



Establishing ICT-blended Learning Tools/Labs and LMS

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Project Funding

Project Full Title: Refugee Teaching Certification Programme for Egyptian and Refugee Teachers Enabled by Blended Learning

Project Acronym: RefTeCp

Project number: 598437-EPP-1-2018-1-CY-EPPKA2-CBHE-JP

EC Programme: ERASMUS +

Agreement number: (2018-3773-001-001)

Start date: 15th January, 2019

Duration: 3 years

Budget: € 903.749

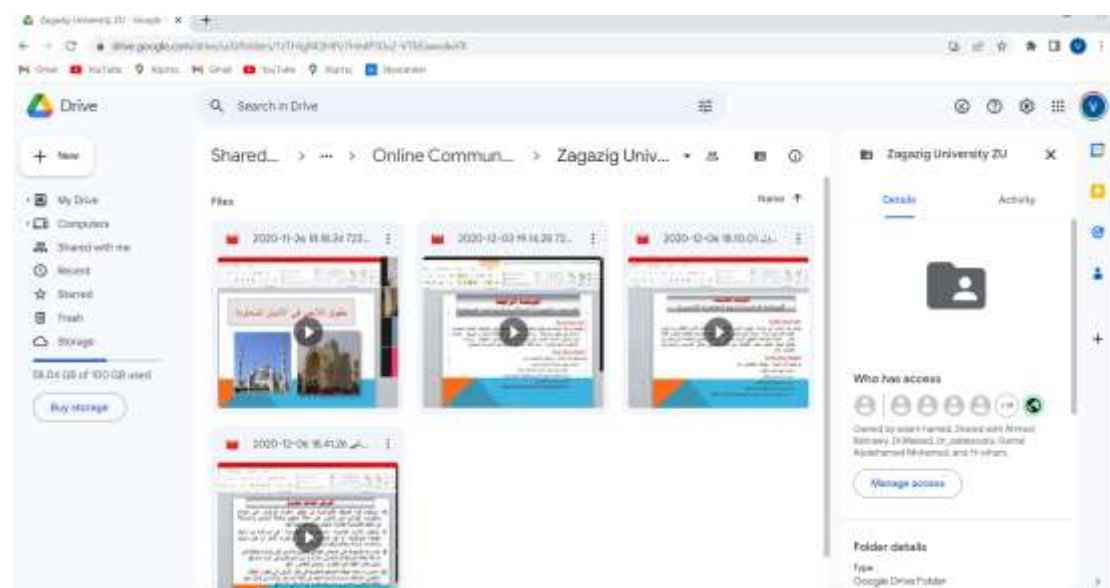
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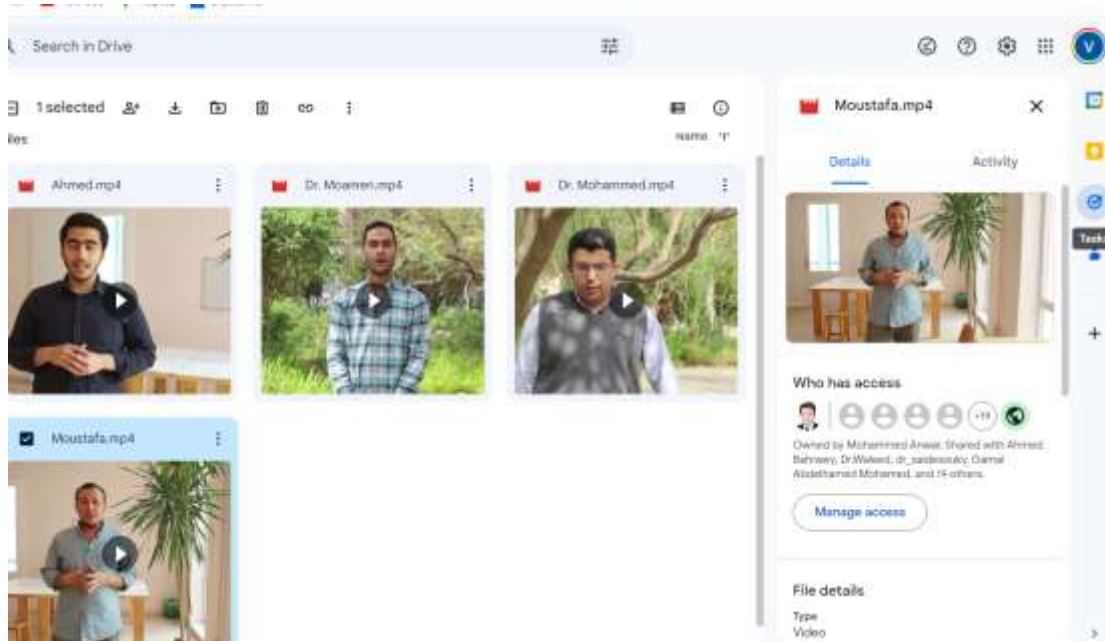
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EXECUTIVE SUMMARY

