

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

**REGIONAL**

**INSTITUTIONAL ARCHITECTURE FOR QUALITY EDUCATION**

**(RG-T2570)**

**TECHNICAL COOPERATION**

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## TC Document

### I. BASIC INFORMATION FOR TC

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|--|--|
| ▪ Country:                               | ▪ Regional   |
| ▪ TC Name:                               | ▪ Institutional architecture for quality education   |
| ▪ TC Number:                             | ▪ RG-T2570   |
| ▪ Team Leader/Members:                   | ▪ Analía Jaimovich and Mercedes Mateo (SCL/EDU), Team Leaders; Katherina Hruskovec (SCL/EDU); Livia Mueller and Juanita Caycedo (SCL/EDU); Maria Elisa Arango (LEG/SGO). |
| ▪ Taxonomy                               | ▪ Research and Dissemination   |
| ▪ Date of TC Abstract authorization:     | ▪ 03/02/2015   |
| ▪ Beneficiary:                           | ▪ LAC  |
| ▪ Executing Agency and contact name:     | ▪ IADB, SCL/EDU  |
| ▪ Donors providing funding:              | ▪ Special Program for Investment Development (SPID)  |
| ▪ IDB Funding Requested:                 | ▪ US \$650,000   |
| ▪ Local counterpart funding, if any:     | ▪ N/A  |
| ▪ Disbursement and Execution period:     | ▪ Execution: 36 months, Disbursement: 42 months  |
| ▪ Required start date:                   | ▪ 05/01/2015   |
| ▪ Types of consultants:                  | ▪ Individual consultants and firms   |
| ▪ Prepared by Unit:                      | ▪ SCL/EDU  |
| ▪ Unit of Disbursement Responsibility:   | ▪ SCL/EDU  |
| ▪ TC Included in Country Strategy (y/n): | ▪ N/A  |
| ▪ TC included in CPD (y/n):              | ▪ N/A  |
| ▪ GCI-9 Sector Priority:                 | ▪ Social policy for equity and productivity  |

### II. OBJECTIVES AND JUSTIFICATION OF THE TC

- 2.1 **Justification.** Education systems in Latin America have made great improvements with regard to access to primary and –to a lesser extent– secondary education. Today, 93 percent of children in the region attend primary education at the appropriate age<sup>1</sup>, and 73 percent of children have access to secondary education. Pre-primary education has also been expanding rapidly, although attendance rates still vary greatly depending on age group and income level (Mateo and Rodriguez, 2015). Despite the expansion in attendance rates, the quality of education in the region is still lagging behind. In 2012, out of 65 countries that participated in the OECD’s Program for International Student Assessment (PISA), participating LAC countries<sup>2</sup> performed towards the bottom of the group, attaining positions between the 46<sup>th</sup> and the 65<sup>th</sup> place in all subjects. In all participating LAC countries, less than 1.6 percent of students achieve a high level of performance in Math, compared to 55 percent in Shanghai, China (Vegas, Bos, and Ganimian,

<sup>1</sup> Although rates vary within the region. For example, while adjusted net enrollment rates for primary and for secondary education are 99% and 72% respectively in Uruguay, they are 91% and 46% in Guatemala, 83% and 69% in Bolivia, 82% and 62% in Paraguay, to name a few examples (Data for 2010-2012 from World DataBank. Accesible at <http://datatopics.worldbank.org/Education/wDataQuery/QGeneral.aspx>).

<sup>2</sup> In 2012, eight LAC countries participated in PISA, namely: Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico, Peru, and Uruguay.

2013, 2014). Quality of pre-primary education has also been documented as being extremely low in the region (Araujo, forthcoming; Verdisco and Perez Alfaro, 2010; Campos et al, 2011).

