The Islamic Republic of Afghanistan
Ministry of Higher Education (MoHE)
Higher Education Development Program (HEDP)

Report of Pilot Training for Computer Technicians in Public Universities

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Training Held on
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Reported by: Mansoor Faqiri/HEDP | Reported on: December 7, 2016

Contents

Introduction....3

Target group....3

Modality of Orientation....4

Challenges....4

Concluding Note....5

ANNEX 1: Computer Training Pictures....5

Introduction

The strategic plan of the MoHE (2015 – 2020) focuses on the capacity development of technical employees. Based on that and OMST's yearly plan, the academic unit of the OMST at MoHE conducted training to develop the capacity of the IT technicians at public universities. This unit through their contact and monitoring realized that the IT technicians have a limited understanding of their terms of reference and core responsibilities, which suggests that they require a comprehensive training to get familiarized with their terms and references and core responsibilities in addition to basics of the computer knowledge. Also, the understanding of the computer sciences seemed good during the initial surveying, but at class, the trainees proved to be at best mediocre at providing services and troubleshooting.

Objective

The primary purpose of the training was updating computer technicians knowledge of their terms of references and troubleshooting.

Covered Topics

The course covered the following topics based on the needs of the students in class:

- Basic computer networks concepts
- Basic understanding of how the internet works
- Introduction to Network Tools
- Home networks
- ISP and its tiers
- Internet protocol stack
- Application layer protocol (DNS)
- Troubleshooting tools
- Introduction to database systems
- How to develop a database system
- Database relationships
- XAMPP as a practical approach for databases
- How applications works with a backend database

Target group

The target group of this training was computer technicians at public universities located in Kabul. Though, some of the participants introduced to the course were not technical people.

Modality of Orientation

The training began with a pre-test to analyze the understanding of computer basics. Based on our previous surveys, as nearly 1/3 of the technicians had a degree of sorts in computer fields, but in the class, pre-test clarified that they had a significant gap on what was required at their jobs and their understanding of computers.

The class assumed with the local languages (Dari and Pashto). The training was designed to be extremely practical. For every theoretical lesson that lasted over an hour, the trainees had at least an hour of practical time. On a daily basis, on an average, nearly three lectures were given and enough practice time was given. During the practice time, trainees were divided into groups to achieve certain tasks. The core goal of creating groups was to make sure every participant learns the practical work as well because some of the participants introduced by universities were not computer technicians and therefore lacked basic computer knowledge.

Challenges

- The computer lab was not very well equipped, and most of the computers in the lab of the Ministry of Higher Education did not operate properly. The trainer did try to fix a few, and we made multiple requests to the Directorate of Information Technology but did not change the situation. Overall, ten computers were operational.
- Though it was evident in the official correspondence to only send computer technicians, the universities had still sent employees from other fields to the computer training. Due to this issue, the trainer had to adjust the curriculum to assure almost everyone in the class received new and usable knowledge to be able to practice in their work environment.
- Overall, the level of students was lower than expected.
- The room temperature of the IT training center at MoHE was an issue for almost all students because the air-conditioning did not operate optimally.

Recommendations:

- The trainings to be organized in off-school time because the workload of employees is comparatively less in those days.
- Survey need to be performed so computer technicians needs assessment can be done easier
- The computer lab needed to be checked physically and made sure all computers are operational.
- Participants only need to be technical people and made sure only technicians attend the training.
- Other courses beside these training are highly needed and much appreciated by technicians.
- Instead of organizing specific courses, the allocated funds can be spent directly at the candidates ‘request of computer courses in certain private institutions in Kabul, Afghanistan.

Concluding Note

Though the training faced particular challenges the first day e.g. gap between the level of trainees we were had hoped for and some non-technical trainees showing up, it smoothened by the second day as the instructor was able to create new materials for the second day.

Based on the results received from the feedback forms, the trainees were delighted to receive the training and gave on average 4 out 5 for the training. Also, based on the pre-test and post-test, we saw an 18% rise in their abilities based on the newly learned materials.

Finally, the technical trainings can be increasingly improved by implementing the recommendations.

Students at the end of the training session filling feedback forms