

Instructional Design as a Change Agent in a School of Nursing

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INTRODUCTION

The Institute of Medicine (IOM) report, *The Future of Nursing: Leading Change, Advancing Health*, provides direction for academic administrators to require faculty to perform with cutting-edge competence in teaching (IOM, 2010). Within the directive, administrators are advised to regularly evaluate nursing programs for adaptability, flexibility, and accessibility (IOM, 2010). Hence, faculty must strive to engage learners and incorporate technology to provide

student-centered, accessible programs. In response to societal demands and trends, traditional and proprietary universities have been transitioning nursing programs and certificates to online formats. Collectively, there is a wide range of offerings that include blended/hybrid models to fully online programs where students never step foot on a campus. Of course, there are proponents and critics of both models, but the reality is that education has changed and the future place of technology in teaching and learning appears



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imminent. Nurse educators must embrace technology-infused education to thrive in academia and amply prepare students to succeed in the profession.

Moving traditional programs to online formats is a laborious process more complex than simply shifting content. The entire delivery process must be carefully contemplated to ensure a participative and multifaceted learning experience for the student. Pedagogy in nursing has been shifting away from traditional approaches and is now inclusive of gaming, use of video, social media, and virtual simulation to name a few examples. Although nursing faculty are experts in their specialty areas, many struggle with the skillset required to independently implement these new methods and migrate their courses to the fullest potential. The knowledge, skills and experience of an instructional designer is pivotal to the process. Subsequently, more schools of nursing have added instructional designers to their departments.

BACKGROUND

As Locatis (2007) stated, the penchant for science and health care, including nursing, is not to stifle the advances of technology but to embrace it. Some of the most innovative educational technology applications have been in health care. Amazingly, some of the earliest uses of technology in education were developed in the 1960s with the development of databases and educational simulations (Locatis, 2007). Some of the earliest applications of educational and clinical interaction were through interactive television and telemedicine. Historically, the health professions have been leaders to adopt innovative technologies and pedagogies.

WHAT IS INSTRUCTIONAL DESIGN?

According to Kanuka (2005), in the simplest sense, instructional design is the process of translating general principles of

learning and instruction into plans for instructional materials and learning activities. According to Reiser (2012),

the field of instructional design and technology (also known as instructional technology) encompasses analysis of learning and performance problems, and the design, development, implementation, evaluation and management of instructional and noninstructional processes and resources intended to improve learning and performance in a variety of settings, particularly educational institutions and the workplace. (p. 5)

Instructional design has become a necessity in both industrial and educational settings, supporting the creation of training and educational excellence in a variety of modalities. Gustafson and Branch (2007) stated instructional design is a systematic process that is employed to develop education and training programs in a consistent and reliable fashion. The origins of instructional design are difficult to pinpoint; however, the instructional design process traces back to the 1960s with use in higher education (Barson, 1967).

Most of the early instructional design models were based on behaviorism, broadly described as a way to measure the study of human behavior (Burton, Moore, & Magliaro, 1996). Behaviorism is commonly associated with Skinner and his stimulus-response theory, but most of the early work in instructional design was theoretical and philosophical. Later, cognitive psychologists such as Gagne, Wager, Golas, and Keller made major contributions to instructional design development. Instructional designers believed the use of systematic design procedures made instruction more effective and efficient.

Instructional design is firmly rooted in a learner-centered approach where the learners are the focal point of all of the instructional activities. Projects are always goal oriented and often the instructional

designer will act as the “project manager.” Throughout the process, the focus circles back to the assessments and opportunity to collect data for systematic improvement. Instructional design requires the skill set of a team of people ranging from the instructional designer, who may be working with individual faculty, or to an extensive team of people who can offer various skills. Examples of these skills include graphic design, flash development, and curriculum design.

WHAT IS AN INSTRUCTIONAL DESIGNER?