This deliverable reports on the processes and practices for the establishment of the Blended Learning Environment, including the tools, the ICT labs, and the necessary equipment to support blended learning during the training process. Blended Learning is a method of personalized learning that combines traditional face-to-face instruction with digital learning that allows the student to benefit from control over the pace and learning path.

In each partner university, an ICT lab was established that was consistently used for supporting all the training sessions. Although the equipment was purchased in parts, the RefTeCp activities were supported by the partners' newly-established teleconference systems as a response to the Covid-19 pandemic. Thus, there was not any disruption in the planned activities because of delays in the purchase of the equipment. The whole process was also supported by the Online Community of Practice that was served through the RefTeCp Website.





The RefTeCp Online Community of Practice (OCoP) considers university instructors as part of a "critical community" of practitioners committed not only to improving the quality of the RefTeCp course syllabi and course modules as well as the Refugee Teachers' Diploma Courses. It is a network of all individuals who have been involved in developing, and peer-reviewing the pre-service and in-service course modules.

Summing up, the ICT labs and the tools included proved to be significant in the implementation of the training sessions, especially during the Covid-19 period. As the partners' ICT Lab reports show, there will also be used after the funding period of the project, and their sustainability is ensured since they are part of each partner's university infrastructure.

Partners'

ICT Labs Reports



ICT LAB AL AZHAR UNIVERSITY

P7 Al-Azhar University agreed to receive € 45,000 to purchase the equipment for the computer lab. Below is the specific budget for each of the equipment proposed:

No	Nature, type, and specifications of the item	Amount (EUR)
1.	30 Personal Computers (processor, memory, disk, display)	(30 x 900,00 €)
2.	25 tablets	(25 x 600,00 €)
3.	printer and scanner	(1 x 550,00 €)
4.	Interactive Whiteboard Projector	(1 x 1000,00 €) (1 x 700,00 €)
5.	Camera	(1 x 750,00 €)

The procurement process planed according to scheduling time below

Item	Date	Action	Deadline and challenges
ICT lab preparation	May 2019	1- Place was determined at Central building at main campus of Al-Azhar university, Nasr city, Cairo. 2- Lab construction and preparing	Done Ongoing December, 2019
Equipment purchasing	July, 2019 - January 2020	1- 1 st installment receiving 2- 2 nd installment receiving 3- Tender process a- Specification b- Tender procedures c- Purchase order d- Equipment receiving	25% = July 2019 25 % = June 2020 <u>(scheduled)</u> Done Ongoing April 2020 May 2020
Lab installation	July. 2020		1 st July 2020

