

# Ayitic Goes Global

Evaluation Report for Training Round 2

Prepared by

3x3 Design



3x3 design



## Credits + Acknowledgements

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**Research Team**

**3x3 Design**

Principal Investigator and Author

Priyanka Jain, Principal Investigator + Analyst + Author

Megan Marini, Advisor

Kate Fisher, Editor

**Slashroots Foundation**

Pedagogical Expert

David Soutar, Advisor

**Local M&E Coordinator**

Data Collection and Translator

Jessica Dolcy, Investigator

---

**Client & Program Partners**

**Latin America and Caribbean Network Information Center**

Client + Program and Curriculum Design

Carolina Caeiro, Coordinator of Development Projects

Beatriz Irisarri, Development Projects Assistant

**International Development Research Center**

Funding

**Caribbean Open Institute**

Curriculum Design

**Ecole Supérieure D'Infotronique d'Haiti**

Course Delivery

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## Abbreviations

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AGG	Ayitic Goes Global
CBO	Community-Based Organization
COI	Caribbean Open Institute
ESIH	Ecole Supérieure d'Infotronique d'Haïti
ICT	Information and Communication Technologies
IDP	Internet and Data Practitioner
IDRC	International Development Research Centre
IPv6	Internet Protocol Version 6
LACNIC	Latin America and Caribbean Network Information Centre
NM&S	Network Management and Security
M&E	Monitoring and Evaluation
SIM	Subscriber Identity Module

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# 1. Executive Summary

AYITIC Goes Global (AGG) program is a two-year partnership with the Latin America and Caribbean Network Information Centre (LACNIC), International Development Research Centre (IDRC), Ecole Supérieure d'Infotronique d'Haïti (ESIH), Caribbean Open Institute (COI), 3x3 Design and the Slashroots Foundation. The program aims to enhance Haitian participation in the global economy, creating enabling conditions for Haitian female youth to gain employment in the digital economy by addressing skills and infrastructure deficits in Haiti.<sup>1</sup> The demand and supply research, the design of the program, and evaluation plan were developed between April 2017 and February 2018. The training round 1 and 2 were delivered between March-September 2018 and October 2018–January 2019 respectively and focused on three courses, Internet and Data Practitioner (IDP) course for high school and university graduate females aged between 18 and 29 years and Network Management and Security (NM&S) courses for ICT (Information and Communication Technologies) Professionals with an average age of 27 years. Evaluation was conducted to study the factors that affect the successful completion of the program and monitor the performance of different implementation stakeholders with the objective to provide recommendations for training round 3. This report provides the results of the evaluation of training round 2 and performance of the employment activities for the IDP graduates of training round 1.

## 1.1 Overview of Training Round 2 Cohort

The AGG program graduated its training round 2 cohort in January 2019. The cohort was comprised of total 54 NM&S trainees and 102 IDP trainees. The average age of the IDP trainees was 24 years with a small percentage married and/or with children. Majority of the IDP trainees were either pursuing or had received higher education (See Figure 1.1).

Figure 1.1 – Snapshot of the Training Round 2 Cohort for IDP Course [Source: Online Application Form from ESIH]

262	154	102	24	5 %	7%	21 %
IDP candidates applied to the program	IDP candidates called for an interview	IDP candidates enrolled in the program	Years was the average age of the IDP trainees	IDP trainees reported being married	IDP trainees reported having at least one child	IDP trainees reported being employed
100 %	4 %	18 %	32 %	30 %	86 %	97 %
IDP trainees had or were pursuing higher education	IDP trainees did not have access to electricity	IDP trainees had access to power backup (generator or inverter)	IDP trainees did not have access to internet at home besides their phone	IDP trainees lived more than 6 km away from ESIH	IDP trainees utilized expensive mode of transport to reach ESIH (car / taxi / tap – tap)	IDP trainees had access to a laptop and 55% of the IDP trainees owned a laptop

The average age of the NM&S trainees was 27 years and majority were either pursuing a job or additional education. A small percentage of the cohort were married and had children. 38% of the NM&S trainees were female, exceeding the bench target of 25% female candidates for training round 2. Only 4% of the NM&S trainees lived more than 6 km away from ESIH, a huge decrease from 26% in the first training round.

<sup>1</sup> The age requirement was set between 18 and 29 with primary focus on the age group 18-24.

Figure 1.2 – Snapshot of Training Round 2 Cohort for NM&S Courses [Source: Online Application Form from ESIH]

320 NM&S candidates applied to the program	96 NM&S candidates called for an interview	52 NM&S candidates enrolled in the program	27 Years was the average age of the NM&S trainees	38% NM&S trainees were female	4% NM&S trainees reported being married	42% NM&S trainees reported being employed
100% NM&S trainees had or were pursuing university education	2% NM&S trainees did not have access to electricity	53% NM&S trainees had access to power backup	5% NM&S trainees did not have access to internet at home	4% NM&S trainees lived more than 6 km away from ESIH	26% NM&S trainees owned private vehicle	52% NM&S trainees used their personal laptop to access the course

### 1.2 Evaluation Context

The evaluation included data collection activities at the start, mid-point, and end of the training to garner feedback and information from the trainees, trainers, and program partners. A mixed-method approach was employed using multiple data sources, including data from document review, selection, and exit interviews with participants, focus group discussions, and surveys. The timeline of data collection activities and description of the data collection methods used in this evaluation is provided below (Figure 1.3).

Figure 1.3 – Tools used for data collection in Training Round 2

Onset of the Training Round 2	Mid-Point of the Training Round 2	End of the Training Round 2
1. Online Application and Screening Interviews for NM&S and IDP trainees	1. Course Assessment Survey with the NM&S and IDP trainees	1. Course Assessment Survey with the NM&S and IDP trainees
3. Baseline Reports from the Partners	2. Program Assessment Focus Group with the NM&S and IDP trainees	2. Program Assessment Focus Group with the NM&S and IDP trainees
	3. Mid-Term Reports from the Partners	3. End-Term Reports from the Partners
		4. Program Assessment Interviews with the NM&S and IDP trainees
		5. Program Assessment Interviews with the trainers

### 1.3 Program Design Changes from Training Round 1 to Training Round 2

The monitoring and evaluation (M&E) findings as well as the factor study were used to make programmatic adjustments for training round 2. The aim was to improve the pedagogical experience for the IDP and NM&S trainees and find solutions for the barriers to meaningful participation in the program and after graduation. The key change made to the program design for training round 2 was related to the learning facilitation.



Evidence gathered in the training round 1 showed that the in-person facilitation was an important factor for meaningful participation of the IDP trainees. Further, the NM&S trainees expressed the need for practice sessions to put the theory they learned into practice and better comprehension. But contradictory evidence also suggested that attending the sessions could be difficult due to lack of affordable transportation and lack of time owing to household related responsibilities or employment. An alternative is to provide practice sessions and facilitation online but unreliable access to internet and lack of interaction in-person have an adverse effect on the learning and ultimately student performance.

There was a need to test if both options of facilitation can be provided – online only and online with some in person sessions. The trainees were split into groups with one-fourth of IDP trainees receiving only online facilitation. Amongst the NM&S trainees, around 16 out of 25 trainees agreed to take the practice sessions online through zoom conference while the other trainees attended the practice sessions in-person at the ESIH Lab.

The other changes made to program design are outlined below:

- Enrollment Reach: The application window was set for two weeks instead of one to ensure adequate time was given for all enrollment activities. ESIH was encouraged to continue expanding enrollment support through partner organizations.
- Base Profile: Through partner organizations, efforts were made to reach more IDP candidates from lower income and only tertiary education background. Strategies were identified to prioritize women applicants for NS&M courses (25% for each course)
- Graduation Rate: To increase the graduation rate of NM&S trainees, several strategies were identified. First, opportunities to retake the exam was provided to the struggling candidates. Weekly quizzes were adjusted to emulate the final exam more closely. Practice sessions and in-person sessions were incorporated in the curriculum to better facilitate the NM&S trainees.
- Digital Assessment of IDP trainees with low baseline digital skills: Digital assessment of IDP trainees was conducted prior to the orientation day to identify those with lower digital skills so as to provide further support to them at the orientation itself and plan more hands-on exercise with the trainers.
- Tablet Configuration: Separate time was allocated to configure the tablets before distribution. This included downloading the necessary apps from Google Play. An introduction to the applications on the tablet including Slack and Google Drive was provided on the orientation day.
- Time Management Session: A time management session was conducted with the trainees on the orientation day. The session focused on the importance of blocking time for study and use of productivity tools such as calendars and other tools to check schedule and map progress. The in-person and online facilitation and practice session dates were shared in advanced so trainees can plan ahead.
- Course Development: More time and facilitation were required by IDP trainees for data management and capstone module due to the higher difficulty level. The duration for these two modules was increased to allow for more distributed workload. As requested by NM&S trainees, practical exercises were incorporated in the curriculum of the NM&S courses so that they can apply the theory learned in a real-life scenario.
- Platform Access: Trainees experienced technical difficulties while downloading materials and with the syntax and translation errors. A quality assurance check was proposed to get rid of the technical difficulties, spell checks, and syntax errors. Trainees were also provided instruction on the day of the orientation on how to download the materials.
- Platform Use: NM&S trainees had expressed the desire to track grades for self-assessment. LACNIC had proposed to generate a gradebook that would be updated after each quiz and be visible to trainees.

- **Course Duration:** IDP course was extended from 12 weeks to 13 weeks to provide more time for the data management and capstone module.
- **Course Content:** A quality assurance was conducted to remove syntax and spell errors from the IDP and NM&S course. Videos were added to the NM&S course to make the NM&S course more practice oriented.
- **Infrastructure Provision:** Trainees experienced barriers due to lack of internet access and frequent power cuts. Alternative lab spaces through partner NGOs were considered for trainees to practice and hold meetings and discussion with peers and trainers.

## 1.4 Main Findings

The main takeaways outlined below pertain to the program's impact and factors affecting the performance of the students who participated in the program and are detailed within this report with supporting evidence.

**Program Performance:** The program exceeded its benchmark for enrollment of 50 NM&S candidates and 100 IDP candidates. Two additional candidates were enrolled in each program to account for attrition associated with large number of trainees. 34.7 percent of the applications for NM&S courses and 37 percent of the trainees admitted to the program were female. After the success of the first training round, the attrition rate was adjusted to 10% for both the courses while the graduation rate was adjusted to 60 percent for NM&S courses and 90 percent for IDP courses. In the second training round, only 2 IDP trainees dropped out due to family problems and 93 percent of the IDP trainees graduated with a score of 60 percent and above. The attrition rate was also low for NM&S courses, only 4 trainees dropped out of the program, but the graduation rate was low at 53 percent majorly because of the inability of some NM&S trainees to attend the final exam (Figure 1.4). The addition of the time management activity to the orientation day was successful and should be maintained. More time was requested by ESIH to ensure that IDP trainers can be trained and still have the time to configure and distribute the tablets to IDP trainees. The program met its benchmark for engaging and training qualified trainers at a ratio of 1:25 for the students of all three programs: IDP and NM&S courses. The increase in the ratio from 1:17 in first training round to 1:25 in second training round did result in some IDP trainees complaining about the lack of adequate time with the trainers.

**Socio-Cultural Factors:** The time management activity was planned on the orientation day to help trainees balance between time spent on work, study, and household responsibilities. The session had varying impact on the IDP and NM&S trainees; the IDP trainees were able to plan ahead and use productivity tools to instill self-discipline but the NM&S trainees struggled to balance different responsibilities resulting in lower course performance. The financial barrier most affected the IDP trainees' access to technological equipment and transportation to and from ESIH for in-person activities. The provision of free tablets and advanced release schedule of in-person activities enabled IDP trainees to overcome financial constraints. There was no discernible relation seen with the baseline skills of IDP and NM&S trainees and course performance besides prior knowledge of course content and language proficiency in French.

**Infrastructural Factors:** Constraints created due to inadequate broadband connectivity and frequent power cuts remained top challenges and translated to wasted time and frustration among trainees. The resiliency of trainees helped overcome these challenges and trainees still secured high grades and completed the course despite the issues. The transportation cost remained a challenge mitigated to a certain extent with the advanced release of the schedule of in-person activities which allowed the IDP trainees to save money in advance.

**Pedagogical Factors:** The facilitation choice – online and in-person – had varying impact on IDP and NM&S trainees. IDP trainees preferred online facilitation, if given the choice, and performed well with both types of facilitation. NM&S trainees struggled with online practice sessions due to unreliable internet connection and power

supply. The addition of videos with practical demonstrations to the curriculum was appreciated by the NM&S trainees but a sense of disappointment emerged through their responses. Many trainees desired more videos and quiz-related practice questions throughout the module. WhatsApp remained the top preferred channel and Slack usage went low. A lack of net etiquette was observed on the WhatsApp communication between the IDP trainees and trainers which could be owed to the informal nature of communication in WhatsApp compared to Slack channel. Both IDP and NM&S trainees continued to seek moral support from their peers and helped each other to improve comprehension of the course content during the training.

**Employability Factors:** Preference for freelance or part-time work remained: more than two thirds of the IDP trainees preferred part-time job (71.74 percent) over full-time-job (19.57 percent) and 8.70 percent sought both part-time or full-time opportunities. In direct contrast to IDP trainees, majority of the NM&S trainees (58.82 percent) preferred full-time employment at an IT company or telecom company over self-employment (29.41 percent). IDP graduates reported that the online platform was an effective means to find learning and employment opportunities and were satisfied with the role of the employment coordinator. But several challenges related to access and use of online talent platform emerged including: (1) infrastructural – internet, power, and device, language barrier because of low number of platforms offering French interface; (2) low digital proficiency while operating a desktop; (3) lack of referrals to establish credibility and improving visibility on the platforms; and (4) low payscale and competitive environment created due to bidding system on the platform among others.

**Program Scaling:** While LACNIC remained busy with the operational side of the program in during the training round 2, two partners of the program – COI and Slashroots – were able to raise funds from Google to implement similar program in Latin and Caribbean region. This shows the program’s capability to gain traction with the funders once the successful results of one training round are known. LACNIC plans to present additional grant proposals in the last phase of the project and continue to work towards the goal of scaling and replicating the program.

Figure 1.4 – Enrollment, attrition, and graduation rate for IDP and NM&S courses [Source: Partner Reports]

262	154	102	2%	93%
IDP candidates applied to the program	IDP candidates called for an interview	IDP candidates enrolled in the program	IDP trainees dropped out of the course	IDP trainees graduated with a score of 60% and above
320	96	52	8%	48%
NM&S candidates applied to the program	NM&S candidates called for an interview	NM&S candidates enrolled in the program	NM&S trainees dropped out of the course	NM&S trainees graduated from the program

## 1.5 Recommendations

Programmatic recommendations were built upon the main findings to support and accentuate the successful elements of the program while making refinements and additions to the elements that desired improvement. Recommendations for the training round 3 include:

- **Enrollment:** Continue leveraging existing relations with community-based organizations to garner support for enrollment activities and better achieve the target profile set for the program, and secure dedicated lab space for trainees who live far from ESIH.
- **Orientation Day:** ESIH and COI should further develop the time management session for NM&S trainees.

- **Infrastructural Constraints:** ESIH to maintain hours to use computer lab and secure agreements with institutional partners with availability to provide further support to trainees. Women receiving only online facilitation should also be allowed to come to use the computer lab and/or the internet connection (availability to be shared with all students). COI and ESIH should maintain the circulation of activities scheduled at the orientation to enable trainees to plan ahead and save money for transportation to ESIH.
- **Facilitation Preferences:** The preference for facilitation, online versus in person, should be made voluntary and aim to reach 50:50 split on a rolling, first-come-first-serve basis. Additional trainers should be hired for IDP course to aim for 1:17 trainee/trainer ratio than the initial target ratio of 1:25. Trainers should be adequately trained to manage pedagogical references for remote work. The online sessions should be recorded for those accessing the practice sessions through Zoom so they do not miss on the practice in case of a call drop. The use of Slack should be incentivized for communication between trainees and trainers.
- **Course Content and Quizzes:** Scenario based exercise that stimulate the environment of remote jobs and use of online talent platforms will be developed for IDP trainees. More practice questions will be introduced in the NM&S course. Possibility of multiple exam dates including a weekend date will be looked into for NM&S trainees. Additional resources in dual languages would be included in all the courses to encourage familiarity with English.
- **Employment Activities:** Employability component of the program will continue to focus on online talent platforms and aim to expand the role and scope of the employment coordinator. More learning pathways will be explored outside the online talent platforms including paid/unpaid job opportunities in domestic market, training to improve interview skills, and courses on women entrepreneurship and IT essentials in partnerships with CISCO. Mentor programs will be explored to strengthen the relation between the alumni and current trainees.

The recommendations are outlined in detail within the report in the Recommendations and Conclusion Section, Chapter 4.

## 1.6 Conclusion

The findings from training round 1 and training round 2 indicate that the courses had a positive impact on the life of trainees and met the program objectives. The evaluation of the training round 3 will focus on (1) gaining a deeper understanding of how the skills were applied in personal and professional life of the trainees; (2) analyzing the barriers faced by the IDP graduates who disengaged from the employment activities of the program post-graduation; (3) evaluating the work that is being done with talent platforms by the employment coordinator and compare it with case studies to suggest scaling strategies; and (4) maintaining a better understanding of the impact of level of facilitation on the performance of trainees will be maintained.

