

FOR SCHOOLS WHERE STUDENTS WANT TO BE AND LEARN: Results and Impacts of the Creative Schools Program



Impact Assessment Highlights

MORE CHILDREN ENGAGED

+ 10.4%

engagement

Students are 10.4% more engaged in classes whose teachers state they are part of the Program

IMPROVED LEARNING

↑ 86%

increase in the IDEB score

The Program's Target Schools had an 86% increase in the IDEB score compared to the expected biennial growth, i.e., the Program almost doubled the schools' Basic Education Development Index (*Índice de Desenvolvimento da Educação Básica, IDEB*)

ideb
Índice de
Desenvolvimento
da Educação Básica



REDUCED INEQUALITY

The Program's efforts were predominantly focused on the most vulnerable schools of each partner system

The Program improved Portuguese and Mathematics learning scores in Basic Education Assessment System (*Sistema de Avaliação da Educação Básica, SAEB*). In addition to providing this general performance improvement for partner school systems, the Program also **reduced learning inequality between schools in the system**. Target schools initially presented lower learning results: 8.4 points lower in Mathematics at the SAEB score for Elementary and 20.9 lower for Middle School.

PARTICIPATING IN THE PROGRAM HAD AN EFFECT OF ADDING POINTS TO THE EXPECTED BIENNIAL SAEB SCORE:

+ 3.3 POINTS for the Elementary and Middle School Years in Portuguese

+ 2.6 POINTS for the Elementary School Years in Mathematics

+ 5.4 POINTS for the Middle School Years in Mathematics



“Seeing the student as the protagonist brings to light what these students are capable of. People think that public school students are incapable, but Creative Schools shows what students from rural areas can do!”

EMPLOYEE FROM THE EDUCATION DEPARTMENT OF MATA DE SÃO JOÃO, BAHIA

ABOUT THE PROGRAM

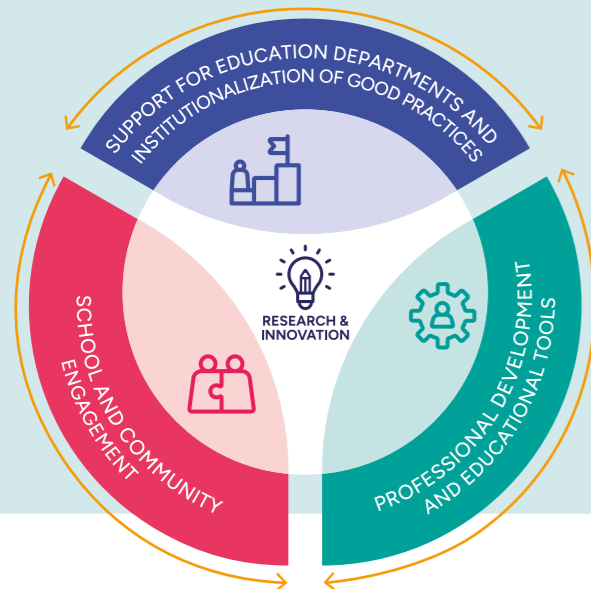
Get to know the Creative Schools Program

The Creative Schools Program was designed to support Education Departments in transforming public schools into more playful, hands-on, and thought-provoking places. Partnering with public managers, school leaders, and teachers, the Program seeks to map, motivate, and promote diverse and innovative ways of teaching and learning.

With this purpose in mind, Creative Learning is the educational approach that encourages exploratory, investigative, and playful learning experiences while promoting creative thinking, curiosity, and students' inventive spirit.

Pillars of action

The Creative Schools Program establishes partnerships with Education Departments to build the structures needed for systemic transformation, focusing on professional development while engaging and involving the school community.



THE PROGRAM IS BASED ON THREE PILLARS:

- 1 Support the creation of sustainable public policies and guidelines based on consolidating good practices and evidence.
- 2 Training for educators, managers, and PD professionals, promoting experimentation, exchanges between peers, and educational resources.
- 3 Engaging the school community, creating and promoting communities of practice, local community organizers, and mechanisms to recognize and reward key stakeholders