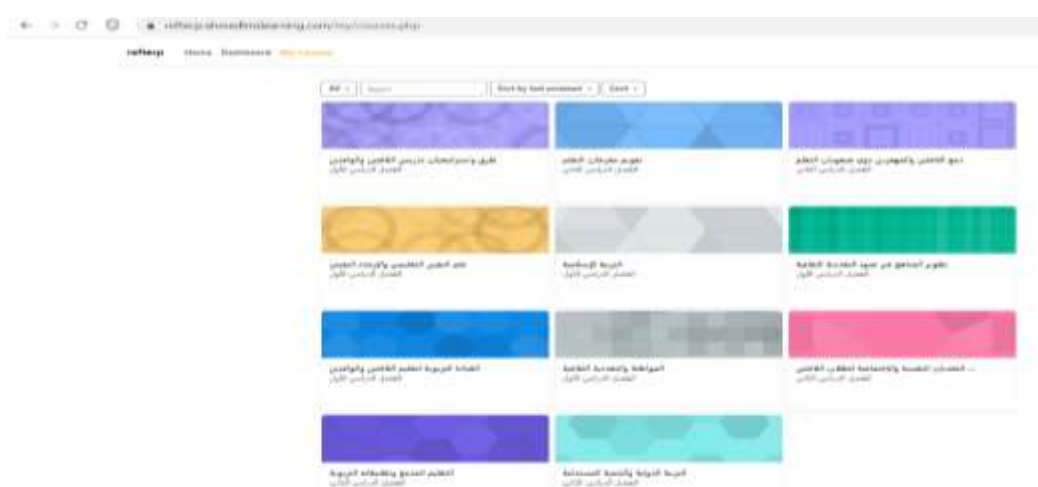
General Tendering was announced in Egyptian newspaper on 27th July, 2020 and technical offers were received on 18th August, 2020. part of equipment already purchased based on budget availability and once ALZU received the third instalment, the rest of equipment were purchased from suppliers according to purchased tables below

Below are the equipment specifications purchased by P7:

No .	Nature, type, and specifications of the item	Amount (EUR)
1.	30 windows desktops, PC DELL Optiplex 3090 Desktop Intel® Core i5	30 x 848 € = 25440 €
2.	25 tablets Huawei MatePad 11	25 x 825 € = 20625 €
3.	laser printer HP Jet Pro MFP M428fdw	1 x 687 €
4.	SMART Panel (interactive display) MX275	1 x 2433 €
5.	Smart document Camera Manfrotto 190	1 x 530 €

LMS for Diploma implementation

LMS Link: <https://reftecp.ahmedlmslearning.com/>



A Moodle-based LMS was developed to deliver the diploma program. All educators were provided with usernames and passwords to log in to the platform and upload the courses materials and activities

1. Where and when have equipment items been installed

First instalment of ALZU-ICT lab was at Central building at main campus of Al-Azhar university, Nasr city, Cairo on May, 2019 and all equipment were installed subsequently.

According to sustainability plan after project ending, Al-Azhar university council decided on December 2022 to transfer ALZU-ICT lab as well as implementing RefTeCp diploma at Faculty of post graduate, main campus of Al-Azhar university, Nasr city.

2. How they have been used in the project and will be used in the future.

ALZU-ICT lab was used for all capacity building training workshop and curricula development for undergraduate's courses for 27 teacher educators staff members and for 40 in-service teachers during mobile mentors and peer coaching training and also as a sever unit for LMS activity during implementation phase and part of teaching for 143 diploma candidates.

In the future, it is planned that the lab will be used by all Diploma students and staff members starting from 2022/2023 academic year.

Describe if any changes occurred for the purchase and use of equipment as compared with the proposal;

Smart board was purchased instead of interactive white board and projector. And according to currency exchange problem price during second tendering within 10% increasing compared to planned budget.

If applicable, refer to the challenges/difficulties encountered in purchasing, installing, and using the equipment.

ALZU faced a lot of barriers to combine between tendering regulation of Erasmus+ programme, Al-Azhar University and Egyptian law. According to Egyptian governmental university law, to complete the equipment tender we should have a whole budget in university account. The problem was discussed with ALZU vice-president and new regulation was approved to handle the tender according to financial situation of the project.

