Digital Education in the Americas:
Best Practices to inspire

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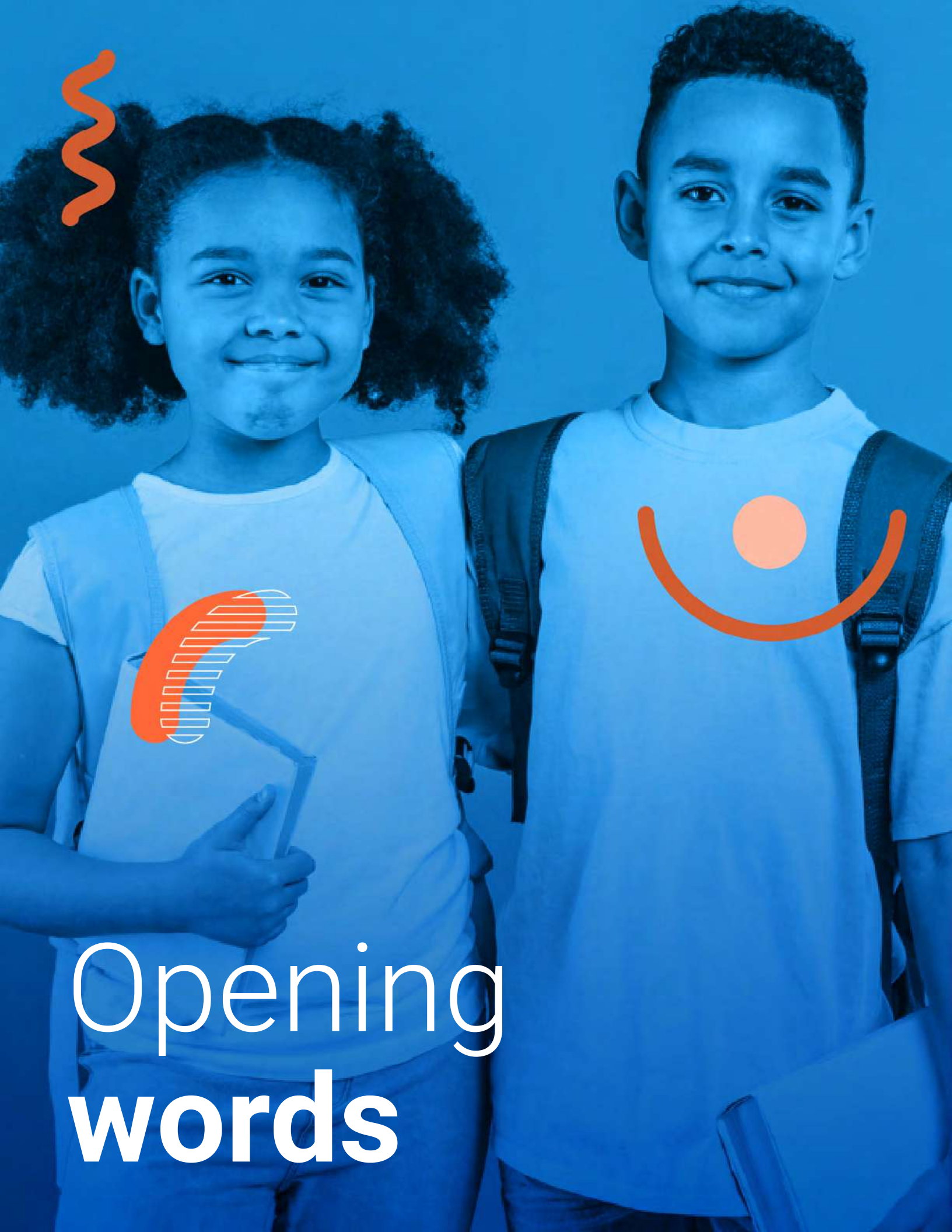
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OAS initial remarks

During the Eleventh Inter-American Meeting of Ministers of Education of the Inter-American Council for Integral Development (CIDI), which was held virtually on November 10 and 11, 2022 under the theme "Towards the Construction of a New Hemispheric Educational Pact in Change Contexts", the Ministries of Education, approved by acclamation the 2022-2027 Inter-American Educational Agenda (AEI). Through the Agenda, the Ministers of Education of the OAS Member States expressed their commitment to already established global objectives and goals, defining specific hemispheric actions that would support their successful implementation. The purpose of the AEI is to be a space for political dialogue and decision-making that is strengthened and executed through inter-American cooperation, as well as through coordination and articulation of efforts with other international organizations and regional and subregional entities to guarantee inclusive and equitable education quality, and to promote lifelong learning opportunities for all. The OAS Secretary General, Luis Almagro, highlighted at this meeting that the region is at a turning point and that this requires imagining a new and better future for educational systems; a reinvention that includes and promotes resilient educational systems, adaptable to change, under a systemic approach that adds perspectives, as proposed by the Inter-American Educational Agenda.

In this context, the OAS Alliance with ProFuturo, has called on schools and civil society organizations in the Americas to encourage good practices in digital education aiming at identifying, recognizing, making visible and sharing these experiences among the educational community beyond geographic limitations in each country. The experiences compiled here show that the region shares challenges for which innovative, adaptable and replicable solutions have already been created at some point in the hemisphere for different environments. This report on the experiences submitted to the Mapping of Good Practices in Digital Education seeks to contribute to the construction of resilient educational systems that address the use of new technologies in education and the digital educational agenda, a commitment that has been adopted in the mentioned AEI for the 2022-2027 period. Below are those initiatives that promote learning opportunities and contribute to the development of programs aimed at improving the teaching-learning process in the region by integrating new digital technologies, so as to contribute to the documentary heritage of remarkable and replicable experiences in our region.

Increasing access to quality education and lifelong learning opportunities for all is our mission. To achieve this, we coordinate knowledge exchange and technical cooperation that leads to developing and strengthening capacities in our countries. We trust that multiplying local experiences that seek to provide solutions to global challenges will be an essential component for successful reinvention of educational systems and integration of educational technologies in our region. This initiative carried out within the framework of the OAS alliance with ProFuturo allows us to go one step further in this direction.

Kim Osborne
Executive Secretary for Integral Development

ProFuturo initial remarks

The coronavirus pandemic meant the greatest disruption in global education history with massive and lengthy close of schools at all educational levels. Such situation only deepened the learning crisis and inequality in access to education, which was already evidente in Latin America and the Caribbean. This new reality required urgent action to progress towards recovery.

Within the framework of their alliance, ProFuturo and the OAS have long been valuing the work of civil society organizations (CSOs) and educational communities, which carry out actions aimed at guaranteeing the right to education in the region. In this line, we wanted to deepen this work, mapping experiences and good practices focused on accompanying school trajectories and improving learning, which include innovative resources from the pedagogical and technological point of view.

This mapping we now present is very relevant as it identifies initiatives that have not only been useful during pandemic times, but they can also contribute to the recovery and improvement of student learning in the post-covid era.

The experiences gathered here make up a corpus of knowledge and useful learning for its replication and scalability, as well as for modeling the design of policies aimed at promoting educational innovation by integrating technologies. This mapping also highlights the usefulness of generating alliances and collaboration among different actors and sectors to face a common purpose: to leave no one behind.

We hope that, beyond inspiring reading for teachers and educational leaders, this publication will serve as a guide for managers and policy makers who must address complexities that the pandemic has left us in the education sector.

Magdalena Brier López-Guerrero
ProFuturo General Director

Introduction

Introduction

During the COVID-19 pandemic, formal education in the Americas underwent a reconfiguration that involved maintaining schools remotely, a return to intermittent face-to-face attendance, and, subsequently, a gradual return to full schooling. Although the pandemic and its effects on education have had an impact on the entire children and young people population in the region without exception, this transition has not been linear in all countries in the region, nor within each one of them. Inequity gaps in the region led to unequal intensity of school experiences among the population, with the most disadvantaged groups (with low access to connectivity, ICT devices and digital skills) being the most affected and linked to low levels of education intensity. As it emerges from various studies, previous inequality conditions have deepened.

These years have also exposed the potential of new digital technologies to address such gaps. The responses of school governments aimed to favor access, as well as to accompany teachers through access to materials and training. For their part, actors linked to the private sector and Civil Society Organizations (CSOs) were allies in promoting and strengthening these actions, accompanying school communities, management teams, teachers, and students.

Educational communities have deployed various strategies to support the student body during remote education stages and accompany their return to face-to-face through building innovative, efficient and inclusive approaches that integrate digital technology in processes that seek to guarantee education for all children and adolescents. By way of example, teaching teams have been formed to address new situations that have required more teamwork, more digital skills and development of innovative pedagogical practices that take into account the emotional impact of experiences underwent by the student body.

In this new stage, the challenges for education reconstruction in the post-pandemic are important and urgent. At the level of educational governance, defining policy agendas that address this complexity is at stake. Likewise, daily actions are carried out in schools to accompany the paths to favor new student involvement with school and learning, in the process of rebuilding their place at school.

In this context, **the OAS - ProFuturo alliance's initiatives** acquire a fundamental role by making visible effective and replicable practices aimed at guaranteeing the right to education in the region. In recent years, this alliance has sought to value **coordinated action between Civil Society Organizations (CSOs) and educational communities.** It promotes the construction of knowledge and spaces for dialogue focused on improving learning that becomes key in the context of returning to face-to-face and responds to challenges for schools in an **increasingly digital society.**

Giving continuity to these initiatives, **a mapping of best practices** has been developed that seeks to give visibility to actions developed in schools, promoted by teaching teams, managers or CSOs in the region that include integration of new technologies to provide concrete answers to complex problems when girls, boys and young people re-engage to school in the return to face-to-face schooling.

Thus, the **'Mapping of Best Practices in Digital Education in the Americas'** was launched in August of 2022. Schools and CSOs were invited to the launching to present experiences focused on monitoring school trajectories and improving learning, involving innovative pedagogical resources and incorporating new digital technologies as resources that make strategies feasible.

These themes are aligned with the axes of the first and second stages of the **Inter-American Educational Agenda,** which is taken as a reference framework, allowing to propose responses to the issues the countries have identified as priorities. In particular, experiences developed in Latin America and Caribbean countries during 2020 - 2022, and which are currently active, have been included.
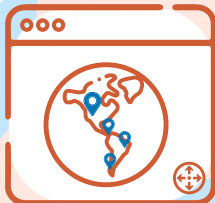
Registered good practices can be consulted in detail in the **'Interactive Map of Best Practices in Digital Education of the Americas'**, available in Spanish and English, at the following link: https://bit.ly/3Pas3eu.

Mapping objectives

➔ Acknowledge initiatives by schools and CSOs to support school trajectories and improve learning that include innovative pedagogical practices and are structured around new digital technologies.

➔ Give visibility to initiatives that contribute to improving school trajectories and that promote learning opportunities and help develop programs aimed at improving the teaching-learning process in the region.

What do we understand as best practice in this mapping?

This mapping considers best practices are initiatives aimed at schools that have the following characteristics:

I.Proposing creative and innovative strategies in their design and proposals to respond to the challenges of school re-engagement [1]of boys, girls and adolescents,

II. They are implemented based on collaboration between management and teaching teams and have the potential to link other actors in the educational community, as well as other institutions that collaborate with their execution and sustainability.

III. Their implementation progress shows their ability to meet the objectives set out in the initiative, showing a tangible improvement in the school re-engagement problem or need identified, and

IV. They have the potential to be replicated in similar contexts with the necessary adaptations.

Understanding the diversity of initiatives promoted by CSOs and school teams to support schooling and enhance learning in this particular context, this mapping focuses specifically on those initiatives that considered the integration of digital technologies in their application. In addition to making an assessment of different responses built during the last two years, the focus on initiatives that involve integrating digital technologies seeks to make visible concrete work proposals that link information and communication technologies (ICTs) and learning and knowledge technologies (LKTs) with school improvement in trajectories and learning.

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[1]In this case, school re-engagement refers to rebuilding the link with in-person school, its dynamics and format, as well as the teaching and learning processes in a recovery and improvement framework.

Criteria for analyzing Best Practices

Best Practices in the mapping were analyzed according to a number of guiding criteria that are considered as key.

1.Human rights and equity approach: best practices are based on a human rights and equity approach and include the gender perspective. They are intended for institutions and/or students in conditions of socioeconomic vulnerability, paying attention to minority groups (migrant population and/or indigenous communities, and/or people with disabilities, or others).

