

TERMS OF REFERENCE

AI Education Program Development

Dominican Republic
DR-T1295

[\[Web link to approved document\]](#)

AI Education

1. Background and Justification

- 1.1.** While discussions surrounding Artificial Intelligence (AI) in education tend to emphasize concerns about cheating and data privacy, it is imperative to recognize its potential to revolutionize the learning process. AI can serve as a powerful educational resource, facilitating personalized learning experiences, adaptive tutoring, and comprehensive data analysis, ultimately fostering a more inclusive and dynamic educational environment. By leveraging AI's capabilities, educators can tailor instructional approaches, cater to diverse learning needs, and instill critical 21st-century skills, thereby preparing students for the challenges of a rapidly evolving digital landscape.
- 1.2.** Among the most interesting uses of AI is AI tutoring. In practice, tutoring has often widened learning gaps among different groups of students. Students from low socioeconomic status (SES) households often face barriers to accessing the same high-quality tutoring and educational resources as their more affluent peers. Limited financial resources may prevent low SES students from enrolling in costly private tutoring programs or accessing specialized educational support services. Additionally, students from low SES households may attend schools in rural or underserved communities where it is hard or impossible to hire quality tutors. Although novel and yet not put to the test, AI tutoring has the potential to play a crucial role in leveling the playing field for low-income students by providing them with access to high-quality educational support and resources. The benefits of AI tutoring include: (i) personalized learning experiences tailored to the specific needs and learning styles of individual students. This individualized approach helps bridge learning gaps and addresses the diverse educational requirements of students, regardless of their socioeconomic status; (ii) AI tutoring platforms are often available round the clock, enabling students to access educational resources and assistance at any time; (iii) AI-powered tutoring platforms address the challenge of finding local tutors, making high-quality tutoring more accessible to students in rural and disperse contexts; and (iv) AI tutoring has the potential to facilitate remote learning, allowing students to access educational materials and tutoring sessions from the comfort of their homes or local community centers, reducing the need for expensive travel or additional logistical costs.
- 1.3.** Globally, Japan is spearheading an educational revolution by incorporating AI into its educational framework. While the strategic blueprint is still emerging, the core of Japan's Ministry of Education's vision is to empower students in advancing their critical thinking, problem-solving

abilities, and creativity—attributes deemed indispensable for navigating the intricacies of the digital economy.

- 1.4. In this context and building on the initiative of Japan’s Ministry of Education, the general objective of the proposed TC is to enhance learning of low achieving secondary education students in the Dominican Republic.

2. **Objectives**

- 2.1. The objective of the TC is to develop an AI education program in the Dominican Republic with two different treatment models: AI tutoring and AI classroom education. The AI classroom education model should use AI to support teachers in the use of AI tools to i) analyze students' learning patterns and abilities, and ii) identify students with special education needs, providing individualized learning materials and adaptive assessments.

3. **Scope of Services**

- 3.1. Develop and implement an AI education program for some 2,000 students from low SES households in secondary education with low levels of mathematics achievement.

4. **Key Activities**

- 4.1. The consulting firm will carry out the following activities:
 - 4.1.1. Develop an AI education program with tutoring and classroom education models.
 - 4.1.2. Validate the program in the Dominican Republic context.
 - 4.1.3. Develop a handbook for the implementation of the AI education program.

5. **Expected Outcome and Deliverables**

- 5.1. The consultant will submit the following:
 - 5.1.1. A detailed work plan
 - 5.1.2. Draft proposal on AI education program
 - 5.1.3. Final AI education program based on validation
 - 5.1.4. Handbook for AI education implementation

6. **Project Schedule and Milestones**

- 6.1. The project will be implemented between 2024 and 2025. The timeline for developing the program is 12 months, including 9 months for program development and 3 months for validation.

7. **Reporting Requirements**

- 7.1. Reports must be submitted in electronic PDF files to Emma Naslund-Hadley (emman@iadb.org).

8. Acceptance Criteria

8.1. Acceptance of consultancy products will be based on international practices for human subject research, and experimental evaluations.

