

TERMS OF REFERENCE

FOR PEC consultancies

Early Childhood Development (Evaluation), Individual Consultant

Background:

- 1.1 **Quality and Equity of Preschool Education Remain Concerns.** Since 2015, the Ministry of Education, Technological and Vocational training (METVT) has sought to improve the quality of preschool education, including the development of an Early Childhood Development (ECD) curriculum and standards. The curriculum fosters a child-centered teaching approach and speaks to the teaching of emerging literacy, mathematics and science. However, an external evaluation (Mind Bloom 2014) suggests that teaching methods are dated and do not always reflect the methods proposed by the curriculum. Given the uncertainty of future skills requirements for work but also for being a good citizen, the best recommendation is currently to teach students not only knowledge acquisition but a wide range of learning, work and life skills (Winthrop¹, 2018, p. 28). The teaching of Science, Technology, Engineering and Math (STEM) subjects is considered a key tool in teaching the 21st century skills because math, engineering, and science emphasize investigation, inquiry, problem solving, and creative thinking (CSF 2016; Naslund² 2016) and help children to become life-long learners (Winthrop³ 2018). Therefore, the METVT wants to ensure that teaching and teacher training practices are aligned to the latest research findings on ECD, particularly regarding the development of early skills in mathematics and science (Naslund-Hadley and Brando 2015⁴) but also literacy.
- 1.2 **Strategy for providing more STEM ECD services: Creation of a Laboratory School.** To strengthen the development of early mathematics, science and literacy skills in ECD, the METVT wishes to create an Early Mathematics, Science and literacy laboratory school (LAB school) at the newly constructed Maria Holder Nursery School at Gall Hill where education, training and research are interconnected (Wilcox-Herzog & McLaren 2012). A laboratory school is a school that is operated in association with a learning institution – such as a university or teacher training institute – with the purpose of training teachers and/or experimenting in pedagogical models and practices that promote innovation.
- 1.3 **Teacher Training.** The ECD Laboratory school will be dedicated to test new pedagogical approaches, and train early childhood educators who understand and are able to implement developmentally appropriate practices in childcare settings that reflect Barbados' rich and complex society. The school will educate both pre-service and in-service ECD educator and will provide a flow of theory to practice and practice to theory. Specifically, the Barbados ECD Laboratory School will be designed to prepare teachers who understand and

¹ Winthrop, Rebecca. 2018. "Leapfrogging Inequality. Remaking Education to Help Young People Thrive". Brookings Institution Press. Washington DC.

² Naslund-Hadley, Emma and Rosangela Bando (editors). 2015. "All Children count". InterAmerican Development Bank. Washington DC.

³ Winthrop, Rebecca. 2018. "Leapfrogging Inequality. Remaking Education to Help Young People Thrive". Brookings Institution Press. Washington DC.

⁴ Naslund-Hadley, Emma and Rosangela Bando (editors). 2015. "All Children count". InterAmerican Development Bank. Washington DC.

emphasize the key role of relationships, constructive adult-child interactions, and teaching strategies in supporting physical, social, and intellectual development for all young children. The school will model individualized instruction that centers around the student through a teacher guided inquiry-based learning approach, including elements of explicit instruction, based on an enriched version of the national ECD curriculum.