An instructional designer is primarily a team member who works with faculty or subject matter experts (SME) to apply a systematic methodology based on instructional theory to create content for learning events. Many nursing faculty members have limited training or experience with curriculum development, course development, and blended and distance learning. Faculty, in general, are employed for their content expertise but many lack pedagogical knowledge. According to Shulman (1987), a dichotomy often exists between teachers’ subject matter knowledge and teachers’ knowledge of pedagogy. Unfortunately, a common fallacy is that any subject expert can teach. In the midst of a nurse educator shortage, schools of nursing are being forced to hire inexperienced faculty. While some individuals may claim to “wing it” successfully, individuals with a background in education tend to employ teaching methods and educational practices that are intentionally and thoughtfully designed. As an attempt to rectify the lack of educational preparation of nurse faculty, nurse education certificate programs have emerged.

According to Bates (2005), departments without instructional design experts will lead to a deficit in facilitation of effective e-learning, which will ultimately lead to failure. With the adoption of a wide range of

technologies and social software available (i.e., learning management systems, video-conferencing, social bookmarking, and virtual realities), academics will benefit from consultation with instructional designers to ensure the technologies and design formats they choose meet course objectives.

The expert instructional designer must have skills to work with faculty who are stressed and are venturing into the area of blended and online delivery modalities. Instructional designers should be extremely sensitive, have excellent interpersonal skills, and be able to negotiate with coworkers who typically have tight deadlines. The instructional designer needs to become part of the culture and have sensitivity to the beliefs and practices of the faculty and institution (Crawford, 2004).

THE ROLE OF AN INSTRUCTIONAL DESIGNER IN A COLLEGE OF NURSING

Nursing faculty educate students daily utilizing technology to improve patient care. Nursing students must be trained to be adept and proficient with technology to function in the health care system. Nurse faculty are accustomed to having to learn how to use technology on the fly due to the nature of the healthcare environment. However, nurse faculty are often not up to speed on the latest educational technologies. The instructional designer may serve as a resource person for faculty to teach and spread knowledge of current academic technology. The role of the instructional designer is to support faculty and administration to deliver the highest quality educational experience to students and to look continually for improvement.

Most universities are organized into faculties of independent units or schools and the faculty are seen as the central players with the highest status. According to Campbell, Schwier, and Kenny (2009), the instructional designer is typically employed by a service department and

viewed as support staff. Many instructional designers possess advanced degrees including doctoral degrees, but because of their perceived status they may feel closed out of the larger community. "However, because instructional designers are often considered 'instructional support' there is an important disconnect between their perceived responsibility and their perceived authority to influence change on a meaningful scale" (Campbell et al., 2009, p. 648).

The role of an instructional designer in any university department can vary and Campbell et al. (2009) suggest that instructional designers see the importance of working in teams. An instructional designer will be the project leader working to build relationships and occasionally work on conflict resolution. The main focus for the instructional designer is to continually look for ways to impact student achievement in both preparation and program delivery. Examples presented in Table 1 demonstrate the variability and multiple skill sets an instructional designer could contribute.

NATIONAL DIRECTIVES IN EDUCATION RELATED TO NURSING PROGRAMS

Colleges of nursing offer various programs ranging from ADN programs, diploma programs, traditional BSN programs, BSN Accelerated Option programs, master's in nurse anesthesia, family nurse practitioner, acute care and adult nurse practitioner, doctor of nursing practice, doctor of philosophy, and online certificate and post-master's certificate programs. Many of these programs are based on the guidelines of professional organizations and accrediting bodies that require inclusion of particular elements within the curricula. The instructional designer must be aware of these driving forces.

