Creating quick, responsive videos to help students grasp difficult concepts in maths in Kenya

Mr Paul Kahenya is the Acting Director of the <u>Institute of Open and Distance Learning</u> at <u>Africa Nazarene University</u> in Nairobi, Kenya, and has taught at the university for 14 years. He is responsible for coordinating online learning at the university, which also involves training faculty in how to deliver online teaching and monitoring quality. He also teaches mathematics.

Covid-19 brought many challenges, particularly in how to ensure that meaningful learning took place. In response Mr Kahenya began to create a series of videos.

"I did it on my own to ensure that my mathematics students [were] trained to understand some of the concepts that they might not just understand by reading notes or a PDF that has been uploaded on to the learning management system," he says. "I feel that when I create these videos, I try to bridge the social gap between me and my students, when my students hear my voice, and see my face, they kind of create a connection, between us."

The videos are intended to respond to the specific needs and issues that his students have encountered in the course. "What we normally do is, if we meet on a virtual classroom and we realize that there is a certain concept that the students are finding challenging," he explains, "I take the next step, create a short video, five minutes to 12 minutes."

In the video he tries to explain the particular concept that the students are finding challenging. These are then followed by live chats with students.

Videos are uploaded to the universities learning management system, so they become future reference material, as well as being uploaded to YouTube or shared via WhatsApp. This enables other students who did not ask the question to benefit from that video.

Mr Kahenya believes that the videos are enhancing students' understanding and their learning outcomes.

Africa Nazarene provides an environment which is particularly encouraging of innovation, he notes. It has what he calls "protechnology leadership" that believes in empowering faculty to make greater use of digital tools. The university has embedded the use of technology in its strategy and faculty are generally positive about exploring what can be done. Collaborations and networking with other institutions have in turn fostered new ideas.

Mr Kahenya believes that they can "achieve more with less by making use of available technology, such as open-source software."

Interview conducted by Dr Augustine Mwangi, University of Nairobi.

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