- 1.4 Pedagogical Models and practices. The school will design and validate a guided early mathematics, science, and literacy learning model that arises from observed interests of children and meets their developmental, cultural and emotional needs, and serve as a testing ground where these innovative pedagogical practices can be tried, evaluated, and documented and best practices are modeled. It will test different strategies to increase parents' involvement in the education of their children. Successful initiatives will then be scaled up nationally using the Ministry resources.
- 1.5 The objective of this consultancy is to evaluate the LAB school's initiatives, that is,
 - Evaluate the established management model of the LAB school, that is, how is the LAB school coordinated with the training program at ETTC?
 - Adapt existing student assessment instruments, such as the IDB preschool version of the Early Grade Reading Assessment, (EGRA), early numeracy skills (e.g. the IDB preschool version of the Early Grade Math Assessment, EGMA), and vocabulary knowledge (e.g. the PEABODY vocabulary test) to the Barbados context. Test them in a pilot application and finalize them according to the results of the pilot.
 - Train staff from METVT, the ETTC, and the Lab school in the application of the various assessments to ensure that the staff can apply them in the future.
 - Review the existing pre-school assessment and work with the METVT that it will be applied on a regular basis and data will be analyzed.
 - Validate the newly developed pedagogical models and teacher training approaches through classroom observation videos. The goal of the classroom observations is to assess and validate quality of the instruction and learning environment. The technical proposal of the consultant should detail the suggested instruments to code the videos.
 - Compare the teacher training program for ECD developed at the LAB schools with the traditional program offered at the ETTC. To this end, define the mechanism of how to randomly assign teachers from ETTC to the LAB school and how to compare the two teacher training programs. Conduct classroom observations at the ETTC and compare them with the results of the LAB school setting.
 - Conduct a baseline for parent involvement/parent education and evaluate the effectiveness of the parent education programs developed for the LAB school.

What the consultant will do:

First Responsibility:

- Design the mechanism for randomly assign aspiring teachers to LAB School and ETTC.
- Design the evaluation for comparing the effectiveness of teacher training at the LAB school with the traditional program at ETTC. To this end, develop an instrument/ guide for classroom observations to assess/ validate the pedagogical approaches for Math, Science, and Literacy in ECD.
- Propose a "content" test for teachers to be applied as part of the evaluation of the two teacher training programs.
- Develop calendar for classroom observations with LAB school and ETTC.
- Train METVT , ETTC staff in instruments to be applied (instrument to code videos of classroom observations; student assessments)
- Conduct the classroom observations at LAB school and ETTC and report on results and recommendations.
- Collect baseline information and present report with results.
- Conduct focus groups with parents, teachers, teacher trainers at ETTC, METVT Officials, and students (as required).

Second Responsibility:

- Adapt and validate early childhood assessment (EGRA, EGMA) to the Barbados context.
- Train METVT and LAB school staff in application of assessment and data analysis, presentation of results.
- Implement design of the evaluation of the teacher training program at ETTC and the LAB school.
- Apply the assessments for baseline study and at end of each school year.
- Analyze data and present results in both written report and presentation.

Third Responsibility:

- Assess effect of parent education program
- Develop instrument to measure impact of parent education program
- Apply instrument and present results (baseline)
- Report summarizing all activities targeting students/teachers/ parents and evaluation of operation of LAB school (management model) at end of year 1
- Report summarizing all activities targeting students/ teacher/ parents and evaluation of operation of LAB school (management model) at end of year 2

Fourth responsibility:

- Organization and conduct of at least two workshops to present results of the various assessment for training purposes.

Deliverables:

- Workplan
- Baseline report on classroom observations
- Progress report on pilot experience of student assessment instruments in Barbados.
- Baseline report on student assessments
- Baseline for parent program.
- Mid-term report on student assessment (end of 1st year) and classroom observations; presentation of results / findings and recommendations.
- Final reports on classroom observations (end of 2nd year) speaking to teacher training approaches.
- Final report on student assessment (end of 2nd year)
- Report on parent education program.
- Workshop for dissemination of results

Payment timeline:

- 20% at signature of contract
- 10% at acceptance of workplan
- 20% at acceptance of baseline report and training workshop on student assessment instruments
- 10% at acceptance of mid-term report (speaking to student assessment and classroom observations)
- 20% at acceptance of Final report on classroom observation, student assessment.
- 20% at acceptance on Final report on parent education program and completion of dissemination workshop.

Skills requirements:

Education: MA / Ph.D. in Early Childhood Development (ECD), evaluation of ECD programs

Experience: 5+ years in evaluation of ECD program

Language: fluency in English

Opportunity Summary:

- Type of Contract and Modality: PEC
- Length of contract: 55 days over 2 year period including 43 days of per diem and 5 airplane tickets.
- Location: Barbados and home of consultant
- Responsible person: Emma Naslund-Hadley (emman@iadb.org)
- Requirements: Requirements: You must be a citizen of one of the [IDB's 48 member countries](#) and have no family members currently working at the IDB Group.

