BHP | Foundation

Promoting learning for the 21st century

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At the BHP Foundation, we work to promote quality learning for all children in Chile, which fosters the skills necessary for the 21st century.

Message from the Director

When the COVID-19 pandemic was just beginning, the great challenges that it would present for education around the world were also beginning to be seen by making visible, deepening and widening the gaps in access to quality education and the skills of the 21st century. It was a challenge that was already present, but that the pandemic made more evident and urgent.

Seeking to respond to these issues, in mid-2020, the BHP Foundation promoted the creation of the Digital Education Network, in which we joined six organisations already addressing these challenges in order to work together. Later, other organisations, institutions and experts from Chile and the world joined the initiative. The idea was to offer a response to the health emergency, providing innovative proposals to secure the continuity of learning in times of online education and to give socio-emotional support to teachers, students and their families, a basic need in view of the adverse psychological scenario caused by lockdowns, and also to include a gender perspective.

But we wanted to go beyond the pandemic, and that is why we proposed contributing to the transformation of education in Chile. We wanted to help make it increasingly inclusive and equitable, and to provide students with the tools that a world in constant transformation and change requires. For this reason, we worked with the Network and we also forged a strategic alliance with Fundación Kodea, a foundation, to create IdeoDigital, a five-year public-private alliance which, with the support of the Ministry of Education and other organisations, aims to transform the future of Chilean education by promoting the teaching of computer science, artificial intelligence and other concepts of the fifth industrial revolution. The goal is to equip students with the necessary skills to enhance their capabilities in a highly digitised society.

This document summarises what has been done so far. It is also an invitation for new voices, new perspectives, and new actors to join this exciting collaborative and multidisciplinary path towards better education in Chile. A path in which education on sustainability cannot be absent either. And where, from a public-private alliance, we can help improve the future prospects of thousands of children from all over the country.

Alejandra Garcés
Chile Program
BHP Foundation

Education: a global challenge

Education is a central theme of the BHP Foundation's work in the more than 40 countries in which it is present. Through its Education Equity Global Program, it seeks to harness the potential of the most disadvantaged children and young people by collaborating with projects and initiatives that enable equitable access to quality education and learning. We are convinced that it is the only possible way to provide young people with the tools to be more and better prepared for the 21st century.

Inequality and disadvantage are the most important challenge faced by education all over the world. Despite global progress, it is estimated that more than 250 million children remain out of school today and that hundreds of millions more are not learning when they are in school. The COVID-19 pandemic over the last two years has only made things worse. As a society, we lose when someone gets left behind: with the necessary skills, many of those children and young people could address future global challenges.

In this mission, the Foundation's Global Programs are complemented by Country Programs in Australia, Canada, the United States and Chile. In the case of Chile, the focus is on supporting the education of the most disadvantaged children and young people and strengthening their participation in society.

The Chile Program has four focus points:

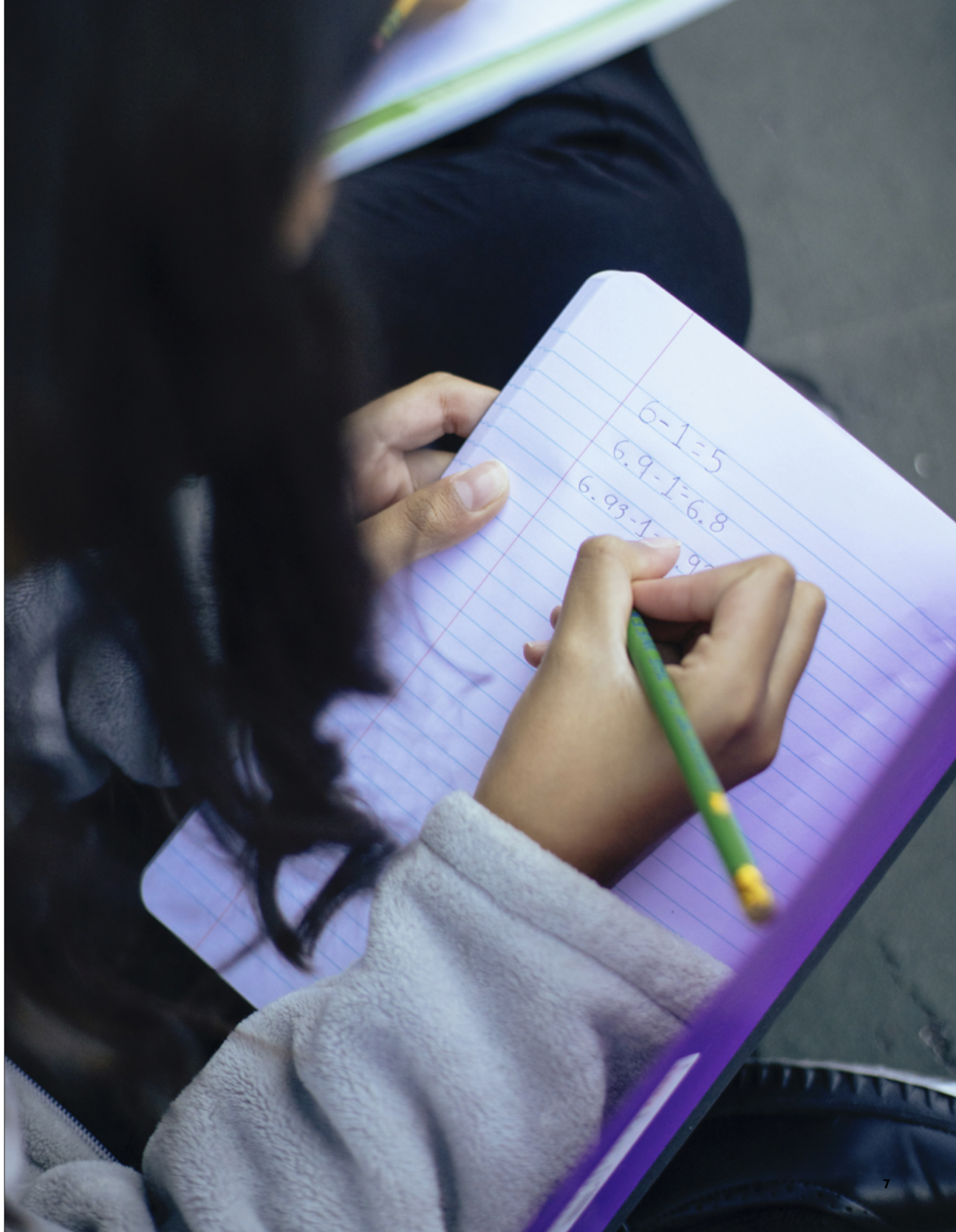
Our program's focus points

Identify new and more effective ways to improve learning and provide evidence to policymakers.

Support innovations that can be scaled, focused on improving the quality of education, as well as equity and participation in the education system.

Promote programs that aim to improve learning processes in education systems, including research.

Empower leaders with global evidence.



What we are doing in Chile

Our Country Program's work in education has been developed during the height of the pandemic and aims to address two issues: ensuring the continuity of learning – which has been put a risk by inequitable access to remote learning – and working to transform the future of Chilean education by promoting quality through paradigm shifts and new approaches.

Through alliances with different institutions, it seeks to promote concrete actions on the ground or in the field of public influence, along with generating evidence and experience. The objective is for this material to influence public policy making, incorporating essential skills and knowledge so that students can fully participate in the context of the Information Age society.

In pursuit of these goals, the Foundation coordinated two initiatives:

- **Digital Education Network.** Set up in June 2020 as a response to the education crisis worsened by the pandemic, this initiative brings together six institutions to jointly work to address the educational challenge from different perspectives: school management and teacher leadership, innovation and technology, training of the educational community, gender equity and socio-emotional support for students, parents, and educators.

- **IdeoDigital.** In a strategic alliance with a foundation, Fundación Kodea, this project seeks to create the necessary conditions to implement computer science courses in Chile's public school system so that thousands of children and young people become protagonists of the digital society of the 21st century.

Our vision is to work to promote learning for the 21st century, seeking to improve equal access to opportunities for children and young people in Chile's primary and secondary education system in public and state-subsidised establishments.