THE DIMENSIONS OF A CREATIVE SCHOOL

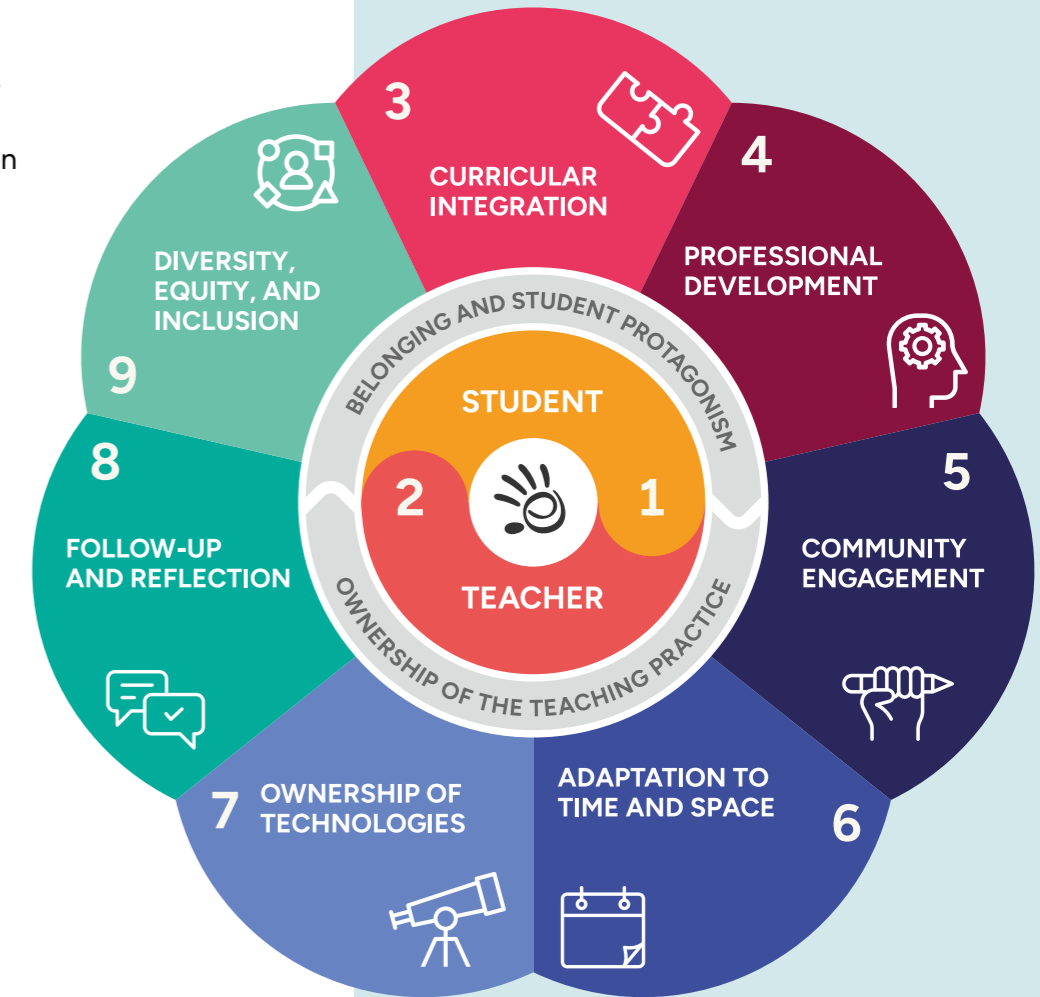
The Program is implemented in schools based on nine dimensions, which promote self-reflection and the planning of action aimed at:



1. The student as the core agent of their learning process



2. Teacher actions that can foster students' curiosity, creativity, socialization, and passion



“

The Program enables contact with programming languages, playing, having fun, smiling, doing an activity the way the student imagines themselves doing it, more lightheartedness! The possibility of allowing autonomy to create, the opportunity to express oneself, and be a child!”

