

TC ABSTRACT

I. Basic project data

▪ Country/Region:	Panama
▪ TC Name:	Intercultural Bilingual Mathematics JADENKÄ
▪ TC Number:	PN-T1224
▪ Team Leader/Members:	Emma Näslund-Hadley, Team Leader; Carmiña Albertos, Co-Team Leader (SCL/GDI); Ana Grigera (GDI/CPN), Team Member; Horacio Alvarez, Team Member (EDU/CPN); and Rodolfo Scannone, Project Assistance (SCL/EDU).
▪ Indicate if: Operational Support, Client Support, or Research & Dissemination.	Client Support
▪ Reference to Request: (IDB docs #)	Pending
▪ Date of TC Abstract:	9 October 2018
▪ Beneficiary:	Panama
▪ Executing Agency and contact name	Organization of Ibero-American States (OEI), Melissa Wong
▪ IDB Funding Requested:	US\$800,000
▪ Local counterpart funding, if any:	US\$40,000 (in kind)
▪ Disbursement period:	36 months
▪ Required start date:	15 January 2019
▪ Types of consultants:	Individuals consultants and firms
▪ Prepared by Unit:	SCL/EDU and SCL/GDI
▪ Unit of Disbursement Responsibility:	CPN/CPN
▪ Included in Country Strategy (y/n);	Yes
▪ TC included in CPD (y/n):	n/a
▪ Alignment to the Update to the Institutional Strategy 2010-2020:	Yes

II. Objective and Justification

- 2.1 In 2016, the Japan Special Fund of the IDB financed the development of a preschool mathematics model that was implemented successfully during the 2018 academic year in the comarca Ngäbe, Panama (PR-T1154). A key aspect of the Intercultural Bilingual Preschool Mathematics approach is the development of interactive radio programs that guide the teacher throughout the lesson, making it possible to provide high quality instruction also in classrooms headed by teachers who have huge content and pedagogical gaps. Inspired by the embrace of the learning model in the Ngäbe schools and the encouraging qualitative evaluation results from the Intercultural Bilingual Preschool Mathematics pilot, the Panamanian Government is requesting grant financing to develop and pilot a similar approach for first grade classrooms. The pilot would use the same interactive radio approach as was used at the preschool

level, but instead of focusing on the development of pre-mathematics skills, the new pilot would develop first grade mathematics skills. This has been requested not only by the Ministry of Education, but also repeatedly by teachers, parents and children each time that the Bank has conducted field visits. JADENKÄ will incorporate valuable lessons learned from the Preschool pilot, particularly as regards the importance of more regular in class mentoring for teachers and the participation of Mathematics and Bilingual experts in the production of the radio programs.

- 2.2 **Strategic Alignment.** At an institutional level, the operation is aligned with the Bank's prioritization of learning and school attainment at the primary and secondary levels as laid out in the Strategy on Social Policy for Equity and Productivity (GN-2588-4); and the country Strategy with Panama (GN-2838-1). The operation is also aligned with the Updated Institutional Strategy 2010-2020 (AB-3008), which prioritizes social inclusion and equity.

III. Description of activities and outputs

- 3.1 **General objective.** The general objective of the proposed TC is to develop and implement two primary education mathematics curricula that aim to enhance numeracy learning in a context of large teacher pedagogical and content gaps, and to continue the field testing of the preschool curricula.
- 3.2 **Specific objectives.** The specific objectives are to: (i) develop two first-grade mathematics curricula, one bilingual and another intercultural and bilingual; (ii) conduct an experimental pilot in 292 schools in the Ngäbe community; (iii) conduct a rigorous evaluation; and (iv) disseminate the results.
- 3.3 To achieve its objectives, the technical cooperation will finance four components: (i) Development of two 1st grade mathematics curricula with corresponding didactic materials and radio instruction programs in Spanish-Ngäbe (a bi-lingual and an intercultural bilingual); (ii) implementation of an interactive Radio Mathematics Pilot; (iii) measurement of children's mathematics abilities; and (iv) dissemination of results from the project through workshops and a paper. A group of consultants will be contracted, including experts on indigenous education, design and editing of didactic materials, preschool teacher training, and experimental evaluation. Two firms will be contracted, including one for data collection and one for teacher professional development and in-class coaching.

IV. Budget

- 4.1 The amount of funding needed to achieve the expected outputs is US\$800,000, which will be financed through an IDB trust fund. US\$40,000 will be financed through local counterpart in kind. In agreement with FUND guidelines, 5% of project resources will be used for Bank monitoring activities.

Indicative Budget

Activity/Component	Description	IDB/Fund Funding	Counterpart Funding	Total Funding
Component 1. Curriculum development	Firm + consultants	100,000	0	100,000
Component 2. Pilot implementation	Consultants	400,000	40,000*	440,000
Component 3. Assessment of children's math skills	Firm	220,000	0	220,000
Component 4. Dissemination	Firm + consultants	20,000	0	20,000
Other expenses**	Travel, IDB monitoring	40,000	0	40,000
Audit		20,000	0	20,000
Total		800,000	40,000	840,000

* In kind counterpart funding consists in OEI technical staff.

** SCL/EDU Executed.

V. Executing agency and execution structure

- 5.1 The executing agency is the Organization of Ibero-American States (OEI). Ministry of Education (MEDUCA) has requested that the OEI in Panama execute the TC based on its long trajectory in Panama supporting the execution of projects. The OEI will delegate to MEDUCA the responsibility for the technical coordination of project activities. The technical teams of OEI will collaborate with the MEDUCA education supervisors in the comarca Ngäbe in the planning and supervision of the field work. The signature of an agreement between the OEI and MEDUCA will constitute a condition for the first disbursement, outlining the details of the execution scheme and the counterpart contribution.
- 5.2 **Execution period.** The TC will have an execution period of 24 months and a disbursement period of 30 months.
- 5.3 **Procurement.** Standard Bank procurement policies will be followed.

VI. Project Risks and issues

- 6.1 The execution of a pilot based on an experimental design in a context such as rural Panama presents logistical challenges. This is particularly true in indigenous communities that often have limited road infrastructure, where most schools are located in difficult terrain and with extreme weather conditions. However, OEI, MEDUCA and the IDB have many years of experience in working with schools in remote geographic areas, including the delivery of education technology programs in rural and urban marginalized schools. Moreover, all three institutions have gained important experience through the Inter-cultural Bilingual Preschool Pilot project (PN-T1154) in how to implement the interactive radio methodology the Comarca Ngäbe. To mitigate risks associated to logistics, the projects includes enough resources to ensure additional travel time when needed.

VII. Environmental and Social Classification

- 7.1 The TC is not anticipated to have direct environmental or social impacts and has been classified as "C" according to the Safeguard Classification tool (see Safeguard Policy Filter Report and Safeguard Screening Form).