

Education

Intel® Skills for Innovation Case Study

Building Future-Ready Skills through Technology integration



By participating in Intel Skills for Innovation AI PC Starter Pack activities, students from the Jeonbuk State Office of Education enhanced their future-ready skills—including analytical thinking, leadership, and resilience in the face of failure—by engaging in technology-enabled, hands-on projects.

Jeonbuk State Office of Education Vision

Student-centered Future Education

To nurture global citizens who will lead a sustainable future society, we place students at the heart of all educational activities.

We also aim to promote systematic software and AI education to help students develop their future-ready skills.



“By running the Intel® Skills for Innovation(SFI) initiative, we are pleased that we are able to further enhance AI convergence classes for Jeonbuk teachers in collaboration with Intel.”

Jeiwoo Shin
Supervisor
Jeonbuk State Office of Education.

Executive Summary

Jeonbuk State Office of Education is the regional education authority responsible for overseeing public education in Jeonbuk State, South Korea. It supervises a wide network of schools, including 417 elementary schools, 210 middle schools, and 133 high schools, providing quality education to a diverse student population across urban and rural areas. The office is committed to fostering innovative, inclusive, and future-oriented education, supporting both students and educators through various program, digital tools, and professional development opportunities.

Challenge

The Jeonbuk State Office of Education has completed a smart device distribution project, replacing traditional blackboards and textbooks with digital boards and laptop computers. While student satisfaction has increased, improving the effective use of these devices in classrooms remains a key challenge. The laptops provided are AI PCs, and the office is continuously implementing various initiatives to enhance teachers’ instructional design skills, enabling them to fully utilize the advanced capabilities of AI-powered devices in their lesson planning and delivery.

Solution

The Jeonbuk State Office of Education embarked on the Intel® SFI (Skills for Innovation) program, during which teachers aligned the Starter Pack activities with the existing curriculum and meaningfully integrated them into their classroom practices. As part of this initiative, the Office conducted the Intel® SFI Master Coach Training Program in collaboration with Intel at the Intel Korea office in Seoul. This program, a joint initiative between the Ministry of Education and Intel, aims to foster instructional innovation by promoting future-ready skills—such as social-emotional skills, mindset, skillset—through the pedagogical framework provided by the Intel® SFI program.

Result

By using the Intel® SFI Starter Pack lesson activities, educators at the Jeonbuk State Office of Education were able to:

- Provide teachers with examples to initially follow and then build upon, helping them integrate technology into every teaching and learning activity.
- Grow teachers’ confidence and skills to adopt new teaching modalities that are well-suited to 21st-century classrooms.
- Understand what the AI PC is and how to use it to drive innovation in their classroom.

As a result, teachers became better equipped to leverage technology effectively, enhancing both their instructional practice and students’ future-ready skills.



Figure 1. Students from Jeonbuk State work together to create ideas and develop models while completing the AI PC Starter Pack activities.

Empowering students to explore, understand, and apply Generative AI through real-world professional experiences.

Educators from Jeonbuk State embraced the use of the Intel® SFI Starter Pack AI PC activities as they introduced technology into their lessons in support of new instructional approaches. Although there was a learning curve at the start, as educators were not familiar with tools such as **Audacity & OpenVINO™ AI Plugin**, they took on the challenge with enthusiasm. By actively integrating **generative AI-based activities**—such as music generation, sound separation, and noise reduction—using **Audacity & OpenVINO™ AI Plugin**, students took an active role as **poly artists**, developing realistic sound effects to enhance animation scenes. Through this process, they strengthened their **Model Development skill** under the *Modeling & Simulation* skill of Intel® Skills for Innovation.

“ When I first started using OpenVINO, there were so many unfamiliar terms, and I felt completely lost about where to start. Once I actually tried it, I was amazed that with just a few clicks, I could generate and separate music and even remove background noise. Before long, I found myself trying it out without any fear.”

Raon Hong
7th Grade Student

Middle School Teacher Garam Wang shared that the AI PC Starter Pack activity, “Alchemy of Sound,” which involved creating realistic foley sound effects for an animation sequence using various musical instruments, significantly increased student engagement in her class and prepared them to learn independently beyond school. She observed that students were not only able to effectively design sounds for animation but also went on to explore additional ways to apply the technology with their group members outside the lesson. Even after the Poly Artists activity concluded, students continued to create sounds in other lessons, producing unique foley effects inspired by the earlier activity.

This hands-on experience not only provided students with the tools and skills to take ownership of their learning but also demonstrated an effective teaching and learning approach to **enhance future job skills in the unpredictable AI-driven future**. These observations have inspired Garam Wang and other educators at the Jeonbuk State Office of Education to develop more activities modeled after these Starter Pack exercises, recognizing the value of immersive, student-centered learning experiences.

