International Organization for Migration (IOM)

2018-2019 IOM E-LEARNING REPORT

ENGAGING DIASPORA TO STRENGTHEN THE HEALTH, FLOOD PREVENTION AND AGRICULTURE SECTORS IN SIERRA LEONE

FUNDED BY: THE JAPANESE GOVERNMENT

From
the People of Japan

SIERRA LEONE GOVERNMENT

Freetown, Sierra Leone

International Organization for Migration (IOM)

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Acronyms

IOM-S/L = International Organization for Migration in Sierra Leone

E-/Distance Learning = Electronic/ Distance Learning

LMS = Learning Management System

MOHS = Ministry of Health and Sanitation

ODA = Office of Diaspora Affairs

COMAHS = College of Medicines and Allied Health Sciences

USL = University of Sierra Leone

ICT = Information Communication and Technology

Goslar= Government of Sierra Leone

Executive Summary

The Integration of Information, Communication, and Technology (ICT) as an effort to assist educational institutions has become one of the main elements in transforming countries into future development.

In early September 2018, IOM implemented a diaspora led e-learning project activity funded by the Japanese government at the University of Sierra Leone (USL), College of Medicines and Allied Science (COMAHS) for Medical and Graduate students.

The purpose of this activity was to support COMAHS in their teaching and learning process by providing them with adequate diaspora lecturers and ICT equipment to bridge their existing teaching and learning deficit.

During the 6 months implementation of this program the two consultant diaspora lecturers hosted each an average of 7 students, per class session and 4 guest speakers for the 17 average class sessions blend with online and face to face meetings.

This activity revealed impact ICT makes in students' academic performance as its tries to complement traditional teaching methods with technology-based teaching and learning tools facilities. It also analyzed the effectiveness of ICT integration in support teaching and learning process at COMAHS by administering a pilot phase research approach composed of a medical and master level course sample size at COMAHS.

This report is equipped with evidential analysis of assessments, objectives, implementations, findings, challenges/limitations, feedback from beneficiaries and conclusion with recommendations for similar activity in the future as its highlights the relationship between ICT and academic achievement.

The lack of basic ICT knowledge from most of the students presented challenges in executing this project. The lack of effective internet service made it very difficult for this project to reach its potential. Timing was another issue that hindered the progression of this project.

Although the idea of customizing a personalized Learning Management System (LMS) for this projected was seemed to be an add-on benefit, professors and students did not utilize fully due to unfamiliar system for them. Even our e-learning system has function based on requirement, such as discussion board, presentation recording system, it faced difficult for them to utilize fully, because our system was new for them.

During the implementation of this project, IOM staff along with lecturers and students struggled to find commitments from the idea of COMAHS due to shared responsibility not fully endorsed by the university. This is needed to have adequate commitment by university, otherwise it is difficult to continue such a contribution.

A survey questionnaire was distributed randomly students. The data for this quantitative research were analyzed. The results indicate that ICT integration has a great effectiveness for both teachers and the students. Findings indicate that teachers' well-equipped preparation with ICT tools and facilities is one the main factors in success of technology-based teaching and learning. It was also found that professional background and experience for teachers also played a key role in enhancing students' quality learning. For the future studies, there is a need for consideration of other aspects of ICT integration especially from management point of view regarding shared responsibility and policy making at the university where partners and agree on concretely.

Introduction

Over the last few decades, ICT has become an improving tool in the teaching and learning environment. This is mainly due to the capability of ICT in providing a dynamic and proactive teaching and learning environment at the convenient of its users. In most countries, ICT continues to play vital role where traditional methods learning are in lack. With modern tools and facilities that are basically geared towards improving and enhancing teaching and learning e-learning through ICT is setting a new standard at educational institutions.

School is an important environment in which students participate in a wide range of computer activities, while the home serves as a complementary site for regular engagement in a narrower set of computer activities. As Part of its project aims to improve the knowledge, skills of the Sierra Leonean human resources, and leverage the commitment of the Sierra Leonean diaspora to build human resources capacity in Sierra Leone, IOM was requested by the University of Sierra Leone (USL), College of Medicines and Allied Science (COMAHS) to assist in bridging the gap between students to lecturer ratio by establishing an ICT lab conducive enough for a distance learning environment.

