Enhancing learning experience for international students: pre-sessional tuition for online learning
Liverpool School of Tropical Medicine

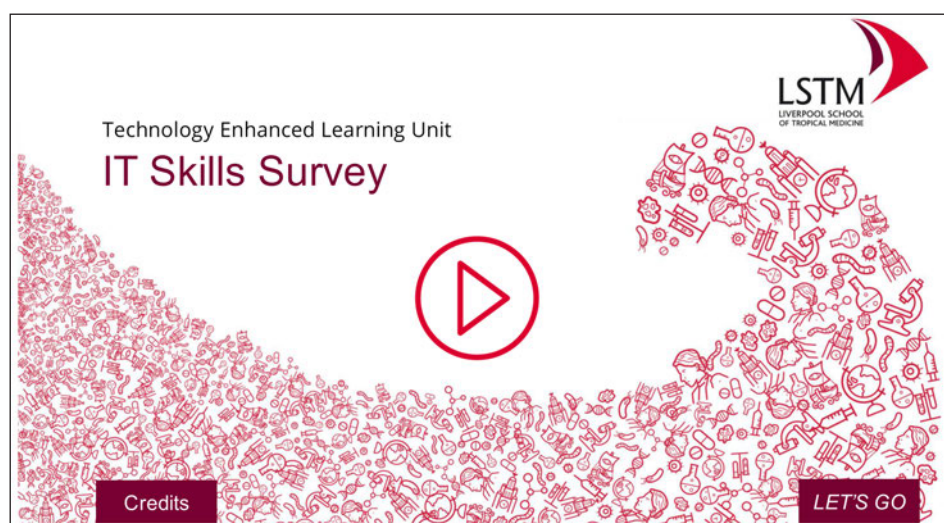## About Liverpool School of Tropical Medicine (LSTM)

LSTM's educational programme consists of four core MSc programmes in International Public Health, Humanitarian Studies, Tropical Disease Biology and Clinical Sciences. In addition we teach Professional Diplomas and Certificate Courses in Tropical Medicine and Hygiene, Tropical Nursing, Reproductive Health, Humanitarian Assistance, International Health Consultancy and Supporting Learning.

Students come from around the world. In 2014-15 LSTM welcomed 561 international students including on-campus, short course and research students. Nigeria is the largest cohort, followed by Germany then Malaysia, Norway and Saudi Arabia.

Why this project?

As an institution that has recently gained HEI status (2013), LSTM has implemented new IT and learning technologies to improve teaching and learning at the school. Although systems and technologies have been selected and designed to fit the needs of a diverse student population, of which international students make up approximately 50%, for many students learning online with mediation through computers is a new concept.

Many of our Masters and Diploma students join us from low resource settings where access to online learning is minimal. Whilst there is a great deal of support for these individuals from staff this does not address the unique challenges faced by the sector. When students arrive on campus, refreshing or further developing IT skills becomes an additional burden whilst trying to adapt to academic culture and being able to concentrate on the course itself. Students faced with these challenges have expressed concern about the impact their lack of IT skills may have on their performance. As many individuals are sponsored to attend courses by their communities, employers or family, there is often a great deal of pressure to achieve the best grades possible, and cultural differences often mean that these same students are uneasy about asking for help for fear of being identified as a failing student.

To address these issues we implemented a project to provide pre-sessional IT support and resources for students.

What did we do?

The school Student Experience Officer worked with the Enhanced Learning unit to identify the feasibility of producing a resource to help better support those students with additional IT support needs. As many of our IT systems (newly implemented since our HEI status awarded in 2013) have been designed with the international market in mind, we brought together ideas that leveraged on our ability to provide pre-arrival access to systems.

The project centres on the development of an **IT capabilities assessment tool** that provides students with a personalised selection of remedial resources with options to sign-up to face-to-face training. This tool has now been used with approximately 200 students across

our diploma programmes, providing opportunities for additional support, and collecting data that will help us to better understand the needs of our students.

The project ran from August 2015 to September 2016 with full roll out for all MSc and Diploma students. The assessment tool was created using Articulate Storyline. Supplementary learning resources were developed on a Google Document and this was embedded within Virtual Learning Environment. This was then tested with students and amended and refined.

Project Evaluation

- Analysis of responses given by students to the IT Skills capabilities assessment. This has provided a valuable granular measurement of our students' level of confidence in three areas of IT usage (general IT skills, Communication & Information, Office Tools).
- Investigation of completion rate, time taken, and time of response. This has helped us to refine the 'gameplay' of the resource (the flow of the resource which in some ways is representative of a game). By doing this we have been able to better ensure that students are guided through the resource, and leads to higher completion rates.
- Analysis of student utilization of support resources and training, helping us to plan a programme of face-to-face workshops.
- Further interviewing and surveying to explore:
  – Student prior expectation of use of technology in teaching, and areas of difficulty that we had not envisaged and factored into the assessment and support tool. This has helped provide a feedback loop through which we are able to reality check our measurements of IT skill capability and further refine the

selection of self-study resources and training workshops.
– Access to IT within student's home country and prior access to IT training. This has helped us to evaluate the tool for use in-country, with a view to recommending that students undertake the assessment prior to travel to the UK. For example, will our self-study resources be usable over the IT infrastructure to which our students commonly have access?