- 2.2 In order to improve the quality of education, governments in LAC have been experimenting with a number of institutional reforms. Such reforms have focused on altering institutional features of education systems in four domains: their degree of decentralization; human resources, financing structures, and monitoring, evaluation, and accreditation mechanisms, including transparency and access to information. For example, the government of Chile is currently undertaking a large-scale reform of the governance structures of basic education. Such reform will introduce local education management units with the aim of professionalizing the management of education, as well as improving efficiency and accountability. The new administration in Paraguay has also engaged in an ambitious reform agenda of the education sector, in which transparency and institutional strengthening are key pillars of the process. Despite the fact that internal efficiency of the education system has improved over the last 12 years<sup>3</sup>, important challenges remain. As part of the strategic initiatives that have been identified as priorities, the focus over the next four years will be on implementing a new management model within the Education Ministry including an organizational restructuring, a new financing law, a new information, monitoring and evaluation system, and strengthening the departmental management units, increasing their planning capacities and implementing a merit-based recruitment system to access supervision and coordination positions.
- 2.3 Chile and Paraguay are just a couple of examples of large-scale institutional reforms in education in the region. Many other countries in the region are also experimenting with institutional reforms that introduce new management and accountability structures in pre-primary, basic, and secondary education, such as the strengthened role of the local education management units in Peru's UGEs, the accreditation processes for local governments to manage education in Colombia, etc (see an assessment of current and potential demand in the region for this [List of Countries Engaged in Institutional Reform](#)).
- 2.4 The success of the quality-focused institutional reforms that the region is undertaking requires an extensive knowledge base on the menu of possible options (the different institutional arrangements of education systems), how they work in specific contexts, and the change management processes leading to their successful implementation of institutional reforms. This Technical Cooperation (TC) aims to address an existing gap of very specific knowledge that policy makers need when they have to navigate through the process of institutional change to improve the quality of their education systems, both at the design and implementation phases. In recent concrete experiences, this type of information has proven to be a very effective tool for policy dialogue, as it provides real examples of the functioning of a variety of institutional arrangements under different sets of constraints.
- 2.5 Specifically, this TC will analyze the characteristics of institutional arrangements lying beneath high-performing education systems and will compare those with a selected number of LAC

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<sup>3</sup> Paraguay has significantly improved coverage and access to education. There was a 40% increase in enrollment between the period 1994-2005; this trend stabilized after that. Since 1995, illiteracy rates went down, whereas the average number of schooling years for people 25+ significantly increased. Since 2001, repetition rates have also been reduced, for primary education in particular.

countries. The relationship between institutions and quality education will be examined for both early childhood and basic education (primary and secondary).

- 2.6 **Knowledge gap.** This TC aims to address a significant knowledge gap regarding the institutional architecture for quality improvement. Research in education analyzing the relative effectiveness of different types of interventions on quality outcomes tends to focus the analysis at the school/center level (see, for example, McEwan, 2014; Murnane and Ganimian, 2014). When larger institutional reforms are analyzed, the most common approach is to analyze their effects in terms of learning outcomes. Much less attention is paid to the specific characteristics of the institutional choices that were made, the change management processes involved in the implementation of the reform, how certain institutional arrangements interact with one another, and the specific processes through which quality education is produced. A greater focus on these issues will provide possible reform paths for countries undertaking institutional reforms, with a deeper discussion of the existing trade-offs.
- 2.7 Studies analyzing in greater detail the institutional characteristics of successful education systems have taken a case-study approach (see, for example, Cheng 2011, Darling-Hammond 2010, Levin 2008, Mourshed et al 2010, Schwartz and Mehta 2011, Tucker 2011, to cite a few). These analyses, suffer from a number of limitations that affect the extent to which they can be useful for governments involved in institutional reforms: (i) they tend to focus on a limited number of policies, without paying enough attention to the institutional characteristics behind those policies. For example, they analyze teacher policies, or the mechanisms for leadership development, or accountability structures. But they are less successful at describing the governance structures in the system and the institutional mechanisms that allow for different functions (quality assurance, finance, capacity improvement, etc) to be fulfilled. In particular, an issue that has been overlooked by most of this research is the structure and role of local education management units. There is a growing body of research in the US on this issue (see, for example, Childress et al, 2007; Coburn, 2004; Elmore, 1993; Supovitz, 2008, to name a few), but comparative research in other countries is still lacking; (ii) they tend to rely on a rather static view, describing current policies but paying less attention to the implementation process that led to the current state of affairs. As such, while these studies may provide governments with a compass signaling where to go, they are less effective at providing a map of how to get there; (iii) these studies were conducted on an independent basis, thus not sharing categories of analysis with one another. They lack a comparative perspective that may allow governments to see how a specific issue/problem/function is addressed in different education systems; and (iv) these studies tend to focus on basic and secondary education, without analyzing the institutional arrangements that allow for smooth transitions between pre-primary and primary education. In the specific case of early childhood education, there is a limited number of studies analyzing management and funding schemes of Early Childhood Education and Care (ECEC) services in developed countries (OECD series of case studies, 2002; Kagan and Kauerz, 2012), and recently three systematized compilations of information for LAC countries have been produced (See Vegas and Santibañez, 2010; Araujo et al, 2013; Mateo and Rodriguez, forthcoming). Studies analyzing the macro-

governance of early childhood systems in LAC are also underway (Kagan et al, forthcoming).<sup>4</sup> This literature suffers from many of the limitations described for the case study approach to the study of high-performing education systems for basic and secondary education, and does not propose a typology of the policy options and institutional arrangements for early childhood.

