IMPROVING INTERACTION WITH 2 IN 1 DEVICES

Czech Republic

The primary school and preschool in Kladno, a small town near to Prague, had previously relied on desktop computers for its information and communications technology (ICT). As part of a national initiative to raise the standard of ICT education, the school equipped teachers with 2 in 1 devices for use in preparing lessons at home, and delivering them in the classroom.

Challenge

- Enable teachers to better prepare for classes
- Improve interaction with computing devices in the class

Solution

- Teachers use 2 in 1 devices to prepare lessons at home
- Students use the same devices with teachers in the classroom
- Intel® Education Software Suite proves to be particularly popular in science classes

Results

- Teachers are better prepared for lessons
- Computers are used more interactively in the lessons
- Students have greater access to ICT in class
- Better visualization of the covered curriculum
Don’t be afraid to use 2 in 1 devices in your school. You don’t have to make a big change at once; you can start with little steps and gradually extend your use of 2 in 1 devices in your lessons.

Karel Albrecht
ICT coordinator

A Model for Success:
Education Transformation
Intel relies on a systemic approach to education transformation that is based on educational research and supports best practices for achieving student success.

Key details
The primary school and preschool in Kladno (ZŠ a MŠ Kladno, Doberská 323) is particularly proud of its family-like learning environment and its adoption of ICT equipment. For over 100 years, the school has served the regional city of Kladno, and today educates 405 students aged between six and 15 years old.

To help develop teachers’ skills and transform the use of ICT in education, the Ministry of Education invested in a nationwide program called Call 51, supported by EU funding. The program gave teachers access to touch-based devices, and trained them on using them in the school. The aim here was not to use computers to replace books, but to change the didactic model so that devices would be used for interactive teaching. For example, students should be able to search for content, apply analysis to sort it, process it and deliver results visually. Call 51 also delivered the enabling WiFi and cloud infrastructure to the schools.

Under this scheme, the school acquired 45 Acer Aspire Switch* 10 computers, based on the Intel® Atom™ processor, and with the Intel® Education Software Suite installed. As 2 in 1 devices, they offer both a touch screen and keyboard for controlling the device, and have a detachable screen for a tablet-like user experience.

“We chose these devices because of their quality, price and use of the Microsoft Windows 8 Professional* operating system, which the school already uses on its desktop computers,” said Karel Albrecht, ICT coordinator at the school. “The teachers have more experience with keyboards but touch input brings great opportunities for interaction in the classroom too, so it was important to have both.”

Portability improves interaction
Teachers prepare lessons at home on the devices, using the keyboard. While in the classroom, they mostly don’t need the keyboard, so they simply detach the screen and deliver the presentations either on the device itself or beamed to a projector or interactive whiteboard. “The best thing about these devices is their portability,” said Albrecht. “Teachers carry them around the school and take them home too, so the size and weight are hugely important. This degree of flexibility was impossible with our desktop machines.”
The devices can be easily passed around the classroom so students can use them for group work, where they work together to capture and process data, as well as for presenting the results of the group projects back to the class.

Another great advantage is the battery life. “Because the device is equipped with a battery in the screen as well as in the keyboard, it can provide enough power to last throughout the whole school day, which is hugely important for the teachers,” said Albrecht. “These devices are always ready to be used wherever they're needed, as opposed to being locked to a certain place, close to a power outlet.”

The 2 in 1 devices together with the Intel Education Software Suite found the highest usage in natural science classes. The two most frequently used applications are SPARKvue* and Intel® Education Lab Camera by Intellisense. SPARKvue enables real-time sensor data collection, visualization and analysis, using peripherals such as a magnifying glass that snaps on to the camera. Lab Camera enables students to carry out scientific measurements and observations using the device's built-in camera. Thanks to this software, teachers use the devices during the lessons not only for content consumption, but also as an integral part of science experiments.

The technologies have helped to improve the effectiveness of classroom work, the teachers’ ability to prepare, and the level of interaction during the class. Teachers have also been able to develop their ICT skills using them. While students are already familiar with touch screens, 2 in 1 devices and tablets, many teachers had never worked with a touch-enabled device before, and the new devices are enabling classes to be more interactive and to use more intuitive technology.

Albrecht advises other ICT coordinators: “Don’t be afraid to use 2 in 1 devices in your school. You don’t have to make a big change at once: you can start with little steps and gradually extend your use of 2 in 1 devices in your lessons.”