APPENDIX

1) Photo of equipments used for setting and establishing ICT lab at P7 ALZU



2) Capacity building training of teacher educator's faculty staff members



3) peer coaching and mobile mentors training for in-service teachers





REPORTING
ON
THE DEVELOPMENT
OF THE ICT LAB
ASWAN UNIVERSITY



The Items in the Lab:



ser.		Description	QTY	Unit Price Euro	Total Price Euro
1	Personal Computer	Personal Computer Dell Optiplex 7070 17, 16 GB , 1TB, Dell 19.5"	1	19440	19440
2	Personal Computer	Personal Computer Dell Optiplex 5070 i5-9500, 8GB RAM, 1TB, Dell 19.5"	29	13050	378450
3	A4 Scanner	HP ScanJet Pro 2500 f1 Flatbed Scanner	1	5665	5665
4	All- in one multi- system laser Color printer	HP Color LaserJet Pro M452nw	1	9855	9855
5	Interactive whiteboard	SMART Board Interactive Whiteboard 680	1	46650	46650
6	Video Conference	Aver EVC300 Full HD Video Conferencing System	1	170,000	170,000
7	Ipad	Apple ipad 10.2 inch	25	9400	235000
		Total			865060

We used the Lab in:

1. The laboratory was used to contact and communicate with partners from European and Egyptian universities to prepare professional diploma courses for preparing refugee teachers.
2. The laboratory was used through hybrid learning in spreading the culture and project of refugee teachers and its national, national and international importance. As well as in training the members of the training staff and their assistants to review the professional diploma courses for refugee learners, in preparation for amending some of the undergraduate courses, i.e. adding some amendments to spreading the culture of hybrid learning and disseminating The idea of a project to prepare refugee teachers.



3. After returning from the workshop at Zagazig University, in which it was agreed to teach all professional diploma courses to prepare refugee teachers. It was agreed to publish the media and announce to all the faculty members of the Faculty of Education, Aswan University, the courses that were prepared and agreed upon. Their number is 30 faculty members and their assistants.

4. In the training course for teachers or graduates of non-educational colleges, a number of trainees were trained by 11 faculty members from the various educational departments of the college (curricula and teaching methods, educational psychology, mental health, fundamentals of education, educational administration and comparative education) both in specialty.

5. The laboratory was also used to train undergraduate students in courses that were modified after modifications to keep pace with the goal of the refugee teacher preparation project.

Numbers of the Lab Users:

The number of faculty members and their assistants who used the laboratory: In training to modify undergraduate courses in order to keep pace with the philosophy and objectives of the Refugee Teachers Project 35, In the survey training, 5 members. In the training of educationally unqualified teachers, 11 faculty members participated. The number of students from different teams in the two semesters was 2000 male and female students by 10 staff members.















HELIOPOLIS UNIVERSITY

Infrastructure

One big room in the faculty of Business and Economics was assigned for the ICT Lap and equipped with tables and chairs for the PCs. 25 tables were imported to the room and ready for the PCs as in figure 1.

LMS Establishment

Within the official LMS of Heliopolis University, one main partition for the postgraduate programs LMSs will be dedicated particularly for the RefTeCp diploma. This LMS will be utilized by HU staffs who are involved in the teaching of the pilot phase of the REFTECp diploma courses. As agreed the pilot phase will be divided by courses among all partners of the project in order to practice together and learn from each other. Currently the staff of HU is working closely with the other partner universities who are not familiar with Moodle and other LMS programs providing support and consultation.