Assessment

In ---- IOM conducted and assessment on the ICT learning environment at COMAHS. The findings are highlighted below.

1. CONDUCTED AN ASSESSMENT ON ICT USAGE/HABITS FOR TEACHING AND LEARNING AT COMAHS:

1a. *Accessibility to ICT*

The Survey which IOM conducted during class work clearly shows that most of the students at COMAHS don't have access to computers. This is mainly due to the poor state of the ICT infrastructure at the University. Nearly all the respondents (84.1%), indicated that they don't have any computer laboratory, no ICT Centre (83.5%) and no university/faculty library (62.6%);

Over half of the respondents (61%) from the survey shows that, they are willing to pay 60% of the normal cost charged at other commercial facilities out of campus for ICT services such as scanning documents, printing, internet services etc. if these services are made available on campus.

1b. *ICT Usage*

Nearly half of the students in the Survey agreed that if the ICT lab is established, it could be more often used for academic work (48.9%), than for personal reasons (17.0%). The analysis also shows that most students have limited capability in the use of ICT tools. It shows that half of students in Sierra Leone are not familiar to utilize ICT, but it can be potential to expand ICT service for academic work.

1c. *ICT Knowledge and Competency*

The study shows that some students (about 30%) lack competencies/skills in the use of ICT applications such as Word processing, file navigation, internet browsing, and mailing and presentation tools. The survey result also shows that very few respondents (about 15%) have the requisite capabilities in the use of Laptop and Desktop Computers and 23.4% in the use of smartphones.

1d. *E-Learning Platform*

Analysis from the Survey indicates that there is no e-learning platform at COMAHS and that it was evidently clear that there is inadequate learning platform or virtual learning environment, hence no access to University website.

1e. *ICT learning tools*

Approximately 70% of respondents are aware of web-based tutorial, but unfortunately, a clear majority of the participants cannot use the following ICT learning tools: emailing tools (81.9%), ICT tools for academic discussion groups (72.5%), ICT tools to support research (78.0%), online assignments or analytic tools (85.3%), and finally link to online libraries and or academic resources (87.5%).

Objectives

The general objective of this activity was to improve the learning outcomes at COMAHS by IOM implementing a diaspora led project funded by the Japanese government. The methodology was as followed (Assessing, Implementing and Evaluating).

Implementation

1. *ICT Environment*

IDENTIFIED THE LEVEL OF ICT INTEGRATION IN TEACHING AND LEARNING PROCESS

The e-learning project complements the traditional classroom teaching and presents a promising alternative to acquire education and skills for students, who are unable to access facilities within the physical classroom due to time and space constraints.

PROCURED EQUIPMENT

Aside from providing two well qualified diaspora lecturers, IOM procured e-learning materials to enhance the teaching environment at COMAHS.

ICT Lab Items

#	Item	Quantity
1	DELL Desktop Computer OptiPlex 3050	11
2	HP LaserJet Pro MFP M227sdn 3 in 1 printer	1
3	USB Digital Stereo Headset	48
4	1 48V 5000watt Pure Sine Wave Inverter, 4 12V 200amp Cell Battery, 15pcs Five Way Extension, Battery Base wooden, Cable and Accessories	1
5	2.0 USB Web camera	24
6	Norton Antivirus Software for 25 computers	1