- 2.8 **Objectives: general objective.** This TC aims to support institutional change of education systems by identifying those institutional arrangements that are relevant for performance. Performance will be measured both as learning outcomes and equity, i.e., who uses educational services and how learning outcomes differ by income. Its goal is to inform policy dialogue with governments implementing institutional reforms in education. In the short term, the analytical framework resulting from this TC will be used to support ongoing reform efforts that Chile and Paraguay are undertaking. Other countries in LAC will also benefit from the knowledge produced through this TC, as they progress with their reform processes.
- 2.9 **Specific objectives** are: (i) to develop a comparative analytical framework for the analysis of the institutional architecture of education systems; (ii) to create a comparative international dataset containing the institutional characteristics of education systems for pre-primary and basic (primary and secondary) education; (iii) to produce case studies presenting in-depth analysis of the functioning of high performing education systems and selected LAC countries for pre-primary and basic education; (iv) to analyze the relationship between different institutional models and educational outcomes in quality and equity (how benefits are distributed across different income levels); y (v) to develop knowledge products and a communication plan to disseminate the information produced through this TC.
- 2.10 This TC falls into the sector priorities of the GCI-9: Social policy for equity and productivity. Aligned with the Sector Strategy on Social Policy for Equity and Productivity (GN-2588-4), with the priority “raising the quality and equity of education”. It is also aligned with Success Dimension 2 “new students enter ready to learn”, of the Sector Framework Document for Education and Early Childhood Development (GN-2708-2).

### III. DESCRIPTION OF ACTIVITIES, COMPONENTS AND BUDGET

- 3.1 This TC will be structured into four components: (i) Development of an analytical framework for the comparative analysis of institutional characteristics in education systems; (ii) Production of a set of 28 case studies of high-performing education systems and selected LAC countries focusing on the functioning of institutional arrangements in education and the dynamics of change; (iii) Development of a comparative international dataset on institutional characteristics of

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<sup>4</sup> One of the chapters of the forthcoming DIA 2015 focuses on the institutional architecture of early childhood systems. There are a number of differences between the approach followed for the DIA chapter and the proposed study in this TC: (i) the analysis in DIA2015 covers the whole range of ECD interventions and therefore is not sufficiently specific for center-based interventions, which will be the focus of this TC; (ii) unlike what is proposed in this TC, the analysis in DIA 2015 did not look at implementation processes; (iii) the cases to be analyzed are different. While DIA 2015 only covers 5 country cases in LAC, this TC proposes to analyze both a large number of high-performing education systems as well as some LAC countries (11 countries in LAC with household surveys that include a childcare use question); and (iv) this TC will include an analysis of the link between institutional arrangements and use patterns in early childhood education and care, which was not a focus of the analysis for the DIA.

71 education systems<sup>5</sup>; and (iv) Development of knowledge products and a communication plan to disseminate the information produced through this TC.

- 3.2 **Component 1. Analytical framework.** As mentioned earlier, one of the drawbacks of existing research is the lack of a common framework to allow for a systematic comparison. This component will develop a tool to systematically review institutional features of education systems. The framework will be developed in an iterative manner: a preliminary template of institutional features has already been developed (see [IDBDOCS#39185305](#)); it will be completed with the materials gathered in a thorough review of current research (at the pre-primary, primary, and secondary education levels); the framework will be further adapted and completed based on the analysis of the information collected for the 71 education systems (and the 28 case studies that are a subset of those). Accordingly, Components 1, 2 and 3 will be carried out simultaneously. That is, the analytical framework will initially provide the categories of analysis for Components 2 and 3, but in turn the information generated through these components will feedback into the framework. The final product is expected to be an analytical approach to the institutional architecture of education systems that allows identification of main levers of quality and change management processes (how these systems have been implemented), and how the implementation process interacts with known indicators of efficiency, transparency, and accountability.
- 3.3 **Component 2. Case studies.** This component has two main objectives: (i) to produce a rich qualitative description of the key features and implementation processes of institutional reforms in high-performing education systems; and (ii) to produce inputs for the design of the questionnaire to be applied to a larger number of countries in Component 3 (see below). This component will produce a set of 28 case studies of high-performing education systems outside of LAC and selected LAC countries. The analysis will focus on a detailed description of key features of institutional arrangements, as well as their change management processes. Institutional features to be analyzed will be mapped to functions that the system needs to fulfill: standards setting, quality monitoring, accountability, financing, capacity development, human resource management, etc, both for pre-primary and basic (primary and secondary) education. The analysis will consider the relative role of various levels of governance in the system (central/national, sub-national, local, school/center level). In addition to the static elements of the system (what do these institutional features look like) we will focus on their dynamic aspects (how were these institutional features created; how are they being implemented; and how was the transition staged between old and new institutional settings). The analysis will primarily focus on 19 high-performing education systems, defined as those systems that are above the OECD mean of student achievement as measured in PISA: Australia, Austria, Belgium, Canada, Denmark, Estonia, Finland, France, Germany, Japan, Korea, Netherlands, New Zealand, Poland, Singapore, Slovenia, UK, USA (Massachusetts), and Vietnam. In addition, a selected number of education systems in LAC will be included to provide information closer to the institutional and cultural reality of governments in the region, which will be the immediate beneficiaries from this TC. These will include all LAC countries participating in PISA (Chile, Mexico (state to be selected),