Job Title: Creation of a Laboratory School for Early Childhood Education in Barbados

Consultancy/Consulting firm

Background:

- 1.1 Quality and Equity of Preschool Education Remain Concerns.** Since 2015, the Ministry of Education and Technological and Vocational Training (METVT)⁵ has sought to improve the quality of preschool education, including the development of an Early Childhood Development (ECD) curriculum and standards.⁶ The curriculum fosters a child-centered teaching approach and speaks to the teaching of emerging literacy, mathematics and science. However, an external evaluation (Mind Bloom 2014) suggests that teaching methods are dated and do not always reflect the methods proposed by the curriculum. Given the uncertainty of future skills requirements for work but also for being a good citizen, the best recommendation is currently to teach students not only knowledge acquisition but a wide range of learning, work and life skills (Winthrop⁷, 2018, p. 28). The teaching of Science, Technology, Engineering and Math (STEM) subjects is considered a key tool in teaching the 21st century skills because math, engineering, and science emphasize investigation, inquiry, problem solving, and creative thinking (CSF 2016; Naslund⁸ 2016) and help children to become life-long learners (Winthrop⁹ 2018). Therefore, the METVT wants to ensure that teaching and teacher training practices are aligned to the latest research findings on ECE, particularly regarding the development of early skills in mathematics and science (Naslund-Hadley and Brando 2015¹⁰) but also literacy.
- 1.2 Strategy for providing more STEM ECE services: Creation of a Laboratory School.** To strengthen the development of early mathematics, science and literacy skills in ECD, the METVT wishes to create an Early Mathematics, Science and literacy laboratory school (LAB school) at the newly constructed Maria Holder Nursery School at Gall Hill where education, training and research are interconnected (Wilcox-Herzog & McLaren 2012). A laboratory school is a school that is operated in association with a learning institution – such as a university or teacher training institute – with the purpose of training teachers and/or experimenting in pedagogical models and practices that promote innovation.
- 1.3** The aim of the ECD Laboratory school will be to test new pedagogical approaches, and train early childhood educators who understand and are able to implement developmentally appropriate practices in childcare settings that reflect Barbados' rich and complex society.
- 1.4 Teacher Training.** The school will educate both pre-service and in-service ECD educator and will provide a flow of theory to practice and practice to theory. Specifically, the Barbados

⁵ The METVT is responsible for children from age 4 starting Pre-Kindergarten.

⁶ ECE standards stipulate: a 1:15 teacher/ student ratio for 3-5 year olds and 1.25 for 5-6 year olds.

⁷ Winthrop, Rebecca. 2018. "Leapfrogging Inequality. Remaking Education to Help Young People Thrive". Brookings Institution Press. Washington DC.

⁸ Naslund-Hadley, Emma and Rosangela Bando (editors). 2015. "All Children count". InterAmerican Development Bank. Washington DC.

⁹ Winthrop, Rebecca. 2018. "Leapfrogging Inequality. Remaking Education to Help Young People Thrive". Brookings Institution Press. Washington DC.

¹⁰ Naslund-Hadley, Emma and Rosangela Bando (editors). 2015. "All Children count". InterAmerican Development Bank. Washington DC.

ECD Laboratory School will be designed to prepare teachers who understand and emphasize the key role of relationships, constructive adult-child interactions, and teaching strategies in supporting physical, social, and intellectual development for all young children. The school will model individualized instruction that centers around the student through a teacher guided inquiry-based learning approach, including elements of explicit instruction, based on an enriched version of the national ECD curriculum.

- 1.5 Pedagogical Models and practices. Under the guidance of the learning institution, the school will design and validate a guided early mathematics, science, and literacy learning model that arises from observed interests of children and meets their developmental, cultural and emotional needs, and serve as a testing ground where these innovative pedagogical practices can be tried, evaluated, and documented and best practices are modeled. It will test different strategies to increase parents' involvement in the education of their children. Successful initiatives will then be scaled up nationally using the Ministry resources.