## 2. Introduction

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### 2.1. Program Overview

Ayiti Goes Global Program (AGG) is a pilot initiative of the Latin America and Caribbean Network Information Centre (LACNIC) and International Development Research Centre (IDRC) that seeks to enhance Haitian participation in the global economy through creating enabling conditions for Haitian female youth to find employment in the digital economy by addressing skills and infrastructure deficits in Haiti. 3x3 is conducting monitoring and evaluation of the pilot initiative in coordination with a local M&E consultant. The pilot initiative is working on two fronts:

(a) Promoting the growth of a digital data-related job market in Haiti: The pilot will teach digital skills to 300 female youth and facilitate remote jobs in overseas markets in digital and data-related services. Target beneficiaries include female youth aged 18-29 with basic technical knowledge who will be trained in digital skills and data-processing. This group will be offered basic to mid-level trainings and assisted in securing remote jobs in overseas markets.

(b) Boosting Internet Infrastructure and connectivity in Haiti: The pilot will build capacities among advanced ICT professionals to encourage the growth and improvement of Internet services in Haiti. Target beneficiaries will include ICT professionals involved in developing and operating telecommunication networks across the country and professionals from technical colleges and universities. This group will be offered advanced-level trainings on a range of ICT subjects such as Network Management, Wireless Data Networks, Computer Security and Internet Protocol Version 6 (IPv6) Deployment. Capacity-building actions will be accompanied by the creation of a local ICT cluster to promote entrepreneurship and encourage synergies and the growth of new initiatives among local professionals.

In the mid-term, the pilot will deliver a cohort of young female professionals with digital skills that allow them to secure remote jobs in overseas markets. In the long run, and through advanced-level trainings, the pilot will contribute to strengthening the local human resources needed and encourage local initiatives to further Internet Development in Haiti, with the understanding that a more developed digital services market will demand greater maturity of local internet networks. Additionally, the pilot will contribute to a greater female presence in the field of ICTs, which today is widely dominated by male professionals, and encourage a data-culture within Haiti.

### 2.2. Background

Multiple studies by the research partners were carried out in 2017 to develop the programing for the pilot initiative. 3x3 supported the creation of the digital and data skills courses and curriculum through the study of demand opportunities in overseas market. The demand study sought to identify opportunities for greater fluidity in digital data markets between Haiti and abroad. Specifically, it focused on remote work offering an opportunity to enable greater participation in the global digital economy and fostering an inclusive growth in Haiti. Complementing the demand study, Supply research was conducted by ESIH to understand the baseline profile of the two target beneficiary groups i.e. young women aged between 18-35 and ICT professionals. Pedagogical Strategy research conducted by Slash Roots to understand effective approaches that could help enhance the performance of the students and prevent attrition. Caribbean Open Institute designed the curriculum for the young women and LACNIC designed the curriculum for ICT Professionals. A public consultation was held in November following which the

program design was developed by LACNIC with the support of all the research partners involved in the study. The program design was confirmed by all the partners and evaluation plan was set in early 2018.

The training round 1 and 2 were delivered between March - September 2018 and October 2018 – January 2019 respectively and focused on three courses, Internet and Data Practitioner (IDP) course for high school and university graduate females aged between 18 and 29 years and Network Management and Security (NM&S) courses for ICT (Information and Communication Technologies) Professionals with an average age of 27 years. Evaluation was conducted by 3x3 to study the factors that affect the successful completion of the program and monitor the performance of different implementation stakeholders. This report provides the results of the evaluation of training round 2.

Figure 2.1 – Timeline of the AGG Program

Program Research <i>April 2017 – November 2017</i>	Program Design and Evaluation Plan <i>November 2017 - February 2018</i>	Evaluation of Training Round 1 <i>March 2018– September 2018</i>	Evaluation of Training Round 2 <i>October 2018 – January 2019</i>	Evaluation of Training Round 3 <i>April 2019 – July 2019</i>
Demand Research Study, 3x3 Design Supply Research Study, ESIH Pedagogical Research, Slashroots Foundation Public Consultation in November 2017	Program Design, All partners with LACNIC in lead Curriculum Design, LACNIC and COI M&E Plan and Framework, 3x3 Design with advice on pedagogical factors from Slashroots Foundation	M&E Instruments and Report, 3x3 Design with support of Slashroots Foundation Data Collection, Local M&E Coordinator Program Adjustments, All partners with LACNIC in lead	M&E Instruments and Report, 3x3 Design with support of Slashroots Foundation Data Collection, Local M&E Coordinator Program Adjustments, All partners with LACNIC in lead	M&E Instruments and Report, 3x3 Design with support of Slashroots Foundation Overall M&E and Scaling Report due 2-3 months post completion of Training Round 3, 3x3 Design

### 2.3 Curriculum Design

The course content was designed by two partners – LACNIC and COI. LACNIC developed and designed the course content for network management and security to be uploaded to Thess in pdf format. Besides the quiz feature and chat forum, no other feature of the Thess was used. COI designed and developed the course for internet and data practitioner. While the course was meant to be uploaded to Thess, to avoid technical problems and due to shortage of time, the course was delivered on ADAPT.

The ADAPT authoring tool enables the combination of text and graphic components on the scrolling page to provide a richer, more interactive and a much more responsive content consumption experience for users, especially those on mobile devices or with poor data connections. It provides a variety of interactive components that allows the course modules to be designed with directed, but flexible learning paths. Using these features, the courses were designed in a consistent format throughout, as short, modular learning content with built-in quizzes and repetitive learner assessment in line with content. This design facilitated a progressive, directed learning path that allows students to achieve incremental mastery of a concept before moving on to the next.

The specific ADAPT platform features used included:

- Responsive eLearning content to work on any device: Mobile phones, tablets, and desktops

- Ability to be deployed as web courses, as well as stand-alone mobile phone apps that do not require continuous internet connectivity
- Multi-lingual, that enables the student to select between English / French

**Network Management and Security:** As reported by LACNIC, course content was discussed between the professors selected for its development and technical experts in LACNIC with previous experience in Haiti. The Professors were selected based on their technical knowledge and online learning expertise. They were both recommended by LACNIC's technology area, having worked for LACNIC previously. Each module was reviewed and approved by a LACNIC technician. In addition, for specific topics additional expert advice was sought (Example: Virtualization, Santiago Aggio from Conicet Argentina). Local Facilitators were also involved in the development of the courses. They reviewed the translation, making technical language adjustments and some suggestions regarding content, based on their local teaching experience. LACNIC was satisfied with the inputs received from the experts and no additional research is expected in future.

LACNIC delivered all the 12 modules in time requiring a week of training each. The list of modules can be found in appendix. Course content was developed and uploaded to Thess platform in PDF format. In addition, the weekly quizzes were programmed using a Thess specific feature. Despite the recommendation of the research group, a significant barrier prevented group activities from being designed for students. Most of the ICT professionals worked full time and it was anticipated that they would struggle to coordinate and dedicate time for group activities.

**Internet and Data Practitioner:** As reported by COI, the courses were delivered on time. But the translation took significant time than previously anticipated, and the delay left no time for quality assurance. As a result, some spell and technical errors were reported by the students. The course was developed in consultation with the students and faculty resources at the University of West Indies and curated with the help of various Open Education Resources available online. Baseline scenarios for the capstone module was developed by COI researcher and the content was informed by Demand Research conducted by the 3x3. The capstone module was written as a business scenario related to a specific target job and required the students to analyze and evaluate issues in a given problem situation, select and apply the appropriate digital tools, and demonstrate previously acquired competencies as well as demonstrate effective critical thinking, problem-solving, and communication relevant to the specific job scenario. For details of the curriculum refer appendix. On the day of the orientation, a baseline digital profile assessment was conducted by COI that helped assess the degree of support required by the students.

## 2.4 Scope of Evaluation Study

The scope of evaluation is focused on three training rounds of three-month long implementation period each. Learnings from the study will be applied at intervals throughout the training round 1,2, and 3 implementation to inform incremental adjustments and inform program design and curriculum adjustments for future training rounds. The overall analysis at the conclusion of the program will be used to inform scalability and replicability.

The specific objectives of the M&E study are to:

- Assess the change or impact attributable to programmatic activities
- Isolate key factors to test within the overall program design that affect impact
- Identify environmental conditions or factors that affect the successful implementation of programmatic activities.

## 2.5 Evaluation Objectives for Training Round 2

This report is focused specifically on the three-month long implementation period of the training round 2 of the AGG program. Adjustments made to training round 2 based on the findings of training round 1 are discussed below:

- Enrollment Reach: The application window was set for two weeks instead of one to ensure adequate time was given for all activities. ESIH was encouraged to continue expanding enrollment support through partner organizations.
- Base Profile: Through partner organizations, efforts were made to reach more IDP candidates from lower income and only tertiary education background. Strategies were identified to prioritize women applicants and quotes for NS&M courses (25% for each course)
- Graduation Rate: To increase the graduation rate of NM&S trainees, several strategies were identified. First, opportunities to retake the exam was provided. Weekly quizzes were adjusted to emulate the final exam more closely. Practice sessions and in-person sessions were incorporated in the curriculum to better facilitate the NM&S trainees.
- Digital Assessment of IDP trainees with low baseline digital skills: Digital assessment of IDP trainees was conducted prior to the orientation day to identify those with lower skills so as to provide further support to them at the orientation itself and plan more hands-on exercise with the trainers to help improve digital skills.
- Tablet Configuration: Separate time was allocated to configure the tablets before distribution. This included downloading the necessary apps from Google Play. An introduction to the apps on the tablet including Slack and Google Drive was provided on the orientation day.
- Time Management Session: Time management session was conducted with the trainees on the orientation day. The session focused on the importance of blocking time for study and use of productivity tools such as calendars and other tools to check schedule and map progress. The in-person and online facilitation and practice session dates were shared in advanced so trainees can plan ahead.
- Facilitation Type: Evidence gathered in the training round 1 showed that the in-person facilitation was an important factor for meaning participation of the IDP trainees. Further, the NM&S trainees expressed the need for practice sessions to put the theory they learned into practice and better comprehension. But contradictory evidence also suggested that attending the sessions could be difficult due to lack of affordable transportation and lack of time owing to household related responsibilities or employment. An alternative is to provide practice sessions and facilitation online but unreliable access to internet and lack of interaction in-person have an adverse effect on the learning and ultimately student performance. There was a need to test if both options of facilitation can be provided – online only and online with some in person sessions. The trainees were split into groups with one-fourth of IDP trainees receiving only online facilitation. Amongst the NM&S trainees, around 16 trainees agreed to take the practice sessions online through zoom conference while the other trainees took the practice sessions at ESIH Lab.
- Course Development: More time and facilitation were required by IDP trainees for data management and capstone module due to higher difficulty level. The duration for these two modules was increased. As requested by NM&S trainees, practical exercises were incorporated in the curriculum of the NM&S courses so that they can apply the theory learned in a real-life scenario.
- Platform Access: Trainees experienced technical difficulties while downloading materials and with the syntax and translation errors. A quality assurance check was proposed to get rid of the technical difficulties, spell checks, and syntax errors. Trainees were also provided instruction on the day of the orientation on how to download the materials.



- **Platform Use:** NM&S trainees had expressed the desire to track grades for self-assessment. LACNIC had proposed to generate a gradebook that would be updated after each quiz.
- **Course Duration:** IDP course was extended from 12 weeks to 13 weeks to provide more time for data management and capstone module.
- **Course Content:** A quality assurance was conducted to remove syntax and spell errors from the IDP and NM&S course. Videos were added to the NM&S course.
- **Infrastructure Provision:** Trainees experienced huge barriers due to lack of internet access and frequent power cuts. Alternative lab spaces, ESIH labs, through partner NGOs was considered for students to practice and hold meetings and discussion with peers and trainers.

## 2.6 Evaluation Design and Methods

The evaluation included data collection activities at the start, mid-point, and end of the training to garner feedback and information from the trainees, trainers, and program partners. A mixed-method approach was employed using multiple data sources, including data from document review, selection and exit interviews with participants, focus group discussions, and surveys. The timeline of data collection activities and description of the data collection methods used in this evaluation is provided below (Figure 2.2).

Figure 2.2 – List of Data Collection Methods

Onset of the Training Round 2	Mid-Point of the Training Round 2	End of the Training Round 2
1. Online Application and Screening Interviews for NM&S and IDP trainees 3. Baseline Reports from the Partners	1. Course Assessment Survey with the NM&S and IDP trainees 2. Program Assessment Focus Group with the NM&S and IDP trainees 3. Mid-Term Reports from the Partners	1. Course Assessment Survey with the NM&S and IDP trainees 2. Program Assessment Focus Group with the NM&S and IDP trainees 3. End-Term Reports from the Partners 4. Program Assessment Interviews with the NM&S and IDP trainees 5. Program Assessment Interviews with the trainers

### Selection application, screening interviews, and baseline reports:

An online form and screening interviews were conducted to determine the eligibility of the applicants for the program and select the final trainees for the training round 2. Both the application and the screening interviews were used to gather key baseline indicators on the trainees including socio-economic, infrastructural factors, and baseline skills to analyze for relation with trainee performance over the course of the pilot. This baseline M&E data is available for 100% of the participants of the program.

### Course Assessment Survey Analysis

Two rounds of course assessment surveys were distributed and conducted at mid- and end-term with both the IDP and NM&S trainees to provide key quantitative information on different aspect of the program and capture trainees' experience of different pedagogical factors such as platform access and course content, trainer support and peer learning, self-paced learning and self-rating, challenges, overall experience, and feedback for course improvement.

### Program Assessment Focus Groups and End Term Interviews

Two focus groups were held with both IDP trainees (a total of 25 participants) and NM&S trainees (a total of 14 participants) to provide qualitative information on the performance of the program and assess the experience of the program and course curriculum. Information and observations were captured on the motivation and barriers to meaningful participation in the program, expectations from the program, what went well, what did not go well, what can be improved, definition of success and expectations around employment.

### End Term Interviews

End-term interviews were conducted with two trainees and one trainer from IDP course and two trainees and trainer from NM&S course to provide qualitative information on the success of the initiative and gather feedback on the performance of all the courses. The aim was to get a deeper insight into the findings of the focus groups and surveys including motivations, challenges, behaviors, and aspirations. Trainees that performed well and not well despite faced socio-cultural and infrastructural barriers were prioritized for the interviews.

### Document and Reporting

Baseline and end-term pilot reflection reports gathered information and feedback from the partners to document the planning process for the recruitment and selection of the trainees, orientation session, and the course delivery.

## 2.7 Data Analysis

A number of methods were used to synthesize data from different sources and formulate findings:

- **Tagging:** The key phrases from qualitative research were tagged to identify overall themes and patterns across the different modes and audiences. Attention was paid to context, consistency, and contradiction of views, frequency, and intensity of comments, their specificity as well as emerging themes and trends to remove researcher biases.
- **Statistical Analysis:** The online form and survey questionnaire was structured to provide numerical data such as baseline information and the experience of the participation trainees with different program activities. The numerical data was explored statistically using percentage score and weighted average to support and generalize the insights gathered from the qualitative methods. Further, correlation analysis was used to understand if any of the data gathered on the M&E factors showed a statistically significant effect on the completion of the course.
- **Triangulation:** The data from all the sources was triangulated to validate findings, conclusions, and recommendations regarding the AGG training round 2. Preliminary findings were validated and confirmed with the program partners and operators through an online presentation and discussion at the end of the training round 2 to synthesize and determine M&E adjustments for training round 3.

## 2.8 Methodological Limitations

The evaluation methodology utilized, while comprehensive, did encounter limitations. There was a lack of awareness among the NM&S trainees regarding the M&E activities that made them initially hesitant to share their feedback. Another challenge was that the mid-term focus group for NM&S trainees was scheduled before their exam. The trainees preferred revising their course content for the exams than participate in the focus group. The two factors above created delay in conducting the focus group with the trainees and low rate of participation, ultimately resulting in low trainee engagement within the focus group. To prevent this from happening in the future, a note was sent by the trainers to all the trainees explaining the importance of the M&E activities. Also, following steps were taken to meet the low focus group engagement: (1) 15 students were recruited instead of initially planned 10 students to get more perspectives, (2) more time was allocated to the end-term focus group to gain feedback and perspectives on some of the topics that were to be covered during the mid-term focus group, and (3) the focus group was held after the evaluation activity.

## 3. Findings of the M&E Study

This section describes in detail the findings that emerged from the M&E study of the AGG training round 2 and employment activities conducted for IDP graduates of training round 1. The following impact analysis is broken up into four sections of findings: 1) Performance Issues, which correlate to the program delivery and activities; 2) Infrastructural, Pedagogical, and Socio-Cultural Issues, which are findings related to the factors that influenced and affected the performance of the trainees; and 3) Job Access Issues, which are findings related to the factors that affect the participation of the graduates in the digital economy of Haiti.

### 3.1 Performance: Achievement of Expected Outcomes

#### 3.1a Enrollment, attrition, and graduation

**The program met its benchmark for enrollment and had a low attrition rate for both the courses. But the graduation rate was low for NM&S trainees because of the inability for many to attend the final exam.**

**Enrollment, all courses:** The initial target of the program was to enroll 100 IDP trainees and 50 NM&S trainees but two additional trainees were enrolled in each program to account for attrition that was anticipated to be higher with a larger group. ESIH received an overwhelmingly high response, greater than training round 1. Approximately 320 applications were received for the NM&S courses, of which 96 candidates were called for an in-person interview. For the program, 52 candidates were enrolled with 26 each in Security and Network Management courses respectively. Approximately 262 applications were received for the IDP course. For the program, 154 applicants were called for an in-person interview of which 102 were enrolled in the program. All 154 selected candidates joined the program (Figure 3.1).