+ 2,500,000 Beneficiaries of the Digital Education Network

+ $6.7 million Invested in IdeoDigital to promote computer science

+ $1.6 million Invested in the Digital Education Network's projects

+ 900 Free education resources

+ 220 Mentions in the media

The Network

The pandemic has challenged people in virtually every area of life, and education is no exception. The BHP Foundation created the Digital Education Network (Network) as a response to the health emergency, helping to ensure the continuity of learning, and to work to transform education in Chile. The Network is a collaborative space comprised of six organisations: Aprendo en Casa (through Fundación Reimagina and Harvard University's Regional Office in Chile), ComunidadMujer, Enseña Chile, Fundación Chile, Fundación Kodea and the Adolfo Ibáñez University's School of Psychology. The Network promotes technology and innovation as essential educational tools. It also addresses the development of socio-emotional skills and includes a gender perspective in each project.

Since its foundation, the Network has collaboratively promoted a positioning plan that aims not only to raise awareness of the joint work, but also to help install the problems and solutions raised in the public debate, by disseminating the activities carried out, both in the media as well as in social networks and corporate communication spaces.

In parallel, the leaders of the participating institutions meet regularly in working groups to discuss joint challenges and how to address them. In addition, the latest education-related trends are presented. On occasion, international guests participate. Among highlights, in December 2020, Stephen Fraser, Deputy Executive Director of the Education Endowment Foundation (EEF), spoke about the educational gaps that the pandemic will leave and, in July 2021, David Bott, Director of the Positive Education Schools Association and co-author of the book "10 Things Schools get Wrong (And how we can get them right)", gave an inspiring presentation on positive psychology applied to education.

Members of the Network

Collaborators

Fundación Reimagina, a foundation, in alliance with Harvard University's Regional Office in Chile

Project: Aprendoencasa.org

Collaborative online platform made up of an ecosystem of 70 organisations from seven countries, which offers more than 540 free learning resources to more than 450,000 users. Together with the BHP Foundation and the Regional Office in Chile of Harvard University's David Rockefeller Center for Latin American Studies, this year it developed the Learning Laboratory, which offers free seminars, workshops and other activities for school communities focused on teachers and managers; 70% of them from public schools. The speakers at these events have had an important media impact owing to their contributions on the need to see the pandemic as an opportunity to generate positive changes in the educational system.

Aprendoencasa.org

ComunidadMujer

Project: Education, Gender and Co-Responsibility

This organisation promotes women's rights and contributes to the discussion on public and business policies that encourage increased gender equality. In the context of the Digital Education Network, initiatives include workshops with schools on gender bias in education and the publication of reports on the economic value of unpaid work, with significant media coverage. In addition, the viral campaign #Deduscrespus on the extra burden of caregiving and domestic work on women, harming their educational and economic achievements, has been a success. Between its launch in May and the end of November, the campaign received more than 60,000 views on You Tube, more than 160,000 on Twitter, more than 200,000 on Instagram, 62,000 on Facebook and 27,000 on LinkedIn, considering only the organisation's networks.

ComunidadMujer.cl

Enseña Chile

Project: Schools that Learn/Teaching Channels

Its objective is to create a network of leaders to help transform education in Chile. With the BHP Foundation, it implemented the "Schools that Learn" project, offering tools to teachers and school management to help them better manage talent. During the 2020-2021 period, this program impacted more than 13,000 students. In addition, in full lockdown, it promoted Radio Enseña, a radio program that took education to places where access to online education was more difficult. The project has now expanded to Canales Enseña (Teaching Channels), an open access multimedia platform that offers online classes, podcasts and a bot that supports learning through WhatsApp. By mid-year, more than 790 users had registered. The bot has a monthly capacity of 500 students and fills its quota every month.

EnsenaChile.cl

Fundación Chile

Project: Learn (to) Be

This foundation works with an approach to sustainability and the education skills of the future that promotes innovation. In 2020, it developed an educational television program on the skills needed in the 21st century which was later made available on its website. In 2021, it created a series of worksheets for teachers to use the program as support material in their classes. The foundation also provides other educational content free of charge. Every year, there are more than 10,000 downloads of educational material from its portal EducarChile.