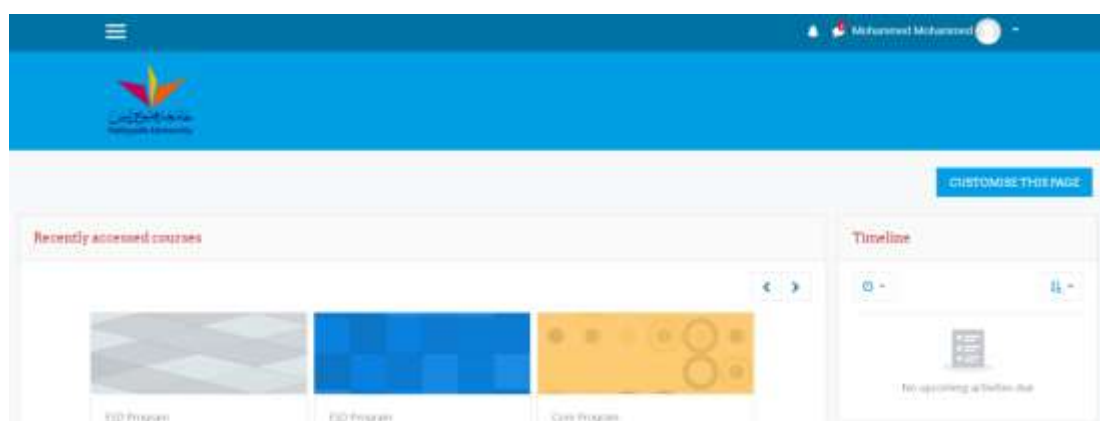


Figure 2 Front Page of HU LMS

ICT Lab Equipment

The equipment located in the ICT lab at HUSD premises (attached all equipment specifications) will be utilized within the project WPs starting from WP 2. This will be in task 2 to organize, implement and analyze the survey of stakeholders; engagement using statistical software at the university campus as its geographical location is nearby a number of refugees-based districts. HUSD will also organize colloquia in partner universities for mapping the needs and competences in line with the results of the interviews and surveys which will require mobile equipment for the organizers to use in each colloquium and conducting virtual meetings and conferences.

In WP3, HUSD will use the equipment in the training workshop carried out in the premises of HUSD and will be one of the centers of training of the trainers. Therefore, the equipment will be used to conduct that training sessions. In addition, these training sessions will involve Aswan University which is located in Upper Egypt and as such it could be considered to have virtual sessions with the Aswan team and other stakeholders. This will require having the same equipment configuration to ensure the smooth flow of knowledge reaching the optimal competencies to the trainers.

In WP5, HUSD will participate in the piloting and implementation of the RefTeCp Post-Graduate Diploma Program in its own institution and collect and codify the assessment data. The equipment will be used in the implementation process as well as in blending the learning material, and on-the-job assessment of peer coaches and mobile mentors.

In WP7, HUSD will use the equipment to internally design and virtually disseminate the project promotional material.

HUSD geographical location is an ideal place centered amongst the refugees communities will smoothen the process of generating refugees traffic to the HUSD campus for attending the diploma sessions. This will be conducted with close cooperation with other project partners and stakeholders. As such, the ICT blended learning laboratory will be very instrumental. In this realm, besides training purposes, the equipment is essentially needed for preparing the material, developing the

teaching modules, conducting the lectures and for all other participants' engagement exercises. It is planned that all the equipment will be based and installed in a conference room which will be allocated only for the RefTeCp project. It is worth noting as well that all the project partners must maintain the same ICT infrastructure for ensuring ICT configuration purposes.

Equipment Type	Use
Laptops	<ul style="list-style-type: none"> ● To organize, implement and analyze the survey using statistical software. ● To be used in organization and dissemination of colloquia. ● To be used in conducting virtual meetings and conferences. ● To be used in organizing Workshops ● To be used in Piloting and implementation of the Post-Graduate Diploma Program ● To Collect and codify the assessment data ● To be used in mentoring ● To be used to design and virtually disseminate the project promotional material.
PCs	<ul style="list-style-type: none"> ● To be used by participants of the workshops. ● To be used in training of the trainers. ● To be used by survey participants will fill the survey on the PCs. ● To be used in piloting and implementation of the Post-Graduate Diploma Program ● To be used by the diploma participants (if as planned, offered by Hu with close cooperation with other project partners and stakeholders)
Interactive smart	<ul style="list-style-type: none"> ● To be used in workshops ● To be used in trainings. ● To be used in project dissemination

board and projector	<ul style="list-style-type: none"> ● To be used in virtual sessions. ● To be used in piloting and implementation of the Post-Graduate Diploma Program ● To be used by the diploma instructors (if as planned, offered by Hu with close cooperation with other project partners and stakeholders)
Camera	<ul style="list-style-type: none"> ● To be used in virtual sessions. ● To be used in conducting virtual meetings and conferences. ● To be used in piloting and implementation of the Post-Graduate Diploma Program
Printer	<ul style="list-style-type: none"> ● Print the project promotional material. ● Print workshops documents. ● Print training materials. ● Documents of the project financials.