Figure 3.1 – Enrollment and graduation related statistics [Source: Partner and Facilitator Reports]

262 IDP candidates applied to the program	154 IDP candidates called for an interview	102 IDP candidates enrolled in the program	2% IDP trainees dropped out of the program	93% IDP trainees graduated with a score of 60% and above
320 NM&S candidates applied to the program	96 NM&S candidates called for an interview	52 NM&S candidates enrolled in the program	8% NM&S trainees dropped out of the program	48% NM&S trainees graduated from the program
61.1% Applications were for Network Management Course	111 Applications were from female NM&S candidates	37% NM&S candidates enrolled in the program were female	0 NM&S trainees that dropped out of the program were female	53% of the female NM&S trainees graduated from the program

As reported in the ESIH baseline report, the high number of applications and engagement can primarily be attributed to ESIH's local expertise and leadership as well as its continued outreach to partner NGOs. ESIH signed a Memorandum of Understanding (MOU) with new strategic partners to mobilize potential candidates with

appropriate profile and secure and facilitate increased access to internet to facilitate submission of application. Effort was also made to boost outreach efforts through several communication channels such as social media postings on ESIH's Facebook account and notifications on the Ayitic Website.

Despite the high number of applications, ESIH successfully planned and deployed logistical support staff for the selection process of trainees (including registration, accommodation, dispatch, and signing out) with the assistance of institutional partners. Over 20 volunteer interviewers were prepared and deployed to provide logistical support ranging from interview invitation, training material to streamlining interviews, providing credential to providing space, equipment and internet connection required to carry out the interviews, and preparation of data spreadsheets for the selection committee to make their final decision. Of the 154 trainees who joined the program, 48 NM&S trainees and 102 IDP trainees attended the orientation session.

**Trainee Profile and Interview Process, all courses:** The trainee profile was adapted from training round 1 to target candidates from a low-income background. The application process also checked for high motivation among candidates which was found slightly lacking in the training round 1 cohort. The digital proficiency of the trainees admitted to the IDP course varied from basic awareness to relatively proficient in digital competencies. Those that had only basic awareness were provided the necessary facilitation to boost their operating skills. The second screening was conducted through in-person interviews which provided an opportunity to establish trust and credibility between ESIH and the candidates by providing a platform to discuss concerns and barriers to joining the program. Some candidates were also thankful to meet and network with more other candidates on the interview day.

**Male to Female Ratio, NM&S Courses:** The percentage surpassed the female participation target of 25 percent for training round 2. 34.7 percent of the applications and 37 percent of the trainees admitted to the NM&S courses were female.

**Attrition and Graduation, all courses:** The program targeted an initial attrition rate of 25 to 50 percent and graduation rate of 60 to 75 percent based on the study of similar programs. The attrition rate was assumed to be in the higher range for trainees who would only receive online facilitation. After the completion of training round 1, the attrition rate was adjusted to 10 percent for both the courses while the graduation rate was adjusted to 60 percent for NM&S courses and 90 percent for IDP courses.

Only 2 IDP trainees dropped out and 93 percent of the IDP trainees graduated with a score of 60 percent and above. The attrition rate was also low for NM&S trainees, only 4 trainees dropped out. None of the trainees who dropped out of the NM&S course were female. But the graduation rate was low, only 48 percent of the NM&S trainees graduated the program. The low graduation rate was mostly attributed to the inability of the trainees to appear on the final day of the exam. The primary reason for not being able to appear is unknown as the facilitators were not able to reach most of the trainees. Of the students who reported, the main reason was conflict with job schedule. A higher percentage of graduate rate was observed amongst female NM&S trainees (53 percent, 10 graduates out of 19 female trainees) than male trainees (40 percent, 14 graduates out of 35 male trainees).

### 3.1b Demonstration of Efficiency and Economy

**The orientation day had a huge positive impact on the students. More time should be allowed to ensure all activities are accounted for and optimized.**

The target enrollment period was September 9th, 2018 till September 26th, 2018. ESIH had adequate time for the recruitment and selection process due to the support provided by strategic partners and volunteers gained in

training round 2. Members from partner organizations – LACNIC and COI – were included in the selection committee along with other IT experts and the trainers of the courses. This allowed for a more transparent and informed selection, taking into account opinion of all parties involved in the development and delivery of course. The process also provided an opportunity for the trainees and trainers to meet in person and agree on communication and general course guidelines. The role of the courses in the context of AYITIC was explained, offering trainees a broader look at the AGG initiative. Involvement of the trainers promoted their leadership in addition to the development of a relationship with trainees.

All the trainees were motivated by the passion they saw in the program partners at the time of the launch. The findings from the training round 1 showed that the orientation day was an opportunity to better prepare students for the technical problems that were encountered during the course and orient them to time management principles. For example, providing students more grounding in the tablet, slack and common applications used for the course such as google drive and introducing them to the tools that can help them plan for the course ahead of time. Both IDP and NM&S trainees greatly appreciated orientation day as it provided them the opportunity to understand the structure of the course and get more familiar with the course trainers and program partners. The time management module was also considered highly beneficial and majority of the IDP trainees reported that it helped them overcome procrastination and plan ahead to save money to travel for in person sessions. The response of NM&S trainees on the time management session was not as enthusiastic and they reported struggling with time required for work and household related responsibilities throughout the course.

Some activities clashed with the orientation day activities resulting in need for more time. For example, it took a lot of time to configure (test, verify, configure and customize) and distribute the tablets to 102 IDP trainees that affected other activities at the time of the orientation, specifically the training of the trainers. ESIH expressed the desire to have more time before orientation to train the trainers. In addition, better coordination was desired between all partners to formalize the structure of facilitation and completion of monitoring and evaluation related activities.

### 3.1c Engagement of Trainers

**The program met its benchmark for engaging and training qualified trainers at a ratio of 1:25 for the trainees of all three courses: Internet and Data Practitioner, Network Management, and Security. But among the IDP trainees, the need for more trainers was expressed.**

**Network Management and Security Courses:** The two trainers selected in training round 1 continued to be the facilitators for training round 2 making a total of 2 facilitators to 50 trainees, achieving the targeted trainer to trainee ratio of 1:25. Each trainer was instructed to provide 8 hours of online facilitation per week to be distributed amongst online facilitation students who attended the practical sessions by Zoom and in person facilitation session students who attended the practical sessions at ESIH Labs.

**Internet and Data Practitioner:** Similar to NM&S course, the three trainers selected in training round 1 for IDP course continued to be the facilitators for training round 2. One additional trainer was selected and trained equaling a total of 4 trainers to 104 trainees to meet the targeted ratio of 1:25. The higher ratio (1:17) made a negative impact in the training round 2 with many trainees expressing the need for more trainers. The training of trainers could also not be conducted in a satisfactory manner because priority had to be given to configuration (testing, verifying, configuring and customizing) and distribution of the tablets to 102 IDP trainees.

### 3.1d Course Development

**Minor adjustments were made to the course specifically as it relates to practical demonstrations. Quality assurance problems such as technological glitch and language translation gaps still remained.**

The course content was designed by two partners in training round 1 – LACNIC and COI. LACNIC developed and designed the course content for NM&S to be uploaded to Thess in pdf format. Besides the quiz feature and chat forum, no other features of the Thess were used. COI designed and developed the IDP course.

While the course was meant to be uploaded to Thess, to avoid technical problems and due to shortage of time, the course was delivered on ADAPT. The ADAPT authoring tool enables the combination of text and graphic components on the scrolling page to provide a richer, more interactive and a much more responsive content consumption experience for users, especially those on mobile devices or with poor data connections. It provides a variety of interactive components that allows the course modules to be designed with directed, but flexible learning paths. Using these features, the courses were designed in a consistent format throughout, as short, modular learning content with built-in quizzes and repetitive learner assessment in line with content. This design facilitated a progressive, directed learning path that allows students to achieve incremental mastery of a concept before moving on to the next.

The specific ADAPT platform features used included:

- Responsive eLearning content to work on any device: Mobile phones, tablets, and desktops
- Ability to be deployed as web courses, as well as stand-alone mobile phone apps that do not require continuous internet connectivity
- Multi-lingual, that enables the student to select between English / French

**Changes to Network Management and Security Course:** Besides the twelve modules that were developed in pdf format for the first cohort, two videos with practical demonstrations were added due too the desire of the trainees to have more practical content. The trainers also developed two practice sessions to be conducted either in person at ESIH Lab or online on Zoom. Only minor adjustments were made to Module 6 of the Network Management course were students experiences higher difficulty in cohort 1. On the day of the orientation, a time management session was held but did not affect the time management of the trainees in the course. All the changes made positive impact upon the performance of the trainees who appreciated having access to the videos and practice sessions, but the trainees still perceived the course to be more theoretical than their initial expectations.

**Changes to Internet and Data Praclitioner Course:** No changes were made to the IDP modules developed for cohort 1 because of the shortage of time between the two cohorts. The ADAPT platform allowed responsive learning on multiple devices and THESS platform helped with the assessment. Trainees expressed the need to make a light version of Thess for mobile as many experience difficulties on days of submission due to high number of students accessing the platform. On the day of the orientation, a time management session was held which was reported by the IDP trainees as being extremely helpful in planning their study activities.

### 3.1e Program Scaling

**Two partners of the program won a grant indicating increasing traction of the program with funding agencies once the results were out and the potential to scale.**

During training round 1, LACNIC had to halt outreach to funders and partners because the inability to provide information on the performance of the program would prevent the conversations to move past initial introductions. While LACNIC remained busy with the operational side of the program during training round 2, two partners of the program – COI and Slashroots Foundation – were able to raise funds from Google to implement similar program in Latin and Caribbean region. This shows the program’s capability to gain traction with the funders post the results of the training round 1 and successful graduation rates of the IDP trainees. COI and Slashroots confirmed a US \$500,000 grant from Google to train 1500 youth (40% women) in 7 to 9 countries in Central America and the Caribbean. The trainings will be based on the IDP course but will also incorporate new advanced training modules. The program will also work on connecting graduate students with online opportunities.

LACNIC plans to present additional grant proposals in the last phase of the project and continue to work towards the goal of scaling and replicating the program. They held a meeting with representatives of CISCO Academy to study opportunities for collaboration on the Internet Strengthening component of the program. Looking at the success of AGG Program despite the infrastructure limitations, CISCO Academy has planned to launch online trainings in Haiti. IDRC has offered to visit Artificial Intelligence (AI) companies in Canada in March 2019 to explore securing some Service Agreements that can strengthen the efforts of employability component of the program.

Outreaching to the Haitian Diaspora for employment opportunities remained a non-priority for LACNIC. Discussion were continued with local service providers to connect IDP graduates with internship opportunities. The decision to target online platforms will be continued in the last phase but strategies will be developed to overcome the language and other barriers faced by the trainees of training round 1.

## 3.2 Infrastructure Deficit

In comparison to the evaluation from training round 1, training round 2 showed continued infrastructural barriers that could be accounted for or mitigated within future iterations of the program. Analysis of responses from surveys, interviews, and focus groups, revealed problems related with infrastructure including inconsistent electrical power supply, insufficient internet connectivity (bandwidth capacity), lack of affordable transportation alternatives, and inadequate access to computers and computer laboratories. Similar to the training round 1, the obstacles stemming from the infrastructural deficits varied between the IDP and NM&S trainees.

### 3.2a Infrastructure Issue 1: Limited Internet Connectivity and Electrical Cuts

**Limited Bandwidth and frequent electricity cuts remained amongst the biggest barrier that dissuaded, constrained or obstructed the trainees’ meaningful participation in the online course.**

Unreliable internet connection and frequent power cuts still remained a top barrier to meaningful participation in the online course for both IDP and NM&S trainees. Series of day to week-long blackouts in the Haiti caused by fuel shortages and political unrest further worsened trainees access to the course. Approximately 46.67 percent and 25.33 percent of the IDP trainees and 22 percent and 25 percent of the NM&S trainees in training round 2 listed access to internet and frequent power cuts as their top challenges respectively. Whilst not affecting quiz and exam scores, the internet and electricity barriers created frustrations and wasted time that could have been used by the trainees for other tasks or accessing more course materials. For example, some trainees indicated:

If you did not have internet access, there were many things that you could not do. Even when we come here (to ESIH) there are still internet problems. For example, I may come here at 8AM on a Saturday to take a quiz. It is reasonable to

expect to be done by 10 AM. However, sometimes it is 12 noon and I still have not been able to take the quiz because of the internet. – IDP Trainee

The internet access is a real problem for those of us without access. Some of us were prohibited from coming on campus. Those of us in group 4. I was told I would be penalized if I came to campus unauthorized. I had to follow it online through access at home. Sometimes I did not have electricity or a charged tablet, but I had to wait there. At times it was discouraging. – IDP Trainee

I live in Delmas 33 that often lacks electricity. I have neither sufficient electricity nor a generator/inverter. I have no alternate sources of electricity. – IDP Trainee

There is no electricity in the country. There are times that you are available/free to read the materials but there is no electricity. Or, if they do give electricity it is at an inconvenient time and you have to wake up and then do the work. – NM&S Trainee

My greatest challenges were electricity and the internet/data plan I had on my phone. Sometimes the signal was fine and other times it dropped/dialed without any warning. You could be reading the materials/documents and as you try to progress you see that you have no internet access even though you know you have a monthly plan. – NM&S Trainee

The impact of unreliable internet was felt most by the NM&S trainees that selected practice sessions through Zoom video conferencing instead of in person practice session at ESIH lab. A correlation study showed that the NM&S trainees that selected the option to access practice sessions online were more likely to have power backup, good internet connection at home, higher reliability of internet connection, and were located far from ESIH.

Figure 3.21 - Correlation of practice selection type with infrastructure access for NM&S and IDP trainees [Source: Online Application Form and grades from reporting template]

Group Selection	Electrical Connection	Hours of Electrical Supply	Power Back up	Internet Access - Home	Internet Access - Cybercafe	Internet Access - School	Internet Access - University	Internet Access - Work	Reliability of Internet Connection	Time it takes to travel to ESIH
NM&S: Zoom = 1, ESIH = 0	0.01	-0.04	-0.25	-0.22	0.25	0.14	-0.06	-0.15	-0.28	-0.27
IDP: Online Group = 1, Rest = 0	0.04	-0.08	0.03	-0.15	-0.05	-0.12	-0.15	-0.11	NA	0.05

The NM&S trainees that selected the online session often complained that they would drop out of the online session due to limited bandwidth of internet and would be behind the rest of the group before they could reconnect to the session.

In the zoom sessions, sometimes there are students complaining that they are falling behind due to slow internet and lagging and then all of a sudden, they are out of the session. When they are finally able to log back in, it is too late. – NM&S trainee

There are many problems that arise when following through zoom. The internet maybe fine and then suddenly fall. By the time you are able to reconnect, you are far behind the rest of the group and you cannot go back to the beginning or where you dropped off. – NM&S trainee

I choose in person because it was the best for me. I have internet and electricity problems and I knew that when I came here (to ESIH) I would not have these challenges. – NM&S trainee



Some NM&S trainees also had limited access to internet because of constant work-related travel.

Access to the internet is truly a problem for everyone. I knew that these two things would be a problem. For example, there are some students that are continuously late. Even if they have an internet/data plan, they can't always find access. Or if the students have to travel for work purposes and they end up someplace with limited or no access. This is definitely a challenge. – NM&S trainer

But resiliency of the IDP and NM&S trainees remained, with most using multiple tactics to overcome the barrier created due to power outage and limited internet connectivity. Some trainees ensured that their laptops and tablets were always charged while few saved money to purchase back up battery to ensure they are not dependent on continuous power supply.

In Delmas there are times when you are awaiting the electricity, but you never receive it. But in order to make sure I am ready I always charge the laptop when we do get electricity and I sacrificed and purchased a backup battery. – IDP Trainee

Luckily, the tablet maintains a charge for such a long time because in my area we seldom get electricity. I often charge the tablet while I am at work. If I do not overuse the internet or the other applications the tablet can easily last two days on a full charge. As long as I have downloaded the materials, I don't really use the internet other than for the time needed to complete a quiz. – IDP Trainee

Few IDP trainees with no internet access at home and lack of hotspot capabilities on their phone used paid service at the nearest cybercafé. The service could cost approximately 125 Haitian Gourde or \$2 United State Dollar per hour for this service.

The biggest problem is the internet because my phone cannot serve as a hotspot and my family members who do have this capability are not around during the hours when I can do the course work. But after doing some thinking I realized I could go to a cybercafé because it is my responsibility and I agreed to participate in this course. I pay 125 HTG (about \$2 USD) per hour for this service.

Some IDP trainees used the data and hotspot capability available on their friends or family member's phone to access the course and complete the quizzes. Some trainees also charged their tablets and/or laptops and accessed internet at their workplace to access the course and complete the quizzes.

There are times where I can find a friend willing to share their phone/data and we plan a time when they are able to facilitate this for me. – IDP Trainee

Luckily, the tablet maintains a charge for such a long time because in my area we seldom get electricity. I often charge the tablet while I am at work. – IDP Trainee

When I go to ESIH and/or work I take the opportunity to charge the tablet and download the materials. But at the office if the internet is bad, I alternate from the tablet, computer and my phone in order to get through. Sometimes I have to complete the exercises while on the clock because I know that when I get home, I may not have WIFI. – IDP Trainee

Other IDP trainees discovered technical solutions to resolve the internet problem ranging from borrowing a router from a friend to using apps that allow sharing of internet with tablets.

My phone also does not share WIFI but I often borrowed a router from a friend. However, this particular router was from Digicel and Digicel consistently has service problems. So now I wait until the hours from 11 PM to 4 AM to get the work done. – IDP Trainee

My problem was internet as well because my phone does not share WIFI. But this led me to discover that there is an app called FOXFI that allows you to share the internet with your tablet. I learned this trick from a friend who is also in the program. Foxfi led to my internet problem being solved. – IDP Trainee

### 3.2b Infrastructure Issue 2: Transportation Costs

**Transportation costs remained a challenge for IDP trainees. The barrier was mitigated to a large extent by advance release of in-person sessions and exam dates allowing IDP trainees to save money for the upcoming travel.**

As discussed in the training round 1 report, 70 percent of all travel in Haiti is done on foot. One of the reasons for the majority of travel on foot is the lack of affordable public transport options and approximately 85 percent of vehicle traffic is congested in the Port au Prince metropolitan area.<sup>2</sup> There is lack of affordable public transport alternatives and each trip to ESIH is an investment for the IDP trainees. In order to mitigate the transportation cost barrier, schedule of in person activities was released in advance so the trainees can plan in advance and save money. The solution was successful with many trainees appreciating the ability to budget the travel in advance. For example, some IDP trainees indicated:

I did not have enough means [to travel to ESIH]. My parents were not able to help me. Because we were given a schedule of in person activities, I was able to budget accordingly.

