

TC Document

I. Basic Information for TC

▪ Country/Region:	BRAZIL
▪ TC Name:	EXPLEARN Facility: Teaching Artificial Intelligence in full-time schools
▪ TC Number:	BR-T1639
▪ Team Leader/Members:	Cossi Fernandes, Joao Paulo (SCL/EDU) Team Leader; Perez Alfaro, Marcelo A. (SCL/EDU) Alternate Team Leader; Greco, Maria Sofia (LEG/SGO); Tamagnan, Marie Evane (SCL/EDU); Souza Eugenio, Gabriela Fernanda (CSC/CBR); Polanco Santos Paola Patricia (SCL/EDU); Pinzon Silva Jeimy Nathaly (SCL/EDU); Blasco, Ivana (SCL/EDU); Couto De Araujo, Gabriela (CSC/CBR); Tavares Sousa, Maria Elisa (CSC/CBR); Mendoza Centellas, Mariana Beatriz (GPS/GCM); Lima De Moraes, Vitoria (GPS/REM)
▪ Taxonomy:	Client Support
▪ Date of TC Abstract authorization:	2/6/2025
▪ Beneficiary:	State and Municipal Secretaries of Basic Education
▪ Executing Agency and contact name:	Inter-American Development Bank
▪ Donors providing funding:	Cofinancing Special Grants(COF)
▪ IDB Funding Requested ¹ :	US\$450,000.00
▪ Local counterpart funding, if any:	US\$0
▪ Disbursement period (which includes Execution period):	24
▪ Required start date:	April/25
▪ Types of consultants:	Consultants and firms
▪ Prepared by Unit:	SCL/EDU-Education
▪ Unit of Disbursement Responsibility:	CSC/CBR-Country Office Brazil
▪ TC included in Country Strategy (y/n):	no
▪ TC included in CPD (y/n):	yes
▪ Alignment to the Update to the Institutional Strategy 2010-2020:	Social inclusion and equality; Social protection and human capital development

II. Objectives and Justification of the TC

- 2.1 **Objective.** The objective of this Technical Cooperation (TC) is to pilot an AI course in Brazil's public schools, especially in full-time education. The TC will finance the first pilot in the state of Pará, developing specific materials for teacher training and an evaluation tool to measure students' development, and then scale it to two other states/municipalities.
- 2.2 **Beneficiaries of the initiative.** This TC will benefit 1,500 students, from 12 to 18 years old, who use the Artificial Intelligence (AI) program implemented in the initiative. Indirect beneficiaries are: (i) 30 teachers trained for AI classes; and (ii) up to 2 Departments of Education, Pará included, who will receive support to pilot/scale this AI program. The final list of states/municipalities benefitted will

¹ This is an individual operation under Facility RG-O1714 onwards EXPLEARN: Expanding Learning Time Facility, approved on September 1, 2023, by the Board of Directors through Resolution DE-78/23.

- depend on how easy the program is to implement, the demand from other states/municipalities interested and the availability of complementary resources provided by Brazil's civil society. All activities in other states/municipalities that will be benefitted by this TC will be only initiated after the corresponding letter of request and the non-objection letter has been obtained from the liaison office with the Bank in Brazil.
- 2.3 The state of Pará received the proof of concept (PoC) for this initiative, financed by BR-T1589, in three schools with full-time education. The following activities were developed during this PoC: (i) adaptation of part of the program and test with 3 schools; (ii) teacher training design and implementation; and (iii) evaluation designed and implemented. After this PoC, the program will be piloted in the state of Pará, with more students, and in at least another state/municipality, maintaining the expectation of being implemented in schools with extended hours to enhance learning during this extra time.
- 2.4 **Digital skills are fundamental for sustainable economic development, but Brazil is not prepared to face this challenge.** In 2022, the global digital industry represented more than a quarter of the world economy (27%) (CEPAL). This is the result of the new industrial revolution, especially with the introduction of AI. This revolution will generate a drastic change in the types of work that require industry, and the population must be prepared for it (CEPAL). Digital skills imply the ability to access, manage, evaluate and create information in a secure and appropriate way through digital technologies (Law et al., 2018). Being digitally competent implies being able to use digital technologies in a critical, collaborative and creative way (Carretero Gómez et al., 2017). However, the population of Latin America, including Brazil, is much lower than that of other countries in the development of basic, intermediate or advanced digital skills (CEPAL). Especially when we talk about Artificial Intelligence, even though Brazil is better than the LAC countries in the penetration of the use of Artificial Intelligence, it is far behind the most advanced countries (India, USA, Germany, China, etc.) (ECLAC).
- 2.5 **To face this challenge in a systemic way, Brazil adapted its national curriculum.** In 2017, the Ministry of Education of Brazil (MEC) approved the "Base Nacional Comum Curricular" (BNCC), which defines the set of essential learning that all students must develop across the stages and modalities of Basic Education. The BNCC document structures the set of essential learning to be developed based on 10 general skills, which must be addressed in a transversal way across different disciplines and school stages. Among the general competences defined is included the Digital Culture competence, which formalizes the need for educational networks to prepare students on the ground to use technology, but also to understand its ethical, social and cultural implications. In addition to the general competence of Digital Culture, in the year 2022, the MEC, together with the Centro de Innovation of Brazil Education (CIEB), published a complementary document to the BNCC, which proposes a reference for computational skills and abilities, resources that must be taught in the different stages of Basic Education, among them, basic knowledge about Artificial intelligence in the Secondary Education stage.

