Hillsborough County Public Schools enhances learning with innovative STEM summer program

Florida district using Camp Invention to build engagement with migrant student population

ne of the largest districts in the country is finding new ways to engage and support the education of its sizeable population of migrant students through a unique program during the summer.

Hillsborough County Public Schools in Tampa, Florida, serves a student population of more than 205,000 across 250 schools, including some 4,000 migrant students, who move often as they or their family members follow seasonal employment opportunities in agriculture.

Carol Mayo has worked in the district for 29 years and is in her seventh year as supervisor of the federally funded Title I, Part C Migrant Education Program (MEP). In this role, Mayo is responsible for applying for federal grant funds and managing the programs that support the education of migrant students in the district, both during the school year and in the summer.

"We're the second-largest migrant education program in Florida. These students may have parents work in agriculture, or they may work in the fields themselves," Mayo says. "We are required by law to identify them, make sure they qualify and provide them with education resources and programming, from birth to age 21. It's a very fluid population, as some of these students come and go as they pursue work opportunities in other areas of the country."

While educating these students is challenging, Mayo says they are integrated into the general student population in classrooms and schools, using the same materials and curriculum. "The goal is always to immerse these students in the same level of academic rigor as all other students," she says.

The one exception is in the summer, during which Mayo manages and provides a supplemental summer education program just for migrant students.

Improving student engagement

"When I first started in this role, the summer program was a concern for me," Mayo says. "We weren't getting a high level of student participation and attendance, because it wasn't very engaging. The programming was more of the same as the regular school year curriculum and was focused on remediation. That made it unappealing to a lot of our students. I wanted to change that."



Mayo says she needed to find a program that was highly engaging, that integrated many different content areas including math, reading and science, while also being social and collaborative, and providing flexibility in implementation to meet the varying needs of the summer program.

"Five years ago, I attended a national conference on migrant education and went to a session that was a handson demonstration of Camp Invention, a program from the National Inventors Hall of Fame," Mayo says. "When I saw how engaging and collaborative it was even with adults, I knew it would be a perfect fit for our students."



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Camp Invention comes to Hillsborough

The flagship summer program developed by the National Inventors Hall of Fame, Camp Invention is a STEM summer camp for grades K-6 that provides in-person and at-home activities and challenges that build confidence, collaboration and creative problem-solving skills. Each year's theme is unique and provides curriculum and materials inspired by some of the world's greatest inventors.

Mayo says she has been using Camp Invention at four different summer school sites with migrant students in grades K-5 for the past five years. "It has been a great program for us. It exposes students to state standards in reading, math and science, and provides a high degree of academic rigor while also being fun," she says. "Students collaborate and engage in conversations while they solve problems together."

While designed for any students, Mayo says Camp Invention is particularly useful and effective for the student population she works with. "Many of these migrant students miss a lot of school, and they can become disengaged as a result. Camp Invention brings back the excitement of learning and builds engagement. This program helps these kids to be inspired, to think about ideas and inventions, and to see themselves as having a future beyond picking crops in the fields."

Flexible and easy to implement

Camp Invention is also easy to use and implement, which is something that Mayo says she also appreciates. "The materials provided to help with implementation are so helpful, that anyone can run the program, and everything that you'll need is included, so we don't have to purchase any additional materials," she says. "We have students in different grades work together on the projects, so they collaborate and help each other, which builds teamwork."

The flexibility of the program was also important. "It's flexible enough to meet our unique needs," Mayo says. "For example, I originally ran a six-week program, but found that many of our families moved in the summer and left after three weeks. I was able to adapt Camp Invention to just two weeks, with more targeted learning in a shorter period, while covering the same amount of material."

The materials and flexibility also came into play during COVID-19 remote learning. Mayo says the district provided Camp Invention kits to each student this summer, so they could do the learning activities at home.

Mayo says that Camp Invention has significantly changed the district's unique summer program for the better. "In the past we struggled with maintaining student engagement and interest. But today, everyone is more engaged, including the teachers. Now I have to turn away teachers who ask to teach this program, because so many enjoy it, and the word is out that this is a great program," she says. "The teachers learn a lot at the same time as the students. It's a great program, and I plan on continuing it every summer."