1. Created a Knowledge Transfer Environment with Japanese e-learning system

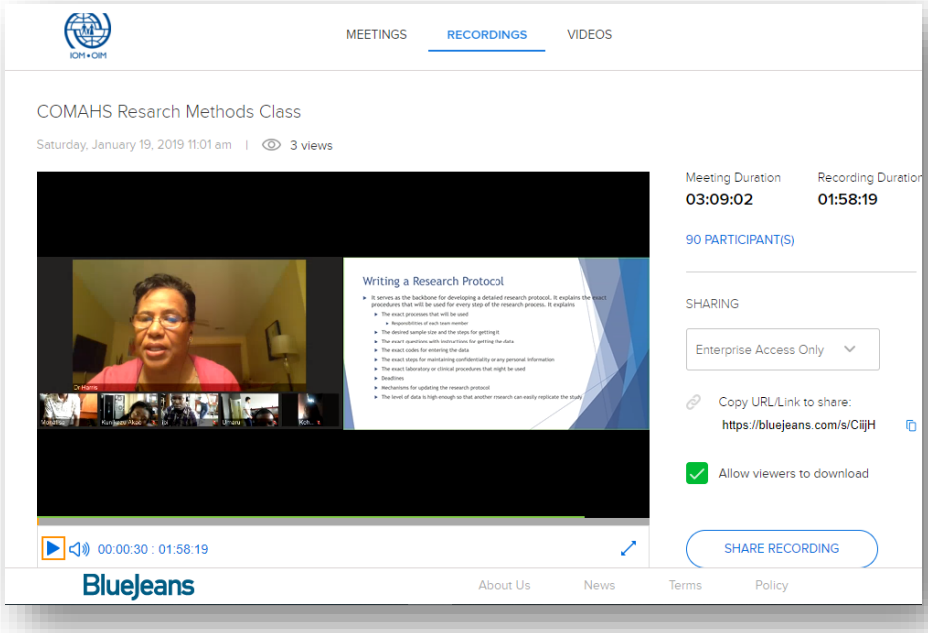
This project focuses to utilize e-learning system prepared by Japanese company, name is Digital Knowledge Co. Ltd, which are producing E-learning system to more than 1,500 companies or schools (their system name is Knowledge Deliver). Digital Knowledge provided technical support on the use of Knowledge Deliver and promotion model to enhance remote diaspora knowledge to Sierra Leone. This company had been working with JICA in Kyrgyzstan to utilize e-learning to government staffs (customs staffs)

knowledge enhancement. This system had mainly utilized in Japan, but expanded several countries, and updated by based on experience.

This system has a function to record several types of presentation document, including PDF, Word and XLS format. Also, this system has function to record presentation video/ voice on power point slides. It also provided video server to upload recorded video by Webinar system. It can control level of authority who can access each of configuration/ system inside. Indeed, this has an additional service to put discussion board. This service provides linkage between students and professors, to provide question and answers during this forum.

2. Recording system

Project utilized several webinar systems to communicate Diaspora lecturers to Sierra Leone students. First half of classes, project utilized Zoom for this meeting. This system can link 100 participants at a once, and any of participants joined provided comments or presentation. It was well organized system, good network reliability, but project initially used this system by personal account (IOM project manager's personal account was utilized for this webinar communication), not official account for this. For modifying this circumstance, project changed this webinar system to BlueJeans, which is officially used by IOM. This system also can provide presentation by professors to each student, almost same as Zoom service.



3. *Diaspora Lecturers*

TOR for DISTANCE LEARNING INSTRUCTOR

A minimum of bachelor's Degree from an accredited institution. (AOS minimum of master's Degree from an accredited institution) with at least four to six years field experience in the subject being taught were part of the requirement listed when searching for diaspora lectures. Applicants must also have excellent use of the English language, with excellent oral and written communication skills. Online teaching experience is preferred but not required.

They were expected to:

-Be accessible to students via email, phone and other means of communication.

-Provide online office hours with reasonable respond time to student's questions and requests.

-Actively monitor and track individual student progress and provide mediation and direction as needed.

Their duties and responsibilities included but not limited to

-Conducting weekly "live" video lectures and/or discussion using Digital Knowledge Online Platform.

-Interact with students in a professional manner, offering constructive, encouraging, and timely feedback.

-Counsel students regarding their performance in the course (both positive and negative.)

-Design courses that meet or exceed minimum content standards.
-Design courses that comply with layout standards.
-Encourage complex thinking, participation, and discussion by all students.
-Quickly identify and address problems with course content or technology.
-Provide timely grade postings and feedback.
-Prepare your course shell with updated information, web links, instructor bio, gradebook settings, etc. at least one week before the scheduled start of classes.
-Communicate with students on your roster two days before the scheduled start of class.
-Participate actively in course discussions, ensuring that all students are participating and interacting with one another.