FCh.cl

Fundación Kodea

Project: Edu[K] Platform/Los Creadores Digital Talent Prize

This foundation promotes talent for the digital world and works on several projects with the BHP Foundation in Chile. In the context of the Digital Education Network, it developed the Edu[K] platform, with 360 subscribed teachers, which offers videos, worksheets and other materials to reinforce IT concepts. In particular, its TV Edu[K] program, which has run for five seasons, has reached more than 100,000 children between the ages of 4 and 12. Kodea also awards the annual Los Creadores Digital Talent Prize, which recognises students whose projects seek innovative solutions to complex challenges. In 2020, 827 people participated in the event (including schoolchildren and tutors), of whom 63% were female, representing an increase of 15% compared to 2019.

Kodea.org

Adolfo Ibáñez University, School of Psychology

Project: Learning and Taking Care (of ourselves) in Community

More than 200 people - in Santiago, Coquimbo and Antofagasta – took the free diploma for community agents (teachers and social leaders) given by this university, with the support of the Minera Escondida Foundation, as part of the Learning and Taking Care (of Ourselves) in Community program. The course provided tools to support students and their families in times of stress and anxiety and included workshops on psychological first aid and leadership, among others. In parallel, 68 schools in the Coquimbo Region are participating in the "Emotional Wellbeing Network", reaching 1,820 teachers, 1,750 education assistants, 17,650 students and approximately 13,700 families. In addition, 1,800 people participated in workshops on psychological and self-care first aid, therapeutic clowns, and parental burn out.

Psicología.uai.cl

“I want children to fall in love with computing so that I can awaken creativity in them through the use of technology,” says educator Claudia Mañao, who teaches at a primary school on the island of Tenglo, four kilometres from Puerto Montt. In the midst of the pandemic, she trained with the courses available on the Edu[K] platform, managed by the Fundación Kodea. “It opened up a new world for me that I want to teach,” she adds.

Cristóbal Rojas Basso is a user of the Aprendoencasa platform, where he finds many resources and inspiration for his classes. In 2020, he received the Global Teacher Prize Chile, organised by Choose Educar, in the Best Music Teacher category, thanks to his work as a conductor of the Sonidos de Luz Orchestra, made up of musicians who are blind or have poor eyesight. In 2021, he was selected among the 50 finalists for this award globally.

For primary school teacher, Dominique Cofré, the Schools that Learn program developed by Enseña Chile, was key to “learning to systematise processes” and better face the challenges that the pandemic brought to the school where she works in Nueva Imperial in the Araucanía Region. “They helped us establish a culture of constant learning, and that results in a better education,” she adds.

At the height of the pandemic, Eduardo Medel (a biology teacher) found in the television program Aprender (A) Ser (Learn (to) Be), developed by Fundación Chile, a game-oriented and entertaining way to support his child’s education in the difficult times of online classes. “It has been important as a complement to school education and has increased his interest in science,” he said at the time.

In 2020, Valentina Valls and Camila Fuentes, students of the Antonio Hermida de Fabres secondary school in Santiago’s Peñalolén municipal district, began working on a project that made them finalists in the Los Creadores School Talent Prize, organised by the Fundación Kodea, which had a high female participation. Their project comprised the development of a system that would allow water to be “created” from mud.

Patricio Angel, a choreographer and professional dancer who founded a dance school in Mejillones, and teaches at the Armando Carreras arts secondary school in Antofagasta, is one of the 200 graduates of the diploma in Community Agents Training, offered by the Adolfo Ibáñez University’s School of Psychology. “I am always seeking to connect with others with a message of hope. I am the person on the front line delivering an encouraging, supportive or uplifting word,” he says.

IdeoDigital: Taking computer science to the classroom

The transformation of the world by technology has changed the skills needed by students to contribute to society. Today it is essential for them to have the opportunity to learn about algorithms, developing apps and how the Internet works.

OECD studies confirm that computer science classes teach children to understand, in a systematic way, how technology works, its potential, and the ethical dilemmas posed by the digital world. These science subjects cover topics such as problem analysis, programming and algorithms, data storage structures, computer architecture, networking, cybersecurity, robotics, artificial intelligence, and machine learning.

In this context, IdeoDigital was established, a strategic alliance between the Fundación Kodea and the BHP Foundation. Starting activities in January 2021, the project has a national scope and seeks to promote the teaching of computer science in Chile's public school system, with the aim of better preparing students for the digital world of the 21st century and fostering a more inclusive and equitable education by 2025.