2.Innovation: best practices propose an innovative pedagogical strategy to achieve its purposes linked to monitoring trajectories, recovery of learning and/or promoting skills and competences. They include multidisciplinary approach, project-based learning, use of data and/or information-based management for trajectory monitoring and/or involve promoting skills and competencies (transferable and digital).

3.Integrating ICTs and LKTs at school and/or in the classroom: best practices integrate ICTs (information and communication technologies) and/or LKTs (learning and knowledge technologies) in classroom and/or institutional management processes to promote involvement of students with the school (school trajectory) and/or to favor recovery of learning and/or development of skills and competences.

4.Coordination and collaboration: best practices promote active participation of students and other members of the educational community, as well as coordination with other schools and/or different sectors (OSCs, international organizations, private sector, local community) in practice implementation.

5.Sustainability and replicability: best practices are structured and can be disseminated for replication, contemplating possible context adaptations. They are feasible to implement with resources present in the schools or few additional resources and/or investments.

6.Systematization and results: best practices are systematized (objectives, processes, components and activities defined in favor of an achievement) and have result indicators on the progress of implementation linked to improving school trajectories and/or recovering learning and/or developing skills and abilities.

The analysis of Best Practices was carried out by a group of independent professionals with vast knowledge of the topics promoted by this initiative. This is how we have had the valuable collaboration and contributions of Ana Raad (Ecuador), Axel Rivas (Argentina), Javier González (Spain) and Pilar Suárez (Mexico).

"The mapping of good practices is a concrete contribution to collaborative learning, and to building joint knowledge, where each practice serves as a reference for others. But it also makes visible a regional movement marked by learning-focused innovation".

Ana Raad
REimagina Foundation Director and Founder

"Education in Latin America is full of hidden treasures. This map is a way of recognizing the daily efforts of countless educators to generate alternatives and guarantee the right to education, using digital technologies with pedagogical sense".

Axel Rivas
Director and teacher at the Education School of Universidad de San Andrés

"The effort made in this project becomes an essential first step to register innovative and scalable pedagogical practices that enable a global and local continuous improvement movement, for the essential transformation of teaching-learning processes in the region through empowerment of teachers, principals and families".

Javier González Casado
ProFuturo Foundation Representative

"Getting to know the proposals presented in this initiative has been an opportunity that opens gaps in the academy and public policies, identifying the need to recognize the work that is done in the classroom and that, without a doubt, greatly dignifies and acknowledges the work of teachers in the Americas".

Pilar Suárez
Coordinator of thematic teams and STEM education expert of the Interamerican Teacher Training Network

Results of Mapping
Best Practices on digital education
in the Americas

# Results of Mapping Best Practices on digital education in the Americas

As previously shown, the Mapping called for applying practices developed in years 2020, 2021 and/or 2022, which address issues of accompanying school trajectories and learning improvement, involving innovative pedagogical resources and incorporating new digital technologies as resources that make strategies feasible.

Registered best practices can be consulted in detail in the interactive Map of Best Practices in Digital Education of the Americas, available in Spanish and English, at the following link: https://bit.ly/3Pas3eu.
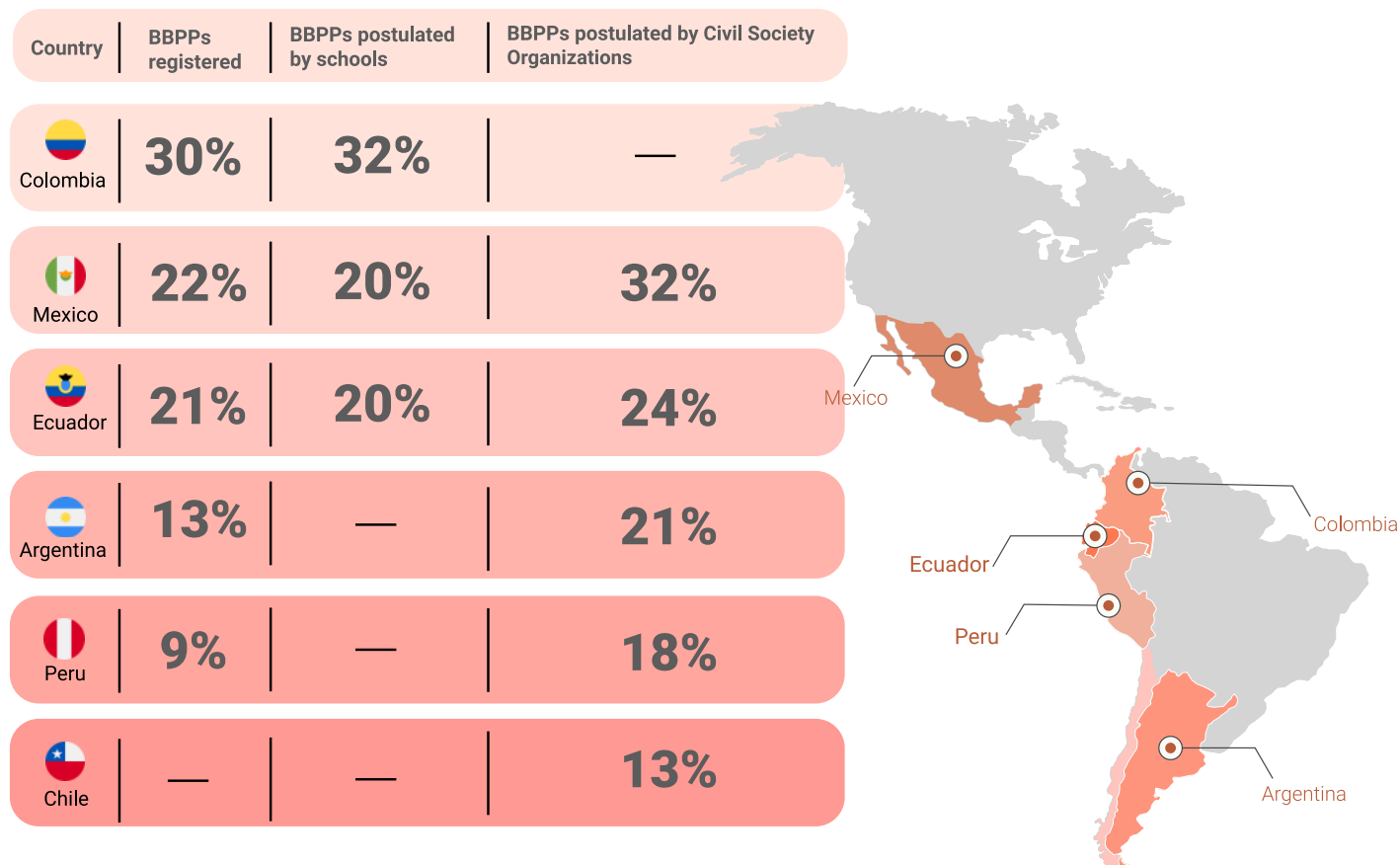
165 valid experiences were submitted to the mapping, of which 77% were postulated by schools and the remaining 23% by civil society organizations.

165 valid experiences

77% Schools

23% Civil Society Organizations
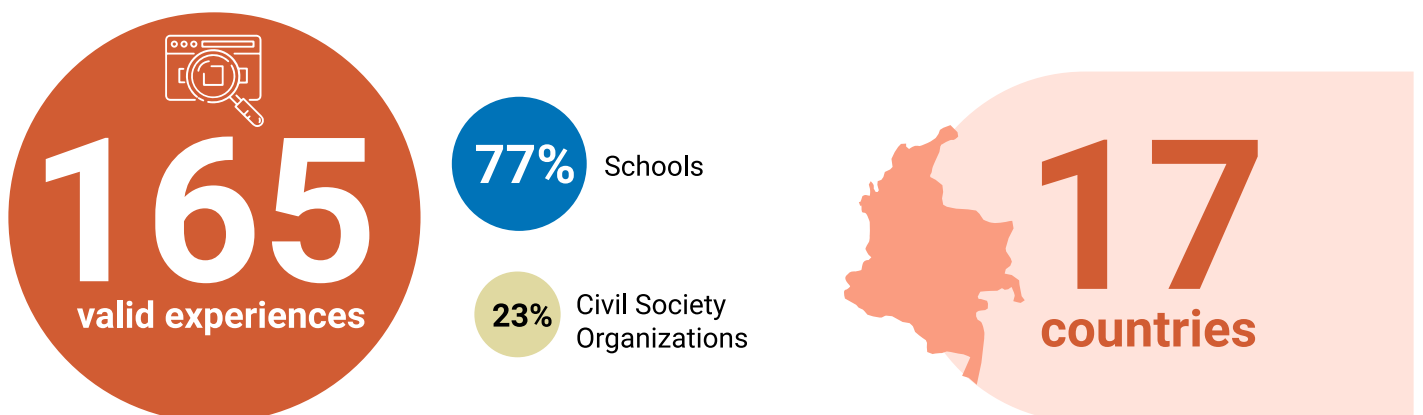
17 countries

What countries participated?

BBPPs from **17 countries** submitted. Most of the BB.PP. registered are implemented in Colombia (30%), Mexico (22%), Ecuador (21%), Argentina (13%), and Peru (9%). The BBPPs presented by schools are mostly implemented in Colombia (32%), Mexico (20%) and Ecuador (20%). In the case of the BBPPs presented by civil society organizations, the majority are implemented in Mexico (32%), Peru (18%), Ecuador (24%), Argentina (21%) and Chile (13%).

Country	BBPPs registered	BBPPs postulated by schools	BBPPs postulated by Civil Society Organizations
Colombia	30%	32%	—
Mexico	22%	20%	32%
Ecuador	21%	20%	24%
Argentina	13%	—	21%
Peru	9%	—	18%
Chile	—	—	13%

Where are best practices developed?

56% of the BBPPs are developed in urban areas, 16% in rural **areas** and 28% in both. BBPPs developed by civil society organizations have a greater presence in rural areas (69%) than those developed by schools (37%). 57% of the BBPP are developed at the secondary **level**, 39% at the primary level, and the remaining 4% at the initial level.
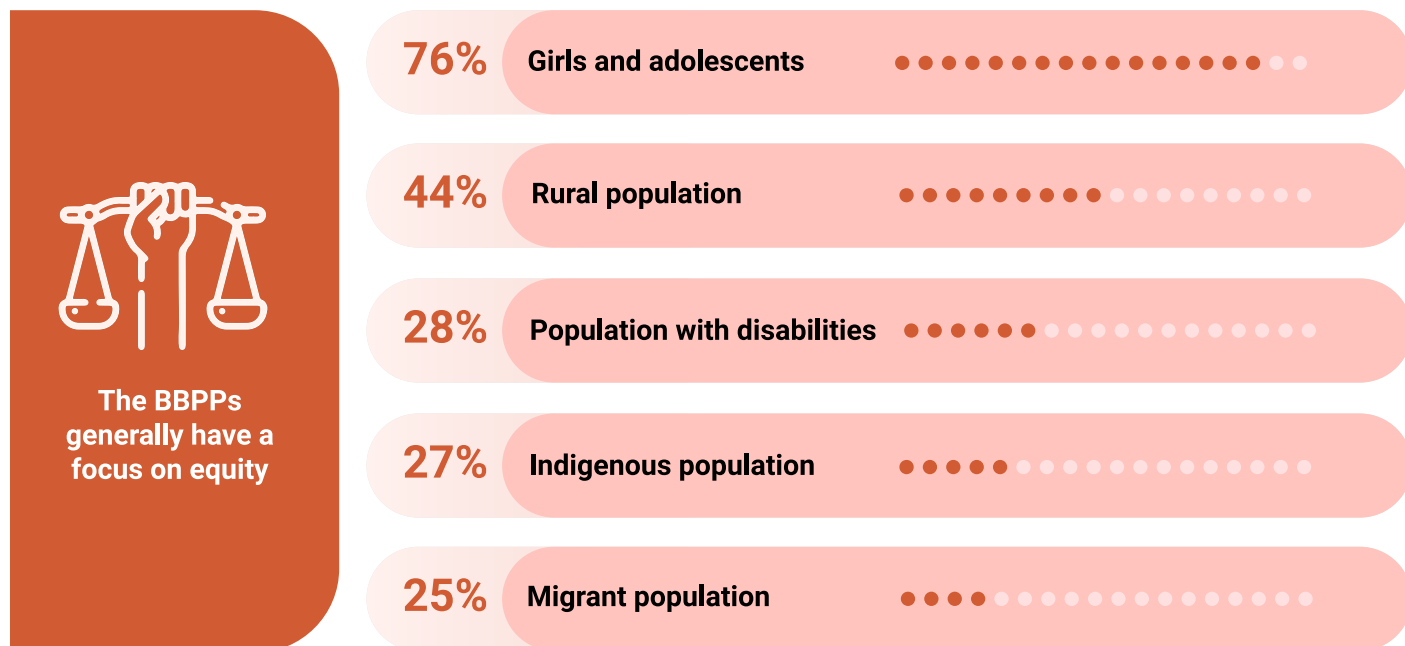
Urban areas 56%

Rural areas 16%

Both 28%

What school actors are the best practices aimed at?