EMPLOYEE FROM THE EDUCATION DEPARTMENT OF VINHEDO, SÃO PAULO



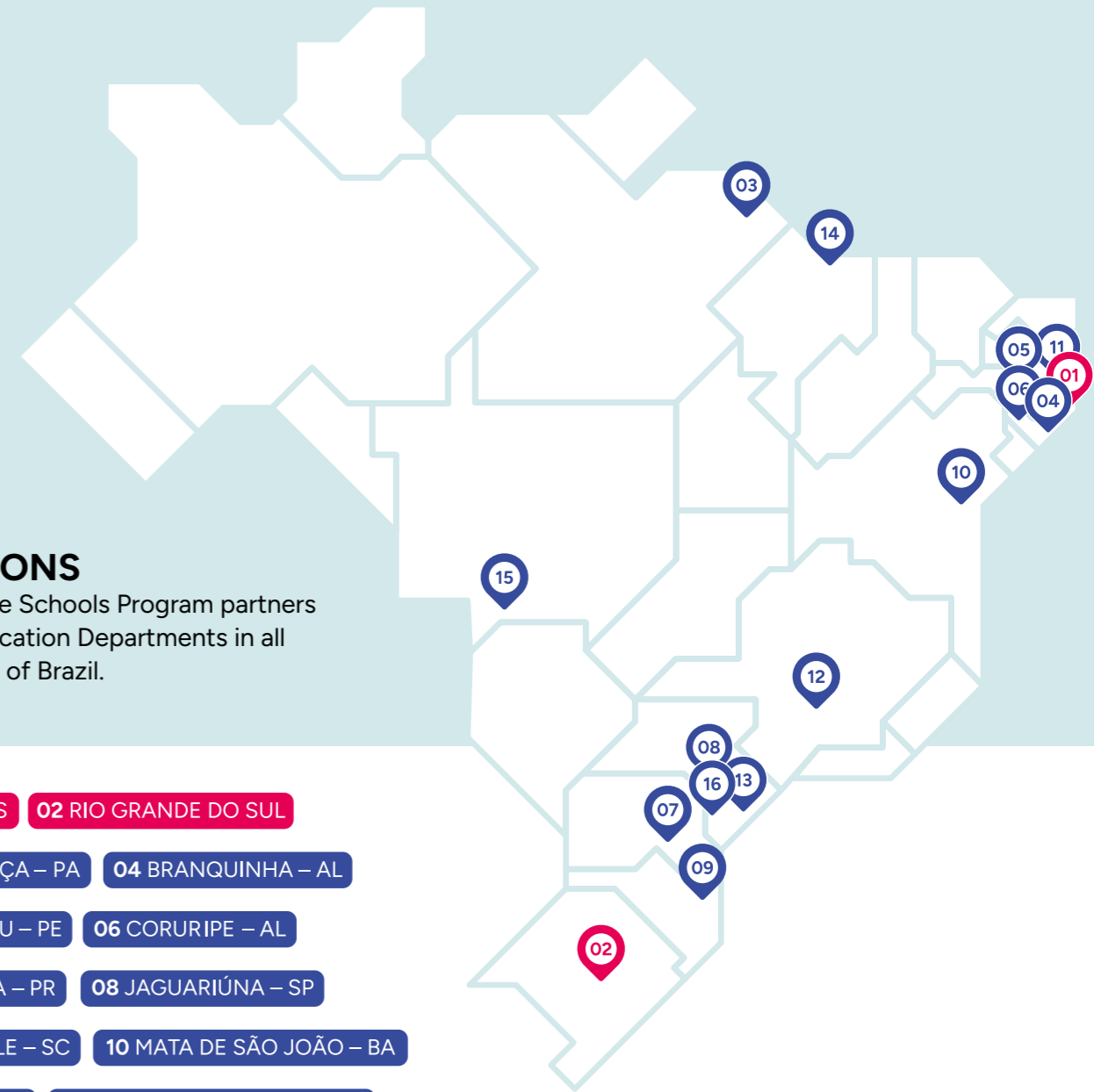
WE REACHED



563,205
students in Elementary
Education





31,537
teachers in Elementary
Education



LOCATIONS

The Creative Schools Program partners with 16 Education Departments in all five regions of Brazil.

- 01 ALAGOAS** **02 RIO GRANDE DO SUL**
- 03 BRAGANÇA – PA** **04 BRANQUINHA – AL**
- 05 CARUARU – PE** **06 CORURIBE – AL**
- 07 CURITIBA – PR** **08 JAGUARIÚNA – SP**
- 09 JOINVILLE – SC** **10 MATA DE SÃO JOÃO – BA**
- 11 RECIFE – PE** **12 RIBEIRÃO DAS NEVES – MG**
- 13 SÃO BERNARDO DO CAMPO – SP** **14 SÃO LUÍS – MA**
- 15 VÁRZEA GRANDE – MT** **16 VINHEDO – SP**

 STATE SCHOOL SYSTEM
 MUNICIPAL SCHOOL SYSTEM

The results and impact assessment

Following good practices to assess program impact, the Creative Schools Program has partnered with Germina, an external evaluator, to assess the Program based on its theory of change and key actors' perception of the effects on its beneficiaries. Because the goal of the Program is to foster changes in schools that have not previously been measured by standard educational indicators, **the following objectives were defined in order to more accurately assess impact:**



Identifying the transformation in teaching practice



Verifying the impacts on student engagement and learning



Understanding which Program mechanisms are reinforcing the identified effects

Target Schools and treatment vs. control groups

The Program intentionally works with a group of schools called Target **Schools**, which is defined by the partner Education Departments and has grown over the years. However, the effect is not limited to these institutions, as even those that are not assigned but are still part of the Program can spontaneously participate in the initiatives open to all schools.

There is an effect on participating and non-participating schools, with both groups being impacted by the Program to a greater or lesser extent.