From the very first day we were given a contract with the expectations. We all agreed to make the sacrifices to be there and have to keep true. Also, because we have a scheduled you know in advance the days in which you need to save money in order to make it to ESIH.

Some IDP trainees indicated they were motivated to save because the program was free and provided tablets. Hence, they took upon themselves to budget their personal expenses and make sacrifices to save enough money to travel to ESIH.

In my case, after I signed the contract, I took a picture of the schedule to share with my mother so that she was also aware of the required appointments and could help financially. Often times she is the one who reminds me of the appointments and deadlines. She reminded me that this is not something I am paying for (i.e. the classes) so the financial commitment is not that bad and so I should strive to budget accordingly.

Finding the funds to pay for transportation and other things is not easy. But I have to find ways to get it done...A good thing with the program is that we are not obliged to come to ESIH every day. All the work can be done from the tablet so that we are not spending that much money on transportation. If it were everyday than that would be a different case.

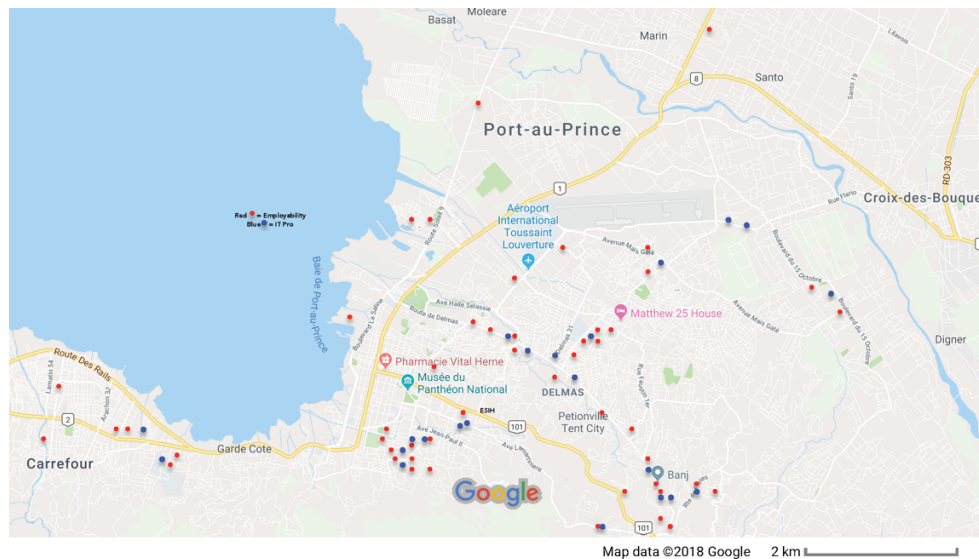
Finding money is not easy but reminded myself that if I were following this class in school/university I would have to pay for the class itself and all of the associated materials. So, I told myself that this is a sacrifice that I have to make for something that will be useful for me in the long term. This is an investment that I chose. Also, this is an online course and that our physical presence is not always mandatory, thus the sacrifice is not too great.

The challenges related to transportation costs remained in training round 2 and IDP trainees were required to make significant changes in their spending habits to meet the expense. This matter because only 11 percent of IDP trainees lived within 1 km with 13 percent within 1-2 km from ESIH, 25 percent within 2-4 km from ESIH, 21 percent within 4-6 km, and 30 percent of the IDP trainees lived more than 6 km away from ESIH in the areas of Carrefour, Tabarre, and Croix-des-Bouqueta. It took 22 percent of IDP trainees more than an hour and about 45 percent

<sup>2</sup> Coalition of Caribbean Urbanists. (2010). Report for Discussion : Workshop on the Reconstruction of Port au Prince, Haiti. p. 17. Retrieved January 9, 2011 from <http://haiti-patrimoine.org/?p=345>

between half an hour to an hour to reach the ESIH labs. Further, only 2 percent of the IDP trainees reported that they walked to ESIH with approximately 86 percent utilized expensive public modes of transport: taxi (27 percent), bus (22 percent), or tap-tap (37 percent). More strategies are discussed in the recommendation section to mitigate the transportation cost related barrier.

Figure 3.22 - Location of trainee residence (IDP trainees – Red Color and NM&S trainees – Blue color) in Port-au-Prince Area [Source: Online Application]



### 3.2c Infrastructure Issue 3: Access to Digital Device

**Provision of tablets to the IDP trainees once again overcame the barrier of access to digital device and should be resumed in training round 3.**

As in training round 1, all the IDP trainees were provided a tablet by the AGG program at the start of the course in training round 2. The evidence gathered during the evaluation confirmed the need to provide the tablets because of the financial constraints faced by some students as indicated in the comments below:

If it were not for the tablet, I would not have had the equipment to start the program.

I would like to applaud the program because they realized that people of limited economic means would not be able to buy a tablet in order to participate.

Initially I did not think I would be able to do it, but I have. The program has helped me immensely. There were people that did not believe that we would be given a tablet, I didn't let this discourage me. I said that if we were promised a tablet I had to at least try. I had to overcome this pessimism. Everything that was promised was done/given. I would hope that they don't drop us afterwards that they follow up.

The above quotes from IDP trainees reveal that the provision of tablet did not only overcome the lack of access to digital device but also motivated the IDP trainees to participate in the program with more enthusiasm and dedication. But there were some limitations to the use of tablets by IDP trainees. As reported by the employment coordinator, IDP graduates from training round 1 struggled with operating a computer while engaging with the employability component of the program despite having proficiency in the operation of tablet. This was primarily because the operation of keyboard and understanding of different parts of a desktop computer was lacking.

While the provision of tablet remained highly beneficial, several suggestions were made to increase the positive impact of the tablets:

1. SIM enabled tablets: In interviews and focus groups, IDP trainees expressed the desire to have SIM enabled tablets in order to have direct internet access on the tablet and be less dependent upon WIFI connections.
2. Practice on desktops: It was recommended by the employment coordinator to provide instructions on the operation of desktop computers during the program and have the provision to practice stenography on keyboards of desktop computers as well.

### 3.3 Pedagogical Factors

This section will discuss the evaluation of the large pedagogical changes from training round 1 to training round 2 and provide a brief analysis of other pedagogical factors: communication channels, peer learning, course technology and language, and self-directed learning. In training round 2, two major program adjustments were made that affected the pedagogical strategy. First, one fourth of the IDP trainees were randomly selected to receive online facilitation while the rest of the trainees continued to have in-person facilitation sessions scheduled at key points in the learning pathway as in training round 1. Second, in order to make the NM&S course more practical, video tutorials and practice sessions were introduced. Approximately 16 NM&S trainees voluntarily accessed the practice sessions online through videoconferencing apps such as Zoom, and Webinar and the rest had the practice sessions at ESIH labs.

#### 3.3a Pedagogical Issue: Course Learning and Facilitation

As discussed above, course delivery was designed differently in training round 2. For some trainees that lived far from ESIH and had relatively more reliable access to internet, the facilitation was done completely online. Those that accessed the facilitation online included 25 students from the IDP course and 16 trainees from NM&S course that accessed the practice session through Zoom or webinar. For the rest of the IDP trainees, in-person interactions and/or practice sessions were scheduled at key points in the learning pathway while the rest of the NM&S trainees accessed the practice sessions in-person at ESIH labs.

##### 3.3a1 Access to trainers, IDP trainees

**Most IDP trainees had applied to the AGG program with the perception that it was only an online course. A lot of trainees were pursuing concurrent activities and, if given the choice, majority of them preferred online facilitation over in-person.**

While accessibility to trainers emerged as an important theme in training round 1 and remained important in training round 2, the channel used to access the trainers did not have an effect on the performance of the IDP trainees. No correlation was seen between the performance of the IDP trainees in quizzes and exams and the choice of facilitation group: in-person and online (Figure 3.31).

Figure 3.31 - Correlation of facilitation group selection with the course performance of IDP [Source: Application Form and ESIH Report]

Group Selection	Final Grade	End of Course Quiz	InClass Quiz Score	Retakes
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Online Group =	-0.04	-0.07	0.01	0.03
1, Rest = 0				

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The low to neutral impact of facilitation choice on performance was consistent with the feedback received from the IDP trainees during interviews and focus groups. Most IDP trainees joined the AGG program with the expectations that it was an online course and did not expect to come to ESIH for in-person sessions. Transportation was a huge cost for majority of the IDP trainees. If given the choice, majority of them (58.7 percent) preferred taking the online facilitation provided that the online trainers were available to solve any problems encountered while working on course materials. For example, some IDP trainees indicated:

I found it odd that we were separated into different groups. I think that the premise of an online course should be purely online. We can have a few mandatory in-person sessions but other than that it should be online only. We should only have to come to ESIH for the exams, I think it would be better for everyone. There are some people run into difficulties when making it to ESIH and there is a lot of traffic. This asks for a lot of time. If I could choose over, I would be in the group that is online only. – IDP trainee, In-Person Facilitation Group

Sometimes my actual studies presented a challenge. There were times, during my exams, when I had to cut down on studying because we had mandatory in person sessions at ESIH. At those times I had to prioritize the in-person sessions because that is what I agreed to. – IDP trainee, In-Person Facilitation Group

It would be better to be online but with a trainer. There are some things/topics that you will not understand on your own. It's good to have someone that you can ask questions and find answers. – IDP trainee, In-Person Facilitation Group

The only challenge that IDP trainees had using the online facilitation group was scheduling sessions with trainers. The time slots with trainers were not allocated in advance and prevented the trainees from planning their study time or preparing questions in advance. The trainees were often able to access trainers only at night resulting in a delay in interaction or the trainees having to work off-hours.

I am in group #4 [online facilitation group]. I am only allowed to be present here [at ESIH] for exams. I will be penalized if I come. I can say that the trainer is available most of the times but not at the specific times that I need help. We do not have the same schedule. He usually responds to our questions at night but not at the exact moment we need help. He will usually advise you that he is not free at the moment and to write to him and he will respond later. But, later is night time for me and I am sleeping. Or I may be busy with other things. This means that you can't advance when you are working on the materials until you get the answers/feedback. This messes up your schedule. I do like it online but there needs to be a better system, like availability clearly stated during certain hours. – IDP trainee, Online Facilitation Group

Lack of access to trainers was experienced by the IDP trainees that had in-person facilitation as well. While most of the experiences with the trainers were positive and IDP trainees felt that the trainers had a strong commitment towards their wellbeing, a lot of trainees stated the challenge of scheduling. For example, some IDP trainees indicated:

Sometimes you write to the trainer and they are not available. Their hours are not compatible to ours. Maybe it would be better if they published a schedule/timeframe of their hours, so we know to prepare our questions and expect answers. This way we can be available for their hours. - IDP trainee

It is always stressed that we should be managing our time but when we do, we see that it is not compatible with the tutors. I don't think the online and mandatory presence sections face the same challenges. When that group comes to campus, the amount of time they have with the tutors is very short. They don't see how difficult the exercises are until they get back home and attempt on their own. I think there needs to be more tutors so that they can help when here [at ESIH]. - IDP trainee

One of the reasons that could have led to scheduling challenges is the higher trainer to trainee ratio of 1:25 in training round 2 than the ratio of 1:17 in training round 1. The survey validated the dissatisfaction with the trainers: 58.67 percent of the trainees agreed that they received useful feedback from the trainers in training round 2 in comparison to 75 percent in training round 1. Many IDP trainees mentioned the lack of access to trainers in interviews and focus groups as well:

There can be more trainers. 1 trainer for 25 people is too much. There are too many people sending questions and emails. I thought this was the purpose of Slack, so that we could share more information and help. But that has not been my experience. - IDP trainee

They are not always available. I am in group #2 and I can attest to that. At first, I use to send emails via Gmail, and I would never get a response. I was not sure if he/she ever received them or was it a question of too many students sending emails. You are looking for help to move on and you cannot find it. Also, in the orientation we were told that the tutors would call us every week or two. I can say this was never done. I don't know of another student that received a phone call. It was up to you as a student to conduct all of the due diligence to contact your trainer. And when you tried to contact them, you could never find them. - IDP trainee

### 3.3a2 Access to trainers, NM&S Trainees

**Most NM&S trainees had problems accessing practice sessions through zoom because of inadequate broadband connectivity and unreliable electricity supply. If given the choice, majority of the trainees (84 percent) preferred practice sessions at ESIH Labs over zoom video conference.**

The NM&S trainees in the training round 1 accessed the course online with dedicated hours of online facilitation. Most trainees in training round 1 had reported a need for practice sessions to better understand the theoretical concepts being taught online. As stated at the beginning of this section, to resolve the need for more practice, sessions were provided in the training round 2. Approximately 16 of 25 trainees accessed the practice sessions through online video conferencing apps such as zoom and/or webinar while other accessed it in-person at ESIH Labs.

The NM&S trainees had an overall positive experience with the trainers owing to their high availability and timely response. For example, some NM&S trainees mentioned:

The trainers always say to show/tell them when you have a problem. – NM&S Trainee

There are no problems with the trainers, they are always available. – NM&S Trainee

Come Sunday afternoon if you have not completed the quiz the trainer will write to you directly. It keeps you active. – NM&S Trainee

The survey response validated the satisfaction with the availability of the trainers. Approximately, 71 percent of the NM&S trainees agreed that the trainers responded to their questions and doubts in time. But unlike IDP trainees where no correlation was seen between the facilitation type and performance, a high correlation was seen between the performance of the NM&S trainees in quizzes and exams and the choice of practice session group – in person and online (Figure 3.32).

Figure 3.32 - Correlation of facilitation group selection with the course performance of NM&S [Source: Application Form and ESIH Report]

Group Selection	Final Grade	End of Course Quiz	InClass Quiz Score
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Online Group =	0.39	0.43	0.31
0, Rest = 1			

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The negative impact on performance was consistent with the feedback received from the NM&S trainees during interviews and focus groups. Most NM&S trainees selected practice sessions through Zoom because of transportation or time management issues but had problems accessing the sessions because of inadequate broadband connectivity and unreliable electricity supply. Many reported that they would drop out of the call because of limited bandwidth connectivity and would lag behind the rest of the group by the time they would reconnect. If given the choice, majority of the trainees (84 percent) preferred practice sessions at ESIH Labs over zoom video conference. For example, some of the NM&S trainees indicated:

I think that online with the in-person sessions would be better. When you are online only, it allows you to economize / manage your time better. When you travel for the sessions, the amount of time you can spend is determined by your closeness to ESIH. But, because of the country's problems with electricity and internet, the in-person is actually better. – NM&S trainee

In-person because we are living in a country with no electricity. There are many problems that arise when following through zoom. The internet maybe fine and then suddenly fall. By the time you are able to reconnect, you are far behind the rest of the group and you cannot go back to the beginning or where you dropped off. – NM&S trainee

I would select in person over zoom because of the internet problems. In reality this is the better choice. – NM&S trainee

The in-person session gives you the opportunity to make a list of things you have a problem with to address with Lyse while you are here. It's actually a profitable opportunity. – NM&S trainee

The few trainees that differed in their opinion and preferred the online practice session option was because of their inability to travel to and from ESIH.

I am going to differ from the group. There are people in the program that are not living in Port-au-Prince, it is impossible for them to come for the in-person sessions. We need to keep the online only option to help them in this regard even if the internet is not too good. I think both options are good. – NM&S trainee

### 3.3b Pedagogical Issue: Evaluation of the course content

#### 3.3b1 Course Effectiveness, IDP trainees

**As with training round 1, the perceived effectiveness of the module and self-satisfaction of the effort put in by trainees in the modules decreased with increased difficulty. But no major challenges or changes were reported, and trainees found all the modules effective.**

Only minor changes, limited to spell and translation errors, were made to the IDP course content in training round 2. More time was allocated to two modules – data management and capstone – that were more difficult and required more time to complete in training round 1. As a result, the IDP trainees did not mention any major challenges related to the course content in training round 2.

Majority of the trainees found the course learning goals and objectives clear, course materials challenging and manageable, the skills learned relevant and were satisfied with their effort in all the modules. The only exception was the capstone module that was found more difficult (easy – 28.26 percent, neutral – 60.87 percent, difficult – 10.87 percent) and Productivity Tools for Digital Workers (easy – 42.67 percent, neutral – 40 percent, difficult –

17.33 percent). Yet majority were satisfied with the learning effectiveness of the two modules, the effort they put in, and found the skills learned relevant.