One set of highly valued guidelines influencing curricula are developed by the

American Association of Colleges of Nursing (AACN). The AACN Essentials of Baccalaureate Education for Professional Nursing Practice (2008), the AACN Essentials of Master's Education in Nursing (2011), and the AACN Essentials of Doctoral Education for Advanced Nursing Practice (2006) all require that nursing students be prepared to use technology. Essential IV of the AACN (2006) Essentials of Doctoral Education for Advanced Nursing Practice regarding Information Systems/Technology and Patient Care Technology for the Improvement and Transformation of Health Care states:

Graduates are distinguished by their abilities to use information systems/technology to support and improve patient care and healthcare systems, and provide leadership within healthcare systems and/or academic settings.... Graduates must also be proficient in the use of information systems/technology resources to implement quality improvement initiatives and support practice and administrative decision making. (pp. 12-13)

Teaching students with technology prepares them to embrace technology.

The American Nurses Association endorses the integration of nursing science, computer science, and information science "to manage, communicate, and expand the data, information, knowledge, and wisdom of nursing practice" (2008, para. 1). Quality and Safety Education for Nurses (QSEN) proposes nursing students' knowledge, skills, and attitudes be developed specifically in six competencies including the area of informatics (QSEN, 2012). There is evidence to suggest that nursing, in general, has adopted and absorbed the use of technology. This acceptance of technology has spilled over into the teaching and learning environment. The implication of this change is that nurse educators, who are skilled at teaching in a lecture format or apprentice-type form of teaching, have had to become

TABLE 1

Project	Role	Duties
Nurse education certificate program (Figure 1)	Project manager/ instructional designer	Work with SMEs and administrators to design and develop the program using an appropriate instructional design model. Build all content into the learning management system and design and create all graphical content and multimedia. Support faculty and evaluate the program.
Preimmersion Orientation for accelerated BSN students (Figure 2)	Project manager/ instructional designer/ contact liaison	Initiate the original concept using an appropriate ID model and conduct focus groups with students and faculty. Collaborate with the associate dean to choose a suitable text for the orientation. Design the orientation in the learning management system and work with the SMEs to load content. Liaise with the office of student services to get the course out to entering students and support students during the delivery period. Evaluate the orientation.
Video preparation to familiarize student nurse anesthetists with equipment, processes and general environment of anesthesia practice (Figure 3)	Project manager/ instructional designer/ videographer	Video faculty demonstrating correct usage and technique of foundational equipment used in the anesthesia process. Edit video and upload to a format that was placed into the school's learning management system. Place video vignettes using an adaptive release technique requiring students to work through a series of units answering questions to demonstrate mastery.
Student mentorship program (Figure 4)	Project manager/ instructional designer	Develop a 10-week mentorship program in collaboration with the project leader. Research and find multimedia and load into the LMS. Work with the students and faculty mentors to familiarize them with the delivery and recording systems. Evaluate the program.
Psychiatric mental health certificate (Figure 5)	Project manager/ instructional designer/ videographer	Use an appropriate ID model; liaise with the lead SME to design the model of delivery. Lead a team of SME's to provide content for four separate subject areas. Design all graphics and shoot video footage for all case studies.
Multimedia development (Figure 6)	Instructional designer and media developer	Work with faculty to create learning objects for courses using various software such as Raptivity, Camtasia, Captivate, iMovie, Photoshop, Dreamweaver, Snagit, etc.
Faculty workshops (Figure 7)	Trainer	Develop and deliver a series of workshops for faculty to improve their skills in the field of academic technology.
Clinical central (Figure 8)	Project manager/ resource manager	Develop a resource center for students and faculty to retrieve all paperwork for clinical rotation sites.

versed in teaching with technology. Subsequently, the role of the instructional designer has become integral to support

and foster the nurse faculty's growth of course design, administration, and technological skills.

Unit 1: Orientation to Online Learning



Unit 2: History of Nursing Education



Figure 1. Nurse Education Certificate Program.



Figure 2. Pre-Immersion Orientation for Accelerated BSN Students.



Figure 3. Video preparation to familiarize student nurse anesthetists with equipment, processes, and general environment of anesthesia practice.



Figure 4. Student Mentorship Program.