This spillover effect leads to a biased underestimation of the results

SCHOOLS THAT WERE NOT TARGETED BY THE PROGRAM MIGHT BE IMPACTED IN DIFFERENT WAYS, NAMELY:

- Initiatives developed in the Program that strategically impact the Education Department, e.g., public policies
- Participation in educational campaign, events, awards, and access to Program materials that are provided to all schools in the partner Education Departments
- Teacher transfer between schools



Methodology

Different methodologies were developed to cover each objective for the impact assessment. In the first stages, document analyses and interviews were performed with key actors, resulting in the definition of indicators for each of the four studied constructs: "love to teach", "institutional support", "love to learn", and "school effectiveness".

Next a stratified random assignment strategy was used to define the sample size and profile for the field research, considering both educational and socio-economic indicators. The aim was to ensure that the data was statistically relevant to the universe of the Creative Schools Program and the diversity of partner school systems.

Primary data was collected by administering the questionnaires to 11,762 students from Grades 3 to 9 and 515 Elementary School teachers from 116 schools. The results represent the impact of the Program as a whole, with a margin of error of less than 1%.

An Exploratory and Confirmatory Factor Analysis was used to develop and measure the engagement scale, as it enables quantifying a latent trait based on questions related to students' behaviors and attitudes

toward school and learning.

The engagement scale was combined with a regression analysis to investigate which student and school characteristics impacted the result.

Ordinary least squares regression and multilevel regression models were used to measure the Program's impact on student engagement.