9. Other Requirements

9.1. *n/a*

10. Supervision and Reporting

10.1. The consultancy firm will report to Emma Naslund-Hadley (emman@iadb.org), including regular meetings with the IDB over the course of the contract.

11. Schedule of Payments

11.1. Payment terms will be based on project milestones or deliverables. The Bank does not expect to make advance payments under consulting contracts unless a significant amount of travel is required. The Bank wishes to receive the most competitive cost proposal for the services described herein.

11.2. The IDB Official Exchange Rate indicated in the RFP will be applied for necessary conversions of local currency payments.

Payment Schedule	
<i>Deliverable</i>	%
1. <i>Against work plan</i>	20%
2. <i>Draft program proposal</i>	20%
3. <i>Final education program</i>	20%
4. <i>Handbook for implementation</i>	20%
TOTAL	100%

TERMS OF REFERENCE

AI Education Program Implementation

Dominican Republic
DR-T1295

[Web link to approved document]

AI Education

1. Background and Justification

- 1.1.** While discussions surrounding Artificial Intelligence (AI) in education tend to emphasize concerns about cheating and data privacy, it is imperative to recognize its potential to revolutionize the learning process. AI can serve as a powerful educational resource, facilitating personalized learning experiences, adaptive tutoring, and comprehensive data analysis, ultimately fostering a more inclusive and dynamic educational environment. By leveraging AI's capabilities, educators can tailor instructional approaches, cater to diverse learning needs, and instill critical 21st-century skills, thereby preparing students for the challenges of a rapidly evolving digital landscape.
- 1.2.** Among the most interesting uses of AI is AI tutoring. In practice, tutoring has often widened learning gaps among different groups of students. Students from low socioeconomic status (SES) households often face barriers to accessing the same high-quality tutoring and educational resources as their more affluent peers. Limited financial resources may prevent low SES students from enrolling in costly private tutoring programs or accessing specialized educational support services. Additionally, students from low SES households may attend schools in rural or underserved communities where it is hard or impossible to hire quality tutors. Although novel and yet not put to the test, AI tutoring has the potential to play a crucial role in leveling the playing field for low-income students by providing them with access to high-quality educational support and resources. The benefits of AI tutoring include: (i) personalized learning experiences tailored to the specific needs and learning styles of individual students. This individualized approach helps bridge learning gaps and addresses the diverse educational requirements of students, regardless of their socioeconomic status; (ii) AI tutoring platforms are often available round the clock, enabling students to access educational resources and assistance at any time; (iii) AI-powered tutoring platforms address the challenge of finding local tutors, making high-quality tutoring more accessible to students in rural and disperse contexts; and (iv) AI tutoring has the potential to facilitate remote learning, allowing students to access educational materials and tutoring sessions from the comfort of their homes or local community centers, reducing the need for expensive travel or additional logistical costs.
- 1.3.** Globally, Japan is spearheading an educational revolution by incorporating AI into its educational framework. While the strategic blueprint is still emerging, the core of Japan's Ministry of

Education's vision is to empower students in advancing their critical thinking, problem-solving abilities, and creativity—attributes deemed indispensable for navigating the intricacies of the digital economy.

- 1.4. In this context and building on the initiative of Japan's Ministry of Education, the general objective of the proposed TC is to enhance learning of low achieving secondary education students in the Dominican Republic.

2. **Objectives**

- 2.1. The objective of this consultancy is to evaluate the cost-effectiveness of AI education, including tutoring, in a low Socio-Economic Status (SES) context in the Dominican Republic. The consultancy firm will also pilot two AI education models (AI tutoring and AI classroom education) in the Dominican Republic.

3. **Scope of Services**

- 3.1. Implement the two models in a group of schools offering secondary education in the Dominican Republic.

4. **Key Activities**

- 4.1. The consulting firm will carry out the following activities:
 - 4.1.1. Contracting 100 AI coaches for schools.
 - 4.1.2. Provide in person training sessions to AI coaches. Training includes use of AI software and best practices for using AI software within their lesson plans. Consultancy firm must provide local transportation of 100 AI coaches.
 - 4.1.3. Pilot both AI education models in schools along with AI coordinators. This includes coaching teachers and caregivers.

