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The Use of ICT for Health Professionals Education in Mozambique: Curricular Integration and Challenges

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Summary

- ▶ Background
- ▶ A case study of UniLurio Health Science Faculty: curricular integration of ICT in Pos-graduate Training
- ▶ Outcomes
- ▶ The Challenges
- ▶ The way forward and conclusions



ABSTRACT

Objectives: discusses the integration of ICTs on Higher Education Institutions and limited resource settings (LRS), and describe the experience and the contribution of eLearning platforms for scaling up training and research capacity of HP and the challenges faced in Mozambican context.

Methods: (i) systematic literature review, including public policies, reports, review articles; (ii) unstructured interviews aiming to understand how communities of practice were leveraged among Medical Education Partnership Initiative (MEPI) schools with emphasis on the Eduardo Mondlane University experience and its allied Universities in Mozambique; (iii) a case of study of the UniLurio Faculty of Health Science.

Outcomes and conclusions: an increasing investment on MHEI to enhance the informatics infrastructure, digital platform and software for eLearning within the MEPI schools. Incorporating subjects to build up faculty and students competencies on the use of ICTs. Challenges remain related to the high costs ICTs possess, the lack of qualified human resources, including the students and faculties competencies to use these technologies, internet infrastructure and connection capacity, LCD, computers and related software.



Background

Over the past two decades, new dynamics have emerged in higher education, that include: (i) demand; (ii) diversification of provision; (iii) changing lifelong learning needs; and (iv) **growing Communication and Information Technology (CIT) usage** and enhanced networking and social engagement, both with the economic sector and with the community at large [1].

The use of ICT is referred as an innovative and the key for increasing the number of health professionals education, specially in context of resource constrained countries like Mozambique[1,2,3].

Volvides *et al* (2014) describes the introduction of eLearning at four African medicals and one school of pharmacy (Addis Abeba University, Kilimanjaro Christian Medical University College, University of Botswana School of Medicine, University of KwaZulu-Natal), all part of the MEPI, highlighting the need for **five factors essential for successfull and sustainable implementation: institutional support; faculty engagement; student engagement; technical expertise; and infrastructure and support systems.**



Background

ICT in Medical Education in Mozambique

In 2000, the Mozambican Government approved the ICT policy with guidelines to ensure appropriate integration of Mozambique in the global information society.

Distance Learning projects were defined as priorities areas to support educational, training and research activities, including health professionals (HP) education training and HIV/Aids related programs.

Since then, ICT has been part of the referencial framework of government policies and this as influenced the referencial frameworks of institutions of higher education.

Within the MEPI investment an IT infrastructure for access to digital references, building capacity to support clinical research were made as inovative strategies for transforming external medicine residency training at Eduardo Mondlane University (Maputo) and support the establishment of pos graduate training at Lurio University, located in a geographical undeserved region in Nampula Province, Mozambique.

Mozambique's Public Medical Schools

Lurio University (UniLurio)

Faculty of Health Sciences established in 2006:

1. Graduate courses

Medicine
Pharmacy
Nutrition
Dentist
Optometry
Nursing

2. PostGraduate courses

Master in Tropical Medicine and Global Health (MTMGH) the Master in Health Professions Education (MHPE)
Master in Nutrition and Food Security (MNFS)

Zambeze University (Unizambeze)

Faculty of Health Sciences established:

1. Graduate courses

Medicine
Pharmacy
Dentist
Hospital Administration and Management

Eduardo Mondlane University (UEM) 1962/1975

Faculty of Medicine:

1. Graduate courses

Medicine

2. Pos-graduate courses

Master in Public Health
Master in Mental Health
Master in Epidemiology





A case study of UniLurio Health Science Faculty: curricular integration of ICT in Pos-graduate Training

The post-graduate programmes was started in 2013, under MEPI support, with aim to promote faculty development through scientific growth of the UniLurio's faculty, to develop their research capabilities and to retain them in this geographically underserved region.

These included the Master of Tropical Medicine and Global Health (MTMGH) the Master of Health Professions Education (MHPE) programs, with 52 students in both courses. Later, in 2015, a Master of Nutrition and Food Security (MNFS) degree was introduced, with 38 students, totalizing 90 post-graduate students.

Total students of at UniLurio Health Science Faculty: **1380 of 2587 all the University.**

An ICT infrastructure was established to provide distance education for the UniLurio Master's degree programs by co-funding the optic fiber from its original campus at Faina to the new one at Marere.

MEPI supported as well the purchase of computers, LCD and software to support eLearning activities.