-Use this opportunity to shape discussion, call attention to other approaches, and answer specific questions raised by students.
-Respond to written assignments with personalized comments.

-Maintain a list of suggested course improvements and communicate these proposed improvements to the Director of Distance Learning.
-Ability to provide a monthly and course-end feedback/survey that will assist in providing a Knowledge, Attitude and Practice (KAP) baseline assessment.

TERMS OF AGREEMENT

- Provide own hardware (PC or Mac Computer) and Internet service.
- Assist in meeting host institution desirables for this course.
- Provide at least one face to face lecture session during the semester to strengthen relationship with student and host institution and organization.

HIGH PERFORMANCE

- Maintains a high-performance environment characterized by strong team orientation.
- Communicates regularly with related partners toward defined goals and/or required results.
- Self-motivated to improve quantity and quality of work performed displaying a high level of effort and commitment.
- Operates effectively within the organizational structure, always demonstrating trustworthiness and responsible behavior.
- Demonstrates eagerness to learn and assume responsibility; seeks out and accepts increased responsibility; displays a "can do" approach to work.
- Shows persistence and seeks alternatives solutions when obstacles arise.

- Works within the system in a resourceful manner to accomplish reasonable work goals.
- Shows flexibility in response to process change and adapts to and accommodates new methods and procedures.
- Accepts direction and feedback from partners and follows through appropriately works when scheduled; begins and ends work as expected.
- Establish appropriate communication when late or when absent

Partners

The solid partnerships that IOM has created with different government bodies, UN agencies, National and International NGOs will continue through this project, who's the design have been discussed with Office of Diaspora Affairs (ODA), Ministry of Health and Sanitation (MOHS), educational Institution College of Medicine, Allied Health Science.

ODA was founded in 2008 to serve as the Diaspora's coordination and promotion affairs. ODA provides a frame work for the mobilization of diaspora skills and resources which could add significant value to the socio-economic development of Sierra Leone. ODA is the main counterpart in this project and it will be the main channel to the Government of Sierra Leone. Also, ODA facilitates collaboration between diaspora organizations and Sierra Leone education institutions to sustain the project outputs.

There are many types of diaspora organizations outside Sierra Leone including the Organization of Sierra Leone Healthcare Professionals Abroad (TOSHPA) and Afro-European Medical and Research Network (AEMRN). These organizations provide advice in the selection of the appropriate diaspora expert for specific task as E-learning activities and short term physical assignment to Sierra Leone.

Findings

ICT is a powerful tool for educational change and reform. During the five months span of implementing the e-learning activity at COMAHS, IOM collaborated with the Sierra Leone Ministry of Health and Sanitation (MOHS), diaspora organization and the Office of Diaspora Affairs (ODA) to enhance the skills and knowledge transfer of Diaspora to

their home country by delivering trainings through distance learning and short term physical deployment of diaspora lecturers.

With a long term intermittent plan to support the education sector in Sierra Leone, IOM established a Japanese Learning Management System (LMS) to enhance the quality and the sustainability this activity. The Japanese company created E-learning system Knowledge Delivery, provided an e-learning platform and the maintenance of the platform while COMAHS and the diaspora experts provided the administration of the system, the material to feed the platform and distance learning service.

Courses:

While COMAHS presented many challenges in implementing their courses, two courses Research Methods and Health Policy were identified to be the most feasible due to availability of diaspora lectures. These online courses were structured for lectures and students to meet online through a created LMS portal with a blend of few face-to-face meetings.

Research Methods:

Course was originally designed for master students in Public Health, this course was later identified to be must useful to serve almost 50 undergraduate cohort medical students since it will better prepare them for research and writing techniques which will become very important during their graduate years. It aimed to equip student with generic health research designs and critical appraisal skills by allowing students to:

1. Choose an area of public health that interests them and use this course to build their expertise and competence.
2. Make every effort to find reliable information, learn how to evaluate it and apply it during the semester.
3. Actively engage in the learning process, respectful each other, and faculty and instructors.
4. Work independently when you are required to do so. There are group assignments when students will share information and make a single submission. Use that opportunity to learn and grow even if it is not your “section.”

