



## Fusing student digital skills to the region's future

"Computer programming gives me the freedom to create and the chance to learn so much more than I expected," says Marelly Marin Gomez, a 16-year-old student in Juárez, Mexico.

She is one of more than 200 teenagers in the Mexican state of Chihuahua participating in Technology Education and Learning Support ([TEALS](#)), a Microsoft Philanthropies program that provides high school students with equitable access to computer science (CS) education and creates a pathway to greater economic opportunity.

Six local high schools are hosting the innovative technology curriculum thanks to Funax (Fundación Axcel A.C.), a local innovation center that functions as the state's operating partner of TEALS. Since 2021, Funax and its funding partner, Fundación Del Empresariado Chihuahuense (FECHAC), has brought together local technology professionals who volunteer to instruct and empower Juárez high school students. *"Our intention is to deliver a program of STEM skills that bring our young adults to the next level of innovation,"* explains Lennys Sánchez, executive director of FUNAX. Likewise, *"TEALS is an opportunity for Juárez's youth to learn software development,"* says Yadira Lozano, FECHAC board member. *"We are thrilled how quickly it has gained acceptance as a part of high school education."*

Enthusiastic professional program volunteers who have come into the schools have benefitted almost as much from the program as those they are instructing. *"I've learned a lot about how to best express technical language to teens in a way they can understand,"* says Alejandro Castro, an experienced developer and TEALS volunteer. *"I've seen young adults who previously had no interest in the topic become keen students, because they ask very specific questions."* The sentiment is mutual. *"Although I knew I would be learning programming skills, I didn't expect to learn as much as I have about myself,"* adds Angel Eduardo, age 19. *"I have developed greater discipline and patience."*

## Tech training: A natural fit for a growing need

Almost 50 Juárez students have graduated since TEALS was implemented in their schools a year ago, continuing their CS education at the college level. Thanks to training centers like Funax that help link the TEALS Program at the local level through partnerships between teachers and volunteers, the administrators of Chihuahua's school system are purposefully evolving their curriculum. The state has become the only one in Mexico that is intentionally connecting learning pathways to the skilling needs of local industries.

"If companies in our state need a certain skill, we want the rich educational program of Chihuahua's schools to be able to provide it," explains José Alfredo Chávez Ruiz, general director of the region's CONALEP 3 technical professions schools.

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**Our mission is to help students learn to see themselves as qualified personnel—in other words, we don't want them to think manual labor is their only option. Instead, our goal is for our students to enter the business world with a higher skills profile.”**

– José Alfredo Chávez Ruiz



“Juárez is home to more than 350 manufacturing plants that employ almost 350,000 workers,” explains Omar Saucedo, Microsoft TechSpark Community Engagement Manager in Juárez. “Many of the processes are becoming automated, and the labor market critically needs workers with STEM and CS skills.”

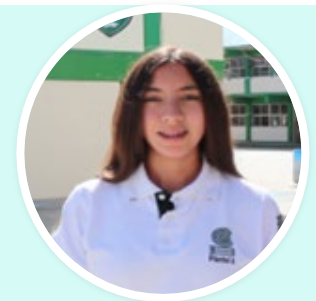
The TEALS program incorporates modules on machine learning, artificial intelligence, and programming languages like Python. “I can sense the passion for technology in both the volunteers and the students,” observes German Parra, a math and CS teacher at a high school in Juárez. “The teens have learned that even if they make mistakes along the way, it doesn't hinder their progress, and they can see results. They even want to continue learning CS outside of the classroom.”

Funax is currently in talks with the state's educational system to expand the TEALS Program to all Chihuahua high schools over the next several years.

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**I know that these skills will benefit me in the future by opening up many doors,” says Marely. “I'm excited to combine the technology I've learned with my future interests in art and science.”**

– Marely Marin Gomez, student in Juárez, Mexico



Learn more about TEALS (Technology, Education, and Learning Support) Program and how you can inspire students to pursue a career in technology—virtually or in person [www.funax.org](http://www.funax.org) or visit us at [Technology Hub in Juarez](#).