- 2.6 **States and municipalities want to develop actions to implement the BNCC, but they have difficulties on identifying high-quality solutions which are easily available.** In recent years, educational networks have carried out curricular adaptations, training of their teams and other initiatives to promote expected learning in relation to general technology and artificial intelligence. But even with the efforts of recent years, educational networks have encountered difficulties in achieving this development, mainly due to the limited level of digital skills of teachers, which in most cases is found at level 2 over 5 [CIEB self-evaluation](#) for the three areas measured (pedagogical, digital citizenship) and professional development). Given the difficulty of teachers and the time needed to change their initial training, a possible solution would be to map successful international experiences that work with the continuous and synchronic-experimental training of teachers together with students.
- 2.7 **Strategic Alignment.** The Program is consistent with the IDB Group Institutional Strategy: Transforming for Scale and Impact (CA-631) and is aligned with the objective of reducing poverty and inequality by improving learning opportunities in the public education system. The Program is also aligned with the operational focus area of social protection and human capital development, by improving the quality of education offered in the public education system and by developing digital skills in students. The program is consistent with the Sectoral Framework for Skills Development (GN-3012-3) in the Lines of Action: (1) guarantee access to relevant and high-quality learning opportunities throughout life, by improving the quality of activities in full-time schools; (2) strengthen quality and relevance assurance mechanisms, improving evaluation processes; and (4) leverage the use of technology to increase equitable access to skill development opportunities and improve the efficiency of skill development systems, providing digital content, adequate infrastructure, and training teachers to better use them. The TC is also aligned with pillar 3 of the current IDB Group Country Strategy with Brazil 2024-2027 (EBP) to “Advancing A New Social Agenda To Promote Prosperity And Inclusion” and its Strategic Objective of “Improve the quality of spending on education and health” by implementing a high-quality education solution to develop AI skills in students from public schools in Brazil. At the country level, it aligns with the National Education Plan 2014-2024, and the State Education Plan 2015-2025, both with new version to discuss in 2026, and the FTE program. It is also aligned to EXPLEARN: Expanding learning time facility (RG-O1714), supporting countries in the development of policies of FTE with its two components: (i) Support the implementation of prioritized activities related to the implementation of extended school day programs in public education; and (ii) Promote dialogue and knowledge sharing in the LAC region.

III. Description of activities/components and budget

- 3.1 The components of the project are:
- 3.2 **Component 1: Program Adaptation.** The objective of this component is to adapt the courses, so that they can be implemented in the best possible way, in the context of each socio-educational network and involves activities such as:

- (i) Translation and Adaptation of the contents of the course, considering the cultural context and professional and (ii) Adjustments to the course offering platform, due to changes in content and materials; among others. The main results of this component are: (i) digital tool adapted and ii) students trained.
- 3.3 **Component 2. Course implementation and teacher training.** The objective of this component is to prepare associated educational departments to implement the adapted course and engagement activities such as: (i) Design of implementation with the Government team; (ii) Design of the course curriculum adapted to reality and (iii) Training of teachers in schools that will offer the adapted course. The main results of this component are: (i) curriculum adapted to other education departments (besides Pará), ii) implementation plan designed; (iii) schools which went through training and iv) Teachers who completed the training sections
- 3.4 **Component 3. Monitoring and evaluation, and scale.** The objective of this component is to carry out the monitoring and evaluation of the pilot project and involves activities such as: (i) Evaluation of student learning results; (ii) design of course impact assessment and randomization of pilot schools; (iii) analysis of consolidated results and dissemination, among others; (iv) consultant to support education departments to procure solutions to teach AI. The main results of this component are: (i) Students' development assessment designed; and ii) evaluation report delivered; and iii) action plan designed for a state/municipality to purchase an AI teaching solution.