What the consultancy will do:

- To fully develop and operationalize the concept of the LAB school, the METVT will need technical assistance in the following areas: a) Development of a management model of the school including the coordination with a teacher training institution; b) design and provision of teacher training and coaching, c) development of strategies for parental involvement and education, d) support for the evaluation of initiatives, e) design and administer student assessments, and f) acquisition of high quality teaching and learning materials.
- The consultancy will work with the METVT and the team at the Maria Holder Nursery School and the Erdiston Teacher Training College (ETTC) to create the LAB school with the characteristics stated above.

In particular, the consultant team will:

- Conduct focus groups with officials from the METVT, ETTC, and Maria Holder Nursery School and review relevant reports/ literature on ECD in Barbados.
- Review existing structures of successful education institutions in the Caribbean (e.g. the Family Development and Children's Research Centre in TT; and the Caribbean Child Development Center in Jamaica).
- Organize regular meetings via skype (or other means) to update the IDB team and the METVT.

First Responsibility:

- a. **Develop the Management Structure of the Lab School.** The LAB school will be operated in association with the ETTC with the purpose of training teachers or experimenting in educational practices that promote innovation. To this end, the new school will have to establish a collaboration mechanism with the existing national teacher training institution to ensure that pre-service training can be provided to aspiring ECD teachers. It will also collaborate with the national teacher

training institution in the development of training for in-service teachers on a continuing basis.

- b. **Review the existing training program for pre-service ECD teachers and training** targeting in-service ECD teachers in Barbados and determine when/ how training periods/ modules at the LAB school are best integrated into the training program at ETTC. Determine how the ETTC training programs must be modified to allow coordination between the two institutions.
- c. **Develop the training content / modules** to be taught at the LAB School.
- d. **Design assessments of pedagogical and content knowledge** that the teachers should pass to graduate from the ETTC.

Second Responsibility.

- a. **Development and Validation of the pedagogical approaches and tools required to train teachers at the ETTC, focusing on early skill development in math, science, and literacy.**

(i) Drawing on existing ECD teacher training curricula and programs at the national teacher training college, develop and validate a new teacher training program. The focus should be on training of teachers for the 3-5-year cohort in the use of student centered pedagogical approaches in the targeted STEM areas and literacy;

(ii) develop parent programs that will allow parents to better support the development of their children;

(iii) Based on an inventory of existing learning materials in the early childhood center, acquire printed and tangible (counters, geometric solids, numerals) teaching and learning materials to ensure that the center has the required high-quality materials to successfully serve as a LAB school.

(iv) together with the team at Maria Gall, pilot the new pedagogical approaches, and train early childhood educators in these new pedagogical approaches as well as ETTC faculty.

Deliverables:

- Inception report/ workplan : 20% of payment
- 1st Progress Report on management structure and pedagogical model for innovative ways for teaching of Science, Math and Literacy and presentation of recommendations to METVT and IDB: 20% of payment upon acceptance of report by METVT and IDB.
- Report on materials needed: 20 % of payment (including payment for equipment)
- 2nd Progress Report on management structure, pedagogical models for Science, Math, and Literacy; and parent education program and presentations of recommendations to METVT: 20% payment upon acceptance of report by METVT and IDB.
- Final report on management structure, pedagogical models, and parent programs and presentation to METVT and IDB: 20% payment upon acceptance by METVT and IDB.

Skills Needed:

A learning institution with a minimum of 5 years of experience in ECD teacher professional development.

Experience: Extensive experience from work in Caribbean education systems, especially Barbados. 5+ years in project implementation; project management experience in Education sector.

Language: English.

Core and Technical Competencies:

- **The consulting team will have:**
 - A specialist for Early Childhood Development and teaching of STEM at that level of education;
 - One specialist for assessment at the ECD level
 - One specialist for teacher training at ECD level.

Opportunity Summary:

- **Type of contract and modality:** PEC
- **Length of contract:** 24 months period
- **Location:** Barbados and home of consulting team.
- **Responsible person:** Sabine Aubourg (sabinea@iadb.org).
- **Requirements:** Requirements: Requirements: You must be a citizen of one of the [IDB's 48 member countries](#) and have no family members currently working at the IDB Group.