5. **Expected Outcome and Deliverables**

- 5.1. The consultant will submit the following:
 - 5.1.1. A detailed work plan
 - 5.1.2. Progress report on training of coaches
 - 5.1.3. Progress report on pilot programs of AI education models.
 - 5.1.4. Cost-effectiveness final report

6. **Project Schedule and Milestones**

- 6.1. The project will be implemented between 2025 and 2026.

7. Reporting Requirements

7.1. Reports must be submitted in electronic PDF files to Emma Naslund-Hadley (emman@iadb.org).

8. Acceptance Criteria

8.1. Acceptance of consultancy products will be based on international practices for human subject research, and experimental evaluations.

9. Other Requirements

9.1. *n/a*

10. Supervision and Reporting

10.1. The consultancy firm will report to Emma Naslund-Hadley (emman@iadb.org), including regular meetings with the IDB over the course of the contract.

11. Schedule of Payments

11.1. Payment terms will be based on project milestones or deliverables. The Bank does not expect to make advance payments under consulting contracts unless a significant amount of travel is required. The Bank wishes to receive the most competitive cost proposal for the services described herein.

11.2. The IDB Official Exchange Rate indicated in the RFP will be applied for necessary conversions of local currency payments.

Payment Schedule	
<i>Deliverable</i>	%
1. <i>Against work plan</i>	20%
2. <i>Training progress report.</i>	20%
3. <i>Pilot program progress report</i>	20%
4. <i>Cost-effectiveness final report</i>	20%
TOTAL	100%

TERMS OF REFERENCE

Assessment of children's mathematical abilities

Dominican Republic
DR-T1295

[Web link to approved document]

AI Education

1. Background and Justification

- 1.1.** While discussions surrounding Artificial Intelligence (AI) in education tend to emphasize concerns about cheating and data privacy, it is imperative to recognize its potential to revolutionize the learning process. AI can serve as a powerful educational resource, facilitating personalized learning experiences, adaptive tutoring, and comprehensive data analysis, ultimately fostering a more inclusive and dynamic educational environment. By leveraging AI's capabilities, educators can tailor instructional approaches, cater to diverse learning needs, and instill critical 21st-century skills, thereby preparing students for the challenges of a rapidly evolving digital landscape.
- 1.2.** Among the most interesting uses of AI is AI tutoring. In practice, tutoring has often widened learning gaps among different groups of students. Students from low socioeconomic status (SES) households often face barriers to accessing the same high-quality tutoring and educational resources as their more affluent peers. Limited financial resources may prevent low SES students from enrolling in costly private tutoring programs or accessing specialized educational support services. Additionally, students from low SES households may attend schools in rural or underserved communities where it is hard or impossible to hire quality tutors. Although novel and yet not put to the test, AI tutoring has the potential to play a crucial role in leveling the playing field for low-income students by providing them with access to high-quality educational support and resources. The benefits of AI tutoring include: (i) personalized learning experiences tailored to the specific needs and learning styles of individual students. This individualized approach helps bridge learning gaps and addresses the diverse educational requirements of students, regardless of their socioeconomic status; (ii) AI tutoring platforms are often available round the clock, enabling students to access educational resources and assistance at any time; (iii) AI-powered tutoring platforms address the challenge of finding local tutors, making high-quality tutoring more accessible to students in rural and disperse contexts; and (iv) AI tutoring has the potential to facilitate remote learning, allowing students to access educational materials and tutoring sessions from the comfort of their homes or local community centers, reducing the need for expensive travel or additional logistical costs.
- 1.3.** Globally, Japan is spearheading an educational revolution by incorporating AI into its educational framework. While the strategic blueprint is still emerging, the core of Japan's Ministry of

Education's vision is to empower students in advancing their critical thinking, problem-solving abilities, and creativity—attributes deemed indispensable for navigating the intricacies of the digital economy.

