

TC Document

I. Basic Information for TC

▪ Country/Region:	Belize
▪ TC Name:	Support for the Execution of Education Quality Improvement Program II (EQIP II)
▪ TC Number:	BL-T1130
▪ Team Leader/Members:	Emma Näslund-Hadley, Team Leader; María Fernanda Prada, Kenji Hokonohara, Ivana Blasco, Project Assistance (SCL/EDU); Alison Elias (SCL/MIG); Livia Minoja (INE/INE); Alexis Bryant and Henry Wade (CID/CBL); Brodrick Watson and Christian Lunstedt (VPC/FMP).
▪ Indicate if: Operational Support, Client Support, or Research & Dissemination	Operational Support
▪ If Operational Support TC, give number and name of Operation Supported by the TC:	Education Quality Improvement Program II (BL-L1030)
▪ Date of TC Abstract authorization:	4/7/2021
▪ Beneficiary (countries or entities which are the recipient of the technical assistance):	Ministry of Education Culture Science and Technology (MoECST)
▪ Executing Agency and contact name	IDB through SCL/EDU
▪ Donors providing funding (amount and Fund's name):	SOC
▪ IDB Funding Requested:	150,000.00
▪ Local counterpart funding, if any:	n/a
▪ Disbursement period (which includes Execution period):	24 months
▪ Required start date:	15 August 2021
▪ Types of consultants (firm or individual consultants):	Firm and individuals
▪ Prepared by Unit:	SCL/EDU
▪ Unit of Disbursement Responsibility:	SCL/EDU
▪ TC Included in Country Strategy (y/n):	Yes
▪ TC included in CPD (y/n):	Yes
▪ Alignment to the Update to the Institutional Strategy 2010-2020:	Yes

II. Description of the Associated Loan/Guarantee

- 2.1 Aware of the value of education, Belize has invested heavily in education and made access at the primary level almost universal.² However, student learning has continued to be limited. Only 36 percent of primary school graduating students (standard 6 students) perform at a satisfactory level in the Primary School Examination (PSE) (MoEYSC 2018). At the secondary level, 50 percent of secondary school-aged children attend school (MoEYSC 2018), substantially below the regional average of 72.6 percent (CIMA, 2018). The performance of secondary-school students is low in mathematics and science. On the Caribbean Secondary Education Certificate (CSEC) only 51.9 percent of the students who took the exam score at least a satisfactory grade in mathematics (CSEC, 2017) compared to an average score of 57 percent in the Caribbean (CSEC, 2017). In science, 44.3 percent of students who

take the exam attain a passing grade (CSEC, 2018). Strikingly, these are the scores largely of students with aspirations to attend tertiary education, as the exam is not universal. In English language, Belize students score higher (70.9 percent) or in line with the regional average (CSEC, 2017).