Health Policy:

A master level course with 11 students, this course was aimed to explore some of the health inequities and disparities in different groups of people in different parts of the world using Sierra Leone as a case study. It offered an introduction to the practice of global health policy, the political, economic, and cultural processes of globalization, and their impact on population health and health care systems Encompassed with knowledge

and practical skills to formulate, analyze, and implement health policies this course was designed to give students an overview of the disciplines and competencies associated with the field of health care management. Students will examine varying meanings of health as well as the range of factors that encouraged the health of some and exclude it from others. Students studied the global health ethical framework based on human rights, cultural diversity, and social justice.

Enhanced with understanding of the global dimensions of health and disease, various strategic health initiatives, and correlating health care interventions. Attention was paid to a variety of topics including HIV/AIDS, immunizations, infectious diseases, and health in reproduction, social determinants of health, and more.

This course provided an emphasis on health policy in Sierra Leone as well as health policy on a global scale. Course Goals and Learning Objectives Students who successfully complete this course can:

1. Understand public health legislative and policy actions at all levels of government in Sierra Leone.
2. Understand public health legislative and policy actions globally.
3. Compare healthcare issues in industrialized societies with healthcare issues in developing societies.
4. Identify central issues in contemporary global health.
5. Explain the specific social, economic, and political factors that shape health care in various parts of the world.
6. Detail the ways in which gender, socioeconomic status, race, ethnicity, and other identities impact health and access to health care.
7. Evaluate healthcare policies, specifically in relation to cost, implementation, and outcomes.
8. Understand public health policy development process and its implementation at all levels.
9. Understand the values of advocacy, education and research in health planning and management.
10. Understand the processes of public health planning and management.

Lecturers:

Dr. Muriel Jean Harris and Ms. Yanoh Jalloh were carefully and thoroughly selected from a pool of competitive candidates to serve as the two lecturers for these courses. These lecturers engaged students and elicit reactions to material that students would normally not react to. Their educational process resulted in a very high rate of students who passed the class.

They were extremely dedicated to the concept of education, feeling a strong sense of responsibility to their students. They took the success of their students very personally. While this should be a fault for educators, their amazing sense of restraint and balance allows this to work in their favor. Students reacted extremely well to their teaching methods.

Dr. Muriel Jean Harris:
A well-seasoned associate professor and a director of the PhD Program, Department of Health Promotion and Behavioral Sciences, School of Public Health and Information Sciences, University of Louisville in the U.S.

Ms. Yanoh Jalloh:
A highly motivated public health professional with nearly 10 years in the public health sector with experience. Ms. Jalloh demonstrated expertise in research, project and program development, high level relationship building, financial and grant management, and staff management.

Challenges/Limitations

Some of the challenges faced in conducting this project were:

1. Access to technology
   As mentioned in our assessment prior to implementing this program, many students reported that access to internet was a challenge. During this project, many students found it very difficult in navigating through the computer. This was a result from not having strong knowledge in basic ICT. Often, IOM staff, lecturers and available IT assistance attended to the need of students when they find it difficult in navigating through the desktop. Many expressed that did not have a smart phone and were not able to access the discussion board or google drive.
   The students writing, and research skills were at first year undergraduate level and not in line with students partaking in academic graduate studies. Plagiarism was rampant, though IOM and lecturers attempted to discourage students from this.

2. Learning Management System
   Since students did not have a strong background in basic ICT, they found it very challenging to use the customized LMS. Many students requested that rather than using the LMS as a working space, they were more comfortable with basic back and forth email communication complemented with the use of a social media WhatsApp. On the part of the consultant, due to operating system restrictions, the consultant was not actually able

to utilize the Knowledge Learn system that was developed for this pilot program because it was not compatible to that of the operating system. Instead, the consultant resulted to free forum boards and folders on google drive.

3. Adequate Internet Service
   Prior to the start of this project, we were expecting COMAHS to be able to provide use with effective internet service as part of their own shared responsibility. During the implementing of this project we noticed that there was not always existing effective internet service. This made it very difficult to conduct class on time as well as pairing each student to a computer due to low bandwidth and poo connection.

