

## Technical Cooperation Abstract

### I. BASIC PROJECT DATA

▪ Country/Region:	Jamaica
▪ TC Name:	Evaluation of Early Childhood Learning Environments
▪ TC Number:	JA-T1097
▪ Team Leader/Members:	Cynthia Hobbs (EDU/CJA) Team Leader; Yyannú Cruz Aguayo, and Norbert Schady (SCL/SCL); Livia Mueller (SCL/EDU); Florencia Lopez Boo (SCL/SPH); Janet Quarrie (CCB/CJA); and Graham Williams (FMP/CJA)
▪ Indicate if: Operational Support, Client Support, or Research & Dissemination:	Client Support
▪ Operational Support TC:	N/A
▪ Reference to Request: (IDB docs #):	<a href="#">38525972</a>
▪ Date of TC Abstract:	January 10, 2014
▪ Beneficiary:	Jamaica
▪ Executing Agency and contact name:	University of the West Indies - Beneficiary (contact name: Prof. Maureen Samms-Vaughan)
▪ IDB Funding Requested:	US\$1,000,000
▪ Local counterpart funding, if any:	US\$30,000 (in kind)
▪ Disbursement and execution period:	Disbursement: 30 months – Execution: 30 months
▪ Required start date:	02/01/2014
▪ Types of consultants:	Firm and individual consultants
▪ Prepared by Unit:	SCL/EDU
▪ Unit of Disbursement Responsibility:	EDU/CJA
▪ Included in Country Strategy:	Yes
▪ TC included in CPD:	Yes
▪ GCI-9 Sector Priority:	Social Policy for Equity and Productivity

### II. OBJECTIVE AND JUSTIFICATION

- 2.1 There is vast evidence of the importance of investment in early childhood development (ECD) interventions. Biological evidence highlighting the importance of brain development in the early years has been supported by extensive research, which indicates the tremendous impact of high quality ECD interventions on social and academic outcomes of children in the short-term, and adults in the long-term.
- 2.2 Jamaica has a record of achievement in the early childhood sector. Over the years they have attained high access to early childhood institutions for children ages 3 to 5 (over 90% of children attend these institutions) and high immunization rates (over 90% of children are immunized). In 2003, Jamaica established the Early Childhood Commission to co-ordinate the EC sector, and they have been internationally recognized for the development of a cross-sectoral National Strategic Plan for Early Childhood Development, first implemented in 2008. Yet, there continue to be challenges, including the absence of information on the

- quality of the environments of young children birth to three years, few trained teachers at the early childhood level, and wide variation in many aspects of the quality of the early childhood centers. These deficiencies and disparities are manifest in poor readiness skills at the Grade 1 level, and this may affect learning as students move through the education system, as evidenced by consistently low pass rates in English language and math in national assessments at Grades 4, 6, 9 and 11.
- 2.3 The overall aim of this study is to evaluate the relationship among a child's early childhood environment and child development outcomes at age 5, prior to entry to the primary level at age 6. The information to be collected in this proposed study will allow for evaluation of the developmental status, cognitive skills, and school readiness of children, at the onset and at the end of their formal pre-school education, at 3 years and 5 years, respectively. This Technical Cooperation (TC) is motivated by the need to obtain convincing evidence to make sensible investments in ECD policies and interventions that will lead to appropriate primary school readiness. The activities for this TC capitalize on rich data collected in an ongoing study being carried out by the University of the West Indies (UWI), JA KIDS: The Jamaican Birth Cohort Study (funded in part by ATN/OC-12312-JA).
  - 2.4 The JA KIDS cohort group consists of all the children born in all fourteen parishes across Jamaica from July 1 to September 30, 2011. The study has collected valuable data on the relationships among a wide range of family, school, community, environmental, and individual variables from birth. Specifically, JA KIDS provides national data on maternal health and well-being, pregnancy, paternal well-being and involvement, children's status at birth and at various points thereafter, and children's experiences and developmental growth in the early years.
  - 2.5 The JA KIDS cohort will turn three years old between July and September 2014, and it is projected that 90% of these children will have enrolled in early childhood centers between September and December of 2014. This provides an ideal opportunity to obtain complete data on the impacts of pre-school environments (including teaching quality) during the early childhood years.
  - 2.6 The proposed study will support this rigorous evaluation, which will be set up as a randomized controlled trial in which children will be randomly assigned to their classrooms within each pre-school. The specific information to be collected encompasses an overall assessment of the developmental status, cognitive skills, and school readiness of birth cohort children, at the onset and at the end of their formal pre-school education, at 3 years and 5 years respectively. The proposed TC will finance the first two years of the four-year study.
  - 2.7 The goal of this TC is linked to specific goals mentioned in the Country Strategy for Jamaica 2013-2014, which identifies enhanced quality and access to education as one important strategy to address the priority area of Social Protection and Safety.