- 2.2 To address the causes of the low quality of instruction at the primary level of education, in 2014 the Government of Belize (GOB) and the IDB designed the Education Quality Improvement Program (EQIP), which set out to change what happens in Belize's primary education in science, mathematics and language arts classrooms (BL-L1018; 3186/OC-BL). Four years later in the final year of the program,¹⁶ 50 percent of Belize's primary schools have benefitted from the program,¹⁷ 48 percent of primary school principals have been trained as pedagogical leaders, 60 percent of primary school teachers have been trained and 37 percent of primary students (from Infant through Standard 6) have benefitted from an Inquiry and Problem-based Pedagogy (IPP) learning approach.¹⁸
- 2.3 The classroom practices have changed, with significant differences compared to non-EQIP schools in the proportion of lesson time with group work, use of manipulative materials, feedback to students, and active learning engagement of students (Loera & Mejía, 2018). Student learning in EQIP schools has also improved compared to peers in non-EQIP schools. By simply changing the pedagogy and without adding instructional time, a randomized control trial found that the learning gains in mathematics are the equivalent of approximately nine additional weeks of instruction, or 22 percent of the academic year, in Standard 2 (3rd grade). In science and language arts, the gains are the equivalent of about 16 and 14 additional weeks of instruction, respectively (which represents 35 and 40 percent of the academic year, respectively). These learning gains are relatively high in a comparison with mathematics and science programs in other countries (Bando, Naslund-Hadley & Gertler 2018). Although EQIP teacher training has been focused on teaching methods as opposed to subject content knowledge, teachers who have benefitted from EQIP have improved their own knowledge of mathematics, science and language. The proportion of EQIP teachers who manage to score an overall grade of B or higher on the Primary School Examination is 7 percent higher than among teachers who have not been trained. Another effect is that the proportion of teacher with medium or high mathematics anxiety is lower among EQIP teachers compared with control teachers (Naslund-Hadley & Alonzo, 2019). Another important impact of the Program was that the statistically significant gender differences in student achievement in favor of boys in mathematics disappeared in the follow-up measures.
- 2.4 **EQIP II Strategy.** In 2019, EQIP II was approved to expand the IPP learning approach nationwide to the 50 percent of schools that has not yet benefitted from IPP and school management training. To ensure that the focus on hands-on, student-centered mathematics and science learning continue beyond primary school, EQIP II was also designed to bring the IPP approach to the secondary level of education.
- 2.5 **Loan Modification.** In October 2020, the Board of Executive Directors approved the modification to the "Education Quality Improvement Program (EQIP) II" (BL-L1030, Loan Contract No. 4798/OC-BL) with the twofold purpose of helping primary and secondary schools experiencing learning challenges because of the school closures due to the COVID-19 pandemic; and integrate non-reimbursable resources from the Inter-American Development Bank's Grant Facility (GRF) to improve learning in diverse and multicultural environments in migrant recipient communities. The objective

remains unchanged, seeking to improve the quality and gender equity of education at the primary and secondary levels, with a special focus on innovation in Science Technology Engineering Arts and Mathematics (STEAM) education. This general objective is pursued by achieving the following specific objectives: (i) improve the quality of primary school teachers by expanding the Inquiry- and Problem-based Pedagogy (IPP) learning approach; (ii) enhance the quality of secondary education teachers by improving teaching practices with a focus on student-centered science and mathematics learning; and (iii) promote gender sensitive STEAM teaching.

- 2.6 **Strategic Alignment.** The TC is consistent with: (i) the Second Update to the Institutional Strategy (UIS) 2020-2023 (AB-3190-2) and is strategically aligned with the development challenge of productivity and innovation by supporting the measurement analysis of education quality which will strengthen the governance of the public education sector; as well as social inclusion and equality by financing activities that aimed to improve the quality of education services that are financed through EQIP II. In that sense, it is expected that this TC will contribute to improved quality of the services that will be provided to the most vulnerable part of the population. The TC is also consistent with: (i) the Strategy on Social Policy for Equity and Productivity (GN-2588-4) as it is expected that the results will allow to support the improvement of school quality in vulnerable, underserved communities; and (ii) the objectives of the Ordinary Capital Strategic Development Program for Social Development (GN-2819-1), particularly the second objective that is to strengthen public institutions' effort to become more effective and efficient in social programming. The TC is also aligned with the Skills Development Sector Framework Document (GN-3012-3), which promotes quality education, including a focus on the COVID-19 related impact on school systems, and the learning of migrant students. It is also aligned with Belize's IDB Group Country Strategy Update 2020-2021 (GN-2746-3), which prioritizes improved access to quality education and institutional strengthening.

III. Objectives and Justification of the TC

- 3.1 **Objectives.** The TC will provide technical assistance to the Ministry of Education Culture Science and Technology (MoECST) in Belize in the execution of EQIP II, enhancing its evaluation. Specifically, the additional resources will be used to collect data and analyze the situation of Belize's youth in the wake of the COVID-19 pandemic and related school closures and social distancing measures.
- 3.2 **Specific objectives.** The specific objectives are two-fold. First, the TC sets out to collect baseline data for EQIP II in secondary schools throughout the country. Second, the TC sets out to help disseminate EQIP II activities and objectives, as well as survey findings. The survey is expected to be completed in 2022, complementing evaluation activities financed through BL-T1116 and BL-L1130. Specifically, BL-T1116 finances in 2021 the originally foreseen baseline survey questions of the EQIP II evaluation (sense of belonging in STEAM, expectations, problem-solving and critical thinking skills); and funds from BL-L1130 will finance in 2023 a video study of classroom practices.