From the total number of BBPPs received, 82% are addressed to students, 51% are addressed to teachers, 39% to families, 36% to schools, 30% to the educational community, and 14% to management teams.

Students	Teachers	Families	Schools	The educational community	Management teams
82%	51%	39%	36%	30%	14%
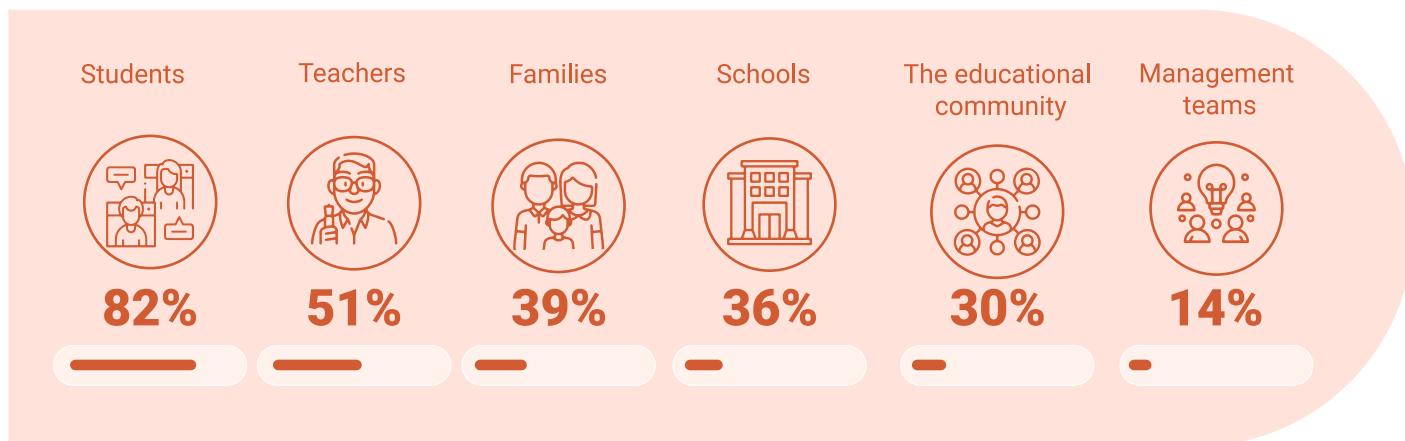
What education topics do the best practices focus on?

The BBPPs generally have a focus on equity

76% **Girls and adolescents**

44% **Rural population**

28% **Population with disabilities**

27% **Indigenous population**

25% **Migrant population**

# How many people participate in the best practices that were presented?

The BBPP reach an average of **3,403 students; 1,913 teachers; 1,808 families and 287 schools.** The reach is greater in the BBPPs carried out by civil society organizations compared to those carried out by the schools themselves, specifically in terms of students, teachers and families reached. On the other hand, the scope in terms of educational communities is greater for the BBPPs developed by schools.

3403 Students | **1913** Teachers | **1808** Families | **287** Schools

What are the themes that the BBPPs propose to work on?

50% focus on **improving learning**; 39% in **strengthening socio-emotional and/or digital skills**; and 10% in **educational trajectories.**

Most of the schools' BBPPs (54%) have the improvement of learning as their intervention theme; most of the BBPPs of civil society organizations (55%) focus on strengthening socio-emotional and/or digital skills.

50% Focus on improving learning

39% Strengthening socio-emotional and/or digital skill

10% Educational trajectories

Most of the schools' BBPPs

54% Have the improvement of learning as their intervention theme.

Most of the BBPPs of civil society organizations

55% Focus on strengthening socio-emotional and/or digital skills.

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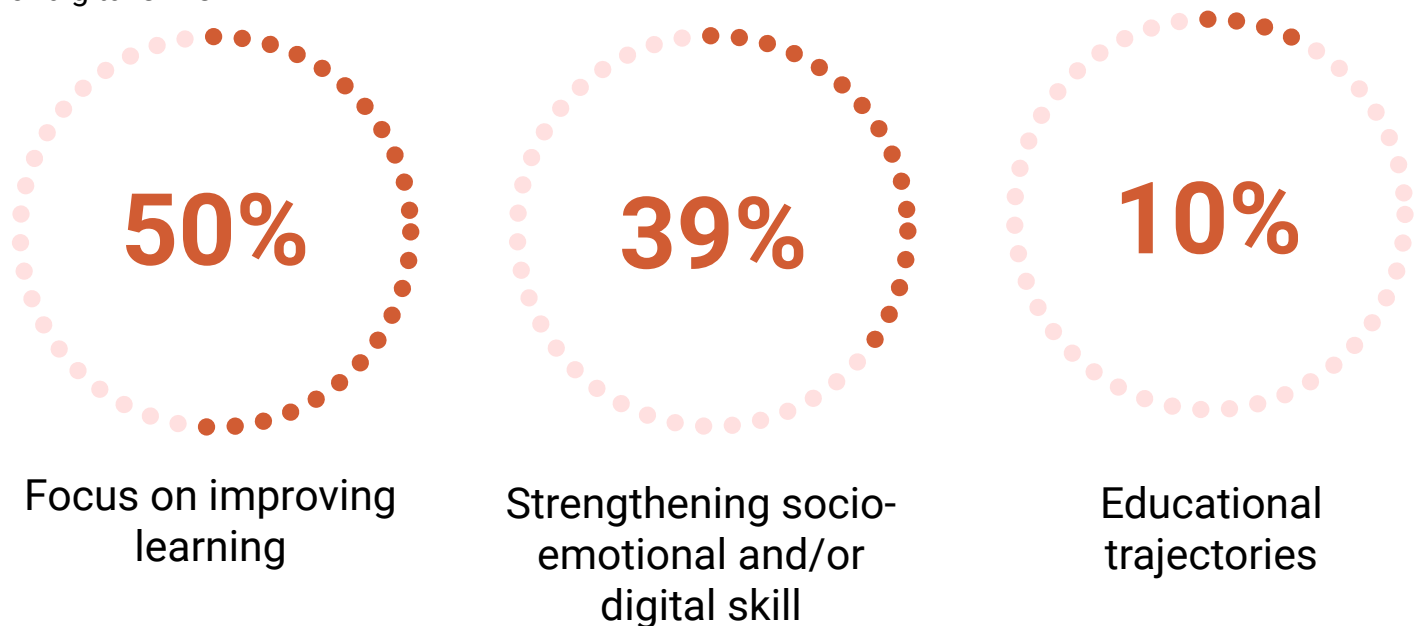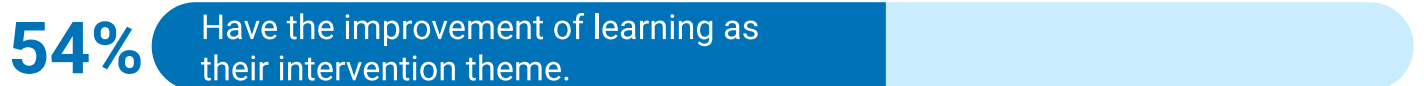
Best Practices
in focus

30 Best Practices in focus

Image: ProFuturo

Each best practice (hereinafter, BB.PP.) presented in this mapping is valuable on its own since it provides a contextualized experience, which seeks to respond to a problem identified as key by school community actors and which is carried out through a network of efforts and actions that involves managers, teachers, students and the educational community.

Here we propose to look in detail at thirty of these experiences that -by means of proposals marked by innovation and improvement- can inspire other actors to continue thinking and developing work experiences in the classroom that lead to improvements in a context where action and creativity become essential.

Most of the BB.PP. focus on five major purposes:

☑ Promoting STEM skills and abilities.

☑ Promoting reading and reading comprehension.

☑ Appropriation and cultural identity.

☑ Promoting learning-to-learn skills.

☑ Reducing learning barriers in students with disabilities.

# Fostering STEM capacities, skills and competencies[2]
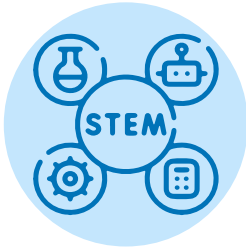
These practices focus on developing skills related to digital tools, programming, computing, innovation, critical thinking, computational thinking, science, and technology. Four of them are aimed at children and adolescents, and two of them, at teachers. Each of these practices is specified below.
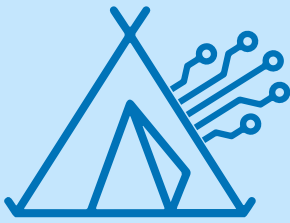
"STEM Camps": Developed by a Civil Society Organization in Ecuador and applied in secondary schools in both management and industry sectors, this practice consists of developing skills and competencies in STEM areas required for their future work, such as critical thinking, problem solving and computer skills; as well as of promoting scientific and technological vocations. The proposal consists of holding recreational science workshops for girls, boys and adolescents from 8 to 15 years old, with training in robotics, programming, energy, internet security, video games; and visits to companies and engineering projects such as wind farms, factories and university laboratories.

"STEM Learning Environment with an Inclusive Approach": Developed by an urban secondary school in Colombia, this practice consists of the development of ICT and STEM skills and competencies by generating a space where students develop an active, contextualized and significant learning experience through participation, collaborative work, problem solving, integration of areas, creativity and autonomy, achieving 21st century competencies and skills. Project-Based Learning (ABP PBL) is used, especially in robotics projects.
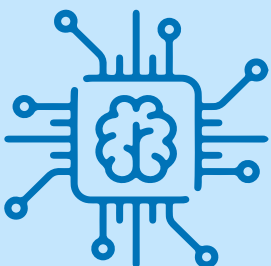
"ABP - PBL (Problem-Based Learning) to promote the development of empathic processes in secondary school students": Developed by an urban public secondary school in Colombia, this practice t consists of the use of computer tools (programming with the Microbit card) to solve problems and specific situations. We worked with an inclusive project to develop devices to improve sports practice in Paralympic sports, through the application of biomechanical and technological knowledge.
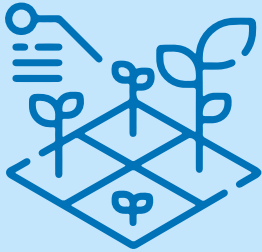
"STEM Community Gardens": Developed by a rural public secondary school in Colombia, this practice consists of applying PBL to contribute to developing 21st century skills by solving real problems in the community. Work was done specifically on the issue of food security through the creation of community gardens with participation of school, students and families. A prototype for planting was developed (Arduino and Microbit program), through a program with sensors to measure relative humidity, temperature, air quality, water PH, and soil humidity. This project allowed incorporation of STEM skills among students and work committed to the community.
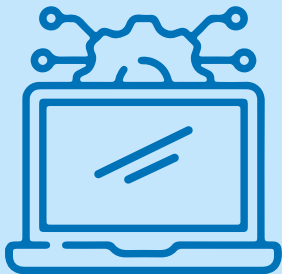
"STEM Instructional Framework Training": Practice developed by a Mexican Civil Society Organization, and applied in primary schools regarding both management industry in multiple countries such as Mexico, Bolivia, Chile, Colombia, Ecuador and the United States. It consists of theoretical-methodological courses on STEM education, aimed at teachers so that they can design and put into practice STEM classes with a focus on girls and adolescents and promote and develop STEM skills in the student body. The course facilitates the appropriation by teachers of skills and knowledge to develop STEM skills in students: critical thinking, problem solving, creativity, communication, data literacy, digital literacy and Computer Science, as well as socio-emotional skills, in a way integral to disciplinary knowledge.
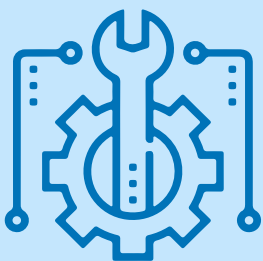
"IdeoDigital": Developed by a Chilean Civil Society Organization and applied in rural and urban primary public schools in Chile, this practice seeks to leave installed capacity in the teaching team so that they can implement innovative learning methodologies in the classroom in relation to computer science and thus ensure that students get the necessary tools to learn computer science and acquire the necessary digital skills for life.