Building Students’ Social-Emotional Skills with Foley Artist Practice enabled by AI PC & Generative AI.

Principal Seungdeok Jeon noted that the activity of becoming a foley artist using Intel® SFI AI PC Starter Pack is an excellent best practice for cultivating the competencies our students need to thrive in the AI era. He observed how teachers help their students naturally enhance the social-emotional skills such as communication, consideration, and collaboration as they tackle challenges together as team members.

“ The Intel® SFI AI PC Starter Pack transforms technology from a simple tool into a powerful medium that broadens and deepens students’ thinking. Ultimately, I believe the Intel® SFI program a tuning point that transformed students from mere learners into creative explores.”

Garam Wang
Teacher, Middle School

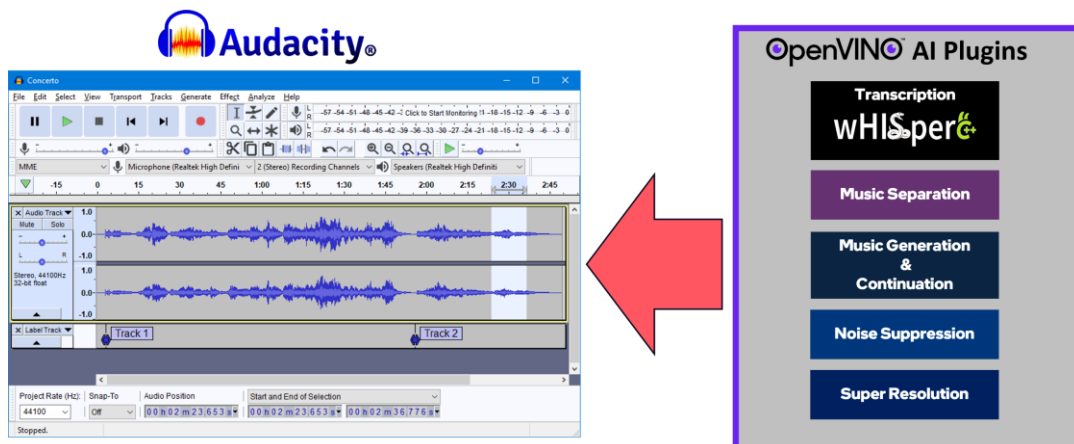


Figure 2. Students use programs such as Audacity and OpenVINO AI Plugins on AI PCs to learn the fundamentals of generative AI.

Designing 3D Packages for Local Specialties to Contribute to the Community

While going through the Starter Pack activities, students were challenged to solve complex real-world problems. In one activity, they used **Blender** to design **3D packages for local specialties**, addressing the challenge of marketing and selling regional products in their community. These experiences were made possible by the **AI PCs provided to schools by the Jeonbuk State Office of Education**, which enabled students to apply cutting-edge AI technology in their hands-on learning while gaining confidence in using new tools.

High School Teacher Suyeon Hong, introduced the Starter Pack activity “**Story Sculptors**” to her students and found that the activities integrated technology into the existing curriculum, giving students real-world relevance. The activity was planned sequentially, guiding students through the process of designing products for their community, while maximizing learning outcomes and the benefits of technology by encouraging students to use Blender in ways they had not experienced before.

“Teaching practices are evolving to empower students harness digital technologies and cultivate core competencies for the future. Intel® SFI Starter Pack integrate technology activities with existing curriculum to build essential mindsets and skillsets.”

Hyungsu Kim
Principal, High School



Figure 3. In the AI PC Starter Pack “Story Sculptors,” originally designed to use Dream Textures powered by Intel, students in Suyeon Hong’s art and design class created 3D models in Blender to design packages for local specialties, contributing to their community.

Summary

The AI has had a significant impact on schools and learning throughout the globe. Educators have risen to the challenge to ensure that students still receive and education that will prepare them for the ever-evolving workforce.

Jeonbuk State Office of Education has successfully embraced the Intel SFI Starter Pack Activities, and the educators have made their lessons more relevant and focused on preparing students to flourish in the future workplace.

Ready to Get Started?

Intel SFI Starter Pack is designed to meet the evolving pedagogical needs of educators who are preparing learners for a future workforce. The program is available under license from Intel. For more information, please contact your Intel Technology Provider.

About Intel® Skills for Innovation Framework

Intel Skills for Innovation (Intel® SFI) Framework empowers today’s students to become tomorrow’s innovators. Using this framework, educators can integrate technology into their programs and plans to build skills of the future, and help students develop their cognitive, technical, and social-emotional skills.

For more information, visit skillsforinnovation.intel.com



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