- 3.3 **Background.** EQIP II includes an impact evaluation to critically examine the program by collecting and analyzing information about activities, student and teacher characteristics, and outcomes. The evaluation financed under the loan includes the randomization of acceptance of student applicants to the school to assess its effect on STEAM learning, including sense of belonging in STEAM; expectations; problem-solving and critical thinking skills. In light of the loan modification, the MoECST wishes to expand the evaluation to survey the situation of students and teachers in secondary and technical schools throughout the country and collect baseline data to allow for an impact evaluation of EQIP on the 50 percent of secondary schools that are benefitting from EQIP II.

IV. Description of activities/components and budget

- 4.1 To achieve its objectives, the TC is structured around two components: (i) Evaluation of the situation of Belizean students; and (ii) technical support.
- 4.2 **Component I – Evaluation of the Situation of Belizean Students (US\$130,000).** Funds from the TC will finance a survey of the situation of students at the secondary level and vocational school. Research questions will include: How are students and their families experiencing the disruptions of the pandemic? How are the school closures affecting student learning? What are specific opportunities for improvement in the at-home learning support provided at the secondary level and in technical vocational schools? How are COVID-19 and related social distancing measures shaping students' perceptions about the future? How is the mental wellbeing of students? The survey questions will complement the originally foreseen topics of the EQIP II evaluation, including sense of belonging in STEAM; expectations; problem-solving and critical thinking skills. To help answer the above research questions, the TC will collect survey data from all secondary and technical vocational schools in Belize. The TC will also draw on data from the Belize Education Management Information System (BEMIS), including data on student achievement and profiles.
- 4.3 The survey will include a battery of instruments to be applied among secondary students, parents, and teachers. Due to the context of COVID-19 all Instruments will be applied remotely: online surveys, telephone surveys and / or surveys by WhatsApp (or similar software). The instruments for parents, teachers and students will include measurements of perceptions towards education, remote schooling, gender stereotypes, self-esteem, personality, parental support, information on aspects that may be worsening due to the pandemic such as “cyberbullying” or teenage pregnancy (this is also collected in the instruments of the teacher and parents). Finally, the instruments will collect information on the characteristics of students, parents, and teachers (gender, age, ethnicity), as well as other information such as identifiers (e.g., student identification number) and information relevant to be able to locate respondents in the future. The parent survey will collect information on parental perceptions and investments, including household characteristics (income, composition, type of work of the head of the household, income proxies, etc.),

educational level, number of children, anxiety, future expectations for the child, gender stereotypes, and perceptions towards future studies. Data will be disaggregated by migratory status to allow for a heterogeneity analysis by migrant and non-migrant students.

4.4 **Component II – Dissemination (US\$20,000).** Funds from the TC will finance the dissemination of the findings. Specifically, the dissemination activities will include the development of a publication and a workshop, which aims to show the results from the regional survey about education in times of COVID-19. The workshop will take place once the survey has been completed.

4.5 **Budget.** The total cost of the TC is US\$150,000 and will be financed through a contribution from resources of the OC Strategic Development Program for Social Development (SOC).

Indicative Budget (US\$)

Activity/Component	Description	IDB/Fund Funding	Total Funding
Component 1. Evaluation of the Situation of Belizean Students		130,000	130,000
Baseline (enumerators, data cleaning)	Firm	110,000	110,000
Analysis	Individual	20,000	20,000
Component 2. Dissemination		20,000	20,000
Editing and graphic design	Firm	10,000	10,000
Dissemination	Firm	10,000	10,000
Total		150,000	150,000

4.6 The Project Team Leader, the Education Specialist (SCL/EDU) leading the IDB BL-L1030 project team, will be responsible for executing this project. The Education Division will be responsible for supervision costs.