Challenges

The main risk to the project was around finding and utilizing the chosen platform for delivery.
We considered using our Virtual Learning Environment's (**Brightspace by D2L**) built-in quiz tool but this was not able to provide the personalised feedback and resource recommendations in the way that we would have liked. We selected Articulate Storyline which has proved to be a popular platform for interactive learning resources at other institutions. However, this required learning new software to do quite complex things which had inherent risk and could have either required external support or delayed delivery of the project.

Evolution of the project

During our early stage assessment of skill needs against our abilities to deliver on these it became apparent that we were in a better position to be able to refer students to already existent Open Educational Resources rather than to develop those resources initially ourselves. As such the focus of this project initially has been the creation of an assessment and referral tool rather than specific learning resources. However, going forward through use of this tool with real cohorts we hope to be able to produce streamlined reusable training resources tailored to the needs of our students.

In our face-to-face delivery of training we have already had experience of delivering workshops and so with the evidence provided by the assessment tool we were able to devise workshops that pulled together different activities from past workshops. We have also been prompted to devise completely new content for some aspects, for example, around the use of collaborative Office 365 documents.

As we are a small institution we can evaluate based upon the numbers of people who were recommended for

face-to-face training against those who undertook the training. From our pilot group the number of these was very small.

Sustainability

By 'front-loading' our work in the development of this reusable tool, sustainability has been designed into the resource as it is able to support a large number of students with personalised feedback, but in a sustainable way. The tool will continue to be refined, however, the assessment element of the tool can be used in its current format for a number of years. Questions will need to be updated in time in line with the types of learning activities used at the school and so need to be reviewed at a later date.

As new and improved learning resources become available that are relevant for the needs of our students we can update the list of supplementary learning resources on the Google Document. Because this is stored outside of the Storyline assessment tool, updates are easy to apply. After our initial refinement due prior to the 2016-17 academic year, there is unlikely to be a need for update until the following academic year.

Key learning points at LSTM

By undertaking the project we have been able to develop our understanding in a number of key areas:

- A clearer understanding of expectations of baseline IT skill capabilities placed on our arriving students aligned to the learning outcomes and activities of our programmes, and a more accurate assessment of the skills that our students arrive with.
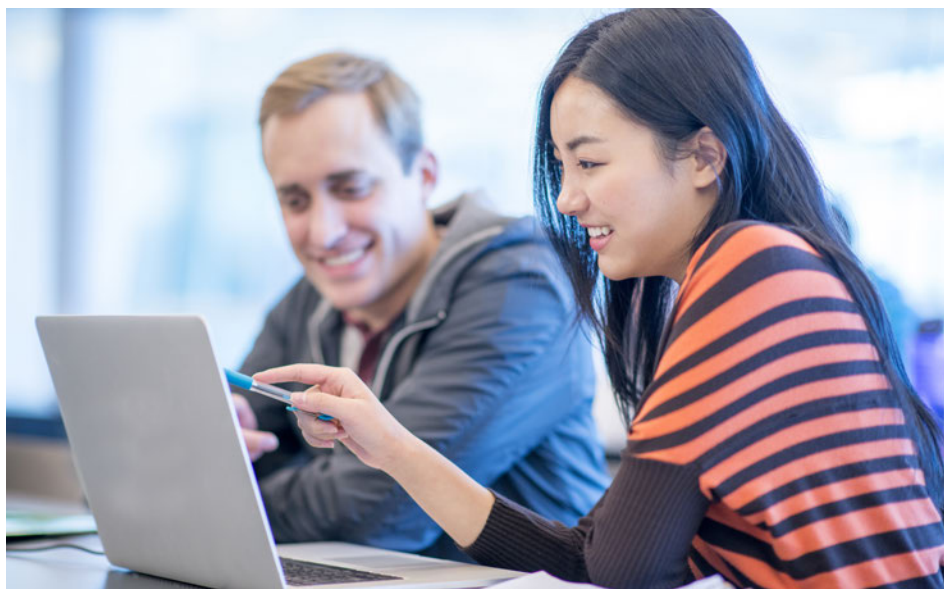
- An accurate understanding of the IT infrastructure that our international students have in home countries.
- A more complete picture of how we can better support students pre-arrival, or a more developed view of our courses as moving away from traditional on-campus towards a blended approach.

Learning points for other institutions

- In our small institution, the Student Experience Officer had good links to the Technology Enhanced Learning unit which were capitalised upon to bring the project to fruition. In bigger organisations those links may not be apparent to the support teams who are in direct contact with students, so we recommend staff reach out to teams that hold a similar support role to their own.
- When designing new systems or in scoping projects, reconsider the student journey and if possible try to remove limits imposed by the 'traditional' approaches to course management. This enables students to gain early access to resources so that this period of preparation can be fully utilised, particularly by international students.
- Think about what 'welcome' activities can be employed to facilitate the student's adjustment into academic life and lay the foundations for successful achievement of learning outcomes.

Link to resource

View a draft version of the resource: https://brightspace.lstmed.ac.uk/shared/ukcisa/story.html

This project was led by Dan Robinson, Manager, Technology Enhanced Learning Unit and Will Moindrot, Educational Technologist. Contact details at www.lstmliverpool.ac.uk