[2]STEM, English acronym for science, technology, engineering and mathematics.

Fostering reading habits and reading understanding

These practices focus on developing language-related skills, both Spanish, mother tongues of students from indigenous peoples, and English. They use mobile applications, digital games and software as a strategy to achieve this pedagogical objective. Their characteristics are specified below.

"We read and dream with Yachasun": Developed in a rural primary school in Peru, this practice consisted of developing an intercultural application called "Yachasun", which works in the students' mother tongues (as a first language) and in Spanish (as a second language). It aims at promoting the reading habit and the text comprehension skills such as obtaining information, inferring, interpreting, reflecting and evaluating about the form, content and context of written texts. This application allows working on these skills in a playful way and through the use of technology, as well as recording students' progress in each of the activities carried out through the application.

"Arenalinas Readings, mobile app to promote reading and reading comprehension": Developed in an urban secondary school in Peru, and similar to the BB.PP. above, this practice also consists of the use of a mobile device that allows students to follow a weekly reading plan, with a diversity of texts that allows them to promote reading habits and independently strengthen reading skills.

"Reto Pedagógico": Developed in an urban elementary school in Colombia, this practice consists of different pedagogical strategies, among them, the use of a video game that allows working with writing and reading skills, which can be used offline.

"Gamification to promote Comprehensive Reading of Texts in English": Developed by an urban secondary school in Ecuador, this practice consists of the use of digital gamification tools to encourage and strengthen the reading and comprehension of texts in English.
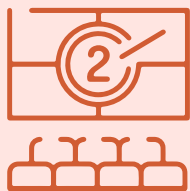
"Let's go to the cinema!": Developed by a secondary school in Colombia, this practice consists of using cinema as a methodological tool to improve the teaching and learning of English as a second language through the use of technology and video editing software.

Appropriation and cultural identity.

These practices focus on developing skills related to the sense of rescuing ancestral knowledge and oral traditions of indigenous communities, rescuing heritage and cultural assets of an educational community or cultural exchange between countries. The characteristics of these practices are specified below.

"TEtno-Pepit@s - Technology in Building Computational Thinking": Developed by a primary rural public school in Colombia, this practice focuses its work on indigenous communities (ethno-educational institutions), rescuing ancestral knowledge in relation to preserving indigenous flora and fauna of the Amazon, and promoting these environmentally sustainable practices with technological and computational knowledge developed by students through the creation of an artificial simulator for the incubation and hatching of Amazon charapa and taricaya turtles that are in danger of extinction due to commercialization and human consumption; and through the programming of a processor that allows to control soil humidity, temperature and pH, in order to carry out massive planting of trees in danger of disappearing, in healthy and disease-free places. In this way, the student body acquires tools and technological knowledge that they can use in their communities to improve and optimize processes, but without losing their own knowledge and customs.

"Agroamphibia, an environmental project of nature-based solutions for adaptation to climate change in La Mojana": Developed by an urban public secondary school in Colombia, this practice seeks to facilitate ancestral rice sowing processes through the development of a mechanical seeder prototype by students, who are part of a research group. It is about rescuing La Mojana cultural and social imaginary and valuing the knowledge of peasant communities (small farmers who, through ancestral techniques, sow 18% of all the rice produced in the region); and at the same time to be able to automate, systematize and facilitate sowing processes to improve productivity, in order to contribute to strengthening food security and sovereignty in the territory.

"We read and dream with Yachasun": Carried out in an intercultural bilingual, primary rural school in Peru (already mentioned in the section on reading skills), this practice, in addition to promoting reading and understanding of texts, rescues the oral traditions of the Quechua communities and renders them as texts, thus valuing knowledge, customs, traditions, stories, tales and legends pertaining to the student community. Above all, it revalues the Quechua language.

"Virtual Student Exchanges": Developed by a Civil Society Organization with presence in the United States and Mexico, this practice is carried out in urban secondary schools in management sectors. It proposes a virtual cultural exchange between schools and students from different countries under the premise of digital citizenship as a basis for coexistence and learning. The purpose is to learn about other cultures, strengthen language exchange, and create common projects that provide solutions for a better world.

"Recognizing my Heritage": Developed by a rural public secondary school in Colombia, this practice seeks to promote appropriation and appreciation of the school's cultural heritage and its educational community among its students (heritage, cultural and historical assets). It is a school research project that invites students to investigate, identify and value elements that make up their idiosyncrasy.

Fostering learning-to-learn skills

These practices are developed by Civil Society Organizations. In these two cases, experiences are proposed with the purpose of promoting capacities in the students so that they recognize their learning processes, organize their own learning, manage time and information effectively and thus improve their performance. The characteristics of these practices are specified below.

"Atalaya Sur educational space": Developed by an Argentine Civil Society Organization and implemented in urban public primary schools, this practice proposes the creation of educational devices (in workshop format) that are capable of promoting inquiry, communication, reflection and participation skills from the beginning of primary education in vulnerable populations. It seeks to develop in students the skills "to learn to learn".

"Qantu – Open Classroom": This is a practice developed by a Peruvian civil society organization that is implemented in rural and urban primary public schools. This practice aims at developing competences in students that are related to autonomous learning, stemming from project-based learning. Students are faced with identifying problems, questioning themselves about them, launching possible solutions, and seeking information to propose alternative solutions. In this way, they develop competencies in different areas. These students record their processes in self-study notebooks where their achievements are evidenced.

Decreasing learning barriers in students with disabilities

These practices are focused on including students who have some type of disability. They involve ICT tools to promote learning and skill development. The characteristics of these practices are specified below.

ICT Signs: This experience seeks a more fluid and direct communication with people with hearing disabilities, since it strengthens communication with signs through videos.
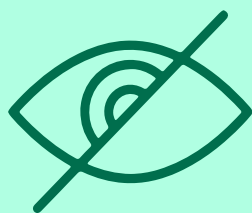
"Contact": It proposes a strategy to improve learning among students with visual disabilities. It contemplates the use of technological tools that facilitate closeness to didactic resources such as computers, tablets, and cell phones which are accompanied by a screen reading program. By implementing the "Contact" strategy, learning lies in the acquisition of new pedagogical intervention strategies, allowing access to information and awakening interest in acquiring new skills. This leads to discover the need to investigate the students' multiple intelligences. The name of the proposal sums up what has worked best, which is the possibility of being in contact with students beyond school, beyond their disability, beyond imposed social barriers, beyond the teachers' comfort zone, and beyond what was initially considered.

O-lab: tailor-made inclusive digital education without barriers": This project aims to provide access and accompaniment to indigenous and migrant girls, boys and youth, maintaining a main focus on girls and boys with physical and psychological disabilities. They participate in customized courses to develop 21st century and social-emotional skills in basic English, STEAM, and basic sign language for educators, parents, and students with and without disabilities. O-lab -an offline education/training platform- is used.

[3]STEM, English acronym for science, technology, engineering and mathematics.

How to include new technologies in best practices?

BB.PP. presented here incorporate digital technologies in various ways. Most use digital tools in processes and practices in the classroom and school as pedagogical tools to promote learning (70%). In other cases, ICTs are incorporated through the use of virtual exchange spaces such as forums, conversations, virtual classrooms and communication platforms (40%). On the other hand, 37% of the BB.PP. introduce the use of ICTs for students to design and create specific products such as small robots, applications, 3D printing, technological prototypes, sensors, etc. Finally, only 7% of the BB.PP. include actions that favor access to technology in communities, such as increasing the reach of connectivity, or delivering technological equipment such as computers and other material resources related to technology such as robotics kits, for example.

70% Of the practices presented incorporate digital technologies into processes and practices in the classroom as pedagogical tools that favor learning.

What are the challenges for schools and CSOs to implement Best Practices?

Managers, teachers and organizations that develop BB.PP. must face a number of challenges to implement them. Difficulties are both related to strategy design and to external conditions that need to be addressed in order to implement these actions. Most of the challenges, according to the proposals, are linked to connectivity problems both in schools and in students' homes (47%), and secondly, to problems of access to technological devices in students' homes or in schools (33%). In cases focused on promoting and integrating technologies, these difficulties act as a "bottleneck" for schools and organizations to reach more spaces and actors.

47% Of the applications report that the biggest challenge to carry out the good practices is the lack of connectivity in households.

What lessons stand out regarding work with Best Practices in schools?

In all the proposals to this initiative, multiple and valuable lessons are observed. In an effort to group them, we found that the development of BB.PP. collaborated in five great practices, many of them have been key to transitioning back to school after a long time without face-to-face contact and with mediated learning. These are:

- ✓ Strengthen ties, meet again and valuing.
- ✓ Students as protagonists.
- ✓ ICTs as allies in learning.
- ✓ Practices and the entire school focused on learning.
- ✓ Data and information for improvement.
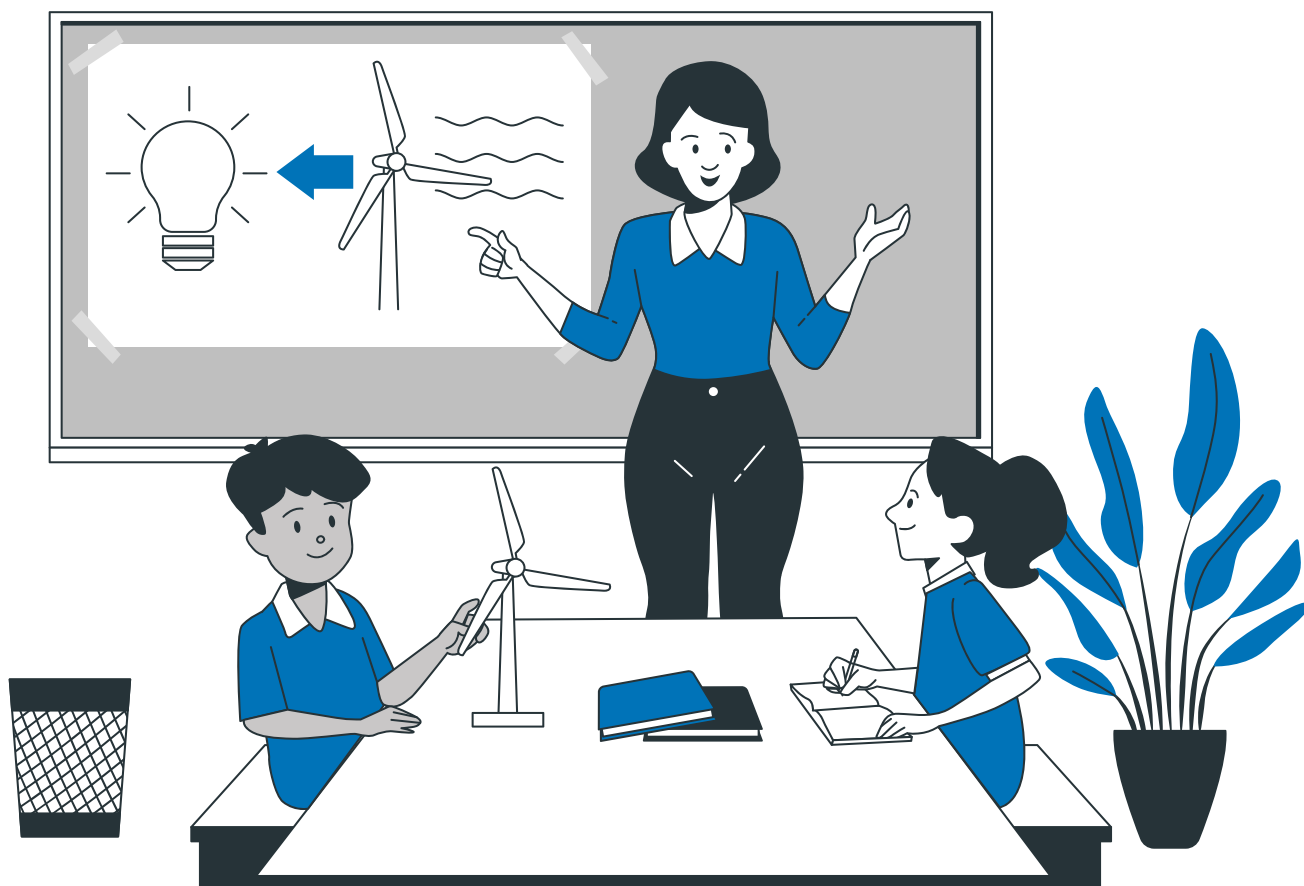
Strengthen ties, meet again and valuing

Initiatives are highlighted to carry out new projects, and introduce innovative strategies at school and in the classroom to accompany trajectories that focus on learning recovery and improvement, integrating technology as a key ally in these processes. All these strategies together have collaborated with teamwork, with promoting dialogue and links with new actors, not always schoolchildren, who have promoted exchanges and learning:

> "...we have understood that teamwork is essential to achieve educational purposes...",

> "...One of the main lessons learned was to build dialogues and collaboration with teachers...",

> "...The view of external experts enriches the process. An advisory board listens and advises and an evaluation process led by Universidad de la Frontera notes strengths, weaknesses and action plans. Involving the community and committing private or Government actors strengthens the ecosystem so that the practice is installed, encourages the generation of new public policies and is not just a teacher training action...".