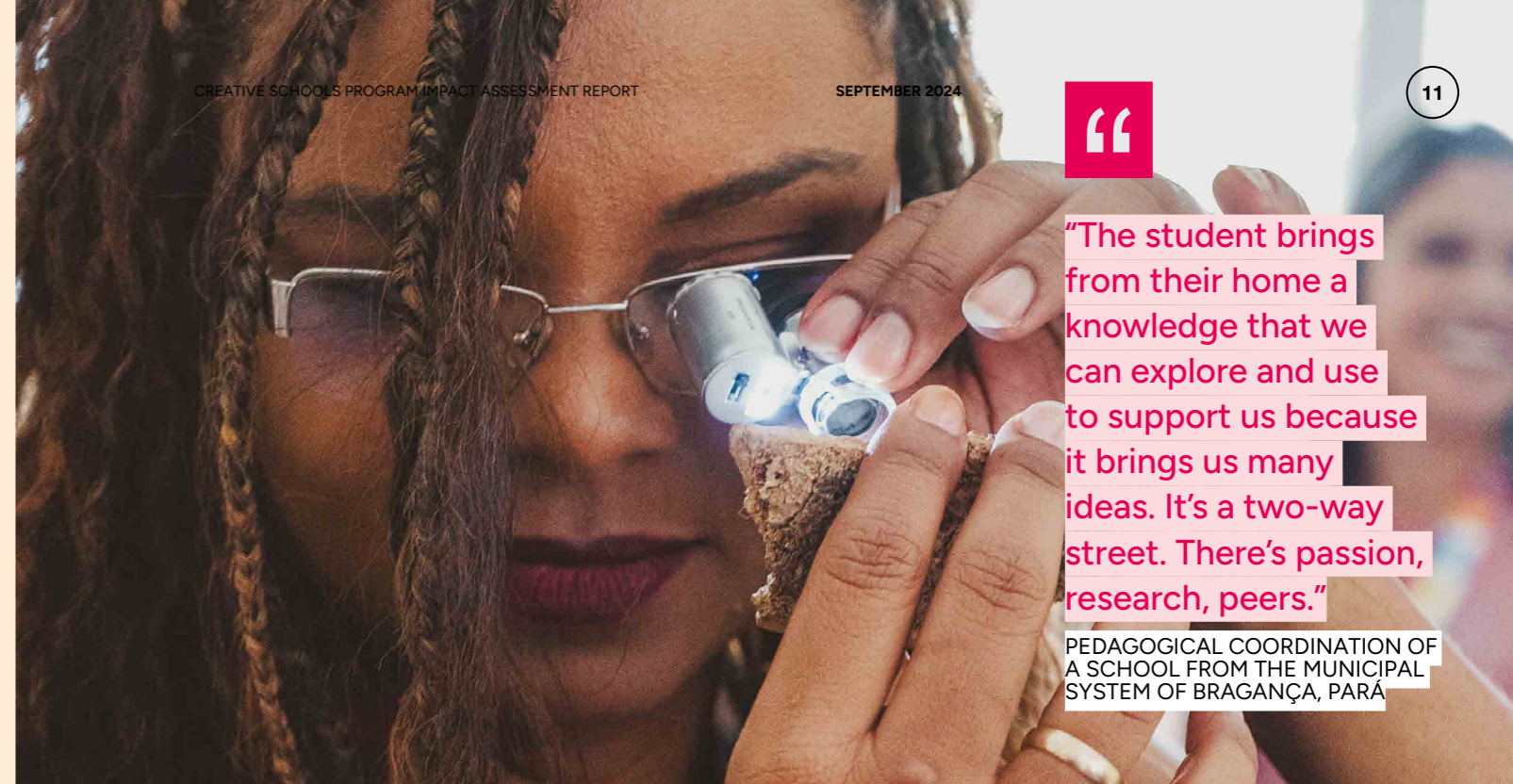
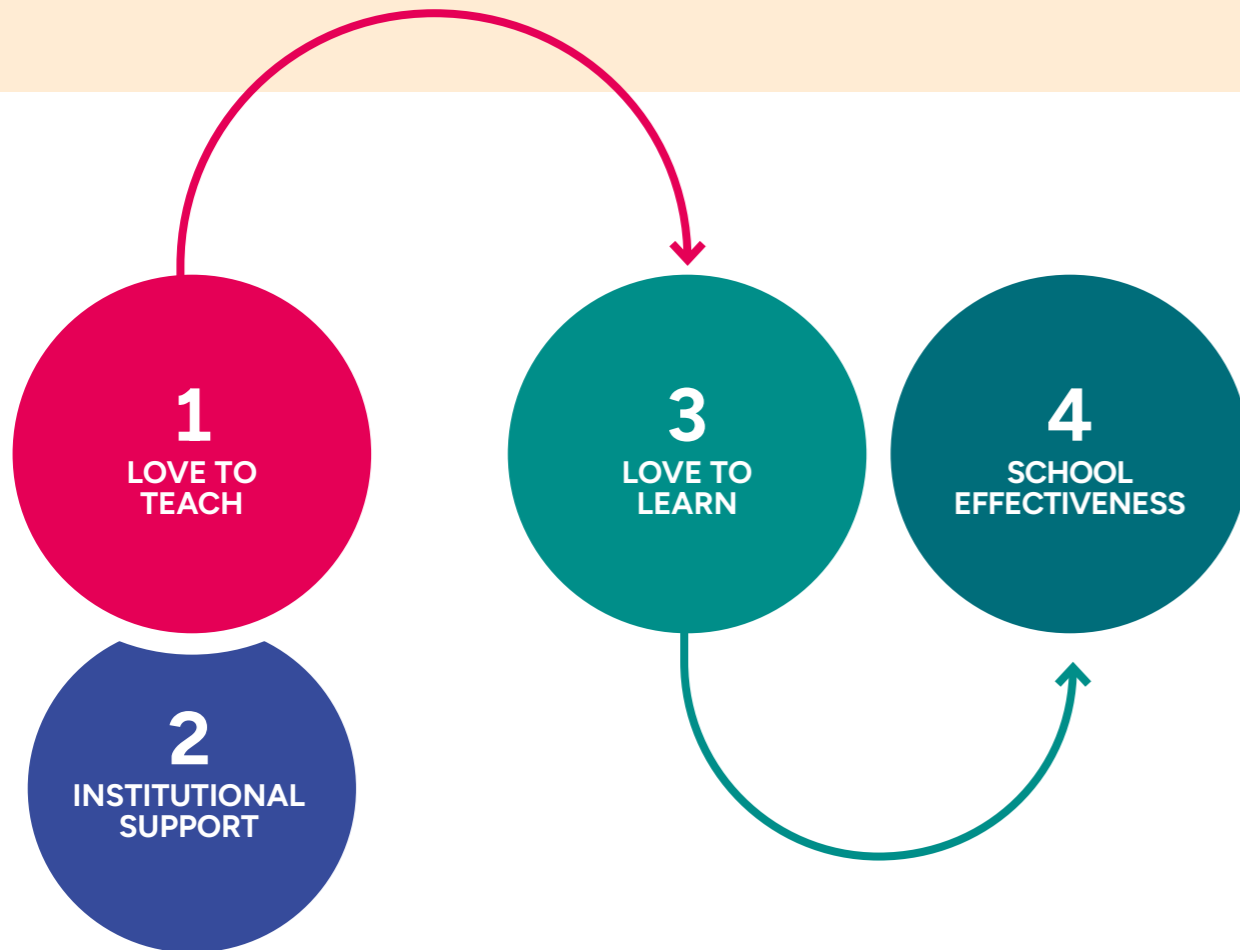
Thus, the analysis considered two models: one which treated student and school data in a disaggregated and independent way, and another, hierarchical one, in which students and teachers are part of a school that is part of a school system.

Because of this approach, it is possible to isolate and understand the variability at different grouping levels, effectively measuring the effect of the treatment in the almost experimental design of the assessment.

