



# PUNTO CREA

UNA COMUNIDAD PARA  
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**Punto Crea** is a non-formal challenge-based learning initiative for the development of skills in STEAM areas (science, technology, engineering, art and mathematics). It targets youth in rural Guatemala, serving young people both within and outside the formal education system.<sup>1</sup>



## Background

Punto Crea is built on tinkering, experimental repair<sup>2</sup> by empowered users who collaborate to perform such experimental repair and the makerspaces<sup>3</sup> movement, teachers, parents and librarians who establish concrete spaces in schools for learning through open and experimental collaboration.

Building on these foundations, Punto Crea develops two key pedagogical concepts:

- Learning is stronger when theoretical or conceptual information *is immediately linked to experimentation and practice*.
- Educational experiences are organized as *learning challenges*, in which knowledge is built on a question anchored on participants' experience and context.

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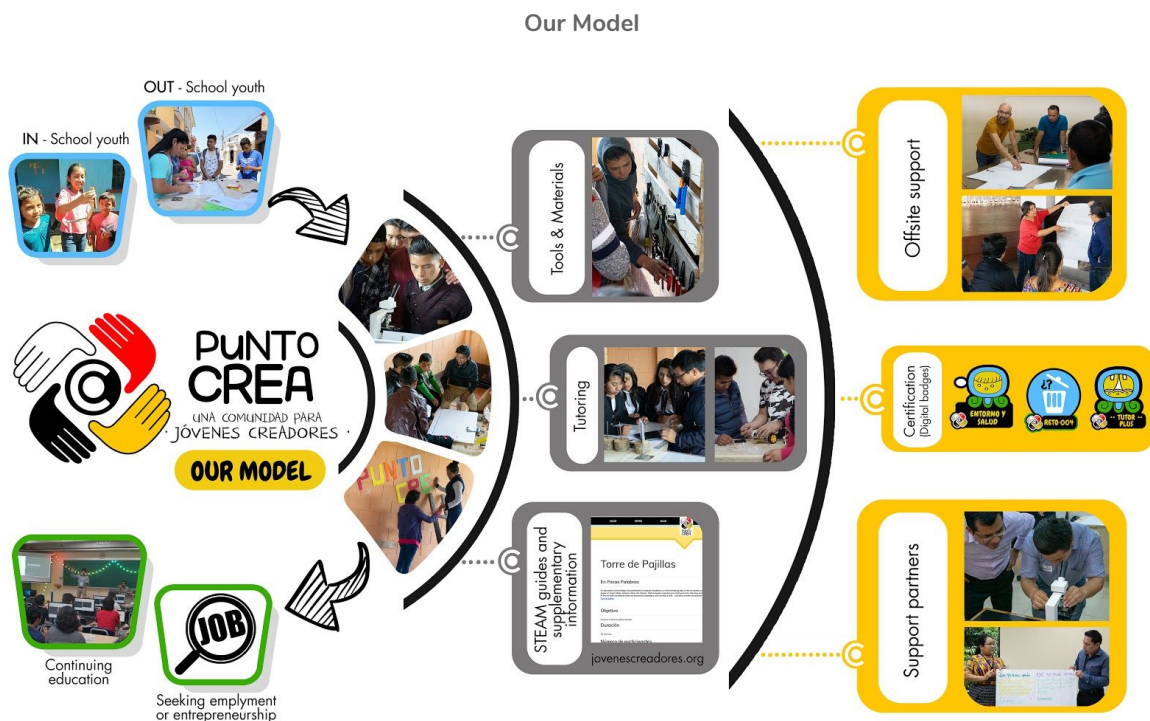
<sup>1</sup> Punto Crea has been funded by USAID through the Guatemala Puentes Project led by World Vision. This document has not been endorsed by either USAID or World Vision.

<sup>2</sup> See: <http://www.thefreedictionary.com/tinkering>

<sup>3</sup> See: <https://www.makerspaces.com/what-is-a-makerspace/>

## Our model

**Punto Crea** are concrete, open and safe spaces. In these, young people gather to address STEAM educational challenges using locally available materials and tools, and are supported by a volunteer tutor.



- *Young people are at the center:* they can build their own knowledge.
- *Punto Crea is a physical space:* each Punto Crea is located in a specific venue where young people can meet periodically and that they recognize as their own.
- *Our space is open and safe:* we do not discriminate in access to any young person by sex, ethnicity, location, ability to pay, schooling, affiliation, religious or other characteristics and conditions; and youth are physically and psychologically safe, but also understand that mistakes can be a tool for learning.
- *STEAM learning challenges and additional information:* rather than instruct, our learning challenges raise questions for young people to explore STEAM issues, provide information that helps them build understanding and develop social and emotional skills that embody scientific principles and practices and critical thinking in the construction of knowledge. Our STEAM challenges are designed to develop skills outlined in the National Basic Curriculum and required for success in the workplace, whether for entrepreneurship or employment.
- *Tutoring combines the roles of mentor and coach:* we recruit local adults committed to helping youth build knowledge and skills relevant to their life plans, and train them in tutoring based on asking questions and leading by example, rather than giving instructions. Tutors help young people address the learning challenges, make good use of the tools and materials available in Punto Crea, and engage with their

community.

