

DECEMBER 2020

2020 PROGRAM REPORT



**DIGITAL LITERACY, ROBOTICS
WATER & HYGIENE COVID SUPPORT**

A special thanks to:

Jack Cooley and Ana Agón of The Community Bots, John Richardson of St. Joseph Academy, the International Foundation, Directora Milena Zeledon and Luis Carlos Rios Vallecillo. It is their vision, leadership, and support that fueled the flames and made these incredible ground-breaking projects a reality for so many students and families at Escuela Carlos Bravo.

Graham Halliday, whose commitment to improving education in Granada fueled the water and hygiene projects at 4 schools in 2020 - particularly vital in the time of CoVid.

Eternal gratitude and a special remembrance to a remarkable compatriot, friend, and supporter, Director Luis Mendoza of MINREX, whose commitment to the people of Nicaragua was unparalleled and who enabled so many of us to make a difference. May you be watching the progress of Nicaraguan's children, communities, and families with pride. We miss you dearly.

HUMANITY IN THE FACE OF GLOBAL INEQUITIES

While the global pandemic has laid bare inequities in every fabric of US society, Nicaraguans continue to persevere with grace and ingenuity despite the daunting challenges posed by a 2-year economic crisis, CoVid, and two category 4+ hurricanes hitting within a 2-week time span.

There is a sense of humanity here that is often lacking in many other parts of the world. Over the last few weeks in December, we have seen families who struggle to keep their lights on organize massive food giveaways for hundreds of families. Others have tried to keep the tradition of sharing small gifts with neighborhood children despite the hardships they were facing themselves. We are honored to live here and to share what resources we can to advance the lives and education of Granada's students, teachers, and families.

While many people take running water for granted, CoVid accelerated the need for working water systems in schools in Granada. With the help of another Granadino, Graham Halliday, we were able to repair and construct water systems, hand washing stations, a large septic tank, and bathrooms at 4 schools. We will continue to implement water and sanitation projects as needed in 2021.

Our digital literacy and robotics projects continued sporadically during the year due to very sparse school attendance, limited tech access, and the need to socially distance. However, teachers, who were still working, jumped at the chance to learn more about virtual instructional platforms. 24 teachers completed a program focused on technological innovation in education.

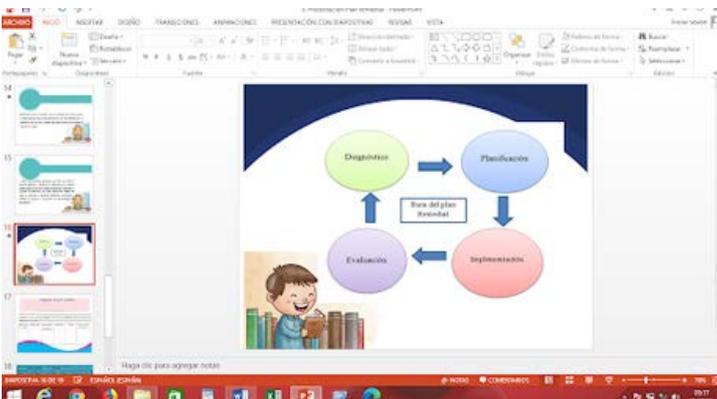
Our mission is to continue to provide students and teachers the opportunity to practice and apply digital literacy skills - as well as integrate technology into the regular classroom. Work is underway to construct a technology center to meet these needs. We hope that it is the first step in closing the technology gap in Granada's public schools and that it paves the way for increased access for public school students.

We appreciate and are grateful for your support this year. It has enabled us to continue to support these important projects in a very difficult time. Saludos y abrazos de Nicaragua.

The image shows two handwritten signatures in black ink. The signature on the left is 'Hector' and the signature on the right is 'Kathleen Davis'.

Kathleen Davis and Hector Perez, StudentsofGranada.org

COVID DRIVES FOCUS ON TEACHER TRAINING



As it became evident that CoVid was developing into a worldwide pandemic, school attendance began to rapidly dwindle even though schools remained open. Many children receive their only regular meal at school, so the Dept. of Education (MINED) was reluctant to close schools. Parents increasingly kept their children at home but teachers still attended schools using now-standard protocols (social-distancing, masks, hand washing, alcohol, bleach).

While most students do not have access to WiFi or even phones with data plans, teachers tried to provide some instruction and support for students when possible via mobile devices.

Teachers used this time to learn more about virtual instructional platforms like Google Classroom, Edmodo, MathDuel, Geogebra, and to explore the wide range of interactive videos available. These workshops were an extension of their earlier digital literacy training.

Teachers also attended a workshop focusing on student learning, diagnostics, and remediation post-CoVid - with particular emphasis on assessing what content will need to be reviewed and skills strengthened when students return full time to school.

24 teachers completed a 20-hour training course focused on innovative teaching strategies using technology.

DIGITAL LITERACY & ROBOTICS PROGRAMS CONTINUE



One of the Digital Literacy classes held in February 2020 - before CoVid hit Nicaragua.

"A STUDENT THAT DOES NOT KNOW COMPUTERS IS LIKE BEING ILLITERATE. BEFORE IT WAS READING AND WRITING, BUT NOW IT IS TECHNOLOGY. THAT IS WHY WE PREPARE DAY BY DAY TO LEARN TECHNOLOGY."
DIRECTORA MILENA ZELEDON, ESCUELA CARLOS BRAVO.

In 2020, we completed our 2nd year of Digital Literacy and Robotics programs - adding additional training for teachers in areas of virtual learning.