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<sup>5</sup> This includes the 65 countries that participated in PISA plus 6 additional countries from Latin America that have not participated in PISA but have household surveys that include questions on childcare use (Bolivia, El Salvador, Guatemala, Honduras, Ecuador, and Nicaragua). The reason to include these additional LAC countries is to be able to conduct the analyses on the use of ECD described in Component 3.

Argentina (Ciudad de Buenos Aires), Brazil (state to be selected), Colombia, Costa Rica, Peru, and Uruguay) as well as Paraguay.<sup>6</sup>

- 3.4 **Component 3. Comparative international dataset.** This component will develop the first public comparative dataset with information on the main institutional characteristics of education systems. The dataset will contain original data collected through a survey to be applied in the 65 countries that participate in PISA and in 6 additional countries in LAC.<sup>7</sup> The variables to be included in the dataset will be based on the analytical framework developed in Component 1. The table below summarizes which countries will be included in each component and the reasons for selecting them.

**Table III-1. Summary of Countries to be Included and Reasoning for their Selection**

|                                   | LAC countries  | Non-LAC countries  |
|-----------------------------------|--|--|
| Case studies                      | All LAC countries participating in PISA 2012: Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico, Peru, and Uruguay<br>Countries currently going through large-scale institutional reforms that did not participate in PISA 2012: Paraguay                     | 19 countries performing above the OECD mean in PISA:<br>Australia, Austria, Belgium, Canada, Denmark, Estonia, Finland, France, Germany, Japan, Korea, Netherlands, New Zealand, Poland, Singapore, Slovenia, UK, USA (Massachusetts), and Vietnam |
| Comparative international dataset | All LAC countries participating in PISA 2012: Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico, Peru, and Uruguay<br>Countries with household data or equivalent surveys on childcare use: Bolivia, El Salvador, Guatemala, Honduras, Ecuador, and Nicaragua | All non-LAC countries participating in PISA (59 countries). This includes above and below-average performers.  |
| <b>TOTAL countries</b>            | Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Paraguay*, Peru, Uruguay  | All countries participating in PISA  |

- 3.5 **Component 4. Dissemination.** This component will elaborate a communication plan, and consolidate and disseminate the information and analysis produced in the other three Components through a number of knowledge products: (i) a public website displaying the information contained in the dataset (Component 3); (ii) a set of papers focusing on the relationship between these institutional models and learning and equity outcomes; and (iii) a book identifying models of education systems and their institutional features and implementation processes, which will provide policy recommendations for the region.

<sup>6</sup> Paraguay will be included as a case study despite the fact that it is not part of PISA and there is no information on household or equivalent surveys for children below 5. The country is in the middle of a large reform of the education system and has requested IDB support in that process. For that reason a specific study will be conducted for this country.

<sup>7</sup> This database will be different from other international efforts, including the PISA dataset, in that it will specifically focus on the institutional characteristics of education systems including information from pre-primary, primary, and secondary education levels.

