

Dimensions of a New Era in Health Education (Part II)

Dr. Lutz Mücke gives an insight into large-scale e-learning projects by Lecturio to support interventions in health systems.

After 31 state medical faculties in Ethiopia were equipped with dedicated tailored digital medical teaching platforms, more than 9,800 students and faculty are using the e-learning platform, the video tutorials produced with local partners in Addis Ababa, and thousands of students and educators have attended webinars, where they learn how to use the platform and integrate it into their daily routines, along with flipped classroom and blended-learning strategies.

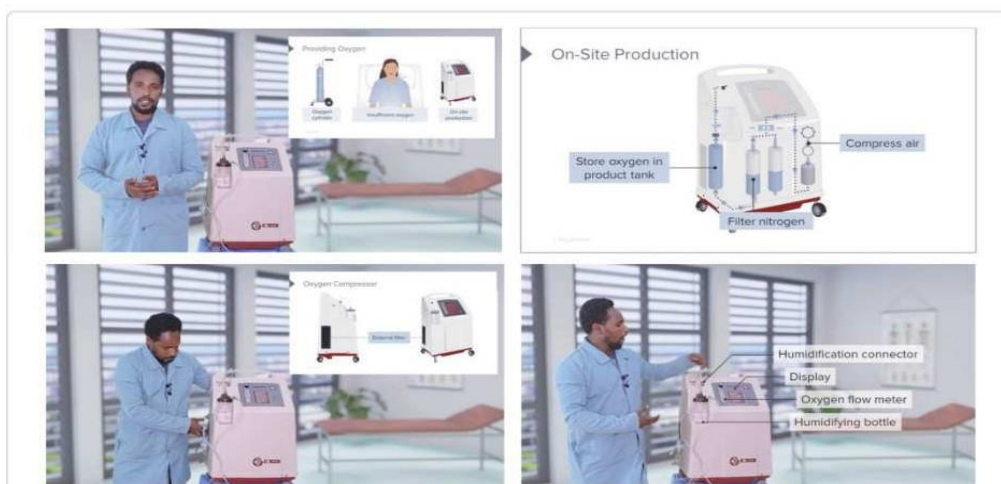
Although almost every student has a smartphone or a tablet in Ethiopia, infrastructure is still a challenge. Internet connectivity can be expensive and is not available everywhere. St. Paul's Hospital Millennium Medical College in Addis Ababa therefore provides free Wi-Fi access to its students on campus. Unfortunately, however, that doesn't help when students are, for instance in COVID-19 lockdown or summer breaks, far away in the countryside. Yet user data and personal interviews show that most students have found ways to overcome these hurdles - by using internet hotspots, cafés, libraries, or with private wifi contracts, which cost €10 or more per month, a significant sum for many Ethiopians (Mücke 2021). Therefore one important aspect for Ethiopia was that the platform's learning apps also work offline. Users can download contents beforehand and access them wherever they are, even in rural areas without internet connection.

"All over the country, Ethiopian medical students had to deal with huge disruptions in both 2020 and 2021.

Some of these difficulties are still ongoing, such as weak internet accessibility. But with this medical learning platform, many thousands of us manage to stay within the learning mode and process," says Bekele Abera, chair of the Student Council and president of medical students at Addis Ababa University at that time. The rapid uptake of Lecturio offerings by Ethiopian students also underscores the urgent need for innovative digital teaching in their medical schools. More and more, flipped classrooms and blended learning are part of the new normal in many Ethiopian universities today, says Abera. To train competent nurses, doctors, and community health workers the Lecturio platform also offers leadership, compliance and personal skills courses in addition to medical and healthcare topics. They include project management, micro- and macroeconomics, accounting, public speaking, and communication skills and contribute to developing a professional healthcare workforce.