- 1.4. In this context and building on the initiative of Japan's Ministry of Education, the general objective of the proposed TC is to enhance learning of low achieving secondary education students in the Dominican Republic.

2. **Objectives**

- 2.1. The objective of this consultancy is to assess children's mathematic abilities, perceptions of and sense of belonging in mathematics. The consulting firm should carry out a diagnostic assessment of all students to help develop their individualized learning plans and conduct two evaluations of AI education to assess children's skill development; and teacher pedagogical practice. The consulting firm will carry out an experimental approach and randomly assign secondary students to treatment and control groups. This will allow for comparison of results between the groups of participants at the end of the program and, based on this, to conclude about the effectiveness of the intervention.

3. **Scope of Services**

- 3.1. Conduct experimental evaluation on 2,000 students from low SES households in secondary education with low levels of mathematics achievement and their teachers.

4. **Key Activities**

- 4.1. The consulting firm will carry out the following activities:
 - 4.1.1. Process the application for an IRB for human subject research
 - 4.1.2. Develop a student assessment that includes sections on cognitive abilities as well as social, emotional, and practical skills essential for success in the 21st-century landscape
 - 4.1.3. Develop a teacher assessment that includes teacher engagement in reflective practices, sensitivity and awareness of students' individual learning needs and progress.
 - 4.1.4. Develop a monitoring and evaluation plan.
 - 4.1.5. Collect quantitative data on two occasions for baseline and endline data.
 - 4.1.6. Clean and analyze the data to assess whether the AI education program has an impact on student mathematical abilities.
 - 4.1.7. Perform a qualitative evaluation on the pedagogical practice of trained teachers on AI education program.
 - 4.1.8. Participate in the dissemination of the results, including presentations in the Dominican Republic, as well as the co-drafting of publications.

5. **Expected Outcome and Deliverables**

- 5.1. The consultant will submit the following:

- 5.1.1. A detailed work plan
- 5.1.2. Monitoring and evaluation plan
- 5.1.3. Student and teacher assessments
- 5.1.4. A 2025 baseline data and IRB
- 5.1.5. A qualitative evaluation report
- 5.1.6. A final evaluation report including all databases with code banks

6. Project Schedule and Milestones

6.1. The project will be implemented between 2025 and 2026.

7. Reporting Requirements

7.1. Reports must be submitted in electronic PDF files to Emma Naslund-Hadley (emman@iadb.org).

8. Acceptance Criteria

8.1. Acceptance of consultancy products will be based on international practices for human subject research, and experimental evaluations.

9. Other Requirements

9.1. *n/a*

10. Supervision and Reporting

10.1. The consultancy firm will report to Emma Naslund-Hadley (emman@iadb.org), including regular meetings with the IDB during the treatment phase.

11. Schedule of Payments

11.1. Payment terms will be based on project milestones or deliverables. The Bank does not expect to make advance payments under consulting contracts unless a significant amount of travel is required. The Bank wishes to receive the most competitive cost proposal for the services described herein.

11.2. The IDB Official Exchange Rate indicated in the RFP will be applied for necessary conversions of local currency payments.

Payment Schedule	
<i>Deliverable</i>	%
1. <i>Against work plan</i>	20%

<i>2. Monitoring and evaluation plan</i>	10%
<i>3. Against student and teacher assessments</i>	20%
<i>4. Against baseline report, including database and IRB</i>	20%
<i>5. Against the qualitative evaluation report</i>	10%
<i>6. Against the receipt and approval of the final evaluation report, including corresponding database.</i>	20%
TOTAL	100%

Selection process #.....:

TERMS OF REFERENCE

Video on AI Education

Dominican Republic

DR-T1295

[Web link to approved document]