IV. Budget

- 4.1 The total cost of the TC will be US\$450,000, financed with resources from the Ministry of Finance of the Republic of Croatia through the Facility EXPLEARN: Expanding Learning Time Facility (RG-O1714). The expected execution period is 24 months.

Indicative Budget

Activity/Component	Description	Explearn Funding	Total Funding
Component 1	Adaptation of programs	345,000	345,000
Component 2	Implementation of courses and teacher training	55,000	55,000
Component 3	Monitoring and evaluation and scale	50,000	50,000
	Total	450,000	450,000

- 4.2 The resources for this project have been received from the Ministry of Finance of the Republic of Croatia through Non-Refundable Financing for Project Specific Grants (PSG). The Bank manages these operations in accordance with the specifications of the report "Report on COFABS, Ad-Hocs and CLFGS and a Proposal to Unify as Project Specific Grants (PSG)" (Document SC-114). As contemplated in these procedures, the commitment of the Ministry of Finance of the Republic of Croatia has been established through an Administration

Agreement. Under such agreement, the resources for this project will be administered by the Bank.

- 4.3 **Monitoring.** The development of all products will be closely coordinated by SCL/EDU who will provide guidance to ensure that the products meet the needs and standards of the Bank. The Team Leader will be responsible for monitoring activities in the field, and continuous progress meetings with the counterparts and consultants. An evaluation company will be hired to measure students' improvements and to develop and study on main impacts.

V. Executing agency and execution structure

- 5.1 **Execution Agency.** IDB will execute this TC. According to the Technical Cooperation Policies (GN-2470-2), and the corresponding standard OP-619-4, implementation by the Bank is justified to guarantee the achievement of a technical level that maximizes the fulfillment of the expectations of results and a transversal vision which allows its scale in other states of Brazil, as well as in other countries of the country region. The Bank has expanded its operational experience and analytical work on the topics included in this TC: educational platforms, teacher training and artificial intelligence. Furthermore, the IDB's Education Division has experience in studies, advice in the implementation of successful educational platforms, as well as a dense network of experts and organizations that focus on studies, design and implementation of educational platforms, and which work with intelligence artificial in the context of education.
- 5.2 The activities to be carried out under this operation will be included in the Procurement Plan (Annex IV) and will be carried out in accordance with the procurement methods established by the new Corporate Procurement Policy (GN-2303-33). As the body executing the TC, the Bank will be responsible for: (i) identifying the studies and technical work necessary to carry out the TC; (ii) select and hire consultants to provide the necessary services; (iii) supervise consultancy services to which the beneficiary provides technical inputs; and (iv) manage the execution and provision of consultancy services.
- 5.3 The program's PoC was carried out in partnership with the Itaú Social Foundation - Education and Work branch, which has already executed other IDB's initiative, including with the State of Pará. In the PoC, the following products were developed: (i) adaptation of a short AI curriculum; (ii) teacher training materials; and (iii) an evaluation to test students' development. When expanding the solution to other states/municipalities, additional complementary resources will be raised with Brazil's civil society, which will transfer the resources direct to providers.
- 5.4 **Procurement.** The activities to be executed under this operation will be included in the Procurement Plan and will be executed in accordance with the Bank's established procurement methods, namely: (a) Hiring of individual consultants, according to HRDs Complementary Workforce (CW) regulations (AM-650); and (b) Hiring of consulting firms for services of an intellectual nature according to the new Corporate Procurement Policy (GN-2303-33). As the executing agency of the

TC, the Bank will be responsible for: (i) identifying the studies and technical works necessary to carry out the TC; (ii) select and hire consultants to provide the necessary services; (iii) supervise the consulting services to which the beneficiary provides technical inputs; and (iv) manage the execution and provision of consulting services.