Students as protagonists

Whether BB.PP. were aimed at learning or trajectories, at promoting technology integration, at working for coexistence, all of them have had students as their main addressees in one way or another. They are the target of all efforts as protagonists and all actors, directors, teachers and families support and accompany them:

> "…The willing attitude of each student is the main factor to promote project development and to encourage continuity in implementing the experience. Parent support has been vital to develop students' models, life projects and all the activities that have been carried out, since a large part of the work must be carried out during free time and with family support "….

> "… the boys and girls who participate in the practice have strengthened not only skills related to information management and digital technology, but also in managing emotions, tolerance for failure, resilience, teamwork, responsibility, organization, broadening horizons, self-confidence and many other aspects that were initially not the learning objective but I believe that they are very valuable for the life of any human being…".
> Developing projects with this STEAM approach allows students to achieve more significant learning…"

ICTs as learning allies

A characteristic that makes a difference in this mapping of BB.PP. is the role of ICTs as school allies in favor of developing significant school trajectories and building learning. Several of the BB.PP. presented, consider integrating ICTs is valuable for learning in these practices:

"…We create more playful and meaningful learning environments. We go beyond the four walls of traditional classrooms and innovate strategies in virtual classrooms. We learned together!"

"…it is being able to use technology as a resource to continuously achieve competencies in our students. The shortcomings we had in terms of equipment, internet and resources, were not an impediment to obtaining a resource created for our context thanks to the technical part of our best practice…"

…"teaching was positively transformed, learning from the situation and motivating students to learn during the quarantine, since the platforms, tools, apps, among others, were unknown to everyone before the pandemic, including teachers, which is why the RETRO PEDAGOGICAL strategy, improved, strengthened and involved learning in new technologies, socio-emotional education and STEM approach, 21st century skills and contemporary competencies that did not exist in school or were not very visible…."

> "…a different approach was given to the use of social media and instant messaging; improved communication with parents. Significant advances were shown in digital literacy, among others…".

Practices and the entire school focused on learning

The BB.PP. presented leave multiple pedagogical lessons at schools. We approached innovative pedagogical practices that contributed to integrating new practices in the classroom and turned teachers towards new forms of learning:

> "…The pedagogical part also worked well, since despite team teachers' workload, they gave themselves the necessary time to be able to adapt texts and evaluations week by week. All this would not have been possible without the team's commitment, since seeking to improve the learning of our students was the greatest inspiration for us…."

> "…when we acquire new pedagogical intervention strategies, access to information and arousing interest in acquiring new skills allow us to discover the need to inquire into the students' multiple intelligences …."

" **"What the girls like the most is participating in the festival and in the different tournaments, since they have the opportunity to put what they have learned to the test, to share and compete with their peers of the same gender and to participate in the national tournament with peers of other schools regardless of gender.** "

" **"What worked best was working with life stories. For students it is very important to recognize real situations since this encourages them to work from reality and not from assumptions, personal improvement stories in Paralympic athletes allow students to feel that difficulties in life are mental..."** "

" **"...awakening interest in acquiring new skills allows us to discover the need to inquire into the students' multiple intelligences..."** "

Data and information for improvement

One last point to highlight in the lessons mentioned by the protagonists of these BB.PP. is the value placed on information to diagnose and make informed decisions about how to proceed:

> "…carry out evaluations that allow us to measure the impact of our projects (both in terms of quantitative scope and learning) to make better decisions that guide the type of projects we design and the way in which they are implemented. Based on these inquiries, for example, we decided to approach the problem in a crosscutting way through different disciplines and offer resource options in different formats…."

> "…Monitoring and evaluation allows decisions to be made proactively: constant evaluations are carried out and an observation and feedback practice is installed as a training process for the learning teacher and for generating new content and training activities."

> "A methodology was developed to evaluate effectiveness of recreational science workshops, measuring learning in the camp's themes and the interest of children in STEM areas. This program has generated an increase in interest regarding technological vocations among 41% of the children who attended the camps, and an increase in learning of covered topics in 33% of participants".

To conclude

The journey made in this publication is an invitation to learn about the experiences that more than 160 schools and CSOs have implemented during the last few challenging years. Far from being exhaustive, the analyses presented here propose to highlight some inspiring elements that act as drivers for local projects throughout our region and beyond.

The efforts of these principals, teachers and leaders of organizations in every corner of the region make a difference and are an example of good practices that contribute to the right of each child and adolescent to carry out a significant educational trajectory and with the learning that allows them to develop a projection towards the future that they wish to build.

Below are the 30 best practices that have been highlighted by the committee of experts. These, like the rest of the registered practices, can be consulted in detail on the interactive Map of Best Practices in Digital Education in the Americas, at the following link: https://bit.ly/3Pas3eu.
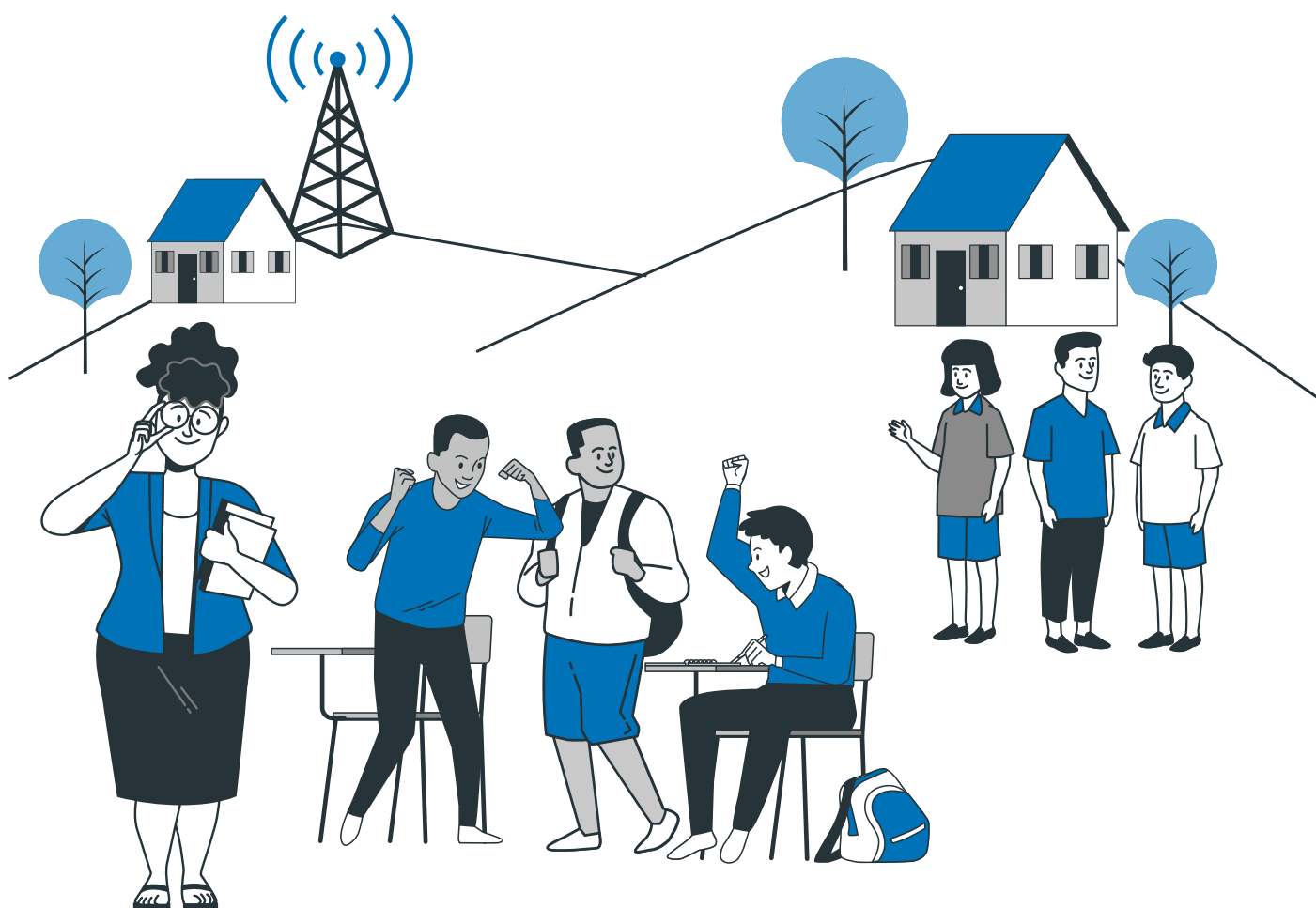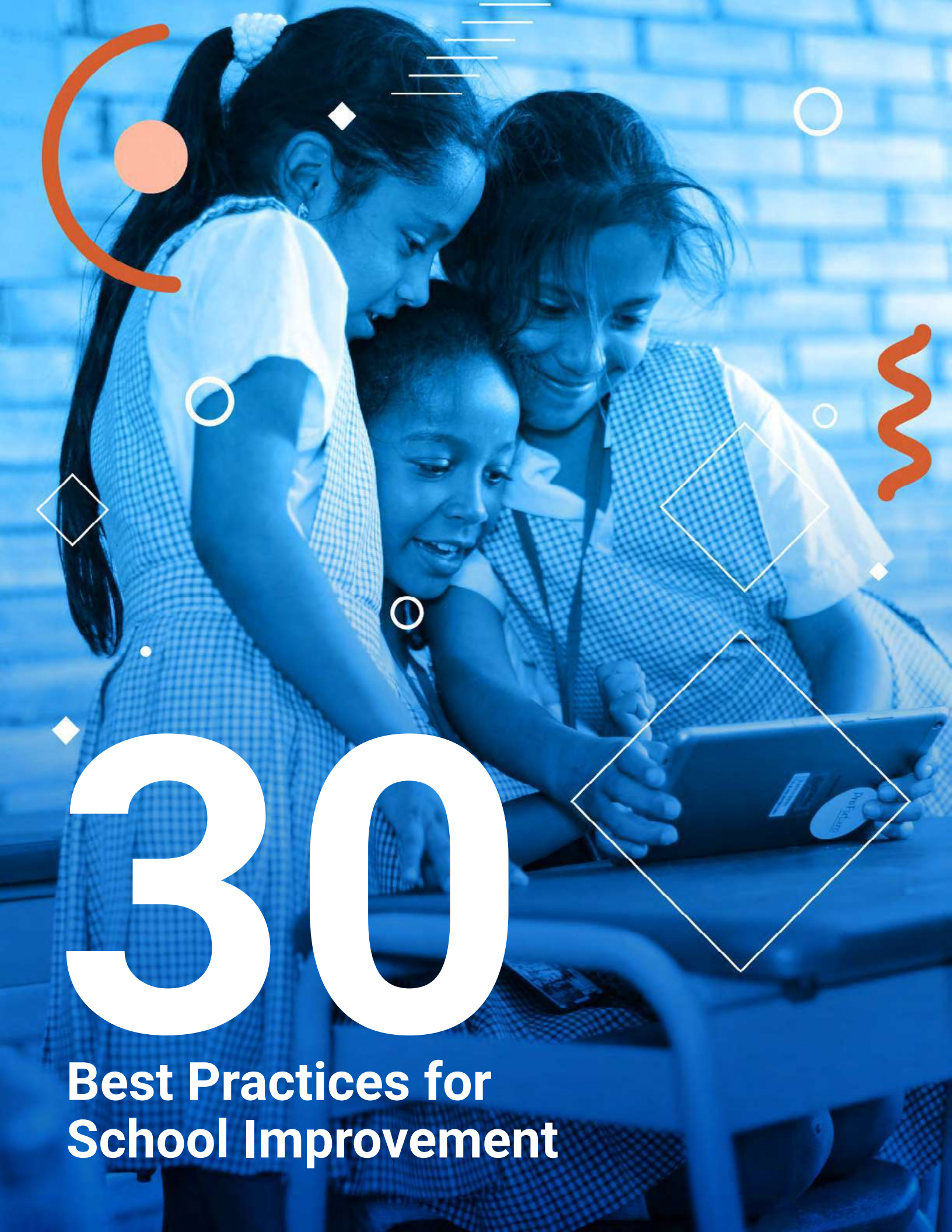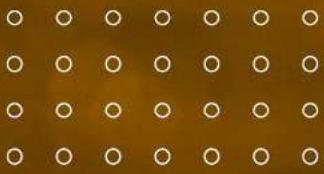
30

Best Practices for
School Improvement

Strengthening digital skills

Atalaya Sur Educational Space

Institution: SCO. Asociación para el Fortalecimiento Comunitario.