Figure 3 ICT Lab Equipment Utilizations









Figure 1 ICT Lab Infrastructure (Room, Tables and equipment)

Establishing ICT-Blended Learning Labs and LMS ZAGAZIG UNIVERSITY

Following the beginning of the project ZU provided a great hall (60 m²) and renewed its infrastructure completely as a co-finance by the end of 2019. ZU finished the approval of the Minister of Higher Education to conduct the tender for the purchase of equipment on 2/9/2020, advertised for the Tender for purchasing equipment on 10/2020 and received all equipment on May and Nov. 2021

Zagazig University- P9 agreed to receive € 45,000 to purchase the equipment for the computer lab.

Below are the equipment specifications and price of equipment purchased by P9:

No	Nature, type, and specifications of the item	Amount (EUR)
1.	30 PC desktop Dell: Core i5, 8 gb RAM, 1 TB HDD, 18.5" monitor, wifi adaptor.	16781.69 €
2.	30 Tablet Huawei T10/T3 , 10 inch , 2 gb, 16 gb ram , 1.2 mhz 4 cores with bluetooth	8625.46 €
3.	Smart interactive Panel: 65 Inch 4K , Vga/hdmi/av/power/ducts – BenQ RM650 2K	2333.108 €
4.	Laptop core i5, 8 gb ram, hdd 1 tb , 15.4" screen - Dell.	653.8691 €
5.	Smart board – IQ Board 82 inch	558.8885
6.	Video Projector: 3500ansi , hdmi , vga , av ,usb Ultra short throw Wall mounted & Cables Vga/hdmi/av/power/ducts - Ricoh	1634.088 €
7.	Laser Printer A4: 1200x1200 dpi, 128mb memory, duplex. network- hp	191.5991 €
8.	Scanner Up to 4800 dpi , feeder , 10x15 inch MSS , usb - hp	205.6353 €
9.	photocopier machine: 25 ppm , copy , print , scan , 600x600 dpi – Keyocera	1027.008 €
10.	digital camera: 3 inch , sd card , M.F 10X - Canon	695.979 €
11.	2 sound system for distance e- learning	4666.684 €
	TOTAL	37374.01

1. Where and when have equipment items been installed

All equipment were purchased and received on May and Nov. 2021 and putted on RefTeCP Hall in measurement and assessment center (ZUMAC) in the main university building.

2. How they have been used in the project and will be used in the future.

The equipment was used in initialization of refugee for RerTeCP project and Training for non-educational teachers and teaching them how to join online training for RefTeCP in-service training.

Also equipment were used for preparation and recoding a video for the international conference organized by crete university.

Equipment was used for writing, copying, scanning reports of the projects and training materials.

In the future God willing the equipment will be used in:

- Conducting RefTeCP training, implementation of diploma,
 - Training of staff members and under graduate students specially those of faculty of education, -
 - Training of Egyptian and Refuge children, graduates who want to volunteer to work with refugee children on the land of Egypt.
 - Conducting different assessments and E-Exams for Training and diploma .
 - production of professional educational videos based on in-service courses and to disseminate the project.
 - Capacity building of teachers in using such technological tools and equipment in education.
- Those steps will ensure the sustainability of the project.

Equipment type	uses
30 PC 30 Tablet Huawei desktop Dell:	To be used in implementation of in-service RefTeCP training by participants - pre-service training – enrolling of Egyptian and refugee students in training. Assessment of training – Electronic exams for diploma.
Smart Panel: BenQ	For presentation of different courses and training materials. Conduct lectures with audio-visual tools especially on line training, virtual meeting and dissemination of project.
Laptop Dell.	To be used in preparation of courses and conducting on-line training, meeting and conferences.
Smart board – IQ Board	To be used for presentation of training materials and building capacity of teachers in using such technology in education.
Video Projector: - Ricoh	To be used in conducting workshops and training
Laser Printer A4: hp	To be used in printing training, courses and workshop materials and administrative documents.

