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Distance Education in Palliative Care: an experience with online examinations in Sub Saharan Africa

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Abstract

Objective: To explore the feasibility of conducting online examinations in geographically dispersed countries in Sub Saharan Africa.

Method: Using Moodle Platform, 69 legible students from 11 Sub Saharan African Countries studying for the Bachelor of Science Degree in Palliative at the Institute of Hospice and Palliative Care in Africa, were administered semester one examinations through internet.

Results: 96% of the students successfully completed the examinations as scheduled and without encountering any problems. Two students experienced internet interruptions, one student could not login and another student misunderstood the time zone differences.

Conclusion

With adequate preparations, and availability of the necessary software, hardware, electricity and internet connectivity, we successfully conducted online examinations to students in 11 geographically dispersed Sub Saharan African countries.

This experience has demonstrated that, online examinations is feasible and cost effective in Sub Saharan Africa.

Key words: Palliative care, education, online, examinations

Introduction

Hospice Africa Uganda (HAU) is a Registered Charity Organization founded in 1993 by the Nobel Peace Prize Nominee, Professor Anne Merriman who was inspired by witnessing enormous pain and suffering from cancer and HIV/AIDS in Africa. Its objectives are: to provide clinical palliative care services to patients with cancer and HIV/AIDS and other life threatening conditions; to educate palliative care service providers; and to facilitate initiation and expansion of palliative care services to other African counties.

The Institute of Hospice and Palliative Care in Africa (IHPCA), the education wing of HAU, is licensed by the National Council for Higher Education in Uganda as a Degree Awarding Institution and is affiliated to Makerere University. It conducts a Bachelor of Science Degree (3 years) and Diploma in Palliative Care (1 year) by Distance Learning. Students on these Programmes are mostly Registered Nurses, Midwives, Clinical Officers and Doctors who currently come from 10 to 14 Sub Saharan Africa.

Background

Until the 2015/2016, we conducted written examinations twice a year by traditional methods at examination centres in 12 to 14 African countries where the students came from. It involved setting up examination centres in those countries, appointing local examination officers, hiring of examination venues, sending and returning hard copies of examination questions and relevant materials by couriers to these centres.

In large countries, students travelled long distances, to the examination centres and pay for accommodation for duration of the examinations.

This method of examination was quite costly.

Online examination.

Online examination is one of the most modern methodologies that has been developed with advancement of Information Technology. It has been used in developed countries for over a decade, but there is very limited experience with it in Sub Saharan Africa.

Although this evaluation technique is rapidly expanding and becoming more popular, it has advantages and challenges which have been pointed out by several researchers (1,2,3). It reduces workload and paper work and the examinations can be accessed by a large number of students anywhere in the world provided they can connect to internet. It enables students to do examinations at a place of their choice and offers easy access to students with disabilities. In the case of MCQ examinations, the results are available instantly, eliminating time spent on marking.

The challenges we anticipated with online examinations included availability of hardware and software, access to reliable internet and electricity to the students, and student IT literacy.

However, the most important challenge we anticipated was the potential for examination malpractice. These included the possibilities of the students simply coping and pasting the answers, opening another window and accessing answers through Google, getting answers from another student or having somebody else actually do the examination for them.

With the above advantages and challenges in mind, we decided try online examinations.

Objective

To explore the possibility and feasibility of conducting online examinations in widely geographically dispersed countries in Sub Saharan Africa.

Methodology

Administrative and Faculty preparation

Before conducting examinations online, we made sure that we had adequate, reliable internet and electricity supply. The faculty were trained in setting examination questions online, placing them on the platform and marking them online. Examinations questions had to be set in such a way that students could not simply copy and paste answers and the essay questions were designed to test application of knowledge, not just memory. In order to sharpen our skills in online examination, faculty visited other Institutions in Uganda that had experience with online examinations.

Student preparations

All our students were already computer literate as most of their teaching had been by e-learning but they still required special preparations which included mock online examinations. They were urged to ensure that the computers they would be using for the examinations were in good conditions and that the place they would be doing the examinations had good internet connectivity and stable electricity supply.

Conduct of examinations on line

By the date of examinations, all examination papers had been successfully put on the Moodle platform. Each course had two sets of examination papers, the second paper being a standby for emergency use in case a student was unable to do the paper at the designated time for whatever reason. Because of time zones differences between East and West Africa, examinations were started at times convenient for all students.

During the examinations the tutor in charge of that paper worked alongside the Moodle administrator to monitor each student's progress on line throughout the examination. If a student encountered difficulties, he/she was able to communicate with the administrator promptly using the messaging system on the platform, by e-mail or by telephone call.

Results:

The examinations were conducted between 28 November and 5 December 2016 in Botswana, Cameroon, Kenya, Malawi, Nigeria, Rwanda, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe. It involved all 69 students on the Distance Learning Programme at IHPCA. All but four students (96%) successfully completed the examinations as scheduled. Two students experienced internet interruptions, one student could not log in and one student misunderstood the examination starting time because of the different time zones.

All students who were not able to start or complete the papers as scheduled did the standby paper successfully the following day.

Our examination cost for that semester was significantly reduced by nearly 80%!

We were able to detect copying and pasting by different fonts in the students answers and the students involved were cautioned and had marks deducted. However, we were not able to ascertain whether other forms of malpractice took place. Specifically, we were not able to ascertain the identity of the student who did the examination or whether the student had somebody else in the room to assist him.

Fortunately, considerable research is currently underway to address this issue. Kasliwal et al (4) have reported that they have developed a tool that can monitor a student's browsing activity during online examinations which aims at detecting cheating. Omar et al (3) and Olawale (5)

have proposed new systems of improving security and authentication of students using student's biometric data such face and finger print recognition.

Conclusion

Despite numerous challenges facing internet use in Africa, we were able to successfully conduct online examinations in 11 geographically dispersed Sub Saharan African countries following adequate preparations.

The challenges we encountered were minor and we were able to resolve them promptly. However, we were unable to guarantee the authenticity of the student doing the examination and the possibility of the student obtaining assistance from another person or other sources. Current research on authentication of students using biometric data could resolve this issue.

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