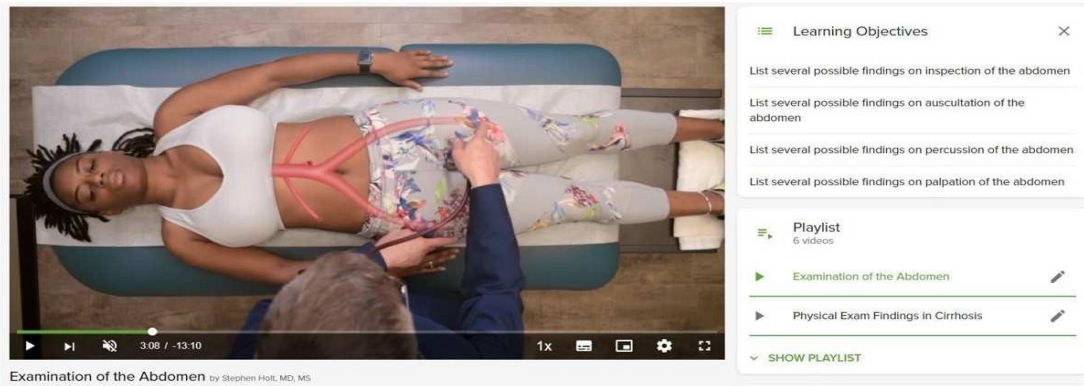
EXPANDING TO THE HEALTH EXTENSION WORKER SYSTEM

In a next step, Lecturio and the Ethiopian Federal Ministry of Health (MOH) invited the Global Fund and broadened and deepened their cooperation: They addressed healthcare capacity-building in the Health Extension Worker (HEWs) system, focusing on the digitalization of national curricula of HEWs. The project "Advancing Health Extension Worker Qualification" piloted in 2021 and was evaluated in 2022. The



Joint creation of content on the use and maintenance of equipment

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High quality videos - richly illustrated, animated and embedded in a set of functionalities

objective was digitizing pre-service training for HEWs by relying on sophisticated digital tools to enable cost-effective, flexible, and scalable delivery. In the Pilot phase, the topics identified as high-priority by MOH were developed, produced, and digitally customized. These included Immunization and Cold Chain and Health Survey and Statistics. In total, Lecturio created 25 videos on the aforementioned topics. The experts from the MOH participated in the development of the course contents, which were placed on a dedicated platform/digital academy, developed by Lecturio, underpinned by learning science and AI technologies.

During the Pilot phase, to assess the appropriateness of developed content, the usability of the platform, and the envisaged future use of the platform, Lecturio, and the MOH conducted an evaluation in three locations: Hawassa Health Science College, Shashemene Health Science College, and Samera Health Science College. Experts from the MOH performed the evaluations on two subject groups: a) pre-service HEW students and b) faculty members teaching at the colleges mentioned above. In total, more than 350 faculty and students participated in the evaluation. The evaluation was done in person and the results were overwhelmingly positive: 99% of students found the content very useful, and all students found that the developed courses covered all relevant materials and reflected the realities of their HEW work. Accessibility, flexibility in learning, and excellent user experience were key highlights mentioned by the respondents.

Faculty had equally positive feedback. All participants found that the developed courses covered all relevant materials and that the developed courses are easy to follow. The vast majority of faculty members also reported that the platform provides useful content and functionality for their teaching and all of the respondents reported wanting to have continued access to Lecturio and the developed content.

The evaluation of the pilot project led to Phase 2 of the HEW project. The MOH identified Family Health and Family Planning as other important focus areas. In addition to developing additional content for these areas, the project is now focusing on expanding the system and content to the 15 additional educational institutions providing pre-vocational training in the country. Only schools in the conflict zone can unfortunately not

participate at the moment.

ACCESSIBLE, AFFORDABLE, AND INCLUSIVE

Looking ahead, it is crucial to envision scalable national-level digital interventions that can be implemented and sustainably funded over a 5- to 10-year period. Adequate support for change management and technical capacity building must be provided to ensure the success and sustainability of such interventions. The above described nationwide capacity building interventions have proven accessible, affordable, and inclusive for learners, educators and managers. The tailored online academies provide high quality learning and teaching contents, enable digital teaching methods and deliver analytical data for decision making processes. By investing in eLearning and leveraging the potential of digital technology, especially Africa with its innovation openness can make significant strides in health science education, bridge existing gaps, and empower future healthcare professionals with the knowledge and skills they need to address the healthcare challenges and to manage their personal careers.

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