Scanner - hp	To be used in scanning administrative and teaching materials.
photocopier machine:– Keyocera	To be used in copying training materials, assessments, administrative documents.
digital camera: Canon	To be used In production of videos for project dissemination and recording project activities.
2 sound system	To amplify sound and modify it for distance learning and face to face training in large hall.

Describe if any changes occurred for the purchase and use of equipment as compared with the proposal;

Due to Corona 19 crises and the change in the exchange rate of the Egyptian pound, different and elongated administrative procedures for tender and the public bidding process all these factors lead to some extend delay for purchase of equipment from 2020 -as it was planed - to 2021. However, These changes were compensated by conducting a good tender, which allowed choosing the best offers and the best equipment with high technical specifications and economical prices, which ultimately led to saving part of the equipment budget about 7,500 euros.

APPENDIX



Figure 1. Entrance to RefTeCP ICT-Lab



Figure.2 In-service RefTeCP Training for non-educational Teachers in ICT-Lab

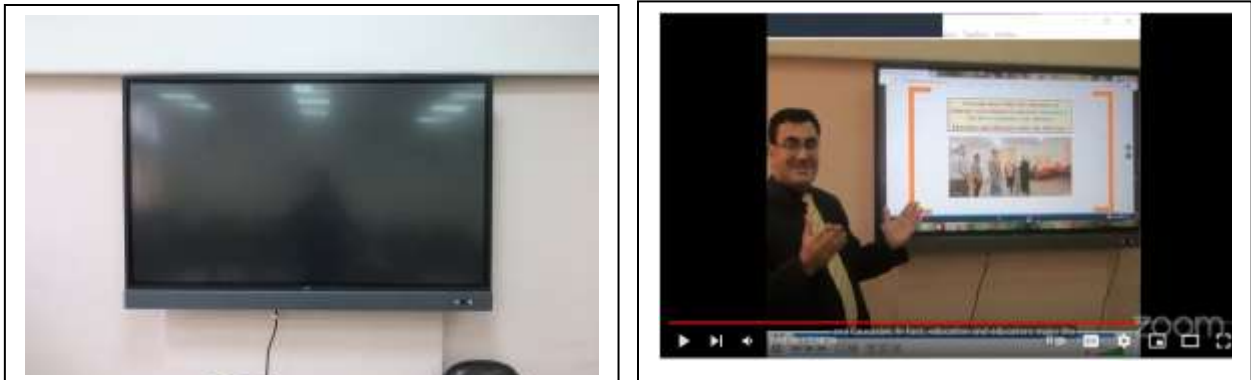


Figure 3. Smart Board used in presentation for international conference organised by Crete University



Figure 4. Projector used for presentation of RefTeCP training



Figure 6. digital Camera used for recording videos for conferences and different activity



Figure 7. Photocopier and scanner used for printing of training materials and administrative work.



Figure 8. Laptop and a part of the sound system for distance learning



P6: October 6 University Report on "The Establishing and Utilizations of the ICT- blended Learning Lab"

Intro:

As a response to the perpetual endeavor of the Ministry of Higher Education to cope with the technological development in the educational process, October 6 University(P6) has taken the initiative to develop a digital transformation process. This process is intended to contribute to enhancing the inputs and outputs of innovation for the learner, providing all electronic equipment for the faculty members so as to achieve developments in the educational process, as well as dealing with upcoming events similar to Covid 19 pandemic. This experience required some strategies, equipment and tools such as electronic learning platforms and ICT Laps as a trial to improve the educational process.

Executive Summary:

One of the deliverables for the Erasmus+ I Reftecp project activity was to develop the ICT-blended learning laboratories in each partner institution which will serve teaching staff, students (preservice teachers), and in-service teachers to be trained. Erasmus+ Programme of the European Union has awarded October 6 University (P6) funding via the Reftecp project to purchase equipment for the computer lab.