Table III-2: Indicative Results Matrix

|   | Baseline |       |      | Year 1  |        | Year 2  |        | Year 3  |        | Exp. Comp date | Data source  |
|---|----------|-------|------|---------|--------|---------|--------|---------|--------|----------------|--|
|   | Unit     | Value | Year | Planned | Actual | Planned | Actual | Planned | Actual |                |  |
| Outcome   |          |       |      |         |        |         |        |         |        |                |  |
| # of times that the information produced is used for policy dialogue with countries in the region | #        | 0     | 2015 |         |        | 2       |        | 2       |        | 03/2018        | Back to office reports (Ayuda Memoria) in IDBdocs            |
| # of times that the information produced is used for loan operations                              | #        | 0     | 2015 |         |        | 2       |        |         |        | 03/2018        | POD and loan documents and Back to office reports in IDBdocs |
| Products  |          |       |      |         |        |         |        |         |        |                |  |
| Analytical Framework  | #        | 0     | 2015 | 1       |        |         |        |         |        | 12/2015        | Report and Template in IDBdocs                               |
| Case Studies  | #        | 0     | 2015 | 28      |        |         |        |         |        | 12/2016        | Reports in IDBdocs   |
| Comparative International Dataset   | #        | 0     | 2015 |         |        | 1       |        |         |        | 05/2017        | Webpage  |
| Communication Plan  | #        | 0     | 2015 |         |        | 1       |        |         |        | 10/2016        | Report in IDBdocs  |
| Book with typology of education systems based on their institutional features                     | #        | 0     | 2015 |         |        |         |        | 1       |        | 05/2018        | Published book in BRIK and IDB webpage                       |
| Working Paper   | #        | 0     | 2015 |         |        |         |        | 1       |        | 10/2017        | Published WP in BRIK and IDB webpage                         |
| Technical Note  | #        | 0     | 2015 |         |        | 1       |        |         |        | 03/2017        | Published TN in BRIK and IDB webpage                         |

- 3.6 **Budget:** The estimated budget for this TC is US\$ 650,000 during a 36-month execution period. The budget will cover the hiring of consultants to develop and implement the questionnaires to gather the information on institutional features of education systems (Component 1); the analysis of the 28 case studies (Component 2); and the processing of the information and creation of the database (Component 3). Bank staff will produce the book and the papers. The budget will cover data collection activities, and dissemination activities related to the preparation of a communications plan, editing and publishing, and the development of the public website.



**Table III-3: Budget**

| <b>Description</b>  | <b>Unit/cost</b> | <b>IDB</b> | <b>Local</b> | <b>TOTAL</b>   |
|---|------------------|------------|--------------|----------------|
| Consultants supporting the processes of: (i) gathering and systematization of data from existing studies; (ii) development and implementation of questionnaires for data collection; (iii) consolidation of comparative database; and (iv) systematization of PISA, SILC and household survey data. | 70,000           | 210,000    | N/A          | 210,000        |
| Consultants for the development of 28 Case Studies  | 13,000           | 364,000    | N/A          | 364,000        |
| Communication Plan  | 10,000           | 10,000     | N/A          | 10,000         |
| Book and papers editing and publication   | 30,000           | 30,000     | N/A          | 30,000         |
| Development of public website with the International Comparative Database   | 36,000           | 36,000     | N/A          | 36,000         |
| <b>TOTAL</b>  |                  |            |              | <b>650,000</b> |

#### **IV. EXECUTING AGENCY AND EXECUTION STRUCTURE**

- 4.1 Given the research and dissemination nature of this TC the Bank will be in charge of executing the operation. If any activities provided in the program will be implemented in any of the beneficiary countries of this TC, the team, prior to the initiation of the activities in each country, will obtain the pertinent non-objection letter from the corresponding official entity in each country (if applicable). The type of work that needs to be performed in terms of data collection and policy dialogue requires coordination between different agencies and actors inside and outside the region, for which the Bank usually has a comparative advantage over the countries in LAC. The Bank, through SCL/EDU will be responsible for all aspects related to project management. The Bank will contract individual consultants, consulting firms and non-consulting services in accordance with current Bank policies and procedures.

#### **V. MONITORING AND EVALUATION**

- 5.1 In compliance with Bank policies (see document GN-2470-2), the team will closely monitor the planned products and milestones reflected in the results matrix (see Table III-1). In addition, the team will provide timely and detailed information of this TC's activities, products and expenses for GCM's annual reports to the donor trust funds. The team will also prepare and submit a final report including any lessons learned. Given the nature and amount proposed for this TC, no provision for an impact evaluation has been included.

#### **VI. MAJOR ISSUES**

- 6.1 This project will collect large amounts of data over a relatively short period of time, and it is crucial to ensure the comparability of information across education systems. This carries two main risks: (i) the quality of information may vary from country to country, and (ii) this TC will require coordination of several simultaneous data-collection efforts. Risk (i) will be mitigated by the fact that this TC aims primarily to collect *new* information, rather than rely on existing information. Risk (ii) will be mitigated by the fact that this TC will be executed by the Bank, and will thus not require that external organizations coordinate efforts among themselves.

#### **VII. EXCEPTIONS TO BANK POLICY**

- 7.1 There are no exceptions to Bank Policy.

## VIII. ENVIRONMENTAL AND SOCIAL STRATEGY

8.1 According to Safeguard and Environmental Policies, the Classification [C](#) is suggested for this operation.

### Required Annexes:

- Annex I: [Terms of Reference](#)
- Annex II: [Procurement Plan](#)