AI Education

1. Background and Justification

- 1.1.** While discussions surrounding Artificial Intelligence (AI) in education tend to emphasize concerns about cheating and data privacy, it is imperative to recognize its potential to revolutionize the learning process. AI can serve as a powerful educational resource, facilitating personalized learning experiences, adaptive tutoring, and comprehensive data analysis, ultimately fostering a more inclusive and dynamic educational environment. By leveraging AI's capabilities, educators can tailor instructional approaches, cater to diverse learning needs, and instill critical 21st-century skills, thereby preparing students for the challenges of a rapidly evolving digital landscape.
- 1.2.** Among the most interesting uses of AI is AI tutoring. In practice, tutoring has often widened learning gaps among different groups of students. Students from low socioeconomic status (SES) households often face barriers to accessing the same high-quality tutoring and educational resources as their more affluent peers. Limited financial resources may prevent low SES students from enrolling in costly private tutoring programs or accessing specialized educational support services. Additionally, students from low SES households may attend schools in rural or underserved communities where it is hard or impossible to hire quality tutors. Although novel and yet not put to the test, AI tutoring has the potential to play a crucial role in leveling the playing field for low-income students by providing them with access to high-quality educational support and resources. The benefits of AI tutoring include: (i) personalized learning experiences tailored to the specific needs and learning styles of individual students. This individualized approach helps bridge learning gaps and addresses the diverse educational requirements of students, regardless of their socioeconomic status; (ii) AI tutoring platforms are often available round the clock, enabling students to access educational resources and assistance at any time; (iii) AI-powered tutoring platforms address the challenge of finding local tutors, making high-quality tutoring more accessible to students in rural and disperse contexts; and (iv) AI tutoring has the potential to facilitate remote learning, allowing students to access educational materials

and tutoring sessions from the comfort of their homes or local community centers, reducing the need for expensive travel or additional logistical costs.

1.3. Globally, Japan is spearheading an educational revolution by incorporating AI into its educational framework. While the strategic blueprint is still emerging, the core of Japan's Ministry of Education's vision is to empower students in advancing their critical thinking, problem-solving abilities, and creativity—attributes deemed indispensable for navigating the intricacies of the digital economy.

1.4. In this context and building on the initiative of Japan's Ministry of Education, the general objective of the proposed TC is to enhance learning of low achieving secondary education students in the Dominican Republic.

2. Objectives

2.1. The objective of this consultancy is to produce a video summarizing the findings from the pilot program of the AI education model in the Dominican Republic.

3. Scope of Services

3.1. The consultancy firm should produce a video, summarizing the findings from the AI education pilot program.

4. Key Activities

4.1. The consulting firm will carry out the following activities:

4.1.1. Research and Interviews: - Interview educators, parents, and students on their experience throughout the pilot program.

4.1.2. Storyboarding and Script Development: - Create a storyboard outlining the narrative flow of the video, ensuring a clear and engaging storyline that highlights the experiences of students and teachers.

4.1.3. School Visits and Filming: - Visit schools participating in the pilot program to capture authentic footage of their daily experiences and interactions.

5. Expected Outcome and Deliverables

5.1. The consultant will submit the following:

5.1.1. A storyboard

5.1.2. A video summarizing results from pilot program.

6. Project Schedule and Milestones

6.1. The project will be implemented in 2027.

7. Reporting Requirements

7.1. Reports and videos must be submitted in electronic files to Emma Naslund-Hadley (emman@iadb.org).

8. Acceptance Criteria

8.1. Acceptance of consultancy products will need to be approved by the IDB Team Leader.

9. Other Requirements

9.1. n/a

10. Supervision and Reporting

10.1. The consultancy firm will report to Emma Naslund-Hadley (emman@iadb.org), including regular meetings with the IDB over the course of the contract.

11. Schedule of Payments

11.1. Payment terms will be based on project milestones or deliverables. The Bank does not expect to make advance payments under consulting contracts unless a significant amount of travel is required. The Bank wishes to receive the most competitive cost proposal for the services described herein.

11.2. The IDB Official Exchange Rate indicated in the RFP will be applied for necessary conversions of local currency payments.

Payment Schedule	
<i>Deliverable</i>	%
1. <i>A story board</i>	40%
2. <i>Submission and approval of video</i>	60%
TOTAL	100%