October 6 University (P6) received € 45,000 to purchase the equipment for the ICT lab. Below is the specific budget for each of the equipment proposed:

No.	Nature, type, and specifications of the item	Amount (EUR)
1-	30 Personal Computers (processor, memory, disk, display)	30 x 900,00 €
2-	25 tablets	25 x 600,00 €
3-	One multisystem with laser printer and scanner	1 x 550,00 €
4-	Interactive Board	1 x 1000,00 €
5-	Projector	1 x 700,00 €
6-	Camera	1 x 750,00 €

Setting up the Reftecp ICT-blended Learning Lab:

- 1- October 6 University(P6) took the following actions to establish the ICT Lab:
 - a. Assigned a big computer lab to be utilized within the project.
 - b. Setup the ICT lap with the infrastructure needed to equip it with the PCs (Network, Internet, WIFI, Tables and chairs).
 - c. Purchased the following equipment:

S	Items	QTY	Status
1	PCs	30	Done
2	Tablets	25	Done
3	All In one Multi-system Printer	1	Done
4	Interactive Board	1	Done
5	Projector	1	Done
6	Camera	1	Done

- 2- October 6 University (P6) supported the ICT-lap with the E-Learning System, by dedicating a partition within the university (LMS) programs particularly for the implementation of RefTeCp diploma and the Training for the qualified and non-qualified Egyptian & Refugee Teachers.



Figure 1 ICT Lab



Figure 2 ICT Lab



Figure 3 ICT Lab

Utilizing the Reftecp ICT-blended Learning Lab:

The Reftecp ICT-blended Learning Lab utilized through the duration of the project and served many project deliverables to be achieved as following:

- 1- WP3: the ICT lap utilized to carry out the capacity building and training workshops for teacher educators.
- 2- WP5: O6U(P6) project staffs who are involved in teaching used the ICT Lap to:
 - Implement the pilot phase of the REFTECp diploma courses.
 - Implement the Training for non-qualified Egyptian & Refugee Teachers.
 - Implement of the Post-Graduate Diploma Program.
- 3- WP7: O6U (P6) is using the equipment to internally design and virtually disseminate the project promotional material.

Equipment Type	ICT Lab Equipment Utilizations
E-Tablets	<ul style="list-style-type: none">• To organize, implement and analyze the survey using statistical software.• To be used in organization and dissemination of colloquia.• To be used in conducting virtual meetings and conferences.• To be used in organizing Workshops• To be used in Piloting and implementation of the Post-Graduate Diploma Program• To Collect and codify the assessment data• To be used in mentoring• To be used to design and virtually disseminate the project promotional material.
PCs	<ul style="list-style-type: none">• To be used by participants of the workshops.• To be used in training of the trainers.• To be used by survey participants will fill the survey on the PCs.• To be used in piloting and implementation of the Post-Graduate Diploma Program• To be used by the diploma participants (if as planned, offered by Hu with close cooperation with other project partners and stakeholders)
Interactive smart board and	<ul style="list-style-type: none">• To be used in workshops• To be used in trainings.• To be used in project dissemination

projector	<ul style="list-style-type: none"> • To be used in virtual sessions. • To be used in piloting and implementation of the Post-Graduate Diploma Program • To be used by the diploma instructors
Camera	<ul style="list-style-type: none"> • To be used in virtual sessions. • To be used in conducting virtual meetings and conferences. • To be used in piloting and implementation of the Post-Graduate Diploma Program
Printer	<ul style="list-style-type: none"> • Print the project promotional material. • Print workshops documents. • Print training materials. • Documents of the project financials.

The challenges/difficulties encountered in purchasing, installing, and using the equipment:

P6 October 6 University encountered several challenges and difficulties when purchasing the equipment for the computer laboratory for Erasmus + REFTECp project deliverable, The first Challenge was not receiving the whole budget allocated for the Equipment to purchasing it all at one procurement process, instead, October 6 University received the budget in installments.

The second challenge was the continuous decrease of Euro value in Egypt affects the budget badly.

The third challenge was COVID-19 pandemic it closed the world, Some tasks could be delayed or shifted to be online instead of face to face procedures.



Figure 4 The Reftec ICT-blended Learning Lab



Figure 5 The Reftec ICT-blended Learning Lab

End of the Report