Netiquette and data management were listed as the top skills learned from the program. Many trainees reported feeling more secure and comfortable using the internet for their personal and work-related activities and found data management to be useful in professional life - work and university studies. Time management was also called out as an important skill learned from the program. For example, some IDP trainees mentioned:

The three main skills I acquired in the Ayitic Goes Global program that I have been able to apply in my daily life is, first and foremost, the best management of my time. Then the effective use of the internet. Finally, the behaviors to adopt on the internet.- IDP trainee

1) Manage the time, the application tasks helped me managed the time because I did everything I needed in the expected time. I have more control over procrastination. 2) Acquire new knowledge, such as data management that will help me in my daily life and employment. 3) The netiquette that I applied in my daily life. – IDP trainee

### 3.3b2 Course Effectiveness, NM&S Trainees

**The NM&S trainees appreciated the addition of practice sessions and video tutorials in training round 2 but still expressed the desire for more opportunities to practice skills learned through the NM&S course.**

The expectation that the NM&S course will teach trainees applicable skills rather than ground them in theoretical knowledge remained in training round 2. While the trainees appreciated the availability of videos and practice sessions, a sense of disappointment emerged through their responses. Many trainees desired more videos and quiz related practice questions throughout the module. Some trainees also expressed the need for more time at ESIH labs with the appropriate tools to learn the practical side of the course and gain more confidence in their skills. For example, some NM&S trainees noted:

I would add that we really did not complete any practical work. The laboratory and the tools need to be made available. – NM&S trainee

The in-person sessions are good because we get to use the laboratory facilities. But, at the same time we do not get to experience the materials through practical sessions. We do not make connections or configurations. We only know the materials through the reading materials in theory but not in practice. I would like that when we meet in-person we get to experience and configure the topics ourselves. – NM&S trainee

I would like additional videos. It would be better for us to see what is being explained in all of this text. For software it is important to see what is being done, since that is our way of “touching” the information. – NM&S trainee

I would suggest that if they are adding more video content that the text materials also be increased and compatible. We cannot only ask for more video content. It is also important that we have practice sessions (at ESIH). It can't just be video and content, it is the practice that allows us to master it. – NM&S trainee

Suggestions were also provided to improve the clarity of the quizzes through practice examples throughout the course content to better understand difficult concepts or subdivide the modules further with more questions that are not necessarily scored.

The confusion with the quizzes was a problem for us. It was a problem of clarity. The materials would say one thing and the options on the quizzes would not correspond. It's only after analyzing everything you see that there is a problem and you could not find a true answer. I think it would be better if in lieu of a quiz at the end of each module that we had a practice session where we could apply the research and methods that we learned in the modules. – NM&S trainee



There are times when the questions do not align with what is written in the text. The way the question is written leaves you confused. The answer/choice that you have selected is not wrong per se, but it requires additional personal research and deep diving into the course materials to see why the correct answer is the right choice. I would like for the quizzes to have more clarity. – NM&S trainee

I think it would be important that in between reading the documents, sometimes they are 40+ pages, if we could have quizzes or examples in between. This would put us at ease and make it simpler for us. We could be tested on exactly what we just learned. – NM&S trainee

It would be good if the quizzes had practice examples as well. – NM&S trainee

I would add that the formulation of the quizzes themselves lead to a lot of confusion. If the choices were clearer, our response rate would be better. – NM&S trainee

The feedback of the trainees indicate that more consideration needs to be given to manage expectations around the practical side of the NM&S course at the time of admission. Also, strategies to make the text less dense and ground trainees in concepts through more videos and practice examples should be explored.

### 3.3c Pedagogical Issue: Communication Channels

**In training round 2, the lack of motivation from the trainers led to the decrease in use of Slack Channel that was introduced to teach trainees how to communicate in a professional environment. Trainees continued to prefer the widely popular and easily usable WhatsApp channel over the unfamiliar Slack channel for interactions with the trainers and peers.**

The IDP trainees used a range of tools to connect with the trainers ranging from slack channel to WhatsApp, email, call, and in-person meeting but preferred WhatsApp (58.70 percent) despite the fact they had different ages, education levels, learning experiences and backgrounds. WhatsApp was followed by a preference for in-person meetings at ESIH (26.09 percent) and Slack Channel (13.04 percent) as the preferred channel to communicate.

The decreased use of Slack Channel and increased usage of WhatsApp compared to usage in training round 1 was reflected in the communication etiquette of the trainees. The use of Slack Channel in training round 1 was appreciated by the trainees at the end because of the close relation with a professional environment and the formal tone used in the Slack Channel for communicating with the trainers. In training round 2, the trainers did not push for communication on Slack and most conversations happened on WhatsApp. Some IDP trainees reported a lack of purpose and structure prevented the conversation on WhatsApp from being useful, with some trainees at time communicating with trainers in an unprofessional and informal tone that made other trainees uncomfortable.

At the beginning the tutor was really with us and around via email, WhatsApp and all. I created a WhatsApp group and added him in it. Now this wasn't his fault, he is not the reason the group went sour. It was the other trainees. Now, in what sense? In the sense that it went really bad/was a bad experience. I am in the group, and a few other group members are here and can attest to that. I rarely spoke in our group communications. I mostly kept it to email communications. – IDP trainee

Once again, they [other trainees] didn't respect the objectives of the group and discussed anything in the group. All subject and irrelevant things were discussed. There was also a lack of respect for the trainer. They were flirting with him/send suggestive messages. This made me feel very uncomfortable. Or if you disagree with something posted, the group can get very aggressive and demeaning towards you. Sometimes when the trainer says something and they don't agree, they tend to gang up on him. Not everyone is comfortable with this. You can see that it makes him pull back because in the beginning he was very open and available. Now when I have a problem, I just keep it to myself, I no

longer share. There should be rules in the group chats so that we respect the principles. There can be a person there to moderate this. – IDP trainee

Ultimately, when I needed to speak to him, I would send a private email message. In our group channels, I didn't like the way the young women [IDP trainees] carried themselves. They would talk about other things and subjects that had absolutely nothing to do with the course. They had a lack of respect for the tutor. I really have no idea why they were like that. They were talking about the various trainers and their looks. They were talking about other students in the program and how they dressed. They would talk about religious things and Jesus. They would even talk about Carnival. – IDP trainee

In the first Cohort the young women [IDP trainees] really used Slack. It seemed as if they were very at ease with it. When they posted questions, they would sometimes receive answers right away or within a few minutes. In the second cohort, as I mentioned earlier, I sense that the young women [IDP trainees] were very timid. They really used Gmail. I think it was so that they would not tire the other young women [IDP trainees] with all of their questions. They did not really use THESS I found. – IDP trainer

If I had to train someone I would say working as a trainer requires a lot of patience. You have to know how to communicate well with the young women [IDP trainees]. You have to think and put yourself in their position beforehand so that you can see if your words maybe misinterpreted/ they will take it in the wrong sense. Also, you have to be friendly and social with the young women [IDP trainees] and ask them how they are doing and/or that they are doing a good job. But, in the same sense you have to remember to keep things within the objective of the program. – IDP trainer

Some IDP trainees also felt that the censorship and surveillance on platforms like Slack Channel prevented the trainees from using the tools in an effective manner.

From the very beginning we were told that we could communicate on the platform but that we were under surveillance. This discourages us from accessing the platform. I don't want to start a conversation then get reprimanded: "You shouldn't have said this. You shouldn't have said that." You get the sense that we really do not have the intimacy on the platform to talk freely. – IDP trainee

I also think there is a lack of structure. Let's take Slack for instance. I can say that in my group (#4) we do use it, but when you look it's just chit chat. There is no exchange of content related to the course. This even happens in our WhatsApp group chat; they talk about any and everything. There is no structure. It is like there is no respect for the trainer. They act like we are not being watched. The groups were created with an objective in mind, but they are going beyond the objective. There can be more structure but less surveillance, like a group moderator. – IDP trainee

With NM&S trainees, the communication remained on WhatsApp as in training round 1 with approximately 76.92 percent of the trainees using WhatsApp in training round 2. None of the trainees had any dissatisfaction with the mode of communication or lack of structure of conversation with the trainers in WhatsApp. To the contrary, the trainees had group moderators and helped other trainees by sharing information and posting words of encouragement. Some trainees were also motivated by the trainees that would finish the quizzes early and push other trainees to meet the deadline as well.

We had created a WhatsApp group and I was like the secretary/coordinator of the group. In the off chance that the trainer was not around, I would check up on the group and things like that. I liked the way that we all shared information and encouraged each other. – NM&S trainee

We used Slack and Gmail but within our group we are going to create a WhatsApp group to communicate. I think this would make it easier for us to communicate with the trainer because you can write on Gmail and they are not available, or she didn't see the message. But, with WhatsApp, more or less, everyone is always on it. You get responses faster because they receive and read the messages rapidly. – NM&S trainee

The other support is from the trainees in the WhatsApp group. Sometimes they finish the exam earlier in the week and they push us to hurry up so we can finish as well. The trainers also chats in the group to help us advance. – NM&S trainee

The comparison of the different experiences of IDP and NM&S trainees shows the need to establish additional structure and purpose of communication on different channels. The data from NM&S focus group also shows that it helps to have group moderators that can facilitate the conversation and provide support for peers in absence of trainers. Overall, WhatsApp seems to be the preferred channel and would be used by trainees because of its ease and familiarity but they are several benefits to motivate the use of Slack Channel for communication. Slack makes trainers and trainees familiar with communication etiquette in a professional environment and give them an understanding of conversations that should be posted publicly versus through private channels. Strategies to incentivize the use of Slack for IDP trainees and trainers over WhatsApp should be considered for training round 3.

### 3.3c Pedagogical Issue: Peer Learning

**Both IDP and NM&S trainees continued to seek moral support from their peers and helped each other to improve comprehension of the course content.**

The research conducted for the program design had encouraged collaboration program through dynamic activities including group work and team sprints to facilitate peer learning and development of cognitive and social skills. The evaluation study confirmed that peer interaction and support facilitated learning in training round 2. The trainees often met in-person to work through the quizzes and motivate each other. The importance of peer support was further validated in the survey where approximately 50 percent of the IDP trainees reported that peer learning improved their understanding of the course, 41.30 percent reported that peers provided them with moral support, and 34.78 percent reported that the peers improved their confidence within the course. A couple of the IDP trainees mentioned:

I am in group #4 so we were not allowed to come to ESIH easily. But during the week we would schedule and meet up in person to work through exercises and examples that we had a hard time with. We motivated each other and worked hard. – IDP trainee

I found a lot of support from people in the class with me. We talked online and we sometimes met in person. I found a lot of support from family too, they were always encouraging and supporting. – IDP trainee

I communicated a lot with my friends/comrades in the class. We communicated online and compared answers. – IDP trainee

The NM&S trainees also found motivation and support in their peers. There was healthy competition among the NM&S trainees with those submitting the quizzes in advance which motivated other trainees to meet the deadlines. Some NM&S trainees mentioned:

My support system is the group. I also read the messages. There is a student in the program, Max, I do not know him personally, but he is someone who is so encouraging. Once he finishes the quiz, he posts in the group to let us know that we have to make the effort as well. I feel like he deserves a prize. The trainer as well, he writes to me directly if he sees I'm not so active in the group. – NM&S trainee

I found support from my friends that have participated in the other cohort. They give me some tips on how to progress and motivate me. Because the certificate we receive is internationally recognized it is a big motivational point for me. – NM&S trainee

I have friends that also encourage me. Even some other students in the program, we call each other to check up and check in. We also debate some points where there is ambiguity until we are all clear. – NM&S trainee

### 3.3d Pedagogical Issue: Course Technology and Language

#### 3.3d1 Language and Course Technology, IDP trainees

**All the IDP trainees fully utilized tablets to access the course material and used French as the language of instruction.**

IDP trainees were provided with tablets to access the course and had the option to navigate between French and English as the language for the interface throughout the course. Both in training round 1 and 2, all the IDP trainees used the tablets to access the course including trainees that had access to personal laptops or computers. The tablets used less electricity than laptops or desktops and enabled trainees to read course materials while traveling.

But training round 2 saw less trainees taking advantage of the multilingual capacity of the ADAPT platform. While a majority of the trainees (59 percent) switched language at least once between French and English in training round 1, 66.67 percent trainees of training round 2 never switched the language and 100% accessed the course only in French. This is concerning because language was found among the top barriers when exploring employment opportunities after graduating from the program whereas very few platforms offer the option to navigate platforms in French.

A majority of the IDP trainees had trouble accessing the THESS platform because of the large number of trainees in training round 2. The trainer had to divide the trainees into groups so the THESS platform could function without problems. As some IDP trainees mentioned:

It's concerning the THESS platform. The platform is so heavy that I often had problems signing onto the platform to complete the quizzes. Also, the internet on the tablets was not ever strong enough and I tended to have electricity problems. – IDP trainee

I could say that for THESS the problem is that they cannot connect together at the same time. If you wanted them on the platform you would have to break it up into mini-sessions by group (when on campus). I think the THESS platform would have to be lightened (as in it is too data heavy) to increase usage. – IDP trainer

Despite the challenges, trainees reported having access to adequate technical support from the trainers when they encountered such technical difficulties (74.67 percent agreed, 22.67 percent neutral, 2.67 percent disagreed).

#### 3.3d2 Language and Course Technology, NM&S trainees

**ICT professionals navigated the course only in French, with no option to use any other language. The technical challenges were mostly owed to the functionality of the quizzes.**

A majority of the trainees found access to course material flexible and convenient, course content to be logical, and had access to adequate technical support from the trainers. As in training round 1, the NM&S trainees in training round 2 did not have the option to switch languages between English and French. The challenges were mostly due to the bad translation of the text and quizzes. A lot of trainees reported that the copy of course curriculum and quizzes were not adequately translated and felt the French used was heavy or antiquated. This led to confusion in

understanding of the content, for instance, many trainees stated they selected the wrong answers to quizzes because of the translation gap. For example, some NM&S trainees indicated:

There is a subject that we brought up initially and I would like to circle back to it. It is the problem with the translations. For me it is obvious that the course was not written in French. Like one of the students said earlier, we should have language options like French, English, or even Spanish and we can choose. The context of the French materials we received is lacking. The translations aren't clear, and neither are the questions and answers. This is a very important point. – NM&S trainee

I'm not sure if the documents were initially written in English, but the translations are not completely in French/"Frenchified". I don't know if it would be better if we could choose the language we want to follow. For example, if you want to take it English, you have the option. I think the problems in the quizzes are due to the translations. The French (in the text) sounds very heavy/wordy. This is why even though you [the trainee] have selected a right answer, it is still incorrect in the system. The translations have errors. – NM&S trainee

I received complaints the majority of the time about the THESS platform. The students would say the materials covered are not the same materials that are on the quizzes. The main issue that I am facing now is concerning the grades on the quiz. The students have the ability to take the quizzes numerous times. Let's say they get a 40%, 50%, or 60%. However, the system validates only the first score, no matter how high or low. The students will take the quiz numerous other times but will want me to only count the highest score. All of them have this problem right now. – NM&S trainer

### 3.3e Pedagogical Issue: Self-regulated learning

As revealed in the pedagogical research conducted in 2017, lack of direct support and structure that come with classroom learning can often lead to high dropout rates in online courses. To increase retention rates, online and in-person trainer support was coupled with course design and delivery that maximized on the characteristics of an adult learner: allowing autonomy and the ability to be goal-oriented. The curriculum design and delivery also encouraged the culture of "self-evolving student" through the use of technology and regularized self-assessment sessions to equip the students with the necessary resilience and objectivity to adapt within the professional world.

#### 3.3e1 Self-regulation and self-directed learning, IDP trainees

**IDP trainees were encouraged by the goal-oriented and autonomous character of the curriculum design. The access to course schedules in advance, ability to track grades, multiple attempts at quizzes, and links to outside materials continued to play an important role in instilling a culture of self-regulation and planning in IDP trainees.**

While the training round 1 showed a sense of discipline instilled in the IDP trainees because of the ability to track one's own grades and access to course schedule in advance, training round 2 data analysis indicate a sense of discipline was further instilled with the introduction of time management tactics introduced during the orientation session. Majority of the IDP trainees came to the course with the expectations that it would be difficult to manage the learning activities because of the self-discipline required and having had prior failed attempts to complete online course such as those offered by EdX. But the short time period of the course overall, the introduction to tools such as google calendar at the time of orientation, and other provisions made in the course made the trainees inculcate the culture of planning ahead. For example, some IDP trainees mentioned:

When I started the course, my intention was to give myself the discipline required of an online learning student. I had started one in the past and I was as if I was left behind. That the course ran/continued, and I could not catch up. There have been numerous other online courses that I have wanted to take but I knew I could not because of the lack of

discipline. Going in to this course, I told myself that it is only 12 weeks, and in those 12 weeks you must be as disciplined as it requires. This was my objective and now I can say I am at a measure where I can study online. – IDP trainee

As I said before I had a complete lack of discipline before the class. I always thought I had enough time, and this is why I couldn't follow an online class before. But with the applications that we discovered in the class, like google Calendar, it allows you to plan your time and activities. I have learned to master how to schedule my time and tasks in a way that does not leave me rushed. – IDP trainee

I have taken an online course with EdX before. I ultimately gave up on the course because I found it very difficult. Online courses require a certain level of discipline. I tended to forget the days and times of the videoconferences and quizzes as well. That is why I never finished that course. I found that I lacked the discipline. But with this course, because I have learned so many new things, it allowed me to discipline myself. Because you are working with yourself [alone] it calls for a level of management with the tasks. After the end of this course, I hope to take another online class because at first, I was undisciplined but now I see I can do this. – IDP trainee

Before we started, during the integration [orientation] we had a session on how to manage our time. We were told that it is not always so easy to follow an online class, it requires a certain level of discipline. For example, we were told that we should develop a calendar, like Google Calendar, so that we can plan when to study the materials. Because we have two weeks to go through the materials and the tasks you know you have to maintain the schedule. If it were not for this method, I think I would have been under much stress because I would not be on schedule. Because I know that this is my responsibility, I have to set aside 2 - 3 hours for the course. It calls for a level of discipline. But in the beginning, it was a catastrophe [referencing the EdX course taken prior to AGG].

Majority of the trainees (92.01 percent) also continued to search additional materials on internet to enhance their understanding of the course materials, using both the links provided with the course curriculum and resources found through personal research on internet. The key research items during internet search included materials on statistical frequencies, video tutorials on Word and Excel, and information courses on Google Play. Some trainees also bought books including Frederic Martel's Smart: The Digital Century. Some IDP trainees felt equipped with the knowledge to create their own learning pathways and found learning opportunities online with the skills learned throughout the course.