The Differences in Differences approach was used to measure the effects of the Program on student performance over the years, comparing those who participated in the Program to those who did not. This approach makes it possible to isolate the Program's effect by controlling for temporal trends that affect the treatment and control groups.

Learn more about the indicators and the results found

The student experience transformation begins with strengthening teaching practice combined with institutional support.



“The student brings from their home a knowledge that we can explore and use to support us because it brings us many ideas. It’s a two-way street. There’s passion, research, peers.”

PEDAGOGICAL COORDINATION OF A SCHOOL FROM THE MUNICIPAL SYSTEM OF BRAGANÇA, PARÁ

1 LOVE TO TEACH

This construct describes issues related to teacher engagement and how they take ownership of the Creative Learning framework.

↑ 96%
OF THE TEACHERS who state they are part of the Program **adopt Creative Learning in their classroom**

METHODOLOGICAL MASTERY IN THE PROGRAM'S TARGET SCHOOLS

- Teachers do **more activities outside the classroom** (+11 p.p.¹)
- Teachers **organize classes into small groups to jointly solve problems** or tasks (+11 p.p.)
- Teachers do **more activities that require critical thinking** (+12 p.p.)

1. Did you know? 1 percentage point (pp) is a percentage measurement unit. The % symbol represents a ratio between two values that may or may not be percentages, i.e., a difference of 1 pp means that the percentage would vary from 10% to 11%, while a variation of 1%, in this same case, would make the final value 10.1%..



“The Creative Schools Program significantly impacted the Education Department of Branquinha. A clear example is the projects developed by teachers and students in our Education Department. Today, actions such as Back to School with Creative Learning, Scratch Day, Hands-on Day, and the Festival of Invention and Creativity are part of our annual Department guidelines and school action plans. That has been a driving force to prevent dropout and improve educational indicators.”

EDNALDO FIRMINO, SECRETARY OF EDUCATION OF BRANQUINHA, ALAGOAS

2 INSTITUTIONAL SUPPORT

Describes how the actions alongside the Education Department foster the dissemination of Creative Learning among schools by providing resources, institutionalizing curricular references, or promoting events and programs organized by the school system.

COLLABORATIVE ENVIRONMENT

IN THE PROGRAM'S TARGET SCHOOLS



Teachers believe that most peers are looking for **new ways to solve problems** (+7 p.p.)

STRATEGIES AND STRUCTURES



14 out of 16 partner school systems

have institutionalized strategies to strengthen the integration of Creative Learning into the curriculum, such as **including the approach into the system's official curriculum**, the schools' Political-Pedagogical Plans or the **construction/adaptation of spaces** that facilitate the development of **hands-on/maker activities**

3 LOVE TO LEARN

Describes aspects associated with student engagement, how teaching is valued, and elements that describe the pleasure of learning.

STUDENT ENGAGEMENT

+ 10.4%

STUDENTS are 10.4% **more engaged in classes whose teachers state they are part of the Program**

+ 3.7%

The effect of the Program on **STUDENT engagement** in Target Schools is 3.7%

WHO ENGAGES THE STUDENT?

Differences in engagement among students (TOTAL VARIANCE: 100%)



43% personal differences between students in the same class

26% differences between groups in the same school

18% differences between schools in the same system

13% differences between school systems

THE TEACHER'S ROLE is the main driver of student engagement, excluding the impact of individual aspects. This insight aligns with the work of the Creative Schools Program, which **emphasizes teaching practices as a central component of transformation.**

SCHOOL ENVIRONMENT IN THE PROGRAM'S TARGET SCHOOLS



Teachers notice their **students are respectful to their classmates** (+9.4 p.p.)



Teachers believe that their **students respect the established agreements** (+10.7 p.p.)



Teachers state that their students help **create a pleasant atmosphere for learning** (+7.5 p.p.)



In Brazilian public schools, an average Elementary School class comprises 23 students. Out of these, seven are not engaged. The Creative Schools Program reduced the number of disengaged students by 10% among Target Schools. Considering all the classes it works with,

THE CREATIVE SCHOOL PROGRAM DEEPLY TRANSFORMED THE SCHOOL EXPERIENCE OF

+18 THOUSAND STUDENTS



"The Creative Schools Program was a game changer in the Jaguariúna school system. It rescued teachers and gave them back the confidence to follow their true beliefs at work. We also noticed that the Program motivated students. They are taking ownership of the knowledge, creating opportunities to be the protagonists, and being more proactive during classes, on top of showing more eagerness to be in school."

LUCIENE LIMA, MANAGER AND INNOVATION AND CREATIVITY PROGRAM COORDINATOR IN JAGUARIÚNA, SÃO PAULO

4 SCHOOL EFFECTIVENESS

Encompasses student learning evolution in terms of academic performance.