### III. DESCRIPTION OF ACTIVITIES AND OUTPUTS

- 3.1 The study will have four components: (1) Random assignment of children into their classrooms; (2) Measuring teacher quality; (3) Measuring child development and learning at baseline and end line, and ECD readiness in the other years; and (4) Supervision, capacity building, analysis and dissemination of results.
- 3.2 **Component 1: Randomization and verification of randomization compliance (US\$60,000).** This study resolves the complicated identification challenges that have plagued most evaluations of teacher effects by randomly assigning students to different sections of their grade within the same school. At the beginning of each school year, 2014-2015 and 2015-2016, the group of children in the project will be randomly assigned to their teachers as they begin pre-school and move into their next academic year (Activity 1). In order to verify the compliance of this assignment, each school will be visited at different points in time during the school year (Activity 2).
- 3.3 **Component 2: Measuring teacher quality (US\$312,000).** The main objective of this component is to attain a measure of the quality of teaching. The Classroom Assessment Scoring System (CLASS) will be applied to pre-school teachers (Activity 1). This instrument evaluates teachers on three dimensions: socio-emotional support, classroom management, and instructional support. In the US, better performance on the CLASS is associated with higher learning of students.
- 3.4 **Component 3: Measuring child development and learning (US\$362,000).** The main objective of this component is to measure the learning outcomes of children at the beginning and end of pre-school. As part of this component the set of tests (math, reading and executive function) to measure learning/development outcomes for children in the sample will be developed/reviewed (Activity 1). These tests will then be applied at the beginning and end of the school year (Activity 2). ECD readiness tests will also be applied in the interim years to assess the developmental changes of children.
- 3.5 **Component 4: Supervision, capacity building, analysis, and dissemination (US\$296,000).** This component will finance a number of activities that are critical for the completion of this work, more specifically: study director and staff (Activity 1); technical supervision and support throughout the application of the CLASS instrument, capacity building on CLASS with team members and counterparts, processing and analysis of the data collected, and dissemination activities (including documentation of the experience of applying these instruments, and blogs and articles to share initial findings) (Activity 2).

## IV. BUDGET

**Table IV.1 – Indicative budget**

Component/Activity	Description	IBD/Fund Funding	Counterpart Funding (in kind)	Total Funding
Component 1/Activity 1	Randomization at beginning of school year	20,000		20,000
Component 1/Activity 2	Randomization at verification	40,000		40,000
Component 2/Activity 1	CLASS application	312,000		312,000
Component 3/Activity 1	Development/Piloting of instruments	20,000		20,000
Component 3/Activity 2	Application of learning outcomes test	342,000		342,000
Component 4/Activity 1	Study Management – Staff	220,000	30,000	250,000
Component 4/Activity 2	Capacity building, supervision and dissemination	46,000		46,000
<b>Total</b>		<b>1,000,000</b>	<b>30,000</b>	<b>1,300,000</b>

## V. EXECUTING AGENCY AND EXECUTION STRUCTURE

- 5.1 This TC will be executed by the beneficiary, the University of the West Indies (UWI). UWI currently is executing the TC that corresponds to the original cohort study (JA-T1054; ATN/OC-12312-JA) and has demonstrated highly efficient and effective implementation of the funds.
- 5.2 The Bank will partner with UWI in a number of critical areas, drawing on expertise from various activities related to a longitudinal study on child development, as well as experience with the CLASS instrument. The Bank will hold regular meetings with the UWI research team, will participate in the selection of the research sample, and will provide training in CLASS and capacity building (via workshops and ongoing work) in longitudinal data analysis.
- 5.3 UWI will procure the goods, services, and consulting services required by the study in accordance with Bank policies contained in documents GN-2349-9 and GN-2350-9, respectively.

## VI. PROJECT RISKS AND ISSUES

- 6.1 Implementation risks are considered low, given the significant experience of Jamaican researchers in the ECD sector and the keen interest of the Government in attaining the results of the TC. However, two risks have been identified: (i) in this particular study, there is limited space for delays given that the data collection activities must finish at the end of the school year; and (ii) there is a risk that a few school principals/teachers/parents might not comply immediately with the random assignment. In those cases, the Ministry of Education has committed to mediate and correct any deviations from the assignment.

## VII. ENVIRONMENTAL AND SOCIAL CLASSIFICATION

- 7.1 According to the Safeguard Classification Tool this TC is “C”.