I did a lot of personal research using the tablet and the internet. – IDP trainee

The reflection questions. They lead to a lot of critical thinking and reflections from me. It permitted me to really think about myself and my behavior.

Before this class I really didn't know what, it meant to work and study online. I had thought it was something that fell out of the sky or was magic of some sort. I had no idea and thought it was so difficult. But now, I see that it is something easy. But it is up to us to find advantages and opportunities online. We have to create our own opportunities. – IDP trainee

### 3.3e2 Self-directed learning, NM&S trainees

**NM&S trainees continued to show the traits of self-motivated learners and expressed the desire to maintain contact with the trainers and peer trainees for continued interaction and learning opportunities post-graduation.**

Majority of the NM&S trainees continued to show the characteristics of a self-motivated learner in the training round 2. Almost all the trainees accessed additional materials on internet to enhance their understanding of the course

materials and mentioned the importance of maintaining contact with the trainers and peer trainees and continue to enhance their skills with other online courses. For example, a couple of NM&S trainees mentioned:

The course is finished but that doesn't prohibit us from learning on our own moving forwards. The contact that we have with the trainer doesn't have to end. I will continue to ask for information on other materials and programs that he can suggest. He has already shared with us information on another program in May. This was a base that we were given, it is up to us to continue and find other opportunities. It doesn't mean you have to quit your current job. You can find something additional that would bring in extra income. – NM&S trainee

I would suggest that there are continuing education opportunities. I do not hope that once we are done, we get a certificate, and that's that. There are continuous updates when it comes to learning IT. What we have is more so a debut into the materials, for people who had no idea of what security is like. It gives you an idea but if there was a forum so we could continue to learn and practice, that would be good. – NM&S trainee

### 3.4 Socio-Cultural and Economic Factors

This section discusses the impact of time spent on different activities on the performance of the trainees in detail besides providing a brief analysis of other socio-economic and cultural factors, namely financial constraints and baseline capabilities of the trainees. Haitian women's lack of equitable access to education can be attributed to gender norms that dictate division of household labor and access to household income. Socio-economic and cultural factors act as barriers to overall female employability and access to job opportunities in addition to blocking the ability to participate in and successfully complete pilot program activities. The study and evaluation of how the socio-economic and cultural variables impacted the performance of the trainees was assessed for both training round 1 and training round 2. Specific emphasis was given within the evaluation to time spent on different activities – education, work, and household responsibilities, as time management was listed as the top barrier next to infrastructural factors to meaningful interaction with the course.

#### 3.4a Socio-Cultural Issue: Time Spent on Work, Education, and Household Responsibilities

**IDP trainees performed better with the conduct of time management session on the orientation day but NM&S trainees continued to struggle with different responsibilities in their life. The constant travel for work and time spent on university course load negatively impacted the performance of NNM&S trainees the most.**

Time management emerged as one of the top barriers to meaningful interaction with the course next to infrastructural factors in training round 1. As a result, a time management session was proposed for IDP and NM&S trainees at the time of orientation. The session had varying impact on the IDP and NM&S trainees.

##### IDP trainees

As discussed in the pedagogical section, the IDP trainees came to the course with the perception that the online course was difficult to manage because of the discipline and time management required. But the emphasis on planning a schedule and using productivity tools encouraged most trainees to plan ahead and manage their time efficiently throughout the course. The advance release of schedule of in-person activities also enabled IDP trainees to save money so they can afford the transportation to and from ESIH. The success of the time management session within the orientation with IDP trainees was also evident through some of the feedback received during the focus groups and interviews. Below are some quotes from the focus groups and interviews :

Since the first day when we had the session [time management session on orientation day] they [ESIH staff] spoke to us about how to manage our time, how to utilize all the new skills we were learning, the woman [Marlene] even told us that we may have to adjust the amount of time we spend on other activities so that we could follow the class accordingly. This made me very happy and on the same day I started a calendar/planner and started planning. I even schedule the days that we have to come to ESIH. This is why I am always on time! – IDP trainee

Ultimately, I created a calendar. In the beginning of the program I was using a notebook that I kept on my dresser at home. In the second in person session, someone had mentioned using Google Tasks and I immediately downloaded it on my phone and setup the dates and alarms so I could manage my time. – IDP trainee

The correlation analysis in training round 1 has shown a moderate negative correlation between time spent on household activities (caring for household elderly, cooking, religious and spiritual activities), and responsibilities related to marital life and parenting duties with the performance of the students. But in training round 2, no correlation was seen between household work and performance of the IDP trainees. The only factor that showed moderate negative correlation with performance was time spent on full-time or part-time employment. A moderate positive correlation was also seen between the time spent on religious activities and performance of IDP trainees (Figure 3.51).

Figure 3.41 - Correlation between time spent on activities, IDP characteristics, and course performance [Source: End Term Survey and ESIH Report]

	In Course quiz score	In Class quiz score	Cumulative Score
Caring for and helping household children	0.07	0.07	0.07
Caring for and helping household elderly	-0.05	-0.13	0.07
Cooking	0.17	0.17	0.14
Getting water	0.06	0.00	0.13
Other Household Activities	-0.06	-0.04	-0.09
Sports, exercises, and recreation	-0.06	0.01	-0.15
Religious and spiritual activities	0.22	0.24	0.14
Socializing, relaxing, and leisure	-0.09	-0.05	-0.14
Marital Status Single = 1, Engaged = 2, Married = 3	0.08	0.12	0.13
Do you have any children? Yes = 1, No = 0	0.08	-0.03	-0.02
Do you work? Yes = 1, No = 0	-0.10	-0.13	-0.20
Currently a student? Yes = 1, No = 0	-0.03	-0.02	-0.07

**NM&S trainees**

In comparison to IDP trainees, the NM&S course saw different trends. Majority of the NM&S trainee challenges were related to time wasted stemming from infrastructural issues such internet connection and electricity issues.

Time management was an issue for me towards the end. I do not know how this can be improved for upcoming cohorts, but the internet situation really needs to be improved. Perhaps there can be a network that is set up here at ESIH. This deficit affects many people. Even the students that were online only had this problem. – NM&S trainee



But there were also other socio-economic factors that played a role as well. During the correlation analysis, a moderate negative correlation was found between time spent on caring for children, sports, exercise, and recreation, time spent on university studies, and responsibilities related to marital life and parenting duties with the performance of the trainees. Contrary to IDP trainees, a positive correlation was found between time spent on work or being employed and performance of the NM&S trainees (Figure 3.52).

Figure 3.42 - Correlation between time spent on different activities, NM&S trainee characteristics, and course performance [Data Source: End Term Survey and ESIH report]

	All NM&S trainees		
	Score	Final Exam	Quiz Grade
Caring for and helping household children	-0.19	-0.17	-0.11
Caring for and helping household elderly	-0.07	-0.05	-0.02
Cooking	-0.03	-0.05	-0.10
Getting water	0.05	0.04	-0.11
Other Household Activities	0.21	0.18	-0.02
Sports, exercise, and recreation	-0.26	-0.26	-0.19
Religious and spiritual activities	0.03	0.03	0.06
Socializing, relaxing, and leisure	-0.11	-0.10	-0.12
University Studies	-0.08	-0.09	-0.22
Employment	0.28	0.28	0.28
Enrolled in University	-0.02	-0.02	-0.14
Marital Status	-0.05	-0.08	-0.18
Do you have any children?	0.09	-0.19	-0.24
Do you work?	0.28	0.30	0.19

The survey, interviews, and focus group responses were analyzed to understand the findings of the correlation analysis. Majority of the trainees were enrolled either in university (34.6 percent), employed full-time, or part-time at a job (42 percent). Despite the time management session conducted during the orientation, NM&S trainees struggled and were not able to balance work, university, and family related responsibilities with the course load of AGG program.

The challenges were not uniform. There are trainees that travel constantly for work and are not always in a place with internet access, like the provinces. It is sometimes difficult for them to study and complete related work. There are times where there are people who have deadlines and must work overtime at work. In this session there were trainees who were getting married. These were times where I had to be flexible and understanding and give additional time. – NM&S trainer

Many of the trainees have jobs and obligations during the day. Even for the exam there were trainees who were unable to attend the session. – NM&S trainer

The correlation study shows a moderate positive correlation between time spent on work and performance of NM&S trainees. This could be because trainees at work could take breaks to study and also had access to more reliable internet connection. But trainees who were employed but didn't have access to internet because of frequent travelling had trouble accessing the course while travelling because of lack of reliable internet connection. For some NM&S trainees that had full-time jobs or were full-time university students, scheduling conflicts was another challenge. Many trainees who were unable to attend the final exam stated that they could not take a holiday at their

work. Trainees who were both working and studying part time at a university, outside of the AGG program, had more problems with little or no time to study except a few hours every Sunday.

I think an evident challenge is time management. The majority of people here either work or got to school. For example, even if I think about the class all week long, it is not until Sunday afternoon that I find the time to complete the assignments right before the deadline. It's all a matter of time constraints. I have activities/obligations that are more pressing and require immediate action. When I come home from work, I am extremely tired as well. This is why I often wait until the last minute. – NM&S trainee

I thought that the program would have been easy to follow since I am on vacation (from school). But after I found an internship thing were a bit difficult since I now had less time than I anticipated. I found that I would have to wait until the Sunday night deadline to finish the module/exam. – NM&S trainee

For me the when I applied/signed up I thought I would be able to follow the program good enough (as in self-directed). But as the course progressed, I found that I would not have enough time to follow and the course material would accumulate. There were evenings where I would be trapped at work, which left me with little time for me to get the course readings completed. – NM&S trainee

We had deadlines for quiz. Because of work and university and their related tasks/obligations I knew that I had to organize my time accordingly. I set up a schedule, so I would know when to do what and keep myself organized. I was only late with one quiz I believe; I can't recall why. – NM&S trainee

The end-term survey data was gender disaggregated to understand how female NM&S trainees were impacted. The data shows that female NM&S trainees bore a greater burden of domestic responsibility: 1.46 times more time in care for and helping household children, 1.87 times more in cooking, and 1.17 times more in other household activities. The higher number of hours spent in caring for children showed moderate correlation with the lower performance of the NM&S trainees (Figure 3.52). The focus groups and interviews also revealed that female NM&S trainees struggled to juggle responsibilities across work, study, and family. As some female NM&S trainees noted:

My eyes are always tired. I takes break at work to study, if not I have other professional meetings or have to put my son to sleep, and other responsibilities with three associations: HFTICS, Code9Haiti and IA Abroad. – Female NM&S trainee

When I get out of work at 5 PM, I may have professional outings or something else. I have personal things to do and I have a child. I also have other programming activities (related to the women's network) and appointments. This means that when I have free time at work, I work on the materials. If I do not do it then (at work) then I have to complete it much later in the day. – Female NM&S trainee

Many NM&S trainees are working in a professional environment and are aware of productivity and time management tools. The time management session needs to focus more on tactics to balance and prioritize different activities in life. As recommended in training round 1, a separate session should be designed for male and female NM&S trainees.

### 3.4b Socio-Cultural Issue: Financial Constraints

**As in training round 1, financial background was seen most linked with access to transportation in training round 2.**

As discussed under infrastructural factors, access to digital devices, and affordable transportation were among the top barriers for IDP trainees. Aside from those access to digital devices and transportation, household income did not have any other impact on the successful completion of the course for IDP trainees.

With the NM&S trainees a moderate positive correlation was seen between income, ownership of private vehicles, and course performance (Figure 3.53). This confirms that economic background and performance is more closely tied to accessibility to transportation alternatives.

Figure 3.43 - Correlation of income and household assets with performance of NM&S trainees

	Final Score	Final Exam	InCourse Quiz
What is your average monthly household income?	0.24	0.26	0.27
What is your average monthly personal income?	0.30	0.32	0.26
Radio	0.25	0.27	0.26
Motorcycle	0.29	0.26	0.13
Car	-0.05	-0.06	0.12

### 3.4c Socio-Cultural Issue: Baseline Capabilities

**There was no discernible relation seen with the baseline skills of IDP trainees. NM&S with prior knowledge of routing protocols and higher proficiency in French performed better.**

A baseline digital capacity was measured from the data gathered through online application where trainees self-rated their proficiency in major software programs, operation of digital devices, familiarity with regular internet functions such as apps and cloud storage, language, and soft skills such as time management and social skills. Correlation analysis showed that basic digital skills did not have an effect on the performance of the IDP trainees. Low positive correlation was seen between proficiency in Microsoft Word and Microsoft Excel and course performance.

Unlike training round 1, trainees did not give feedback regarding the skill level difference of IDP trainees. ESIH ensured that the IDP candidates with low digital proficiency were identified during the interview session so that they get more hands-on support from the trainers to increase their digital skills. Because of the additional support given to those with lower digital proficiencies, there were fewer complaints surrounding the skill level difference.

Correlation analysis for NM&S trainees showed a positive correlation between performance with the prior knowledge of most routing protocols (RIP, A+, CCNA, CCNA Security, SSNP, LPI, MIKROTI), knowledge of the TCP/IP and Network Troubleshooting softwares, and Windows Server 2008 /2012 / 2016 operating systems. A positive correlation was also seen between proficiency in French and performance of the trainees (Figure 3.54). This indicates that trainees that already had knowledge of the technical side of the concepts introduced in the course performed better. Also, since the materials were in French, it is expected that the trainees with higher proficiency in French than Creole will perform better.

Figure 3.44 - Correlation between baseline skills and performance of NM&S trainees

	Final Score	Final Exam	InCourse Quiz
<u>Softwares</u>			
TCP / IP	0.15	0.15	0.13
Network Troubleshooting	0.17	0.17	0.06
<u>Operating Systems</u>			
Windows Server 2008/ 2012/ 2016	0.20	0.19	0.12

<u>Routing Protocols</u>			
RIP	0.20	0.21	0.16
A+	0.20	0.20	0.26
CCNA	0.16	0.17	0.23
CCNA Security	0.14	0.17	0.28
SSNP	0.19	0.20	0.29
LPI	0.19	0.20	0.26
MIKROTI	0.19	0.20	0.26
<u>Language</u>			
Creole Reading	-0.07	-0.09	-0.06
Creole Writing	-0.19	-0.21	-0.17
Creole Speaking	-0.08	-0.09	-0.23
French / Français Reading	0.16	0.15	0.12
French / Français Writing	0.19	0.18	0.23
French / Français Speaking	0.07	0.05	0.05
<u>Soft Skills</u>			
Communication	0.04	0.04	0.15
Decisive	0.17	0.16	0.12
Self-Motivation	0.05	0.02	0.02
Adaptability	0.13	0.11	0.08
Collaborative	0.19	0.15	0.06
Integrity	0.15	0.14	0.16

### 3.5 Employment

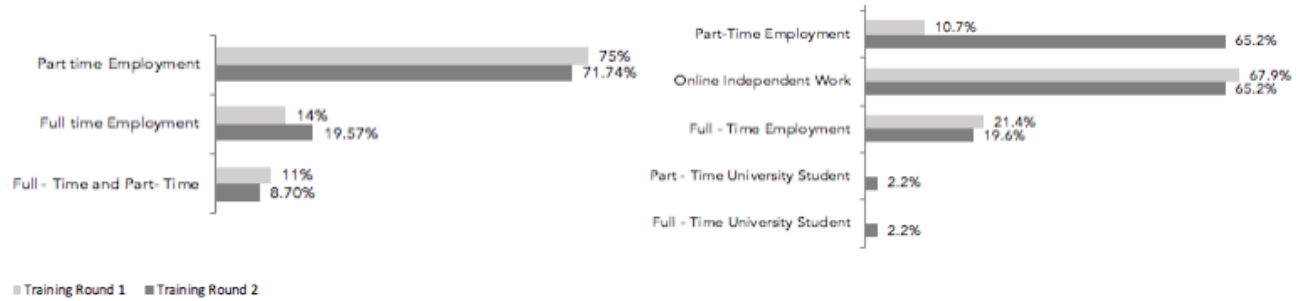
The overarching objective of the AGG program is to create enabling conditions for young Haitians to participate in the digital economy. While a major focus of the program is online education to upgrade the skills and meet the infrastructure deficit, a part of the program focuses on building the capacities of the IDP graduates to successfully join and find employment in the digital market, both international and domestic. This first part of this section focuses on understanding the expectations of the IDP and NM&S trainees of training round 2 as it relates to the job market post-graduation, comparing them to the expectations assessed of the trainees of training round 1. The second part of this section focuses on understanding the performance and impact of the employability component of the program designed for IDP graduates of training round 1.

#### 3.5a Employment Preferences of IDP and NM&S trainees

The objective of the IDP graduates remained targeting multiple learning opportunities and have the flexibility to pursue different activities such as university education, certificate courses, own businesses, and job works to practice skills. Similar to training round 1, majority of the IDP trainees (93.48 percent) of training round 2 agreed to the intent of seeking a job after the completion of the course.

Preference for freelance or part-time work remained: more than two thirds of the IDP trainees preferred a part-time job (71.74 percent) over a full-time-job (19.57 percent) and 8.70 percent sought both part-time or full-time opportunities. This was further supported by the fact that 65.2 percent of the IDP trainees preferred self-employment and part-time over full-time work (19.6 percent), part-time work (4.17 percent), or just university education (2.2 percent).