Level and scope: Primary – Urban

Country: Argentina

Topic: Strengthening socio-emotional and/or digital skills

Summary

Atalaya Sur is a pioneering experience of community connectivity in an urban village in Argentina. It was proposed in 2014 to address the inequalities generated by the digital divide in underprivileged sectors, understanding that, in a context of technological revolution, the lack of access to the Internet, devices and technical capabilities reinforces structural inequalities. Atalaya Sur considered it appropriate to create educational devices that are capable of promoting inquiry, communication, reflection and participation skills from the beginning of primary education. Those devices are the art, science and technology workshop; and the reading, writing and mathematics workshop. Students in the workshops will find a place to learn various artistic disciplines through digital appropriation and by sharing with their peers, moments that make childhood linked to play and care. In turn, teaching situations related to initial literacy, numbering and basic operations were proposed in the reading, writing and mathematics workshops. The educational trajectories were accompanied with these proposals, offering them opportunities to continue thinking about school contents. On the other hand, an educational device for digital literacy was created for the mothers of children who attend the workshops. These meetings are a space for collective meeting, communication and knowledge.

Virtual Traveller Notebook during the 2021

Institution: I.E.N 5080 Sor Ana de los Ángeles Callao-Perú

Level and scope: Primary – Urban/Rural

Country: Peru

Topic: Strengthening socio-emotional and/or digital skills

Summary

Many students cannot express themselves in front of their classmates. They are silent. They do not express their ideas. They are afraid of transmitting their ideas and afraid of being wrong. They are also unaware of digital tools for sending their evidence and they cannot share their experiences in times of pandemic. In this experience, there were dialogues with parents and students, strategies were sought to change attitudes and solve these problems using digital tools, holding workshops in alternate class hours in two groups (they use computers or laptops/cell phones). By doing so, students were able to share the moments and experiences they had at home with their families during the pandemic with their classmates and the teacher in virtual classes, always following recommendations and biosafety protocols.

Do you want to know more?

https://drive.google.com/drive/folders/1ZZHFEJlfPoU1dwR9TH1ZbhwTlrsm5Wox?usp=sharing

Fact-Checking Education Program – Promoting Information Media Literacy

Institution: SCO. Fact-checking

Level and scope: Secondary – Urban/Rural

Country: Argentina

Topic: Strengthening socio-emotional and/or digital skills

Summary

The Education Program identified two large groups of actors for whom educational projects were developed: (i) journalists and communicators, to strengthen their training in fact checking, data journalism and disinformation, and (ii) citizens, particularly young people and adolescents, to improve their Media and Information Literacy (AMI, in Spanish) with an emphasis on critical thinking skills. Original content and resources are produced, experiments are carried out in various formats, and training actions take place at a small and large scale. The secondary-school teaching team is considered as a key actor to reach more adolescents, for which specific proposals are generated about how to work on AMI in the classroom. Some specific cases are: production of didactic sequences on electoral misinformation to work on youth vote at high-school level, audiovisual guides and resources with practical recommendations to avoid falling into misinformation and how to identify false and/or misleading content, MOOCs to learn and teach about the pandemic and the infodemic, playful proposals such as the Checked Escape Room, academic research on including AMI in Argentina's curricular designs and on the impact of our didactic sequences on student learning and even meetings with other organizations to promote an AMI network in Argentina.

Do you want to know more?

https://chequeado.com/recursosparadocentes/
https://youtube.com/shorts/FLmTHPm4HMY?feature=share

Girls into Technology in Antioquía: Girl Powered

Institution: CSO. Global Foundation Art Science and Technology

Level and scope: SSecondary – Urban

Country: Colombia

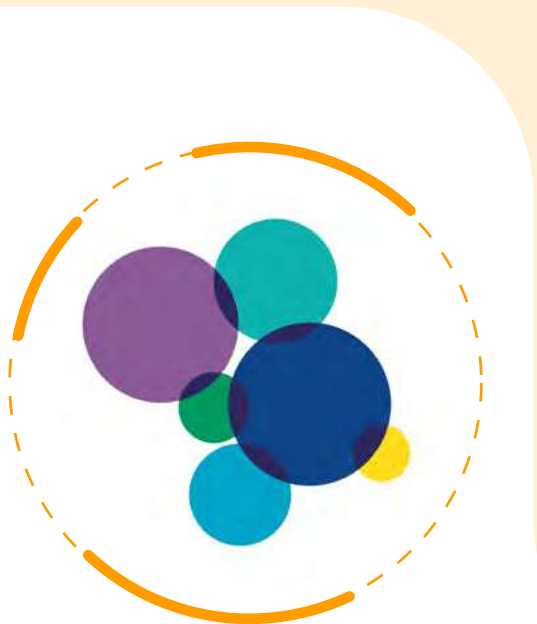**Topic:** Strengthening socio-emotional and/or digital skills

Summary

The program begins with a diagnosis focused on participating girls' expectations and life projects and on their performance in STEM areas. There are some surveys throughout the process that allow for process self-regulation and all the participants take the certification exam at the end in introduction to Carnegie Mellon programming and must pass 70% of the exam to obtain the certificate. The program has the following components: 1) Community sensitization: part of the program success is the intervention of different actors in the girls' ecosystem such as their parents, teachers and rectors. 2) Comprehensive Training: Technical training in STEM through robotics is complemented by its applicability to solving nearby problems in their community and the importance of female empowerment. 3) Advice and Accompaniment: Participants' specific doubts are resolved during the design, construction and programming process of their competition robots, with a solution approach to a problem in their community and their participation in the robotics tournament. 4) Exchange of Experiences: through their participation in the Girl Powered Fest, the participants test what they have learned with their peers, allowing them to collaborate, share and compete with them. 5) Self-regulation and evaluation: different instruments are applied to regulate and evaluate the process.

Do you want to know more?

www.fundacionglobal.org, www.girl-powered.org
https://vimeo.com/699272403

C.V. Digital Capsules Ltd. Digital capsules to transform education

Institution: CSO. Teach 4 All Mexico AC.

Level and scope: Secondary – Urban/Rural

Country: Mexico

Topic: Strengthening socio-emotional and/or digital skills

Summary

C.V. Digital Capsules Ltd. is a virtual pharmacy located on YouTube and operated by Proyecto Nuevo Maestro that offers a series of dynamic, different and interactive capsules to explain different pedagogical, analog and digital tools, useful for improving distance learning environments. The Digital Capsules are organized into 2 seasons. The first one, focused on strengthening the use of digital tools in educational spaces, among which: Canva, Classroom, Mind Maps, Padlet, Jamboard, Mentimeter, Book Creator, Zoom, Kahoot, Duolingo for schools, among others. On the other hand, the second season capsules focused on 3 different categories: socio-emotional skills (self-awareness, self-regulation, growth mindset and self-care), literacy mediation, (opening literacy, guided literacy, independent literacy, creative writing and word generator), and learning through play (orientation games, sociodramatic games, verification games and symbolic games).

Do you want to know more?

https://www.youtube.com/playlist?list=PLGnfo4dZ53cVfCpRxUdYUHOtiU6CfB1dk
https://www.proyectonuevomaestro.org/remediosdigitales

STEM Camps

Institution: CSO. IEEE Ecuador Section

Level and scope: Secondary – Urban/Rural

Country: Ecuador

Topic: Strengthening socio-emotional and/or digital skills

Summary

Ecuador's STEM Camps project aims to increase interest and knowledge in science, technology, engineering and mathematics in children and adolescents. To do so, recreational science workshops were implemented for children from 8 to 15 years old, in Ecuadorian communities. The workshops offer introductory content for girls and boys who are new to STEM activities, as well as to those who were curious to learn more about engineering. Recreational science workshops were designed to be implemented in 20 hours distributed in 5 sessions. During the camps, participants received training in robotics, programming, energy, internet safety, video games, etc. Boys and girls participated in practical activities that allowed them to understand the themes and topics taught. Camp participants made technical visits to major companies and engineering projects, for example, wind farms, factories and university laboratories. Participants also had the opportunity to discover not just what's happening today, but what's to come tomorrow, through conversations with prominent guest speakers. Participants had the opportunity to interact with science and engineering professionals through a mentoring program, where professional volunteers answered questions and inspired camp participants.

Do you want to know more?

https://site.ieee.org/ecuador/camps/

O-lab: inclusive, adapted and digital education with no barriers

Institution: CSO. The Origin Foundation

Level and scope: Secondary – Rural

Country: Colombia

Topic: Strengthening socio-emotional and/or digital skills

Summary

The project aims to provide access and accompaniment to indigenous and migrant children and youth, maintaining a main focus on children with physical and psychological disabilities, who live in the department of La Guajira, to personalized courses to develop 21st century and socio-emotional skills in English. Basic, STEAM, and Basic Sign Language for educators, parents, and students with and without disabilities, through O-lab. The work is distinguished by an ethnic, innovative, inclusive and differential approach, using O-lab, the offline education/training platform, which allows beneficiaries to improve their academic performance, stimulate their learning, develop socio-emotional, entrepreneurial and 21st century skills. In addition, we believe that quality education reduces vulnerable families' difficulties and helps them, together with rural teachers and community leaders, to deal with the problems of children with disabilities, who often do not receive support from public institutions.

Do you want to know more?

https://o-lab.app/
https://www.originlearningfund.org/es/inicio/
https://www.youtube.com/watch?v=P5h6WVkquH8

Disruptive Education for a Nation

Institution: CETI Guatemala Project

Level and scope: Secondary-Urban-Rural

Country: Guatemala

Topic: Strengthening socio-emotional and/or digital skills

Summary

This practice seeks to change the educational approach, providing disruptive technological training, with inclusion and cultural relevance. Many young people full of goals and dreams participate. They are supported in a short time to improve their life quality. The work team is small and very passionate about what it does. Along these years, there have been struggles, limitations and obstacles to give the project continuity. However, these have been used to improve its projection.

Do you want to know more?

https://www.proyectoceti.edu.gt/
https://youtu.be/QZcR-zMQ7Zo

Tetno-Pepit@s – Technology in building Computational Thinking

Institution: San Juan Bosco School - Headquarters

Level and scope: Primary – Rural

Country: Colombia

Topic: Strengthening socio-emotional and/or digital skills

Summary

This practice presents an introduction to Computational Thinking (PC) within the framework of the "Programming for boys and girls" project. It also presents the conservation line of the "Saving the charapas" subproject, which consists of building an artificial simulator with temperature sensors, humidity, lighting and environment with Artificial Intelligence, using programmable processors for the incubation of charapa eggs. Charapas are small Amazon turtles.

