high schools.

The solution

Himeji City is committed to improving its educational environment, and has introduced an Information and Communication Technology (ICT) environment, which includes the use of tablets, into all elementary and junior high schools within the city. In their classes, students are enjoying the learning experience enabled by tablet features, such as viewing vivid pictures at their fingertips, writing with a stylus and taking photographs. A significant educational effect is expected to be achieved through the use of this advanced teaching style.

The customer

Committed to the digitization of education from an early date, Himeji City declared in the Furusato Himeji Plan 2020, that it will further digitize education through city-wide efforts. To improve the environment, the city opened the General Education Center under the Himeji Board of Education as the city's core educational institution that supports research by teachers and the development of teaching materials.

The challenge

Although a PC classroom, where each student can use a single PC, had already been introduced into all elementary and junior high schools within the city, its use was limited because of occasional scheduling conflicts. Access to computers needed to be available anytime. In addition, a large display, document camera, and a PC for teachers were supplied to all ordinary classes in elementary schools, but not to those in junior high schools. This generated a gap between the ICT environments in elementary and junior high schools.

The solution

As part of the 2013 School Education Digitization Project, the city decided to provide a large display with an electronic blackboard function, a document camera, and a PC for teachers to ordinary classes in junior high schools; as well as tablets, wireless LAN access points, and a tablet storage & charging cart in all elementary and junior high schools. Basically, a set of 11 tablets (one tablet for the teacher, and one tablet for every four students in a class of 40) was introduced to each school, and two sets of tablets were supplied to large-scale schools.

Mr. Koji Inoue, Education Supervisor for training planning and ICT of the Educational Training Section, Himeji General Education Center, Himeji Board of Education, comments: "The one-PC-per-student environment in PC classrooms is suitable for individual creation of artwork as well as research and learning activities, and it has advantageous features such as compatibility with peripherals and stable connection, but a PC must be used within a limited area. Tablets, for their part, are suitable for group learning that encourages students to work together, and can be used in a wide variety of locations. By linking these two types of PCs, we are seeking to improve the educational effect."

The benefit

- Introduction of tablets has allowed the easy use of an ICT environment in ordinary classrooms in addition to PC classrooms
- Introduction of a Windows tablet has assured ease of teaching by teachers, as well as the use of existing materials
- Operability, size, and weight that enable easy handling by children, as well as drop-proof robustness

The city calls this approach “Himeji style”, which aspires to improve the educational effect by linking the ICT environment of PC classrooms and ordinary classrooms also with the school affairs environment of the teachers’ office.

Fujitsu proposed the use of the STYLISTIC Q702/G tablet, an exclusive model customized for educational use. Mr. Inoue says: “We could not make a compromise on CPU performance because we were planning to conclude a five-year lease contract. In addition, a Windows OS was a must because teachers had created teaching materials primarily on Windows, and we needed to continue to use these assets effectively. A display size of 11.6 inch or larger was a requirement for group learning, and a device more than 1 kg would have been too heavy for elementary students to carry. At least four hours of battery life was required to allow continual use that may extend for half a day. All of these requirements were significant.

“From an educational perspective, it was also important that teachers could use the tablets appropriately based on our security policy. Another reason we selected Windows was because it allowed continuous use of existing operational rules,” Mr. Inoue says.

Introduction of tablets to elementary and junior high schools started from December 2013. Tablets are now being used in a wide variety of applications such as group discussions, presentation of opinions, review of physical education class, and observation of growing plants.

The benefit

Hirohata Daini Elementary School has introduced tablets proactively as a model school. Mr. Masaru Tanaka, Principal of Hirohata Daini Elementary School, says: “Since the introduction, tablets have been used in a wide variety of applications by experienced and young teachers in their areas of specialty.”

One of the teachers who is playing a central role at this elementary school is Ms. Setsuko Ueyama. For example, in a fifth-grade arts and crafts (painting appreciation) class taught by Ms. Ueyama, a painting by Giuseppe Arcimboldo is studied.

Products and services

- FUJITSU Tablet STYLISTIC Q702/G (exclusive model for educational use)
- Windows 8
- Intel® Core™ i3-3217U (1.80 GHz)

The painting uses vegetables and fruits to create a portrait. Each group of students look at what is depicted in the picture by enlarging the image displayed vividly and colorfully on the tablet. Then, a stylus is used to mark what the students discovered for presentation and share what they thought was good about the picture. The class fully utilizes tablet functions. Ms. Ueyama says: “In this class, I previously used a large piece of paper or a large display to show pictures, but it was difficult to see for students sitting at the back of the room. Use of tablets has allowed children to look at the vivid pictures closely by zooming in. It looks like students are very much enjoying the class.”

She also comments: “It is difficult for elementary students to concentrate during the class for 45 minutes, but using tablets helps to keep them focused.” The tablets are also well received by children, who says: “Details of pictures are easier to see because they can be enlarged,” and “as pictures are displayed beautifully, it is easier to understand.”

The elementary school provided training for teachers. In addition to accumulating advanced case studies such as this arts and crafts class, the school is planning to improve teachers’ skills to promote further utilization. Mr. Tanaka, the principal, has been using digital devices for education for more than 30 years, for example, by creating teaching materials using a PC. Based on this experience, he says: “A firm teaching structure and effective use of tablets are both required in order to conduct a meaningful class. We would like to continue to improve our skills on how we can use tablets more effectively.”

Conclusion

The recent introduction of tablets into all elementary and junior high schools as part of the Himeji Board of Education’s efforts to develop a new learning environment has received widespread attention, and many educators have visited Himeji to tour the schools there. This “Himeji style” will definitely have a major impact on education in Japan as a model case of a new teaching style.

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