4. Timing
   The timing of this project was not properly arranged. This project was implemented based on the timing that was set forth by COMAHS. Due to the last-minute change up for one of the classes from a master level to an undergrad level, we realized that the time that the class is supposed to start conflicted with the schedule of that of the undergraduate medical students. We noticed that during the start of this project, undergrad students were already scheduled to start their year-end examination. This made it very challenging for students to attend the Research Methods course while preparing for their exams. This forced us to continue the course with little to no students' participation for almost 6 weeks.

5. Class Size and Type
   Prior to the start of this project, IOM was made to understand that the two courses that will be taught will be that of the master level. A last-minute change for one of the courses, Research Methods to be extended to the undergrad level (COMAHS wanted to use this opportunity to expose undergrad student to research at an early stage) resulted in the class size to be expected of 48 students instead of 15. This brought slight challenge to the procurement of items. A background of the students was never received. It would have been helpful to know what courses the students have taken so that the lecturers can ensure that all content developed was appropriate.

6. Commitment from students
   Due to many challenges that we faced, many students we hesitant in committing 100%. They were not sure if course will count towards their degree and the lapses that popped up throughout our communication flow made it harder for students to appreciate this program. They will come to class and face issue with internet causing class to start an hour or so late. This discouraged many students.

7. Commitment from COMAHS

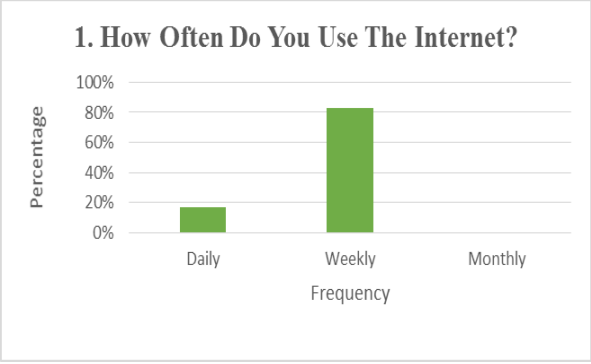
Throughout the implementation of this program, we did not see much commitment from COMAHS. Whenever there is a challenge that sparked up, it was difficult to get COMAHS to contribute to solving the problem. Many times, the IT personnel arrived late or no show at all since transportation was never provided to them as promised by COMAHS.

Live sessions almost always started late since COMAHS staff consistently came at least 30 minutes late, this often time ate into class time and course discussions had to be completed in the WhatsApp group. COMAHS team did not seem invested and it was difficult to get information from them. For example, grading scale was never agreed on. Lecturers did not have access to a platform such as "turn it in" that checks for plagiarism, this made it difficult to enforce the new plagiarism rule. When this brought this up to COMAHS leadership, they appeared not surprised but also did not offer any resolution to this.

Feedback from Beneficiaries

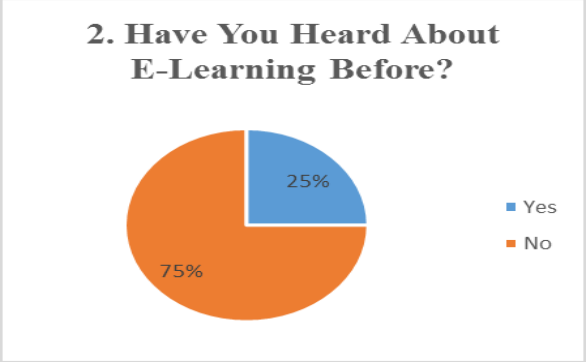
11 question evaluation was administered to students towards the later part of this project. The purpose of this evaluation was to assess student's overall feedback, barriers with suggestion of the course.

Figure 1.