The five-year project will require investment of $6.7 million. The objective is to reach a thousand schools, 850 teachers and more than 150,000 students, as well as influencing public policy decisions to make these contents part of the national curriculum.

To develop this program, course content will be created for Years 1 to 4 in primary schools, based on the content developed by the US NGO Code.org, an institution that collaborates with this project. The content will be available free of charge. In parallel, hundreds of teachers will receive training and support.

The project was officially launched in August 2021 through the Emol TV digital platform, reaching 87,693 people. The initiative was later presented in a webinar organised together with Code.org, the Ministry of Education's Centre for Improvement, Experimentation and Pedagogical Research (CPEIP) and the Fundación Educacional Seminarium, an educational foundation, in which Pat Yongpradit, chief academic officer of Code.org, spoke about the role of computer science in the Chilean educational context. A total of 300 registered and 221 connected to the event. Finally, Mónica Retamal, executive director of the Fundación Kodea, presented the project in November 2021 during the Global Conference on computer science education in schools, CSEdCon 2021, organised by Code.org in Los Angeles, US.

During its first year, IdeoDigital has carried out various initiatives, including highlights such as Train the Trainers, which involved training a total of 39 facilitators to work in schools, and the implementation of pilot projects in the Metropolitan Region and the San Nicolás municipal district in Ñuble Region. A total of 38 teachers from 23 schools took part in the latter, including a training bootcamp with a participation of 83%.

In parallel, alliances were sought with the private sector to subsidise the participation of schools in the project. Microsoft collaborated in the Ñuble Region and the Pacific Mining Company in the Coquimbo Region.

Ideodigital.cl

Coming up

During the second half of 2021, leaders of the main civil society institutions that work in the field of education in Chile, academics and public sector representatives worked together with the Adolfo Ibáñez University's Centre for Philanthropy and Social Investments (CEFIS) in the creation of a Theory of Change that permits the elaboration of a roadmap for the coming years, with an emphasis on public education.

The objective is to collaborate with the achievement of the United Nations Sustainable Development Goals (SDGs), initially focusing on two of them: SDG 4, which aims to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all", and SDG 5, which seeks to "achieve gender equality and empower all women and girls".

First, we identified our educational system's priority challenges, whose gaps and weaknesses have been deepened by the pandemic, focusing on effective learning and the education pillars for the 21st century.

This work made it possible to focus the BHP Foundation's education strategy around four goals:

BHP Foundation's education strategy goals

Strengthen the learning of basic disciplines for the 21st century such as mathematics, reading comprehension, computer science, sustainability, and citizenship.

Expand the use of technology to enhance learning inside and outside the classroom.

Promote teaching innovation aimed at the development of critical thinking, collaboration and interdisciplinarity, and the active use of technologies.

Foster socio-emotional skills in teaching, aimed at active learning and encouraging student motivation.

Finally, this collaborative work led to the identification of the characteristics of initiatives or projects that align with our Foundation's vision. The focus should be on learning for the 21st century in public or state-subsidised establishments, disadvantaged socioeconomic sectors and establishments located in remote places or with some kind of territorial marginalisation.

We seek:

- Transformational and innovative strategies that back "leapfrog" change (rapid learning or in leaps) and with a focus on skills for the 21st century, in other words, the development of critical thinking, problem solving, communication, collaboration, creativity and innovation, as well as information technology literacy and a digital citizenship.
- Projects that promote collaboration, interdisciplinarity and for the supported initiatives to complement each other. In practice, this will imply shared objectives or results indicators.
- Organisations with experience and whose results are backed by evidence.
- Initiatives that are co-designed with the territories and direct participants and beneficiaries, in which the community takes part in the identification, implementation and impact evaluation of the supported initiatives.
- Projects that have a gender perspective, avoiding bias, and foster the participation of women and girls.
- Proposals that include a clear monitoring and reporting roadmap, including an impact evaluation and final report, and which have pilot programs that can be replicated and/or scaled.
- Projects with potential to generate effective evidence that contributes with facts to the promotion of public policies.
- Proposals that have clear, sustainable economic strategies, including public and private contributions to their funding, which allow them to operate beyond the support of the Foundation.

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