- *Tools and materials:* each Punto Crea has a collection of high-tech and low-tech tools and resources that youth can use to rehearse practical concepts and develop skills when addressing the learning challenges.

In addition to these features, Punto Crea includes three items focused on sustainability.

- *Remote technical, pedagogical and technological support for tutors.* Tutors are facilitators and co-learners, not teachers, and benefit from specific support in the STEAM areas, guidance and leadership in effective mentoring and coaching, and in finding answers to the use of Punto Crea guides, additional information, tools and materials.
- *Certification of skills:* Punto Crea documents the competences that young people develop, immediately when they develop them, in a manner that can be relevant for the educational system and for potential employers. Open Badges<sup>4</sup> let youth reliably demonstrate their participation and achievements in an educational process, even if it is non-formal, and certify that they have developed specific skills and have been evaluated on these.
- *Supporting partners* in the community and beyond it acknowledge Punto Crea as an initiative benefiting their own children and youth in their community. Partners commit to addressing the human, material and financial needs of Punto Crea in the long term. The most important partners are the Local Punto Crea Committee — community leaders, including youth leaders, who ensure the proper operation of the Punto Crea, mobilize support for it and communicate with tutors, youth and other local or national support partners.

With this structure, Punto Crea provides opportunities for young people *within the formal education system* but also for young people *outside school*. Punto Crea helps them continue within formal and non-formal *educational processes* or *engage in the workplace* either as entrepreneurs or as employees.

## How do we implement Punto Crea?

Implementing Punto Crea includes:

- *Documentation:* we have developed a handbook for the implementation of Punto Crea. This is updated continuously on the basis of lessons learned to facilitate fidelity and improve our work in a variety of contexts.
- *Alignment:* the STEAM educational challenges are written to align with competencies in the national curriculum and required by the labor market.<sup>5</sup>This guarantees that participants develop competencies that are recognized as relevant to formal education (current or potential) and to the labor market.
- *Prototyping:* each aspect of the model is prototyped to ensure it is viable within the material conditions and limitations of the communities we are targeting.
- *Complementarity:* Punto Crea are not independent or competitive vis-à-vis other educational options. Rather, we complement and supplement what others are doing, both in formal and non-formal educational settings.

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<sup>4</sup> See: <https://openbadges.org/>

<sup>5</sup> As reflected in the Ministry of Education's Basic Skills for Life Framework (see: [http://cnbguatemala.org/wiki/Competencias\\_b%C3%A1sicas\\_para\\_la\\_vida](http://cnbguatemala.org/wiki/Competencias_b%C3%A1sicas_para_la_vida)).

- *Appropriate application of technology:* Punto Crea makes an ambitious but realistic use of computer technologies to support young people and tutors, ensure access to information and certify the development of STEAM and social-emotional skills. We are committed to publishing all our documentation<sup>6</sup> using open access licenses, replicating documents offline through local microservers for communities without ready internet access<sup>7</sup>, and prioritizing mobile technologies for young people to access these.
- *Community management:* Punto Crea is first and foremost about people. Technical, instructional and technological resources are tools for people to work together. Punto Crea is based on building a relationship of trust, support and collaboration with the communities in which we work, including youth themselves, their families, community leaders and institutional authorities.
- *Support:* onsite and remote support are critical for Punto Crea. We seek to work closely with the Community Committees and volunteer tutors to hand off responsibility for activities at the end of our involvement.
- *Additional support and sustainability:* in addition to local commitment, we seek support from friends outside the communities themselves to help sustain Punto Crea.

## Where are we implementing Punto Crea?

Currently Punto Crea is targeting 10 municipalities in the Western Highlands of Guatemala (Cantel, Capellanía, Coatepeque, Huehuetenango, Joyabaj, Malacatán, San Pedro Sacatepéquez, San Rafael Pie de la Cuesta, Santa Cruz del Quiché and Totonicapán). Puntos Crea have been open for between 1 month and 1 year. A team of facilitators currently provides training and support to 35 volunteer tutors and a monthly average of 150 youth.



Facilitators and tutors training in theater exercises in Totonicapán.



Youth in Santa Cruz del Quiché "pimp their ride" for a robotics challenge.

<sup>6</sup> See: <http://puntocrea.org>

<sup>7</sup> See: <https://worldpossible.org/rachel>