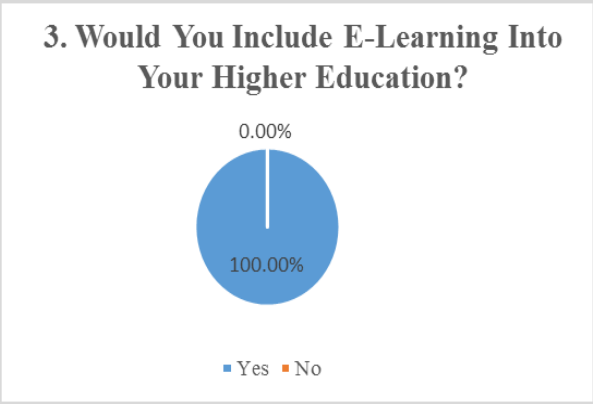
80% of the students mentioned that they use the internet on a weekly basis, where on 20% reported that they use the internet daily.

Figure 2.



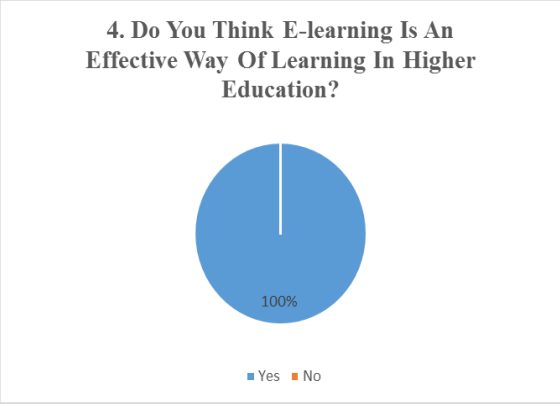
1 in every 4 students responded that they have heard of e-learning before while 75% responded that they have not heard on e-learning prior to this project

Figure 3.



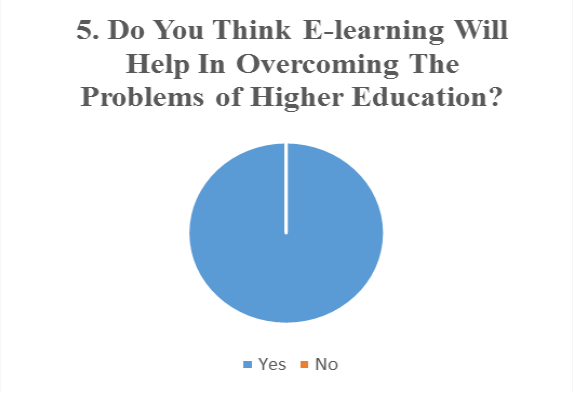
All the respondents to this survey reported that they will include e-learning into their higher education plan.

Figure 4.



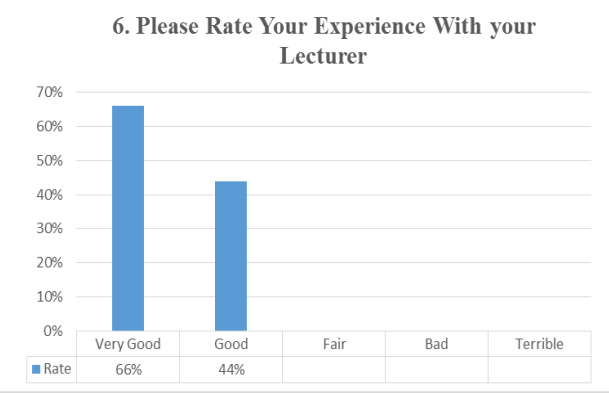
All participants to this survey expressed that e-learning is an effective way of learning in higher education.

Figure 5.



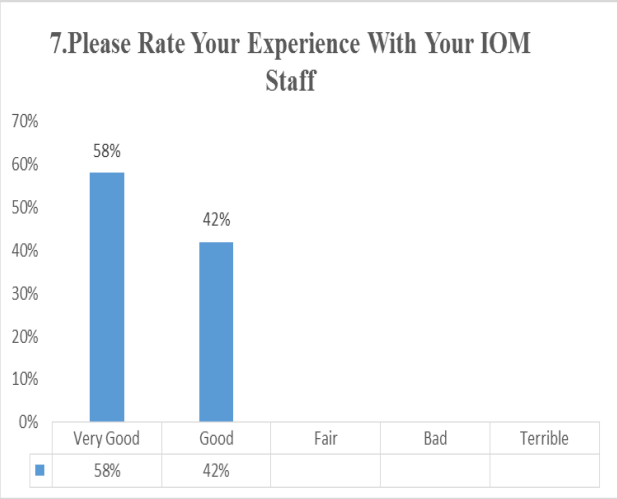
When asked if e-learning will help in overcome the problems of higher education, all the participants to this survey replied yes.