Figure 3.51 – Employment Preferences of IDP trainees for Training Round 1 and 2 (Source: End-Term Evaluation Surveys)



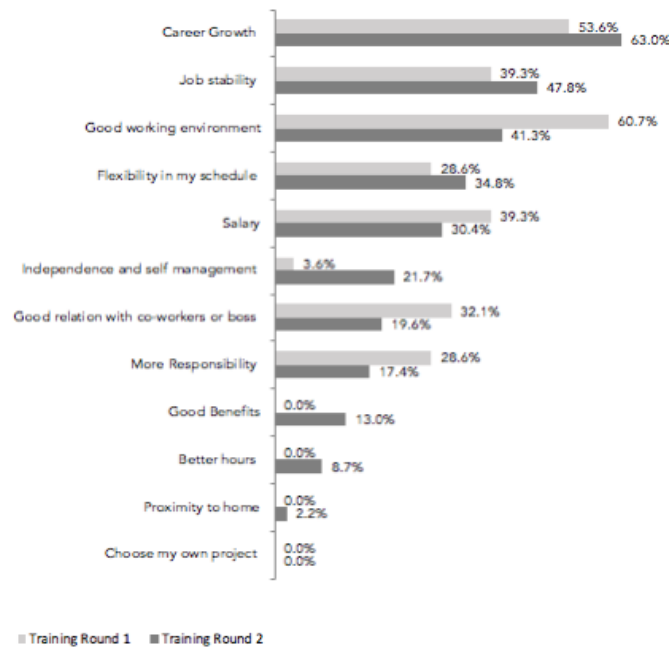
IDP trainees looking for a job aspired to work for local service providers, banks, and telecom companies while those interested in independent or part-time work aspired to improve their data management, social media, and digital marketing. Some trainees also wanted to start a passion project utilizing the skills learned from the IDP course. For example, some trainees expressed:

The next steps that I foresee include putting the skills that I have developed into practice; continue to do research on digital competencies; create a blog or site so that I could publicize a business of my own; look for a proper/traditional job; or search for an online job. I can't just stop after learning all of these new things because of Ayitic Goes Global. I have to create something of my own. – IDP trainee

I am studying to become a pharmacist. I have spoken to some of my classmates and we have an idea for a digital business/app where we would be able to deliver medicine and other pharmaceutical goods at all times. I find that this course can help me in developing the materials for this potential project. – IDP trainee

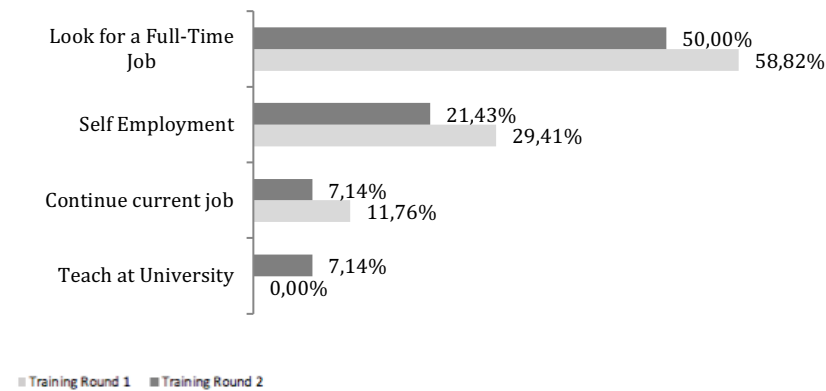
Having career growth (63 percent), job stability (47.8 percent), and good working environment (41.3 percent) remained the top three factors when trainees assessed work opportunities.

Figure 3.52 – Employment Factors in order of priority as reported by the IDP trainees of training round 1 (Source: End-Term Evaluation Survey)



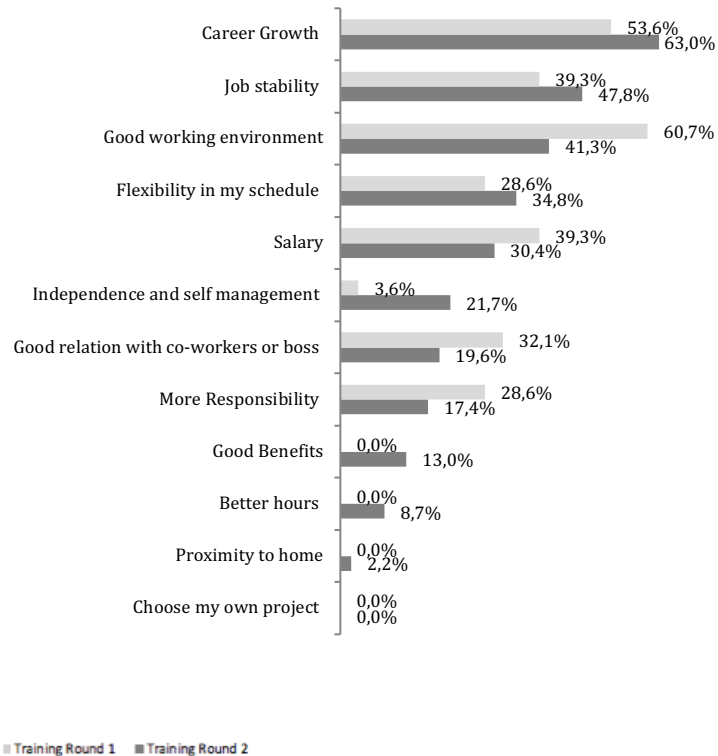
In direct contrast to IDP trainees, a majority of the NM&S trainees (58.82 percent) preferred full-time employment at an IT company or telecom company over self-employment (29.41 percent). Few trainees wanted to continue working at their current employer (11.76 percent) or teach at an academic institution (7.14 percent).

Figure 3.53 – Employment type preference as reported by the NM&S trainees of training round 2 (Source: End-Term Evaluation Survey)



When assessing opportunities, NM&S trainees saw value in factors such as career growth (63 percent), job stability (47.8 percent), and having a good working environment (41.3 percent) over other factors such as salary and level of responsibilities.

Figure 3.54 – Employment Factors in order of priority as reported by the NM&S trainees (Source: End-Term Evaluation Survey)



### 3.5b Market Immersion and Securing Contracts for IDP trainees

The AGG program was designed on the assumption that digital technology plays a role in enabling global, flexible, and independent work sometimes referred to as “micro-work,” the “gig-economy” or the “platform economy.” The digital economy also refers to the ability for workers to undertake paid tasks through a digitally mediated platform. As the world moves increasingly online, job opportunities related to these services will continue to grow. Demand research was conducted as part of this larger engagement to confirm the nature of microwork available in the job market, both in the near shore international and domestic markets. The demand study resulted in identification of two major areas – data management and social media – that formed the basis of the IDP course.

Based on the learnings from the outreach done during training round 1 and the employment preferences of the trainees, it was decided by LACNIC to target online platforms that secured jobs and contracts for IDP graduates. An employment coordinator was hired by LACNIC to build the capacities of IDP trainees and implement a number of activities to further develop the employment component of the program. The activities will also be incorporated for IDP Graduates from Training Round 2 post some refinements based on the feedback of the activities conducted for Round 1. The key activities included four in person sessions:

- First session focused on introducing the IDP graduates to the Employment component and online platforms;
- The second session focused on providing support in building CVs and resumes;
- The third session was held to provide support to IDP graduates applying to internship opportunities offered by Digicel;
- The fourth session focused on building an online corporate profile where the employment coordinator can seek jobs and connect them to the IDP graduates.

In addition to the focus on connecting graduates with online employment, several companies were contacted to provide an introduction to the program and connect employment or internship opportunities for the IDP graduates. The outreach to the companies focused on the marketing, telecom, and statistics sectors. The outreach resulted in an informal opportunity with DIGICEL Haiti that offered three spots for 2019. Consequently, the third session was held to provide support to IDP graduates who expressed the desire to apply to the internship opportunities.

The initial proposal did not include the fourth session and it was proposed that the IDP graduates would seek jobs independently and support will be provided on a case by case basis. Because of the failure to generate any job work due to multiple barriers, it was decided to include a fourth session where a corporate profile was built by the employment coordinator, and IDP graduates were asked to join the account. The key challenges that emerged while trying to implement the employability component of the AGG program are listed below:

### Engagement of the IDP Graduates based on Availability of Time

Based on factors studies in the evaluation, three personas of the IDP trainees were formed. The personas were created by looking at patterns between factors during correlation analysis. The biggest pattern was the correlation with trainee work status and their availability of time. The description of the three personas and their corresponding challenges, aspirations, and employment preferences are listed below:

University Student (55% of the training round 2 IDP trainees): These trainees are part-time employed and generally have a university degree or enrolled in a university. They have higher digital and language proficiency such as a good grasp of Microsoft Word, English, and Spanish and know how to install applications. This persona also is more likely to have access to electricity but has power backup and internet access at university along with access to laptop or computer. Generally, the residence of this persona is located far from ESIH. They are less likely to have a private vehicle (car or motorcycle).

- Challenges: Their key challenges is due to infrastructure followed by time management i.e. (1) Inadequate broadband connectivity and frequent power cuts; (2) Conflict of schedule with university activities; (3) Lack of time for the course workload of both the university and AGG program; (4) Time balance priorities between studies, household activities such as cooking, and sports and recreation, and religion and spiritual activities
- Aspirations: The persona is mostly driven by peer recognition within the industry and stemming from female empowerment: (1) Recognition in the industry for being a pioneering women and an expert at digital skills; (2) Sense of success driven by the ability to set goals and achieve them; (3) Family oriented seeking to provide family a better future
- Employment: Top three job priorities are Career Growth (62.96%), Job Stability (51.85%), and Good Working Environment (48.15%). Key challenges in order of priority: (1) Interview Skills; (2) Previous Work Experience; (3) Transportation; and (4) Confidence. Infrastructure is the main concern for freelance work

Home Based / Unemployed (33% of the training round 2 IDP trainees): These trainees are unemployed and less likely to have university education. They also have lower digital proficiency, low numeracy skills, and do not know how to operate a computer. They have less confidence in their leadership skills. They are more likely to have access to electricity but no power backup and generally have low access to internet outside of the home. Generally, the residence of this persona is located close to ESIH.

- Challenges: The key challenge is infrastructural followed by time management and pedagogical i.e. (1) Inadequate broadband connectivity and frequent power cuts; (2) Lack of motivation and commitment; (3)



Struggle with learning techniques; (4) Time Balance priorities: childcare, household activities such as cooking, and religion and spiritual activities

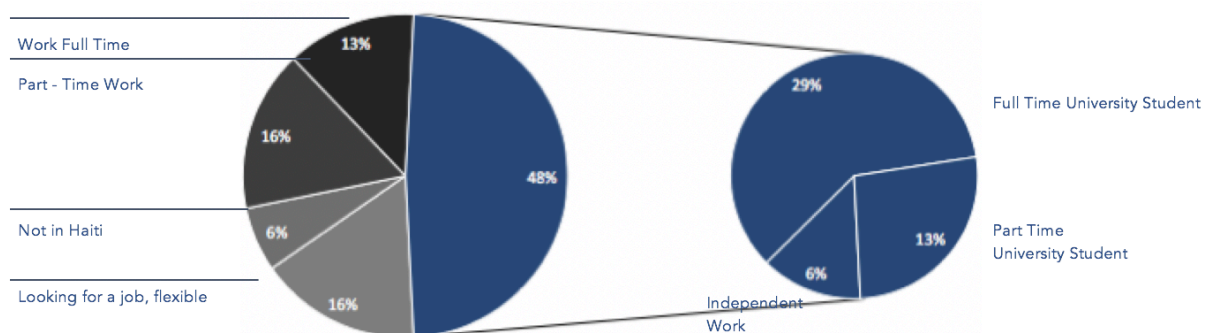
- Aspirations: The person is mostly driven by a sense of worth in the eyes of family members: (1) Family oriented seeking to provide family a better future; (2) Desires professional success and gains in dignity within society; (3) Seeks full time employment or part time employment to either pursue further studies or be there for family while practicing skills
- Employment: Top three job priorities are Career Growth (69.23%), Flexibility (46.15%), and Good relationship with co-workers (46.15%). Key challenges in order of priority: (1) Previous Work Experience; (2) Transportation; (3) Interview Skills; and (4) Confidence. Infrastructure and lack of reviews or referrals is the main concern for freelance work

Worker (20% of the training round 2 IDP trainees): These trainees are full-time or part-time employed and generally have a university degree in non-digital field. They are more proficient in Microsoft Excel indicating higher proficiency in numeracy skills and have a good grasp on local languages such Creole and French. This persona is more likely to self-rate themselves higher on soft skills. They are more likely to have access to electricity but no power backup. They also have internet access at work or home and own a laptop or computer. Generally, the residence of this persona is located far from ESIH and they are less likely to own a vehicle (car or motorcycle).

- Challenges: The key challenge of this persona is pedagogical followed by time management and infrastructural i.e. (1) Learning new materials is hard and requires a shift in mindset; (2) Inadequate broadband connectivity and frequent power cuts; (3) Needs to make sacrifices to find time for the course workload of AGG program & work activities; (4) Time Balance priorities: work, care of elderly / child
- Aspirations: The person is mostly self-driven or socio-economic status in society: (1) Financial Success to have a better tomorrow; (2) Sense of success driven by the fear of failure, specifically due to living in a country that is in political turmoil; (3) Individualistic and self-reliant and seeks to learn from past mistakes; and (4) Pursue part time employment to study further or gain additional income while polishing skills
- Employment: Top three job priorities are Job Stability (77%), Career Growth (55.56%), Independence and Self Reliant / Flexibility (33.33%). Key challenges in order of priority: (1) Interview Skills; (2) Transportation; (3) Previous Work Experience; and (4) Confidence. Infrastructure is the main concern for freelance work

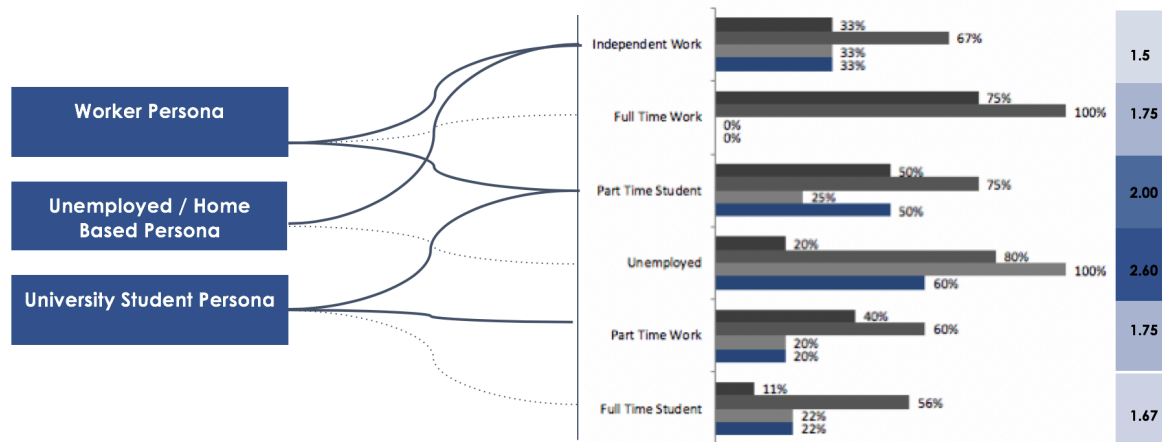
Analysis of the data from the post-graduation surveys conducted with IDP graduates of training round 1 revealed that the personas were validated post training and informed the pathways that trainees took post-graduation. The IDP graduates were either studying, working, or unemployed with large percentage of graduates (48%) engaged in either full time or part time course at a University (Figure 3.55).

Figure 3.55 – Work Status of IDP graduates from training round 1 [Source: Post-Graduation Evaluation Survey]



The work status determined the level of engagement of the IDP graduates. As indicated in the figure 3.56, IDP graduates engaged in part time employment or those unemployed were found to be most engaged with the employment component of the program. While those engaged in full-time university courses or working as an independent contractor were the least engaged in the AGG program. This also shows that the vast majority of the IDP graduates leveraged the AGG program to improve their skills and digital proficiency and selected university education as the next milestone rather than join the digital workforce.

Figure 3.56 – Pathways post-graduation of IDP graduates from training round 1 [Source: Post-Graduation Evaluation Survey]



### Access and Use of Online Talent Platform

Besides the time and dedication required to navigate the online talent platform that many trainees did not have, the following challenges also emerged:

Ease of Access to signing up for the Platform: While it was free to sign up on the platform and hence offering no financial constraints, the IDP graduates still struggled due to three barriers:

- Infrastructure: The top barrier experienced by the IDP graduates was infrastructural i.e. inadequate access to internet (65.38 percent), lack of technological equipment (61.54 percent), and frequent power cuts (57.69%)
- Language Barrier: Majority IDP graduates lacked proficiency in English to the level where they found it hard to even log in to the online platform unless the interface was in French. It was also rated as among the top challenge besides infrastructure in the post-graduation survey with 57.69 percent IDP graduates reporting that they did not have the necessary language skills required for jobs available in the market. The language barriers specifically resulted in narrowing down the access to few online talent platforms that offer user interface in French language as well as English.
- Computer Literacy: While most IDP graduates were adept at operating a tablet, that did not translate into ease in operating a desktop at ESIH labs. Some IDP graduates struggled and took a lot of time when trying to operate the desktops at ESIH labs and the Employment Coordinator had to step in and support them.

Building a Profile: While building their profiles, the IDP graduates had to provide a description of their expertise, indicate the type of jobs that they were interested in, level of remuneration they expect for the jobs, and work history including the number of jobs carried out and hours worked, financial compensation received per job, client

reviews, and samples of work performed. They also had to finish a cognitive and technical skills test to improve visibility and credibility of their profile. While none of the IDP graduates listed lack of confidence in their skills as a barrier to employment, no reviews or client referrals was experienced as a barrier by the IDP graduates and was listed as among the top challenges by 34.78 percent of the IDP trainees of training round 2. For example, one of the IDP graduates from training round 1 stated, "It [online job] is an approach to finding a part-time job but not a full-time job. In addition, we are not very well known in the technology market, it's not easy to hire us."

