STEM ACCESS FOR GIRLS EVALUATION PLAN

INTRODUCTION

Year One of this evaluation will monitor the project implementation and satisfaction. The program has been in existence since 2016 and implemented in Suriname starting in Fall 2018. The program was intended to start in Haiti in September 2019; however, there was unrest in Haiti, which postponed school. In January 2020, the Haitian schools started again. The evaluation will include a pre-implementation interview with school officials to understand expectations and community needs, baseline surveys of students' STEM perceptions and attitudes about STEM fields, end-of-program survey to measure students' satisfaction and changes in STEM perceptions, and implementation assessment collected through interviews with administration and teachers and focus groups with students.

PERFORMANCE MEASURES

PROJECT OBJECTIVES (as stated in U.S. Haitian Embassy proposal)

Table 1.
Project Goals and Objectives to Guide Evaluation Work

Goals	Objectives
Early and routine access to new technology and STEM education	Increase at least 65% of students' computer literacy as measured by computer literacy assessments
Student empowerment to build strong STEM identities and visualize themselves in STEM professions	Increase at least 65% of students' interest in STEM as assessed by a STEM-interest survey
Inspire program participants, volunteers and community members to become change agents	Improve at least 30% of students' STEM identities as measured by a survey and focus groups
Reduce professional, educational and skill disparities for Haitian young ladies	Expose 90% of students to STEM careers
Provide mentoring and role models for Haitian young ladies	Improve at least 30% of students' attitudes toward STEM as measured by a STEM attitude survey

Table 2.
Project Objectives, Data Collection Timeline, Data Collection Tools, and Stakeholder

Project Objectives	Data Collection Timeline	Methods/ Instruments	Stakeholder
1. Computer Literacy	February, July	Computer literacy assessment	Students, teachers
2. STEM Interest	February, July	STEM interest survey	Students
3. STEM Identity	February, July	STEM identity survey	Students
4. STEM Career Exposure	July	Implementation feedback survey	Students, teachers
5. STEM Attitudes	February, July	Draw-a-scientist	Students
6. Satisfaction	July	Survey, interviews	Students, administrators, teachers
7. Integrity of Implementation	July	Survey, interview, focus group	Students, administrators, teachers

EVALUATION PROCESS

In January and February, the Program Staff will meet with school administrators in Haiti. These conversations will be documented to inform the expectations and community needs as related to the STEM Access program. Once the program begins implementation, program administrators will administer a survey for the students to understand a baseline level of students' STEM interest, attitudes, and identity; and computer literacy. A preliminary report of the baseline data will be shared within 30 days of receiving the data.

Program implementation will take place from February to July 2020. During July, the last month of the program, the students will be reassessed for their STEM interest, attitudes, and identity; and computer literacy. These assessments will be the same as the pre assessments to allow for a balanced comparison of the students' development. In July, the teachers and administrators will also be surveyed and interviewed to understand their perceptions of changes in the students, the ease of implementation, and any recommendations. A final report highlighting the students' development and recommendations will be provided within 30 days of receiving the final data.

- **January-February:** Develop evaluation plan, develop pre-assessments, collect pre-assessment data, analyze baseline data, generate **formative report** with baseline data.
- **May-June:** Arrange for final data collection
- **July:** Collect end-of-program data, satisfaction, and integrity of implementation.
- **August: Final summative report** including all from formative report, discoveries from post surveys and any trends over the year.

DATA COLLECTION MEASURES/TOOLS

Surveys/Interviews

Survey instruments will be developed by the researcher and reviewed with the program staff. Whenever possible, the surveys will be based off of already-validated survey instruments. The following are the survey instruments needed:

- Satisfaction survey after each activity for students
- Satisfaction survey at end of program for students and teachers
- Way of implementation survey for teachers
- STEM Interest survey for students
- STEM Attitude survey for students
- Computer Literacy survey for students and teachers

Focus Group

Focus group protocols will be developed by the researcher and reviewed with the program staff. The focus groups will be facilitated by Haitian community members who have been trained in administering focus groups. The focus groups will be recorded, and the transcripts will be scribed, and translated for analysis.

- Students engaged in STEM Access programs engage in a focus group activity to discuss:
  - What was the best part of the activity times?
  - What were the worst parts of the activity times?
  - What were some things that you went home to tell your family or friends about?
  - What content

DATA MANAGEMENT AND ANALYSIS

The evaluator will collect the data through a password-protected Google Form. The data will then be stored on the researcher's computer, which is password protected. The data will be stored on this computer through the terms of this project. The data will also be stored in the researcher's password-protected Dropbox account for backup. The data will be used to provide a program evaluation of STEM Access For Girls. The researcher and research support staff will be the only people to have access to the data and data will not be shared with anyone else.

The quantitative data will be analyzed using descriptive statistics in Excel. The qualitative data will be analyzed through inductive coding. For data that is collected in other languages, data will be translated and then analyzed in English.