

# Issues in Implementing Online Education in a Developing Country

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## INTRODUCTION

This article highlights the issues that may arise when implementing online education in a developing country. In 2005, Faculté des Sciences Infirmières (FSIL) opened in Leogane, Haiti. The mission of this school is to provide nursing professionals for the country of Haiti, especially the southern half of the country. This facility was built with funds from the United States Agency for International Development (USAID) and is managed by the l'Université Episcopale d'Haïti. The school maintains a curricular format similar to that of baccalaureate nursing programs in the U.S.

Haiti is in great need of health care professionals. In Haiti, there are 11 nurses per 100,000 population. In the U.S. this ratio is 770 per 100,000. Given that infant mortality is 10 times worse than that in the U.S. and that the lifespan is 15-20 years less, the need for qualified health care professionals is overwhelming.

Even though the income of FSIL is 1/3 what is actually needed, the school has managed to keep enrolling students and maintaining the facility. They have also managed to maintain a computer lab with 13 computers and a stable satellite Internet connection. The author visited the campus in July of 2007. The purpose of this initial visit was to evaluate the information technology structure and the capabilities of the staff and students to determine what if any connections could be made between American nursing programs and FSIL. A SWOT analysis was conducted to assess internal strengths and weaknesses for FSIL as well as external Opportunities and Threats related to using E-learning to enhance FSIL.

## BACKGROUND

Internet communication has become the essential technology for connecting learners and educators across the globe. This is important because internationally over 2

million students study abroad. Having an internationally diverse student body is important to consider because approximately 50% of students reside in countries that do not have the educational infrastructure to meet the needs of their populations (Scarafiotti & Cleveland-Innes, 2006). The need for distance education is in developing countries is critical.

Fortunately, the need for distance education in developing countries can be met with a tool with proven efficacy. In nursing education online learning has demonstrated effectiveness in enhancing critical thinking and professional socialization (Daroszewski, Kinser, & Lloyd, 2004; Nesler, Hanner, & Melburg, 2001; O'Neil, Fisher, & Newbold, 2004). In overall outcomes, the "no significant difference" phenomenon demonstrates that outcomes in the face-to-face classroom are no different than those realized in the online classroom (Vroeginday, 2005). These facts point to the very real possibility of successfully assisting developing countries by providing healthcare education through the power of online distance education (Marin, 2006).

## SWOT ANALYSIS OF A THIRD WORLD NURSING INSTITUTION

A nurse educator and e-learning consultant partnered with the Dean of Nursing at a baccalaureate nursing program in Leogane, Haiti. Together they analyzed the school's assets and liabilities to develop the following SWOT analysis.

### Strengths

Strengths revealed in the assessment lay in the willingness of the dean to pursue this relationship. Moving from a face-to-face lecture-based environment to an online environment is a challenge for any academic program. To do this in an already stressed system requires commitment on the part of all involved. Another strength is

the internal infrastructure. The computers, while three years old at the time, appeared to be well maintained as did the intranet and satellite-based Internet connection. Other strengths included the fact that the dean, administrator, and library director are all supplied with up-to-date computer equipment. The students are well-versed in navigating the internet, even though for many this is their first interaction with a computer much less the internet. Finally, students in all four years of the curriculum study both English and French. Most students are native speakers of Creole.

## **Weaknesses**

Internal weaknesses do exist. One of the most significant weaknesses is the lack of funds for repairs or software/hardware updates to the computer equipment. In most academic environments equipment that is three-years-old is cycled out of use. The age of these computers is also of concern because there is no air conditioning in the computer lab where temperatures can often exceed 90 degrees fahrenheit. Another issue is the bandwidth. While there is a high speed satellite connection, it is often sluggish when all computers are being used. Electricity can be problematic as the campus is powered during the day by a large generator. This generator also recharges a series of batteries that runs the campus and dorms at night. The city power is unpredictable but is sometimes used. Given that three (3) power sources are tapped, surges and drawls often occur which stresses the equipment as well.

Another weakness relates to the faculty. There is a significant shortage of faculty in Haiti. The dean and two other nurses are the only faculty that are native Haitians living in Haiti. The dean is the only one that is a full-time employee. With the exception of two physicians and a few visiting scholars, there are no faculty who are academically prepared to be educators by the standards described in American licensing and accreditation standards. In spite of these incredible challenges, the students are receiving an education that will prepare them for generalist practice.

## **Opportunities**

Opportunities that exist are multifaceted. The first opportunity relates directly to the last weakness, faculty. If a solid e-learning system could be put into place, qualified faculty from countries such as America and

Canada could be accessed on a regular and consistent basis. For instance, a Canadian nursing professor could teach pharmacology online for the FSIL nursing students. Another opportunity lays in the fact that as more 'Western' faculty interact with the program, there is increased exposure to the needs of Haiti. As schools begin to interact with FSIL, more students and faculty could potentially come for onsite intercultural learning experiences. The FSIL students may also benefit as they learn more about 'Western' practices and evaluate the best way to incorporate them into their own practice environments.

## **Threats**

Finally, there are external threats that may arise if FSIL connects to other schools via e-learning. One of the greatest concerns of FSIL is that as more Haitian nursing students are exposed to more Americans and Canadians, the greater the chances are that these students will leave Haiti upon graduation. This is offset somewhat by the fact that 95% of FSIL students are in the program with a scholarship that requires them to serve in Haiti for two years after graduation. Another threat is the unstable government and community infrastructure. FSIL definitely stands out in a community of abject poverty. While most violence and crime exists in large population centers, such as Port au Prince, there is still the possibility that a desperate situation could result in a criminal act that could damage the fragile infrastructure. One final threat is the lack of Creole and French language competency in many 'Western' nursing faculty. This poses a likely barrier in pursuing a teaching position with FSIL regardless of the work by the Dean and students to accommodate this barrier.

## **FUTURE TRENDS**

Based on the SWOT analysis the following recommendations are being made.

- Contact a textbook publisher to donate free e-learning courserooms (an area where the class is conducted virtually) for online education
- Train FSIL faculty and IT personnel in effective e-learning pedagogy and instructional design
- Seek donors for updated technology infrastructure components to ensure effective e-learning

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