- 5.5 **Direct procurements.** The following direct procurements of companies are expected: (i) Stemi, which will provide the consulting service to adapt the program and the digital tool that students will use; (ii) Sincroniza, which will develop teacher training materials and implement these initial training sections; and (iii) Evolucionar, which will design an evaluation tool to measure students' development, provide the digital tool required to implement this evaluation, and develop a study regarding students' improvements. The justification for all these direct procurements is based on paragraph 3.4.ii) of the new Corporate Procurement Policy (GN-2303-33), item d). **Stemi's** direct procurement is justified based on the facts that it is the only AI teaching tool that: (i) makes students to develop its own artificial intelligence (by developing chatbot); (ii) it has been piloted in public schools; (iii) provide a comprehensive teacher support tool, which helps teachers to identify students' development and difficulties; (iv) connection with labor market as part of the program. **Sincroniza** has specialized in implementing technology tools in Brazil's public schools over the past 10 years and has been proved to be the most effective, especially for customized solutions as the ones we are piloting in this TC. **Evolucionar** is the only digital tool specialized to evaluate students in public schools considering Brazil's national curriculum (BNCC).
- 5.6 The project team will be responsible for preparing and submitting the project reporting to the donor, as well as for all other actions and deliverables pertaining to project execution and agreed with the donor in the Administration Agreement. This operation will support Brazil education agenda about expanding access to high-quality full-time schools, and digital transformation. Therefore, its products will be streamline along the dialogue and operational activities in Brazilian states and municipalities. Activities in other states/municipalities that will be benefited by this TC will be initiated only after the corresponding letter of request and the non-objection letter has been obtained from the liaison office with the Bank in Brazil.
- 5.7 **Intellectual Property.** Most deliverables and any other material prepared under this TC are the sole and exclusive property of the Bank, and as such, the Bank has title, rights (including copyrights) and exclusive interests in the ownership of said products and may be made available to the public under a creative commons license. Since Stemi program uses a digital tool, the digital tool and the activities within it will not be Bank's intellectual property. Similarly, the items and digital tool used for the evaluation process will not be Bank's intellectual property since this is an intelligence designed by Evolucionar during its years of experience, and they are not especially developed for this project. These tools will be adapted under component 1 and used under component 2.

- 5.8 **Lessons Learned.** Lessons learned will come from different group operations: (i) closed (Amazonas BR-L1328; Florianopolis, BR-L1329 and Pará, BR-L1327) in execution (Municipalities of Manaus BR-L1393 and Porto Alegre BR-L1597); (ii) in preparation (Pará BR-L1589, Amazonas BR-L1621, Sao Paulo BR-L1580 and Fee for Service with Recife BR-R0010); (iii) operations related to hybrid education/digital transformation: SIGED (RG-T3008/3678); and (iv) Edtech implementation and scale (BR-L1551 and BR-T1479). Those above-mentioned operations bring valuable knowledge on three topics related to this TC: Digital Transformation, Intelligence Artificial and new curriculums. This TC is also related to the Facility EXPLEARN: Expanding Learning Time Facility (RG-O1714), which focus on expanding high-quality extended days initiatives in Brazil. It will also benefit from the proof of concept which is being carried out under BR-T1589.

VI. Major issues

- 6.1 Risks associated with this operation are low and related to assure education secretary's participation. Although there's an ongoing relationship with Pará, while reaching new counterparts, this risk will be mitigated by a sound dialogue process assuring ownership in the execution of the TC's activities. The Bank, through the Division of Education, has extensive experience in developing regional tools and applied knowledge on education and technology issues. In addition, the Bank maintains a permanent dialogue with other organizations at the international level with knowledge and experience on these issues and has access to the technical and operational mechanisms to obtain the technical assistance required.

VII. Exceptions to Bank policy

- 7.1 No exceptions to Bank policy will apply.

VIII. Environmental and Social Aspects

- 8.1 This Technical Cooperation is not intended to finance pre-feasibility or feasibility studies of specific investment projects or environmental and social studies associated with them; therefore, this TC does not have applicable requirements of the Bank's Environmental and Social Policy Framework (ESPF).

Required Annexes:

[Request from the Client 18873.pdf](#)

[Results Matrix 75008.pdf](#)

[Terms of Reference 33672.pdf](#)

[Procurement Plan 74941.pdf](#)