Do you want to know more?

https://youtu.be/k5BpaY4NG5A

IdeoDigital

Institution: Kodea Foundation for Technological Inclusion

Level and scope: Primary- Urban – Rural

Country: Chile

Topic: Strengthening socio-emotional and/or digital skills

Summary

IdeoDigital comes up to create the necessary conditions to implement Computer Science (CC) training in the public school system in Chile. It grounds its development on a transfer model that seeks to leave installed capacities, improving relevance to context, scalability and strengthening the educational ecosystem. In addition, it delivers a proposal for curricular integration to develop computational thinking, which implies that they are contents connected to MINEDUC curricular objectives and not elective lessons or that would add contents to programming carried out by teaching teams. The transfer model considers training a team of facilitators belonging to implementing partners. Facilitators receive a training program based on the CODE.org methodology and its Code Studio initiative, adapted to the reality of our country. In addition, they receive content related to digital citizenship and socio-emotional education. This program is implemented by experts from the Kodea team. It is hoped that teaching teams can thus implement innovative learning methodologies in the classroom, integrating developed skills and acquired knowledge, and making it easier for children to develop computational thinking and for schools to strengthen the ability to sustain implementation in time.

Do you want to know more?

http://ideodigital.cl/index.php

Gamification to Promote Reading Comprehension of Texts in English

Institution: Bernardo Valdivieso Millennium Educational Unit

Level and scope: Secondary – Urban

Country: Ecuador

Topic: Strengthening socio-emotional and/or digital skills

Summary

This project was aimed at improving the reading comprehension in English by introducing digital gamification tools. The implementation of this proposal led students to increase their motivation for the English course and specifically for reading-related activities. It was possible to improve English reading comprehension, since students made a greater effort to read correctly, understand the texts in their entirety and retain the information, since they wanted to achieve better results in gamified activities.

Do you want to know more?

https://view.genial.ly/63039cb0fa73f90018b783f7/presentation-copia-presentacion-futuro

Retro-Pedagogy

Institution: IED European Union School

Level and scope: Primary – Urban

Country: Colombia

Topic: Strengthening socio-emotional and/or digital skills

Summary

During 2022 the confinement situation was emotionally affecting families and learning at home. This is why, it was important to strengthen family life, reading, mathematics and science. According to this need, different projects were born in the school that sought to strengthen socio-emotional and digital skills in the educational community. Among them, Los Avatares is a strategy developed to avoid school dropouts by increasing the desire to study by telling stories through digital comics. After an initial implementation process, the work guide became interactive, it was then that two video games El oso math and El oso Leo were designed to improve math learning and bring children closer to their reading and writing classes. Audio stories were narrated every afternoon. These were called Profe Miguel's tale. More than 35 were released. Mi Ciclo App, an application to share the results, was also developed. In 2021, a game called Escape Room: Coronavirus was introduced, a crucial game in motivating students to return to school. I am an astronaut, very down to earth was also created, a book that allows reading children's stories by means of QR codes. Thus, by 2022, a digital device called Microlove was developed where parents accompany their children, improving self-esteem and socio-emotional problems. Finally, there is Artelectric, a painting that transmits electricity, taking care of the environment, and replacing conventional cables, a project that is underway.

Do you want to know more?

https://www.educacionbogota.edu.co/portal_institucional/noticia/el-profe-qr
https://www.educacionbogota.edu.co/portal_institucional/node/7567

PBL (problem-based learning) to promote empathy development among high-school students

Institution: Nicolás Esguerra IED Público School

Level and scope: Secondary- Urban

Country: Colombia

Topic: Strengthening socio-emotional and/or digital skills

Summary

This educational experience seeks to promote empathy towards disability in high school students by working through computer science, physical education and technology subjects. Problem-Based Learning is used as a pedagogical methodology, so that students can develop an artifact that allows them to improve sports practice for someone with a disability in Paralympic sports. Additionally, the empathy part is worked together from case studies, talks and conferences with experts in the field of disability and sport.

Do you want to know more?

https://drive.google.com/file/d/1yZwEm276t6pL5Rl31ucINh9sQtjHKuHS/view?usp=drivesdk

Student Virtual Exchanges

Institution: CSO. The Digital Citizenship Institute

Level and scope: Secondary – Urban

Country: USA

Topic: Strengthening socio-emotional and/or digital skills

Summary

One of the experiences that promote significant learning for students is knowing how people live in other parts of the world and sharing common goals. The school and its students share a cultural exchange over several sessions, through virtual student exchanges. They learn about living conditions and share a common project based on some subject of their curricular program, and the Sustainable Development Goals. They use digital citizenship as a basis for coexistence and learning. The shared final project is the result of turning students into social entrepreneurs, solution generators for a better world and change agents in local, global and digital communities.

Do you want to know more?

https://www.digcitinstitute.com/
https://www.youtube.com/watch?v=hxAdLmXv3FI

Acknowledging My Heritage

Institution: Nuevo Horizonte Rural School

Level and scope: Secondary – Rural

Country: Colombia

Topic: Strengthening socio-emotional and/or digital skills

Summary

Acknowledging my Heritage is a project that is part of valuating and rescuing Historical and Cultural Heritage. Its formulation stems from the problem of low sense of cultural appropriation among the school's educational community, specifically in connection to the ceramic tradition that had its beginnings in this campus facilities. This school research project is located in the students nearby context and invites them to investigate, identify and value elements that constitute their idiosyncrasy. This proposal is thought from the perspective of context estrangement, which makes it possible to observe what has become natural, but through the eyes of a researcher. The main objective is to promote appropriation and cultural identity in students towards heritage cultural and historical assets, through strategies based on the STEAM+H methodology. Such approach nourishes the project, through strategies based on gamification, computational thinking and maker culture. It uses collaborative methodologies inspired by science and engineering, disciplines that make up this approach. Thus, the activities designed in this training exercise aim at developing and strengthening 21st century competencies (Scott, 2015).

Do you want to know more?

https://iercampestrenuevohorizonte.edu.co/reconociendo-mi-patrimonio/
https://www.youtube.com/watch?v=or-aWYqyvvM

Proyectivida

Institution: Porcesito Rural School

Level and scope: Secondary – Urban/Rural

Country: Colombia

Topic: Strengthening socio-emotional and/or digital skills

Summary

It is a significant experience that supports the students' life project, reducing student discouragement through Information and Communication Technologies, being friendly to the environment, and using innovation as a means for students to achieve all their goals. Student discouragement with its antecedents and consequences is fought through the Significant Projective Experience and its relevance is evident given that the main objective is to spark the flame inside each student so that they take advantage of resources in the environment so that such resources become inputs for them to have a clear life project using the STEM methodology, environment conservation, ICT appropriation, innovation, financial education and entrepreneurship, as a motivational tool for each student to achieve their dreams and fulfill all their goals. Additionally, this experience has been developed in a transversal way, including topics in areas such as: artistic education, ethics, entrepreneurship, mathematics, Spanish, English, biology, among others. The topic of inclusion in the significant experience has also been broadly developed, including indigenous population in one of the institutions, as well as LGBTI and deaf people.

Do you want to know more?

https://www.youtube.com/watch?v=hn-Aeu2ccxA
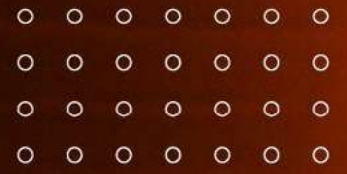
Improvement of learning

Reading and Dreaming with Yachasun

Institution: Cristo Rey Ttikariy School No. 501455

Level and scope: Primary – Rural

Country: Peru

Topic: Improvement of learning

Summary

The innovation project was carried out in the Quispicanchi province, Cusco region - Peru, in school 501455 - Cristo Rey Ttikariy, EIB (Bilingual Intercultural Education) for strengthening. An institution with Quechua mother tongue, it is part of the "Fe y Alegría 44" rural education project network. The project is based on using an application to improve reading comprehension in the mother tongue, that is, Quechua Collao Sureño, and in Spanish as a second language in an entertaining way based on points. The project formulation stems from the students' interests and needs in the app's games. Therefore, a proprietary and entertaining app called "Yachasun" was designed where students carry out readings compiled from their community and in this way value the community's knowledge, customs, traditions, stories, tales and legends. Above all, they revalue the Quechua language. In addition, they themselves are protagonists of their writings which are inserted in the app, as are texts from other sources such as the texts of the Peruvian Ministry of Education and others.

Do you want to know more?

https://play.google.com/store/apps/details?id=com.cappstudios.yachasun&hl=es_PE&gl=US

Arenalina Readings, Mobil App to Foster Reading Comprehension

Institution: Antonio Álvarez de Arenales School

Level and scope: Secondary – Urban

Country: Peru

Topic: Improvement of learning

Summary

Arenalina readings is a mobile resource that helps promote reading and comprehension in VI cycle students (first and second grade) through a weekly reading plan. A mobile application developed at the Institution is used to achieve the purpose. It provides students with weekly texts and their respective evaluation, allowing evaluation of reading comprehension through parameters such as: degree of reading comprehension, comprehension test, reading speed, reading time, evidence of comprehension, etc. The idea is to provide adequate feedback for achieving the competencies in the National Curriculum for Basic Education.

Do you want to know more?

https://play.google.com/store/apps/details?id=com.abel1702.LecturasArenalinas
https://www.facebook.com/mineduperu/videos/2270838963066520

"Contacto" Strategy

Institution: Vasco Núñez de Balboa Educational Institution

Level and scope: Secondary – Rural

Country: Colombia

Topic: Improvement of learning

Summary

The proposal obeys a cross-sectional review of teaching practice in and out of the classroom in relation to inclusive education in different subjects and/or academic areas studied at the Vasco Núñez de Balboa school. In this sense, the "ConTacto" pedagogical strategy has been implemented to improve the learning of students with visual disabilities in the Vasco Núñez de Balboa Educational Institution in the municipality of Balboa Cauca, as a response to the educational needs of the student population. The institution is located in an area that has been affected by the Colombian armed conflict and the students with whom the strategy is implemented live in a rural area with a high influence of groups of outlaws. Therefore, the strategy also seeks to promote education as the beginning of a necessary social change.

ICT Signs

Institution: Diversified Technical School

Level and scope: Secondary-Urban-Rural

Country: Colombia

Topic: Improvement of learning

Summary

EThis experience seeks a more fluid and direct communication with people with hearing disabilities, since it strengthens communication with signs through videos. The Diversified Technical School of Monterrey Casanare, has 2000 students, from pre-school to eleventh grade- It has some educational limitations, due to the lack of technological tools, especially to strengthen communication with people with hearing disabilities. Through a diagnosis that allowed us to see the non-existence of technological tools for communication with people with hearing disabilities, a proposal was developed since the need is identified throughout the region and we must be prepared to receive them when they get to school. Training is carried out for all the teaching team in the institution. An institutional Wi-Fi network, with computers and video beam for each teacher were generated. This has allowed us to communicate with people with hearing disabilities and there was a great acceptance among students to creating videos by themselves.

Do you want to know more?

https://youtu.be/k-8wRMqWn2A

Let's go to the cinema!

Institution: Lácides Iriarte Teacher School

Level and scope: Secondary – Urban/Rural

Country: Colombia

Topic: Improvement of learning

Summary

The experience has been developed in grades 9, 10, 11 and in Complementary Training. The following are activities carried out: Presentation of pedagogical activity to students and parents; Selection of movie scenes or reading texts that are easy to represent; Writing the script (Spanish and English); organization of groups, selection of a director or director, democratic distribution of characters; Recognition of vocabulary and expressions; Group and individual pronunciation practice; Publication of scene, audio and script on Youtube, Facebook page and group; Pronunciation sending (bluetooth); Text memorization; Video editing workshops (Technology teachers); Filming and editing scenes; Presentation of final videos; Collective evaluation (rubric). Publication of works. Projection of films in parks, squares, neighborhoods, rural areas, marginalized, indigenous and island communities; Donation of school kits, books, hammocks, cattail mats, food, footwear, wheelchairs and toys to the village and indigenous children of the Sierra Nevada de Santa Marta; Health brigades and recreational activities; Christmas breakfasts and finally, construction of homes for vulnerable families.

