

Intel® Skills for Innovation Case Study

Building social-emotional skills by integrating technology



By engaging in Intel Skills for Innovation Starter Pack activities, students from the Central Dauphin School District strengthened their social-emotional skills such as collaboration, leadership, and resilience to failure through technology-enabled hands-on projects.

Central Dauphin School District Vision

To ensure all students a challenging and dynamic curriculum to prepare students to succeed in a changing, global society by inspiring lifelong learning in a caring, collaborative community

Central Dauphin is a large, diverse school district situated in Harrisburg, Pennsylvania. The district contains 13 elementary schools and is known for its diverse student population. School administrators, educators and students from the Central Dauphin School District embarked on the Intel Skills for Innovation program and used the Starter Pack activities in their everyday teaching and learning. Teachers of all grade levels learned to easily integrate technology into their lessons with the help of the program's detailed, grade-level appropriate lesson plans, examples and materials.

Challenges

- Reinvent the role of technology in the classroom, enabling students to build the critical, higher-order skills they need to be prepared for the future.
- Integrate technology into the existing curriculum to bring real-world relevance to the content students learn.
- Integrate skill-building technology activities into everyday teaching and learning, effectively helping students build social-emotional competencies while exposing them to curriculum content.

Solution

The Intel SFI Starter Pack provides hands-on experience with using technology tools to solve real-world problems, giving educators an effective way to help students build the skills they need for future career readiness. Easy to implement with ready-to-use materials, Starter Pack activities help keep students engaged whether at home or at school. Materials include detailed, grade-level-appropriate lesson plans, presentations, and working files to be loaded into software apps.

Starter Pack activities are hosted on the Intel SFI Platform, which offers a rich, interactive, professional learning community with collaborative features that enable educators to share best practices, ideas, inspiration, and support.

Results

By using the Intel SFI Starter Pack activities, educators in the Central Dauphin School District were able to:

- Provide teachers with examples to initially follow and then build on to integrate technology in their everyday teaching and learning.
- Assist teachers in reaching their goal of moving students along the continuum of Bloom's taxonomy by helping them develop higher order thinking and skills.
- Grow teachers' confidence and skills to adopt new teaching modalities well-suited to hybrid-learning environments and bridge the gap between curriculum concepts and real-world problems.

"I definitely can see, moving forward, integrating more technology - more of these programs - because they do line up with our curriculum and just seeing how excited my students were to complete them."

Emily Bocan
1st Grade Teacher

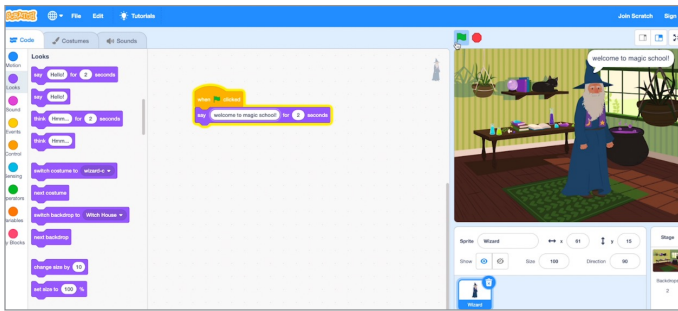


Figure 1. Students use programs like Scratch to learn the fundamentals of coding.

Setting students on the path to becoming lifelong learners and innovators

Educators from the Central Dauphin School District embraced the use of Intel SFI Starter Pack activities as they introduced technology into their lessons in support of new instruction models. Although there was a learning curve at the start as educators were not familiar with software such as Minecraft and CoSpaces, educators took the challenge of learning about these tools in their stride. When they introduced the Starter Pack activities to their students, they were inspired to see how quickly their students took to the new technology tools and software.

"The starter pack they really liked was storytelling because there was so much creativity that they could show. It was their story, it was their coding - It was truly their own."

Skye Deiter
3rd Grade Teacher

2nd Grade Educator, Lauren Vowlor, shared that the use of the Starter Pack activity "Water Cycle" increased student engagement in her class, and prepared her students to learn independently even beyond school. She observed that her students were not only able to animate their water cycles into cartoons, but also went on to independently explore other ways to use the technology beyond the lesson. Even after the Water Cycle activity was over, her students continued to create animations in other lessons, and ended up animating another story that they had gone through in a separate lesson. The experience has motivated Lauren Vowlor, and other educators in the Central Dauphin School District, to create even more activities that are modeled after these Starter Pack activities as they realized how such activities empower students with the tools and the skills to own their learning, both in and out of the classroom, setting them on a path to become lifelong learners and innovators.

Strengthening social-emotional skills through hands-on projects enabled by technology

The growing Starter Pack library—currently with 70 activities spanning 140 hours of content across various K-12 subjects—made it easy to integrate skill building supported by digital technologies into their existing curriculum.

5th grade educator Ashley Oyer noted that some students had more advanced technology skills than others. In her Starter Pack activities, she paired students who were more advanced with those that needed more help and observed how students communicated and displayed resilience as they worked together to work through the activities and challenges. Ashley shared that the use of the Starter Pack activities made it easy to create an environment that fosters collaboration, resilience to failure, and higher order cognitive and social-emotional skills that are essential to future career-readiness.



Figure 2. Students from the Central Dauphin School District work together on creative problem solving while completing the Starter Pack activities.

Preparing students for a rapidly changing global workforce

While going through the Starter Pack activities, students from were challenged to solve complex real-world problems. These experiences helped the Starter Pack activities to be even more meaningful for students as they were able to see the connections between the activities and their own lives.

Educator Ashley Oyer introduced the Starter Pack “Agriculture Farm to Table” to her students and found that the activities integrate technology into the existing curriculum to bring real-world relevance to the content students learn. She noted how the Starter Pack activity was planned sequentially to show students how sustainable farming works. At the same time, she was able to maximize both student learning outcomes and the benefit of technology investment by getting students to use Minecraft in a different way than what they were used to at home.

Educators observed that their students demonstrated an increased self-confidence in using new technology in hands-on learning activities to solve real-world problems.

“It’s fun - It gives us more chances to feel like whatever we want to do, we can do it”

Parker

5th Grade Student, Paxtang Elementary

Summary

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

Central Dauphin School District 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 Framework empowers educators to become leaders of technology-infused learning experiences. Using the framework helps educators integrate technology into their programs and plans to build skills and help students develop their cognitive, technical, and social-emotional skills.

For more information, visit skillsforinnovation.intel.com



Figure 3. In the Starter Pack “Agriculture Farm to Table”, students are tasked to build an Agricultural system on Minecraft.



Watch the video

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