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Noriaki Saito,
Senior High School Section Chief,
Teacher Consultation Division
Nagano Board of Education Secretariat



The Nagano Board of Education Secretariat is utilizing Fujitsu expertise to create a new educational model.

At a glance

Country: Japan

Industry: Education

Challenge

Making the learning process more efficient by moving to an inquiry-based learning system while retaining the ability to measure the progress of students.

Solution

Using Fujitsu Learning Information Utilization tools to collect survey data and data on class achievements. This data is analyzed to create a better learning evaluation model.

Benefits

- Utilizing IT to see how each and every student learns
- Facilitating data visualization to make learning and teaching easier
- Creating a new education model with support from Fujitsu

Customer

The Nagano Board of Education Secretariat is working on reforms in prefectural senior high schools with an approach centered on inquiry-based learning. This is called Shinanology and is well established in the local Shinshu region.

Products and Services

- Fujitsu Chietama & Data Worksheet Solutions

Enabling inquiry-based learning

The Nagano Board of Education Secretariat began undertaking prefectural senior high school reforms in 2013 and drew up its master plan for education reforms in March 2017. The plan outlines how learning will move away from its traditional style of passive learning and transform into a self-directed process that enables students to acquire the ability to build a new society and assist them in carving out their own futures. By 2030, the secretariat wishes to achieve its goal of establishing contemporary ways of teaching. In order to achieve this goal, the secretariat is going ahead with its reform plans, which include the reformation of student admissions and selection processes and the reorganization of Nagano Prefecture's senior high schools, while responding to the opinions of the community.

Noriaki Saito, Senior High School Section Chief of the Teacher Consultation Division at the Nagano Board of Education Secretariat stated, "We're working on implementing learning styles that focus on a wide range of topics and skills and that are tailored to each school's present circumstances. It's not just about undertaking fieldwork in the community and hearing stories from local residents, it also involves thinking about Shinshu from a global perspective."

However, the issue with inquiry-based learning is that it is difficult to teach in a way that caters to the needs of each student since it is not possible to get an understanding of a student's progress through tests. This was the challenge that the secretariat needed to respond to and so, work began on visualizing the learning process behind inquiry-based learning by utilizing ICT.

In collaboration with Fujitsu, Matsumoto Agatagaoka Senior High School has been implementing measures that will lead to efficient ways of teaching by utilizing Fujitsu's Chietama and Digital Worksheet solutions to collect survey data and data on class achievements. By analyzing the past learning log data which was collected from Matsumoto Agatagaoka Senior High School, the Nagano Board of Education Secretariat is planning to create and roll out a data-based learning and teaching model and a learning evaluation model across all of the prefecture's senior high schools.

Visualizing each and every student's learning

Since the 2017 academic year, Matsumoto Agatagaoka Senior High School has been running its classes with each student using a tablet. It is in these classes that Fujitsu's Learning Information Utilization tool and digital cloud-based teaching materials, Chietama and Digital Worksheet, are being used. With Chietama, in each class, the students can save their completed classwork such as presentations that they have created. When classes start, they can recall the data they previously saved in Chietama and continue working by picking up from where they left off.

When ICT is utilized during class, Fujitsu's support staff are there to lend a hand. Nakaya said, "there are 40 students to one teacher, so if one student is having trouble with their computer, I'll be trying to solve the issue and my hands will be full which means I can't go about teaching the other students. The support staff deal with any technical issues, which is a huge help."

Creating a data-based learning model

"The students are actively engaged in learning, and I feel like they're beginning to gain the skills of collecting and evaluating information. Unlike teacher-centered classes, the current classes have allowed me to discover new things about the students," Nakaya praised.

"Inquiry-based learning is receiving a lot of attention from students and guardians, and prospective students are also on the rise. At the moment, we're still undergoing some trial and error. But by examining what the classes achieved and the survey results, we want to continue developing the classes so that they'll be highly beneficial," said Nagahara, expressing his desire for further development.

The Secretariat is now working with Fujitsu to create a model for grading methods, teacher training and the ways that classes are run based on the data that was collected from the sample schools, including Matsumoto Agatagaoka Senior High School. "We're starting to see how it is effective to use ICT in inquiry-based learning," Noriako Saito said. "In preparation for the next academic year, we'll analyze the learning log data that we collected from the sample schools. Based on this data, we want to establish a learning and teaching model and a learning evaluation model that we can roll out across the other schools in Nagano Prefecture, which will allow us to assess students' learning and the teaching styles that have been catered to each student."

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