

Example of essay on instructional technologies

[Technology](#), [Internet](#)



Instructional technologies

Computer technologies have paved the way for the adoption of new instruction approaches by nurse educators. In this paper, the use of technology in instructional delivery in a nursing education program will be explored. In addition, the hardware, software and faculty support considerations will be discussed. The technology competencies required of nursing educators will also be identified.

Technology utilization for nursing instruction at UMSON

The University of Maryland School of Nursing (UMSON) was founded in 1889. It is ranked amongst the top schools in the US. It offers bachelor and graduate level degrees in nursing. The School has a high level of technology utilization. The institution utilizes a variety of technologies. These include clinical training technologies, web-based technologies, internet collaboration tools such as emails, group emails, and threaded discussions, a virtual library that contains e-books and electronic journals, and mobile technologies. UMSON nurse educator use both synchronous and asynchronous technologies. Asynchronous technologies are used mainly for distance learning programs and are in form of archived web-based courses/tutorials and modules that students can download. These web courses use E-college and Moodle software. Distant learners are able to access course materials and their grades online at their own time. Correspondence with lecturers is via email and telephone. They can also assess their tests and assignments at these websites (University of Maryland School of Nursing, n. d.).

In the classroom environment, nurse educators design and use multimedia presentations such as PowerPoint presentations, slides, CDs/DVDs, video technology and web-based contents. Students submit their assignments via email or upload them on a specified website. Clinical training technologies used encompass low, medium, and high fidelity simulators. UMSON has 26 top notch technology clinical simulation labs. They house a wide spectrum of simulation equipment ranging from task to virtual simulators and high-fidelity simulators such as computerized human patient simulators of all ages. The labs also contain the basic inpatient hospital units including a surgical suite, adult and pediatric intensive care units, a diagnostic laboratory amongst others. These simulation labs are designed to replicate clinical settings. They provide nursing students at all levels the opportunity to learn and improve their clinical, decision making, and critical thinking skills in a controlled environment. These high-tech labs use Laerdal products such as the Laerdal SimMan, Virtual IV, Laerdal SimBaby amongst others (Laerdal, 2011). Mobile applications are used as referential sources for information on drugs, their dosages, side effects, lab values, BMI and nutrition charts, and as guides for nursing care plans during clinical rotations.

Hardware, software and faculty considerations

In setting up the distant learning BSN course in 2001, considerations were given to the use of videoconferencing. This was, however, found not to be feasible due to variances in the times distant students are available for classes. Scheduling for these classes was found to be problematic. In addition, the classrooms with the appropriate capacities for

videoconferencing are limited because they are shared with other schools. Some simulators, especially the high-fidelity simulators are expensive to purchase, install and maintain. UMSON thus joined up with the school of medicine in order to purchase these facilities. The school also continually sources for donors to help with the maintenance costs (Orlovosky, 2005). A majority of these simulators can only be used by only a few students at a time which makes scheduling problematic because the school has around 1400 students at anytime.

Software considerations encompass features like memory size since they are used by many students, compatibility of the software structure with the course contents, and interactivity features that allow student participation. Other features considered when choosing software were the computer requirements of the software. Some softwares require the use of advanced computers which may be beyond the financial reach of students. As such, the chosen software have to be affordable and accessible to all students especially distance learners (Neumann, 2006).

As far as faculty support was concerned, faculty members who are not technologically savvy have to be trained on how develop and deliver courses using web-based technologies, low-to-high fidelity simulators, and synchronous media such as video conferencing. Additionally, development of technology-based course materials is time consuming and requires a lot of commitment from faculty members. This is because nurse educators have to facilitate student participation, re-work assignment submission procedures as well as feedback mechanisms. The school has on its staff experts in

nursing informatics to help faculty members in the development of course materials (Neumann, 2006).

Nurse educator required competencies in technology

It is a prerequisite for nursing educators to be well-versed with education theories, learning styles and theories, and teaching strategies and models. To effectively blend technology into nursing education however, they are required to have knowledge of the attributes of different media, instructional designs of interactive technologies, skills in the internet tools used for instruction and skills in web technologies. In particular, they should have technical expertise in web-related programming, different kinds of softwares, audio and video technologies and other current technologies useful in teaching and learning like Web 2. 0. Web 2. 0 contains features that allow users to interact via blogs, wikis, and social networking sites (Neumann, 2006).

Conclusion

In conclusion, UMSON has a high level of technology utilization for nursing instruction. Nurse educators at the school use both synchronous and asynchronous technologies. Faculty members must have skills and knowledge in the various technologies used for teaching. A number of factors related to hardware, software and faculty support are taken into consideration as far as the use of technology in teaching is concerned.

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