V. Executing agency and execution structure

5.1 The IDB, through the Bank’s Social Sector Department (SCL/EDU) will execute the TC. The GOB has requested that the IDB execute the TC based on its long trajectory of experimental randomized control trials in the education sector in Belize. In line with Appendix 10 of the Operational Guidelines for Technical Cooperation Products (GN-2629-1), as modified in Annex 2 of GN-619-4, Bank execution of the TC is justified as contracting by the IDB enhances the independence of an experimental evaluation. Moreover, through its ongoing policy dialogue with the beneficiary country, civil society organizations in Central America, and the STEM research community, the Bank is well placed to coordinate of all activities to be financed by this TC and to serve as the executing agency.

5.2 As the executing agency of the TC, the Bank will be responsible for: (i) identifying the studies and technical work required for the execution of the TC; (ii) selecting and hiring consultants to provide the necessary services; (iii) supervise the consulting services that the beneficiary provides technical inputs to; and (iv) manage the execution and delivery of consulting services. The Ministry of Finance has submitted a letter of non-objection, requesting that the Bank will be responsible for all aspects of project

management, including the administration of resources, and the contracting of specialized consulting services in accordance with Bank policies and procedures.

- 5.3 **Procurement.** All activities to be executed under this TC have been included in the Procurement Plan (see Annex IV) and will be contracted in accordance with Bank policies as follows: (a) AM-650 of the Administrative Manual “Complementary Workforce”; (b) consulting firms for services of intellectual nature in accordance with the Policy for the Selection and Contracting of Consulting Firms for Bank-Executed Operational Work (GN-2765-4) and its Operational Guidelines (OP-1155-4); and (iii) for logistic services and other related services, the Corporate Procurement Policy (GN-2303-28) will apply.
- 5.4 **Single-source selection.** Direct contracting is foreseen of Innovations for Poverty Action (IPA) in the amount of approximately US\$110,000 to undertake the survey survey that explores the experiences that Belize’s students with emergency remote education (Component I). IPA is qualified and considered an agency with exceptional worth for the assignment in accordance with 4.1.3(d) of the Policy for the Selection and Contracting of Consulting Firms for Bank-executed Operational Work (GN-2765-4). This non-governmental organization has completed over 600 evaluation surveys across the globe and has another 300 ongoing. Some 50 of these experimental evaluations are in the education sector. The single source selection is also in line with 4.1.3(a) of the same policy, which allows for the continuation of previous work carried out by the firm. Following a competitive bidding process, IPA successfully conducted the data collection related to ES-T1282 and ES-T1295.
- 5.5 **Monitoring.** The Project Team will be responsible for the review of all technical and financial reporting. The Team Leader will be responsible for annual monitoring of activities in the field, and continuous progress meetings with the counterparts and consultants. The project team will be responsible for the preparation and submission to the donor of the project reporting, in compliance with the stipulations of the Administration Agreement.

VI. Major issues

- 6.1 No major risks are expected from this project. To prevent any possible risks, the Team will communicate and work closely with the MoECST regarding the consultants hired for this project. The COVID-19 pandemic poses minor risks in the timely development of TC products as virtual data collection is planned. It is expected that any risks of delays in execution will be mitigated by having the IDB as the executing agency, especially considering that the Bank has experience in Belize's education sector, including large scale data collection from teachers, principals, parents, and students. In addition, the strong links between this TC and BL-L1030 will allow for a wider dissemination of results and guarantee sustainability of the project and direct MoECST involvement in the use of TC products.

VII. Exceptions to Bank policy

- 7.1 There are no exceptions to Bank policy.

VIII. Environmental and Social Strategy

- 8.1 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](#)).

Required Annexes:

- Request from the client
- Results Matrix (developed and generated in Convergence)
- Terms of Reference
- Procurement Plan.