See robots in action: x
<https://www.youtube.com/watch?v=GdaCilobEMQ>

Students of Granada and the Director of Escuela Carlos Bravo, Milena Zeledón, had long envisioned a technology program at her school. Carlos Bravo serves almost 1,000 students from many of the poorest families of Granada. When we were offered the opportunity to work with CommunityBots of New York City to implement an extra-curricular LEGO robotics program for 4th and 5th graders, we were determined to make it happen. Despite the crisis of 2018, the Carlos Bravo community exceeded all expectations in 2019 and we were preparing to expand both the digital literacy and robotics program when the school year began in February 2020. By March and April of 2020:

- 79 students had completed a 170-hour digital literacy course.
- 7 educators and 37 students completed 34 hours of LEGO Mindstorm NXT robotics training
- 21 teachers completed 24 hours of computer literacy training
- 3 teams participated in the LEGO National Olympiad - one bringing home 2nd place in their bracket
- Several students requested to continue the digital literacy program in 2020 even though there were no formal classes.

ACCESS TO WATER AND MASKS CRITICAL IN TIMES OF COVID



While most people in the US take running water for granted, many families and schools in Nicaragua do not have regular access to safe water. With the critical need to wash hands and sanitize surroundings during the CoVid pandemic, several school directors reached out to us to help repair water systems, build hand-washing stations, and drinking fountains, renovate bathrooms, and even build a septic system.



With the support of Graham Halliday, a Granada resident, we were able to accommodate all the requests quickly - enabling the schools (serving more than 1,700 students) the ability to provide access to clean water and functioning bathrooms.

In addition, we partnered with Tapiceria in Jinotepe to make more than 500 3-layer facemasks which were tested under the microscope at the Japon Hospital laboratory to ensure adequate protection. We distributed the masks to teachers, health care workers, police, and the fire department in Granada.



Hector Perez and Tapi at the mask workshop.

THE WATER PROJECTS

The 2020 water projects served more than 1,700 students. 3 of the schools are in the outskirts of Granada and have limited access to clean water - and have relied on outhouses as they are not in areas serviced by the city's septic services.

Escuela Jose de la Cruz Mena

- Repair of the school water tank and delivery system
- Repair or construction of 3 handwashing stations
- Repair of 4 bathrooms
- Installation of water purification system.

Escuela Madre Teresa de Calcuta

- Repair or construction of 3 bathrooms.
- Donation of a majority of the materials to construct a septic tank (in conjunction with MINED).
- 2 toilets and 1 sink for students' bathrooms.

Escuela Carlos Bravo

- Repair of water fountains and bathroom fixtures
- Construction of PreK bathroom
- Water purification for PreK classroom

Escuela Elsa Head

- Repair of all students' and teachers' bathrooms
- Construction of new handwashing stations
- Repair of floors.



THE WATER PROJECTS



Escuela Jose de la Cruz Mena before repairs and construction.



THE WATER PROJECTS



Repairs and construction at Escuelas Elsa Head, Jose de la Cruz Mena, and Maria Teresa de Calcuta.



THE 2021 VISION



MORE OPPORTUNITIES: With additional laptop donations and another instructor, we can increase the number of students who can participate in digital literacy and robotics programs..

LEGO EV3: Given travel challenges posed by CoVid, it is uncertain when we can proceed with our LEGO upgrade.

CO-VID: We continue to provide resources to schools to help them maintain a safe and healthy environment for students and teachers as well as support virtual instruction going forward.

WIFI and PROPANE: We have made an ongoing commitment to fund WiFi and the propane fueled kitchen at Carlos Bravo - serving 850 students annually.

TECHNOLOGY CENTER: MINED has been extremely supportive of our projects in 2020 - sending instructors to training and showcasing the Carlos Bravo robotics program.

We have received a preliminary commitment for a majority of the funding needed to build out the tech center at Carlos Bravo - that will provide city teachers and students access to technology and instruction. This is critical to integrating tech into the classroom and enabling students to use and apply technology on a regular basis. This program also supports the ongoing need to support virtual learning and work - in the face of pandemics or by limitations posed by localized economic or natural disasters.

- **ADD MORE CLASSES TO INCREASE THE NUMBER OF STUDENTS PARTICIPATING AT CARLOS BRAVO**
- **COMPLETE PLANNING AND CONSTRUCTION OF A TECH CENTER THAT WILL ENABLE CLASSROOM INTEGRATION AND EXTRACURRICULAR ACCESS TO TECHNOLOGY AND INSTRUCTION**
- **CONTINUE CO-VID RELATED SUPPORT INCLUDING WATER PURIFICATION**

THE TEAM

THE AWESOME TEAM
WHO MAKE OUR PROJECTS HAPPEN



MILENA ZELEDON
DIRECTOR ESCUELA
CARLOS BRAVO



LUIS CARLOS RÍOS
COMPUTER & ROBOTICS
INSTRUCTOR



NESTOR MORALES
ROBOTICS COACH



JACK COOLEY
CO-FOUNDER
THE COMMUNITY BOTS



ANA AGÓN
CO-FOUNDER
THE COMMUNITY BOTS



JAMAL STOCKTON
STUDENTS OF GRANADA
MASK FUNDER



KATHLEEN DAVIS
STUDENTS OF GRANADA



HECTOR PÉREZ
STUDENTS OF GRANADA



JOHN RICHARDSON
ST. JOSEPH ACADEMY



ELIZABETH CHAVEZ
COMTECH



GRAHAM HALLIDAY
WATER FUNDER



PUPPY
OUR MASCOT