Do you want to know more?

https://www.facebook.com/Letsgotocinema.sahagun
https://www.youtube.com/watch?v=8JiL6CHRRBM&t=35s

STEM Instruction Framework Training

Institution: CSO. STEM Movement

Level and scope: Primary – Urban/Rural

Country: Mexico

Topic: Improvement of learning

Summary

The STEM Instructional Framework course is a theoretical-methodological training on STEM education. It facilitates appropriation by the teaching team of the skills and knowledge to develop STEM skills in students: critical thinking, problem solving, creativity, communication, data literacy, digital literacy and Computer Science, as well as socio-emotional skills, integrated to disciplinary knowledge among students. This is essential to face the fourth industrial-technological revolution and solve the 2030 Agenda. It aligns participating people to the STEM Methodology Implementation Competence Standard, to evaluate and certify their mastery of this approach. Course Stages: - Introduction; modules: STEM as an opportunity for social development and equity, design of a STEM program with a focus on women, team building, focused research, solution design, prototyping, testing, review of results and finalizing the solutions. Project Application: sessions to materialize the steps learned in a didactic sequence and finally, a project fair. Agency skills are acquired experientially with a social, inclusive and innovative vision. In daily practice, classes become an egalitarian space, with cognitive, interdisciplinary challenges that integrate technology. They are linked to the professional world, and publicly open up learning to promote individual development.

Do you want to know more?

https://www.movimientostem.org/capacitacion-stem/
https://www.youtube.com/watch?v=flLgDjXIXz8

STEM Community Gardens

Institution: San Francisco Municipal Montessori School

Level and scope: Secondary – Rural

Country: Colombia

Topic: Improvement of learning

Summary

As a result of the health crisis caused by COVID-19, a problem was detected: the impact on food security of the educational community. To respond to this, work at school was articulated with parents' empirical knowledge and students who wants to understand their reality and help transform it. The foregoing was achieved through the implementation of STEM community gardens. These orchards have the objective of contributing to the food security of the families in the Montessori Municipal School based in San Francisco., the proposal was divided into three phases to meet the central objective:

1) IMMERSION: where two activities are carried out, background reading and field trip to determine that there is a real problem. 2) TRANSFER: phase focused on the creation of community gardens based on STEM challenges, through 4 steps: i) design: where the student together with his parents plans the best planting strategy and the type of plant species to cultivate, ii) prototype: space where planting is carried out (iii) test: space where the plant species is obtained, shared and marketed, to give way to step iv) evaluation: where an analysis of what is obtained is made to restart the step cycle. Once these four steps of the second phase have been completed, phase 3) COMMUNICATION, focuses on the development of oral and written communication skills.

Do you want to know more?

https://youtu.be/k5BpaY4NG5A

Strengthening High-School Completion Project

Institution: Monserrat Public School

Level and scope: Secondary – Urban

Country: Argentina

Topic: Improvement of learning

COLEGIO NACIONAL DE
MONSERRAT

Summary

The project consists of reestablishing links with students who fail in courses in order to design support strategies so that they can achieve the completion of secondary school. The strategies are aimed at accompanying and monitoring the student body in a more personalized way so that they acquire the necessary knowledge to succeed in those courses. The project is carried out remotely through the Moodle platform. Specifically, it tries to enable virtual classrooms so that non-graduate students can find study material, carry out self-correcting exercises and also a place where they can ask questions to the teaching team involved. To this end, virtual classroom design includes a consultation forum, a chat and the corresponding tabs for each thematic unit in which the teaching team will use different resources to explain and promote practice of contents. The teaching team, together with the Secretary for Student and Institutional Relations, guides non-graduate students in preparing for their final exams.

STEM Learning Environment with an Inclusive Approach
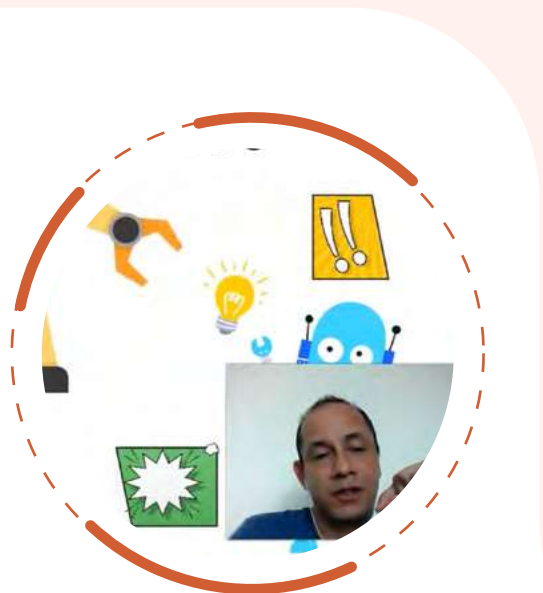
Institution: Luis Fernando Caicedo School

Level and scope: Secondary – Urban

Country: Colombia

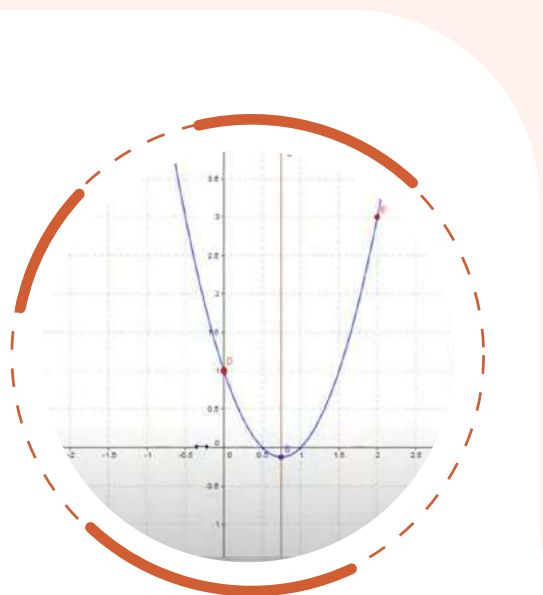**Topic:** Improvement of learning

Summary

The STEM Learning Environment is understood as a space where students develop an active, contextualized and significant learning experience through participation, collaborative work, problem solving, integration of areas, creativity, autonomy, among others; achieving competencies and abilities of the 21st century and for life. The inclusive and participatory nature of the various educational actors in this learning space allows generating dynamic, flexible, and inclusive processes where the possibility of building knowledge among peers, closing gaps, having a gender approach and a healthy school coexistence based on the recognition of differences. The high degree of knowledge, motivation and sense of belonging that the STEM educational approach generates among students allows for changes in their teaching and learning process through integrated projects that solve typical problems in their daily lives. Consequently, since 2020, the STEM approach, educational robotics, the maker culture and project-based learning as a teaching strategy have been ways to improve educational processes at school, through dialogue between peers in the search for a new way to transform learning,

Do you want to know more?

https://youtu.be/YAw9VlbQRpA

M learning modality on Mathematics

Institution: Mariano Suárez Veintimilla

Level and scope: Secondary – Urban

Country: Ecuador

Topic: Improvement of learning

Summary

The teaching of Mathematics through M Learning (Mobile Learning) is an important proposal that allowed educational continuity during the COVID 19 pandemic. Through this modality, students are able to receive the necessary information for their process of developing skills and competencies that are already within reach of mobile phones at a higher degree than that in computers. Through the M Learning modality, synchronous and asynchronous communications are made possible for the teaching-learning process. In this way, spatial barriers are eliminated while maintaining the students' health and safety. In Mathematics Education, technological tools are required to visualize data from different approaches, in order to be better understood by students. Current needs invite to materialize mathematical elements from easy-to-understand programs such as GeoGebra. This program allows the improvement of learning and development of mathematical skills in students. This is why, it has been implemented in Basic General Education at the Mariano Suárez Veintimilla School of Ecuador, in the M Learning modality during the 2021 - 2022 school year.

Do you want to know more?

https://www.youtube.com/channel/UCiPowwgsZ3SK_AQTi2wuShw/videos
https://www.youtube.com/watch?v=M246e15PRLM

Emerging Hybrid Education Model

Institution: CSO. Research Institute for the Development of Education A.C.

Level and scope: Primary – Rural

Country: Mexico

Topic: Improvement of learning

Summary

The main characteristics of the Emerging Hybrid Education Model are its adaptation to different scenarios that may arise during the following school cycles in accordance with health contingencies, and can be in person, mixed or hybrid, and remotely. Another of its characteristics is that it is an emerging intervention, which aims to address the gap in educational lag that has been generated by the closure of schools and the difficulty for teachers to be in contact with their students on an ongoing basis. It maintains a practical approach that the teaching team can immediately apply, as well as the pedagogical criteria necessary to create effective learning experiences. The project is developed through the following stages: 1) REMEDIAL. Application of the Independent Learning Measurement Model (MIA). The purpose of this phase is to ensure that students achieve basic learning in Reading Comprehension and Mathematics. 2) PREPARATION: In this phase students are led to acquire specific learning (micro-skills) that can be achieved through exercise as a basis for such acquisition. 3) DEVELOPMENT OF COMPETENCES: In the third phase, various situations are used to integrate learning from previous stages and achieve development of expected competences that will lead to achieving the standards set by Kanik.

"Qantu – Open Classroom "

Institution: CSO. Fe y Alegría Rural Education Project 44

Level and scope: Primary – Urban/Rural

Country: Peru

Topic: Improvement of learning

Summary

Collegiate work was carried out at School 23, part of the network of the rural education project "Fe y Alegría 44", within the framework of the Qantu - Aula abierta project. It was based on applying and developing four interconnected strategies: First, formulation of learning projects based on students' interests; Second, keeping self-study notebooks to implement learning projects; Third, technological support based on broadcasting learning experiences through the radio, as well as delivery and use of a tablet per family; Fourth, personalized accompaniment of students by the teaching team. Basic education in Peru is organized into initial, primary and secondary levels and in 7 study cycles. This led the 153 teachers in the network to become organized by cycles, making up working groups to develop projects with their respective experiences, with learning and self-study sheets that were part of the self-study notebooks called "Qantuchay", in Quechua and Spanish. Additionally, the learning experiences were recorded by the teaching team in audios of 13 to 15 minutes, to be broadcast in the "Aula abierta" radio program from Monday to Friday during 2020 and 2021, in three local stations, guaranteeing coverage of our Quispicanchi province in the Cusco - Peru region.

Do you want to know more?

https://drive.google.com/drive/folders/1UUF9c5zuP9P-UaF5Y1Nno0XzFbspBY6h?usp=sharing
https://www.youtube.com/watch?v=8Q8mi6TWMaQ

School trajectories

Innovation and Breakthroughs for Distance Education: "Together and Mixed"

Institution: Mauricio Rodríguez Kelly Elementary School

Level and scope: Primary – Urban

Country: Mexico

Topic: School trajectories

Summary

In this project, planning distributed subjects by teacher (the 2 teachers of groups A and B); Activities were shared virtually on a daily basis in parent groups on WhatsApp, in a private Facebook group, and by posting on the Google Sites website. Due to the contingency, classes continued virtually every day using the Zoom tool. Attention, review and feedback were given through social networks such as WhatsApp. In addition, virtual spaces were created and used. The methodology used is related to the M-Learning modality to support the learning process through the use of mobile devices, such as tablets, smartphones, laptops, among others.

Agroanfibia, an Environmental Project of Nature-Based Solutions for Adaptation to Climate Change in La Mojana

Institution: San Marcos School

Level and scope: Secondary – Urban

Country: Colombia

Topic: School trajectories

Summary

Agroanfibia is a school research group committed to scientific development, as an option to provide nature-based solutions to environmental and agri-food problems in La Mojana. One of those solutions is the design of a mechanical rice seeder that seeks to facilitate the ancestral planting process in the territory. Since, according to the II National Rice Census, 18.2% of the total rice produced in La Mojana is planted with ancestral techniques, it is important to provide alternatives to small farmers in order to contribute to food security and sovereignty in the territory. Likewise, this experience has made it possible to outline an environmental pedagogical proposal, designed in light of the cultural and social imaginary of La Mojana, to develop research skills among students in the region, by exploring and investigating the territory. This proposal has been named Amphibian Pedagogy, by which a methodology for the hicoteas (CRH) -water turtles- reproductive cycle is proposed. The methodology includes a cycle of five phases that is repeated year after year to ensure hicotea sustainability and existence. The proposal seeks to ensure process improvement, in order to get closer to an improved version of the solution or prototype.

Would you like to know more?

https://www.spreaker.com/show/cantos-de-divulgacion-cientifica
https://youtu.be/9Ijp3jfyT0M