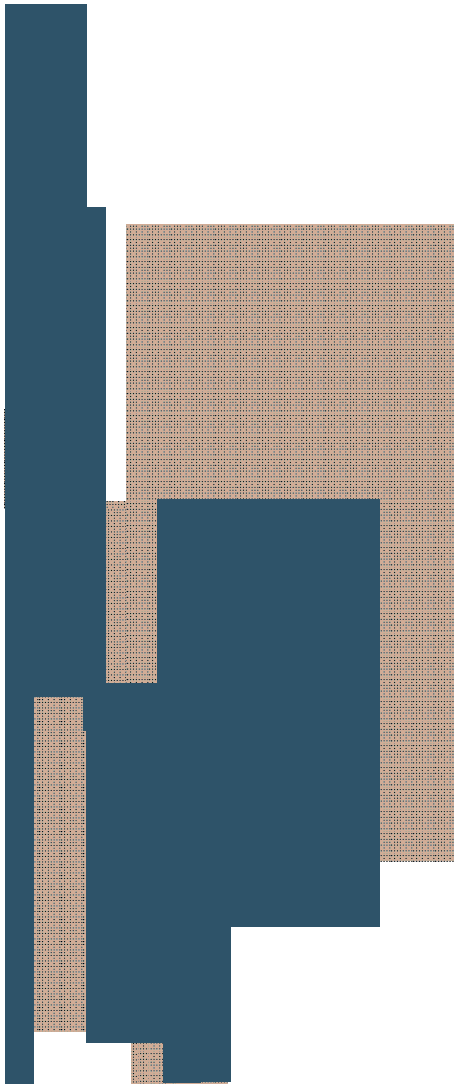




A case study of UniLurio Health Science Faculty: curricular integration of ICT in Pos-graduate Training

In the curricula were incorporated the subjects to build up student's competencies on the use of ICTs:

Course	ICT related discipline
Master of Tropical Medicine and Global Health (MTMGH)	Information sources for health, university and society Distance learning Project support seminars
Master of Health Professions Education (MHPE)	Communication Competency Distance learning
Master of Nutrition and Food Security (MNFS)	Animal origin products technology Project support seminars





Outcomes

- ▶ Internal communication has decreased since the introduction of VOIP
- ▶ The use of elearning platforms is allowing
- ▶ Several research projects for master students and faculties are been developed and mentored using the e-learning tools with support from UEM, UCSD, IHMT-UNL, Mozambique Ministry of Health
- ▶ 16 students have been granted a master degree
- ▶ At least 32 research projects have been developed and mentored using ICTs



The Challenges

- ▶ Limited internet infrastructure and connectivity
- ▶ High costs ICTs infrastructure investments,
- ▶ Limited number of highly qualified human resources with competencies to use and disseminate the use of these technologies.
- ▶ Limited skills to use the ICTs including the students and faculties
- ▶ Limited number of, LCD, computers and related software.



The way forward and conclusions

- ▶ **An** increasing investment on MHEI to enhance the informatics infrastructure , digital plataform and software for eLearning within the MEPI schools.
- ▶ Provide short training courses to students, faculties and administratives on the use of ICTs
- ▶ Expand the internet capacity
- ▶ Increase the availability of computers, LCD and softwares



MEPI

Medical Education Partnership Initiative



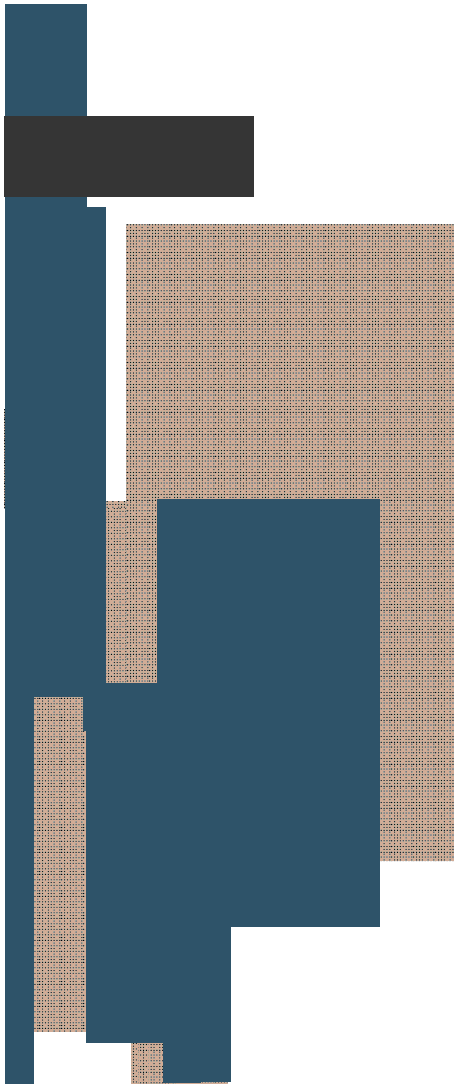
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Thank you soo much!