Figure 6.



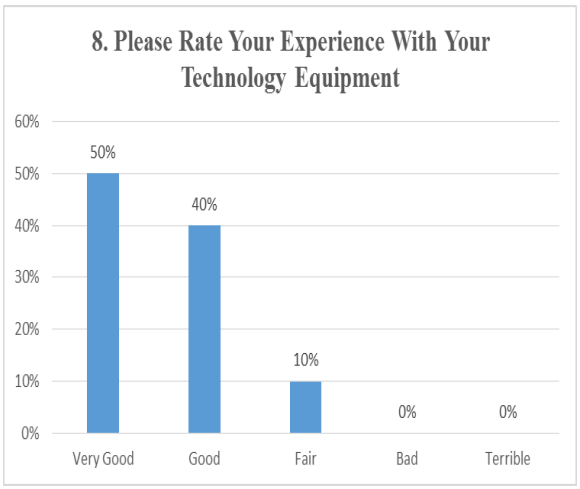
Over 65% of participants of this survey rate their lecturers to be very good while the rest rate their lecturer as good

Figure 7.



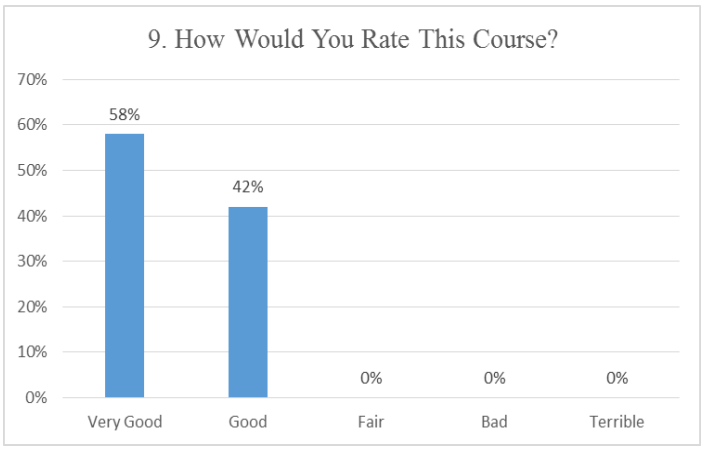
Almost 60% of beneficiary express their experience with IOM staff as very good where a little over 40% rate their experience with IOM staff as good

Figure 8.



10% responded that their experience with the IT equipment was fair and the rest of the 90% stated to be good or very good.

Figure 9.



100% of participants to this survey rate their course to be either good or very good.

Conclusion

This project revealed that the use of ICT can raise educational quality and connect learning to real-life non-traditional approaches. ICT tends to expand access to education. Through ICT, learning can occur anytime and anywhere with the availability of course materials 24 hours a day, seven days a week. Teleconferencing classrooms allow both learner and teacher to interact simultaneously with ease and convenience.

This makes learning and teaching to no longer depend exclusively on printed materials because multiple resources are readily available on the Internet allowing knowledge transfer to take place through video clips, audio sounds, and visual presentation. ICT assists in transforming a teaching environment into a one stop learning center and therefore provides both learners and instructors with more educational affordances and possibilities.

Sustainability / Recommendations

Upon weaving through the many challenges involving the implementation of this project, the lessons learned ignited recommendation for similar partnership in the future. The recommendations listed below highlighted the frequently recurring challenges.

For this program to prove its effectiveness and become more efficient, these recommendations should be highly take into consideration.

1. A thorough process in selecting students
2. Frequent meetings between partners to identify and quickly address challenges
3. Adequate internet connections
5. Carefully highlight roles and responsibility of partners
6. Accreditation of courses
7. Candidates of this program must have basic ICT knowledge and understanding
8. Strong commitment by university to organize e-learning course

Photos

HEALTH POLICY

RESEACH METHOD