Payment: Payment from clients usually requires a credit card or Paypal account. Many IDP trainees of both the training rounds had listed the lack of understanding around payment system as a barrier to accessing the digital platform. For example, one of the IDP graduates reported, "She [a friend] had someone in the US create an account using the persons banking information. The person would then wire transfer/western union the funds to the woman. It is not her personal account. We really need more information on how to manage these types of problems."

Work or Trade Environment: Once logged in, the IDP graduates struggled with the reverse auction bidding system. The freelance platform gives the client access to global market with competitive labor costs. As also argued by Hollinshead et al. (2011), when labor arbitrage is the main driving force behind offshore (out)sourcing, the relationship between clients and contractors is inherently asymmetric and the ethical premise binding these parties open to question. Such effects were reinforced by freelancer's bidding system used to let clients and contractors come to an agreement. The contractors on the platform vastly outnumber the job works that the IDP graduates can do leading to concentration of bargaining power in the hands of clients and competition of jobs among contractors through the bidding system. Under this system, contractors interested in applying for a job see the number of bids and the associated prices so far offered by other contractors. This system is prone to produce downward pressure on price formation as it encourages contractors in general and especially those desperate for jobs to undercut the prices previously offered for a job. While IDP graduates bid for many jobs, they had no success winning the bids either because the pay scale was too low or because they did not know the strategy to bid in such a high competition environment.

Spam Accounts: Some IDP graduates came across scam bids asking them to transfer money to an account to begin work.

### 3.5c Receptiveness to the Online Platform and Role of the Employment Coordinator for IDP trainees

Despite the several challenges described in the section above, a majority of the IDP graduates (80 percent) from training round 1 and IDP trainees from training round 2 (97.83 percent) reported that the online platform was an effective channel to seek job opportunities. The general understanding among the trainees was that with increasing digitization of economy, it is important to understand how to seek job opportunities online.

Nowadays with the evolution of the internet there are more and more jobs online, online opportunities are easier. – IDP Trainee, Training Round 2

Yes. because on the platform with an online resume you have great visibility. And being visible online is an advantage over other job seekers who do not use digital media. It also demonstrates the ability of the job seeker to adapt to the digitalized world in which we live and in which companies and recruiters evolve. – IDP Trainee, Training Round 2

The online platform is a good approach to finding a job, because it makes it easy for us to have a lot of contacts and to communicate with people to work on projects. – IDP Graduate, Training Round 1

Because it's easier, we're luckier than if we go through the traditional method of filing a CV. – IDP Graduate, Training Round 1

The IDP graduates from training round 1 also believed that online jobs provided flexibility to pursue other opportunities and allowed them to work from home.

It will help us manage our time, work from home, and be independent. It is a way to be autonomous. – IDP Graduate, Training Round 1

It allows great time management and other activities. – IDP Graduate, Training Round 1

It could be better on the ground because we are not sure when we bid that we will be selected because there are several bids and also that the price drops but its positive side is to stay at home and work and earn more money than if you were in a company. – IDP Graduate, Training Round 1

Majority of the IDP graduates (88.46 percent) also found the role of the employment coordinator to be effective. Some found meeting the schedule for employment activities challenging because of other commitments.

Alda [employment coordinator] is very open and understanding. Better still, she is always available to help us and search for opportunities. For me, everything worked well with her. – IDP Graduate, Training Round 1

Alda [employment coordinator] knows how to motivate us, she is always looking for opportunities for us. Those who did not work well are schedules that are not suitable for some women [IDP graduates]. – IDP Graduate, Training Round 1

Everything works perfectly. Except for the meetings of times it seems a little difficult with the time management of each [IDP graduates]. – IDP Graduate, Training Round 1

When asked what changes could be made to improve the role of employment coordinator, most IDP graduates mentioned increasing the number of appointments available, provide more flexible scheduling, and offer infrastructural support such as an office and technological equipment.

She does her job very well. It could be more effective with the dialogues and our expectations, and to accommodate us a lot more. She needs an office. – IDP Graduate, Training Round 1

Her role could be more efficient with more job opportunities in the country and if we had the necessary equipment to employ them online. – IDP Graduate, Training Round 1

She is already effective. She could just increase the number of appointments with us. – IDP Graduate, Training Round 1

The evaluation of the employment activities conducted in 2018 as well as demand research conducted in 2017 indicate that the role of the manager is critical to bridge the skill and language gaps and establish credibility of the trainees on the online platforms. Now that the IDP graduates are applying to online jobs from one account, it is critical that the role of the employment coordinator be expanded to incorporate manager responsibilities.

### 3.4d Applicability of Skills Learned

The primary goal of the AGG program was to facilitate Haitian women to join the digital economy, but the program had other positive impacts as well ranging from producing a better digital citizen to new businesses created by the graduates. Some of the application of the skills learned by the IDP graduates include:

- Netiquette and Security: IDP trainees and graduates felt more comfortable using the internet after learning that they have control over their privacy and their passwords were secure.

- Social Networks: IDP trainees and graduates were able to utilize knowledge of social networks to promote their business and ongoing communication with their audience. Some IDP graduates desired taking advanced courses in Digital Marketing to build upon the knowledge gained from the IDP course.
- Productivity Tools & Time Management: IDP trainees of training round 2 perceived time management as an important skill they gained from the program that enabled them to bring discipline and planning into their lives. The use of tools such as Google tasks and Google calendar helped them to avoid procrastination and manage their tasks and workload.
- Data Management: A lot of IDP trainees and graduates gained the ability to clean data and create their own databases. Trainees also reported use of the Google documents to visualize and report data.

Most of the NM&S graduates felt that they had increased their knowledge in the field of Network Management and Security. While it translated in better salary and promotion only for few graduates (11 percent), the most impact was in the graduates sharing their skills with peers at their workplace (21 percent).

I learned how to manage and secure physical, virtual, or sensitive information from a company or tier. – NM&S graduate

I have enriched my knowledge in this field. – NM&S graduate

I am able to 1) define good political governance of information security, 2) help and control the company to ensure the security of their data or their system, 3) identify the risks and define the associated security policy. – NM&S graduate

## 4. Key Recommendations and Conclusion

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Several factors contributed to the trainees to enrolling and participating in the AGG program. For IDP trainees, expectations included gaining the necessary skills to prepare for workplace market, increasing digital proficiency, and discovering new learning and work opportunities. For NM&S trainees, the expectations were increasing knowledge in the domain of network management and security and have an opportunity to network with other professionals in the field. For most parts, the program successfully met the expectations of the trainees and benchmarks set in the impact evaluation framework. This section discusses the conclusion of the evaluation study and provides detailed programmatic recommendations built upon the main findings to support and accentuate the successful elements of the program while making refinements and additions to the elements that desired improvement.

### Lessons Learned and Key Recommendations

The recommendations are structured in the following categories:

#### 4.1 Enrollment

ESIH successful conducted outreach and enrollment within a short period of time in training round 2 by establishing a Memorandum of Understanding (MoU) with strategic partners. The partnerships enabled ESIH to leverage the existing networks and reach of the partners to target more diverse and harder-to-reach target applicants. It also helped facilitate internet connection for the submission of the applications by providing the applicants the option to submit at the offices of the partners located in different parts of Port-au-Prince. A call for volunteer interviewers helped ESIH conduct in-person interviews with a large applicant base and gave opportunities for applicants to connect with each other even if not selected for the program. ESIH should continue its existing efforts to develop these strategic partnerships for the last phase of Ayitic Goes Global program and potential expansion of the program with the Google Fund secured by COI and Slashroots.

The research also revealed that the trainee personas – university students, workers, or unemployed / home-based – affects the pathways that the trainees determine post-graduation from the program. Current trainees who are part-time students and unemployed or home-based had a higher level of engagement with the employment component of the AGG program but the majority of the AGG students were university students. The program’s objective is to reduce barriers of participating in digital workforce and the trainee personas should be a consideration while selecting applicants for training round 3 to meet that objective.

Recommendations include:

- **Leverage Existing CBO Relationships:** Continue leveraging existing relations with community-based organizations to garner support for enrollment activities and better achieve the target profile set for the program, specifically more participation from IDP candidates who only had tertiary education and increased female participation for NM&S course.
- **Prioritize Language and Internet Access:** Consider the trainee personas while selecting candidates. Base profile of the IDP candidates should also prioritize good knowledge of English, more than it had in the past

two training rounds. For NM&S base profiles, candidates who do not have to travel frequently outside Port-au-Prince should be prioritized.

- Set Clear Expectations for NM&S Course: Candidates should be explained during the interview process that the NM&S courses are mostly theoretical and do not offer internship opportunities post the completion of the program.

## 4.2 Orientation Day

The positive impact of the orientation session introduced within training round 1 was validated in training round 2. This session provides the trainee with an opportunity to get to know the program partners and trainers in-person. The time management activity added to the benefit of the orientation day and helped set a positive momentum for the rest of the course. The trainees planned their study time in advance and saved money for transportation to in-person sessions. They also got an opportunity to walkthrough the online platform and got an introduction to the communication channels and applications used which facilitated their interaction with course materials and the trainers.

The orientation session had a few shortfalls: the time management session for NM&S trainees was not as effective as that for IDP trainees, there was shortage of time for IDP trainers to get their training while configuring and distributing the tablets. Recommendations include:

- Refine Time Management Activity for NM&S Trainees: Continue the time management session on the orientation day but refine it for NM&S trainees. They are already aware of the planning and productivity tools and require more instruction on tactics to better handle time between household, work, and education. More emphasis should be on tactics to develop productive habits that are supportive of a more disciplined approach.
- Separate Time Management Activity for Male and Female NM&S Trainees: The session should be held differently for male and female NM&S trainees. With both male and female trainees, the time management activity needs to focus on how to handle different responsibilities while completing the program – work, university course load, and family. With female NM&S trainees, additional instruction needs to be provided on how to offload household responsibilities.
- Adequate time for training of trainers: Dedicate time prior to the orientation day for training of the trainers and configuration of the tablets that would be distributed to the IDP trainees on the orientation day to prevent clash of different activities and ensuring that the trainers are adequately trained and set for the course.
- Continue other Orientation Day Activities: Continue providing Instructions on the management of online courses and resources, applications used in the AGG program, and a walk-through of the digital platform so that the trainees face less technical issues at the start of the course and can jump start their interaction with course materials.

## 4.3 Socio-Economic and Infrastructural Barriers

A strong relation continued to be seen between the trainee's socio-economic background and the barriers they faced – especially in regard to infrastructure. Having a low-income background made access to power backup, a more expensive and high-speed bandwidth, and ownership of private vehicles difficult. The market does not offer affordable options of transportation, power, and internet that could work efficiently for the trainees. These barriers present a significant challenge for greater impact and scaling of the program. The program should determine strategies to address the transportation cost that IDP trainees have to bear and provide alternative solutions for

challenges created due to limited bandwidth of internet and unreliable electricity supply. Recommendations include:

- Facilitate Infrastructural Access: Trainees need to practice course materials more and save time lost due to lack of internet connectivity and power.
  - ESIH to maintain same hours as before to use computer lab. IDP trainees receiving only online facilitation should also be allowed to come to use the computer lab and/or the internet connection (availability to be shared with all trainees).
  - ESIH to secure agreements with institutional partners with availability to provide further support to trainees including access to facilities for power, connectivity and access to computer labs to practice using desktops and other forms of coaching support.
  - A dedicated lab space with reliable power back up and internet access should be provided to overcome infrastructural barriers and encourage peer interactions.
- Reduce Transportation Costs: Transportation costs remained a challenge for IDP trainees.
  - COI and ESIH should maintain the circulation of activities scheduled at the orientation to enable trainees to plan ahead and save money for transportation to ESIH.
  - Partnerships with community-based organizations or local NGOs could be considered for providing facilities for weekly practice through PAP area

#### 4.4 Pedagogical Barriers

IDP and NM&S trainees appreciated the course content for providing new knowledge and novel content. NM&S trainees also appreciated the addition of the video tutorials and provision of practice sessions. They appreciated the modules and quizzes were always available on time and trainers were dedicated and ready to help.

There were challenges with scheduling online sessions with trainers because of the large number of IDP trainees. The large number of trainees also resulted in THESS platform crashing when many tried accessing it at the same time. Lack of structure and purpose to communication with trainers on WhatsApp resulted in lack of etiquette and discussion of irrelevant topics in the channels. The lack of structure inhibited other trainees to interact freely with trainers online. NM&S trainees reported lack of clarity in quizzes and expressed a need for more practice questions throughout the modules. There were also reports about gaps in French translation of the content.

Type of facilitation – online or in-person – had different impact on the IDP and NM&S trainees. While the IDP trainees with online facilitation performed on-par with the trainees with in-person facilitation and a majority preferred online facilitation if given the choice, the NM&S trainees that accessed the practice sessions online did not perform well and majority of them preferred in-person session if given the choice because of lack of reliable internet and power supply.

- Strategize Facilitation Preferences
  - Training round 2 showed that the IDP trainees can perform well with both online only and online and in person facilitation. The number of IDPD trainees with only online facilitation should be increased to understand if the program can be scaled with only online facilitation. The preference for facilitation, online versus in person, should be made voluntary and the program should aim to reach 50:50 split on a rolling, first-come-first-serve basis. The trainees accessing only online facilitation should be instructed in advance that trainers are available to them.
  - Additional facilitators should be hired for the IDP course to reach a new target of 1:17 trainee/trainer ratio than the initial target ratio of 1:25.



- Trainers should be adequately trained to manage pedagogical references for remote work.
- Communication channels and rules should be clearly established at orientation. The use of the Slack channel should be incentivized for IDP trainees. A group moderator should be selected who can lead conversations in absence of availability of trainer.
- Close Gaps in Course Content & Quizzes
  - Scenario based exercises should be developed to stimulate the environment of remote jobs for IDP trainees. Bidding on platform, negotiating with clients, and professional conduct while communicating with the client should be part of the training. Extra content should be developed to provide examples of netiquette and professional communication among different channels. The trainers should also encourage the trainees to access the course in multiple languages offered by the ADAPT platform. Additional resources in dual languages should be included to encourage familiarity with English.
  - The NM&S course modules should be broken up further with more quizzes in the middle of the modules to ground the concept at the moment of learning rather than test all the concepts at the end of the module. The NM&S courses should look at the possibility of multiple exam dates including a weekend date to allow for trainees that are working full time. Multiple dates can increase the graduation rate.
  - NM&S courses should be reviewed for language translation with a focus on using easier words in French. If possible, there should be the option to access the course in English as well.
  - The online sessions should be recorded for those accessing the practice sessions through Zoom so they do not miss on the practice in case of a call drop.

#### 4.5 Employability Component

IDP graduates reported that the online platform was an effective means to find learning and employment opportunities and were satisfied with the role of the employment coordinator. But several challenges related to access and use of online talent platform emerged including infrastructural – internet, power, and device, language barrier because of low number of platforms offering French interface, low digital proficiency while operating a desktop, lack of referrals to establish credibility and improving visibility on the platforms, and low pay-scale and competitive environment created due to bidding system on the platform among others. Recommendations for the employability component of the program include:

- Prioritize Personas and Pathways
  - The post-graduation pathways and part-time availability of the graduate trainees should be kept as a consideration while designing activities for employment component.
  - The domestic market should be continued to be explored, even for unpaid internship opportunities to facilitate entry of the IDP graduates in the digital market.
  - Additional pathways, besides job opportunities, should be explored for IDP graduates and can include opportunities for further skill development or unpaid work experience. For example, pro-bono projects with domestic market companies, training to improve interview skills and boost confidence, and further training on digital marketing and data management. Partnership with CISCO could also be explored for courses on women entrepreneurship and IT essentials.
- Build a Community
  - Mentor programs should be explored to strengthen the relation between the alumni and current graduates providing networking and referral opportunities.

- The program can invest in building an alumni community to encourage a sense of community and increase the chances of referrals, job opportunities, mentorship, and peer support.
- Reduce Barriers to Online talent platforms and Expand the Role of Employment Coordinator
  - Trainees need more practice with desktop computers. Stenography sessions should be held at ESIH on desktop computers.
  - Other online talent platforms that offer French interface or have French language related task but with an English interface should be explored, such as Upwork and Toptal.
  - The role of employment coordinator should be consolidated as a manager to bridge the skill and language gap and establish credibility with the clients on online platforms.

## Conclusion

The findings from training round 1 and training round 2 indicate that the courses had a positive impact on the trainees ranging from IDP trainees becoming digital citizens and improved digital literacy to applications of skills learned not just for gaining employment but also in day to day activities and current jobs and businesses. The NM&S trainees also reported a gain in their knowledge and most created a positive impact by transferring their knowledge to their peers in turn strengthening the network of professionals. An attempt to gain a deeper understanding of how the skills were applied in personal and professional life will be maintained for training round 3.

While an understanding was established on the pathways that were taken by the graduates that remained engaged with the program, the M&E tools for training round 3 will also focus on IDP graduates who disengaged from the program to understand their path and expectations. A better understanding of the trainee personas would be tracked into the employment program as well. Also, a deeper understanding of the work that is being done with talent platforms by the employment coordinator will be gained and compared with cases across the world to suggest strategies that improve the performance of the employment component of the program including (1) entry barriers to access employment on platforms, (2) understanding if a mismatch exist between the employment opportunities available on talent platform and skills learned by the trainees, (3) understanding the reasons for not pursuing employment opportunities for graduates that remain unemployed, and (4) mapping other pathways that trainees can take post-graduation that apply the skills learned in the program.

A better understanding of the impact of level of facilitation on the performance of trainees will be maintained. Opportunities to build relationships between alumni and current trainees will be explored to develop an ICT cluster and a sense of community. Creative and strategic solutions suggested to mitigate the infrastructural barriers will be studied. Factors attributing to low participation and graduation rate of NM&S trainees will be explored further.