PERFORMANCE ON SAEB

Impact of the Program for the performance on the **Basic Education Assessment System** (*Sistema de Avaliação da Educação Básica, SAEB*) of Target Schools in:

PORTUGUESE

AVERAGE EVOLUTION IMPACT OF THE CREATIVE SCHOOLS PROGRAM



MATHEMATICS

AVERAGE EVOLUTION IMPACT OF THE CREATIVE SCHOOLS PROGRAM



FOR REFERENCE

The percentage of students who achieve adequate learning in Mathematics in the Final Years of Elementary School is 15%*. The impact of the Creative Schools Program corresponds to an increase of 5.2 pp in this indicator, reaching

20.2%

OF STUDENTS with adequate learning in target schools after only two years

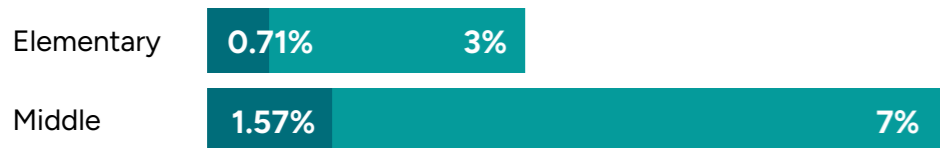
*Source: Germina, with data from Saeb, INEP.

SCHOOL PROGRESS

Effect of the Program on **School progress**, which includes the number of students who successfully advance to the next grade compared to the total number of enrolled students.

AVERAGE EVOLUTION

IMPACT OF THE CREATIVE SCHOOLS PROGRAM UNIVERSALIZATION GAP



To analyze school effectiveness indicators, we considered 100% of the Target Schools' data made publicly available by the Ministry of Education (*Ministério da Educação, MEC*) and by the National Institute of Education Studies and Research Anísio Teixeira (*Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira, INEP*). Data from 2023 (the last year available) and 2021 (the year the Program began on the school systems) were used as references.

PERFORMANCE ON IDEB

Impact of the Program for Target Schools on the **Basic Education Development Index** (*Índice de Desenvolvimento da Educação Básica, IDEB*):

IDEB

89% higher

FOR ELEMENTARY SCHOOL

+0.14 point, in addition to the average evolution for the two-year period, which was 0.16 point in the pre-pandemic period

IDEB

86% higher

FOR MIDDLE SCHOOL

+0.19 point, in addition to the average evolution for the two-year period, which was 0.22 point in the pre-pandemic period

Explanation: in the pre-pandemic period, school systems had an average biennial evolution of 3.7 points in Portuguese, 3.2 points in Mathematics for the Elementary, and 2.9 points for the Middle School in both subjects. The impact of the Program improved the performance of the partner school systems on SAEB even further.



"I immediately thought of the children, they are improving in Reading, Mathematics. Students are becoming more engaged in their studies, with mothers saying they like the methodology because their child cares about handing in the work, the students are performing better."

EMPLOYEE FROM THE EDUCATION DEPARTMENT OF SÃO LUÍS, MARANHÃO

Other studies: the potential of Creative Learning

An exploratory study on Creative Learning and Literacy indicated that **students exposed to a learning sequence developed by the Program team performed better in Reading and Writing skills** than when their teachers administered the same content using traditional practices.

The study's objective was to collect initial data on the potential effects of Creative Learning on student learning. The study was performed in the second semester of 2023 with 14 teachers and 377 3rd Grade students from the school system of Curitiba (Paraná) in partnership with the Education Development Center (EDC) and the Laboratory of Studies and Research in Education and Social Economy (*Laboratório de Estudos e Pesquisas em Educação e Economia Social*, LEPES). The teachers and their respective subjects were organized into intervention and comparison groups, which were tested at the beginning and the end of the process (pre- and post-tests). The first group received a learning sequence, specific training, and mentoring from the Program team. The same content was presented to the second group using traditional methodologies.

"We move away from the traditional, it works best with students with difficulties. Everyone can do this."

TEACHER AT THE MUNICIPAL SCHOOL SYSTEM OF BRANQUINHA, ALAGOAS

"Schools were able to dream and create. It reignited and expanded the creative process!"

EMPLOYEE FROM THE EDUCATION DEPARTMENT OF MATA DE SÃO JOÃO, BAHIA

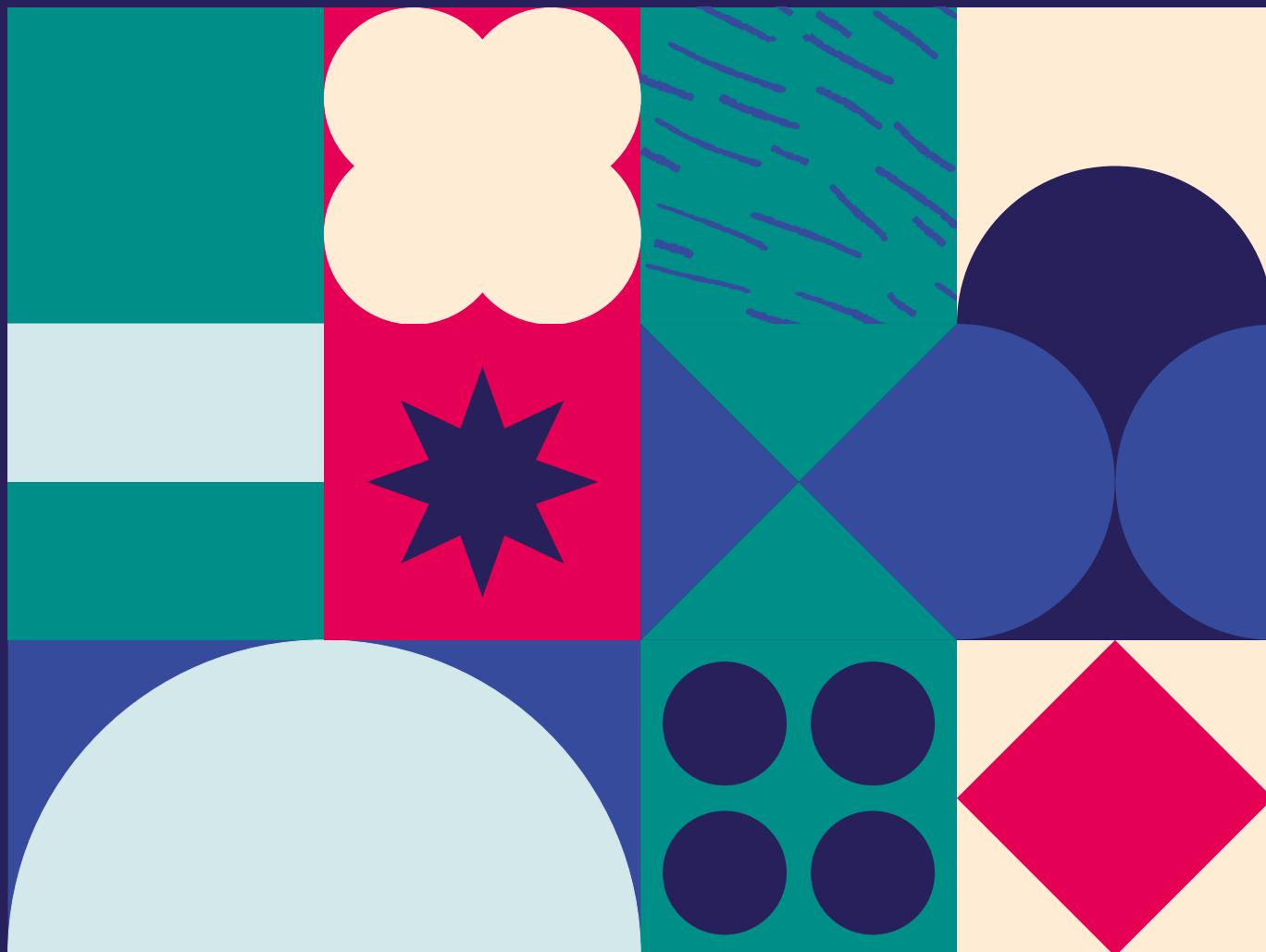


RESULTS

Students from the intervention group outperformed the comparison group in just six weeks of intervention. An Analysis of Variance (ANOVA) showed this difference is statistically significant (partial ETA squared, $\eta p.02$).

The study also showed that this approach could accelerate learning in students who initially had a lower performance, and this approach is being considered for new studies in 2024. That was identified when assessing the students' results in quartiles, in which the 1st quartile (the 25% of the students with the lowest performance) of the intervention group had the highest improvement in the study, bringing more learning opportunities to students with greater difficulty and, thus, promoting equality.

OVERALL AVERAGE SCORE FOR EACH GROUP IN EACH ASSESSMENT		
	INTERVENTION	COMPARISON
OVERALL AVERAGE SCORE		p= 0.019
PRE-TEST	7.05	6.79
STANDARD DEVIATION	3.00	2.94
POST-TEST	8.69	8.34
STANDARD DEVIATION	1.34	1.49



@ProgramaEscolasCriativas

escolascriativas.org

Find out more and help us
support public education.



bitly