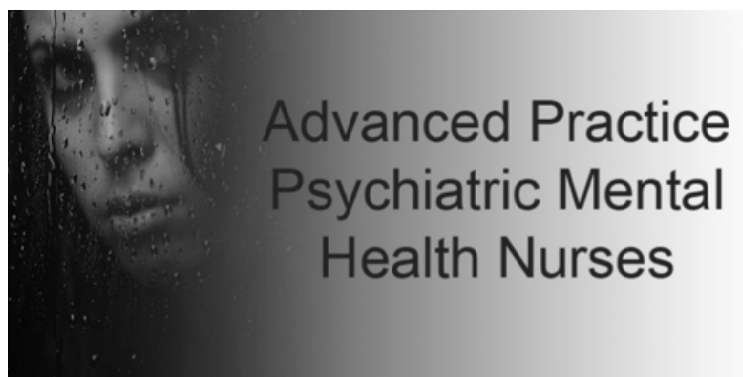


Figure 5. Psychiatric Mental Health Certificate.

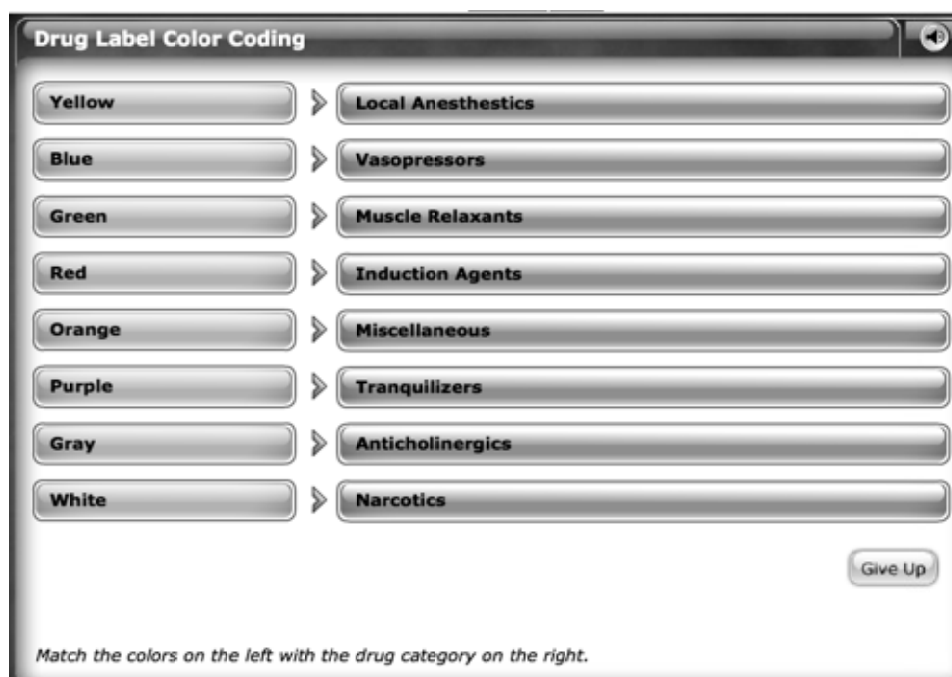


Figure 6. Multimedia development.



Figure 7. Faculty workshops.



Figure 8. Clinical Central.

INTERDISCIPLINARY APPROACH

The IOM Future of Nursing report recommends nurse educators embrace an interdisciplinary approach (IOM, 2010). Similarly, QSEN has proposed Teamwork & Collaboration as a competency that must be emphasized in prelicensure nursing programs (QSEN, 2012). To attend to trends in healthcare and information, nurse administrators must promote group process, teamwork, and collaboration amongst faculty of various disciplines. Not only should schools of nursing collaborate within the health professions, the interdisciplinary approach should include faculty of information technology, computer science, and informatics to address the AACN directives and current state of health care. Although this approach may counter tradition, the potential benefit of having diverse field experts educate nursing students presents breadth and depth to promote transformative education.

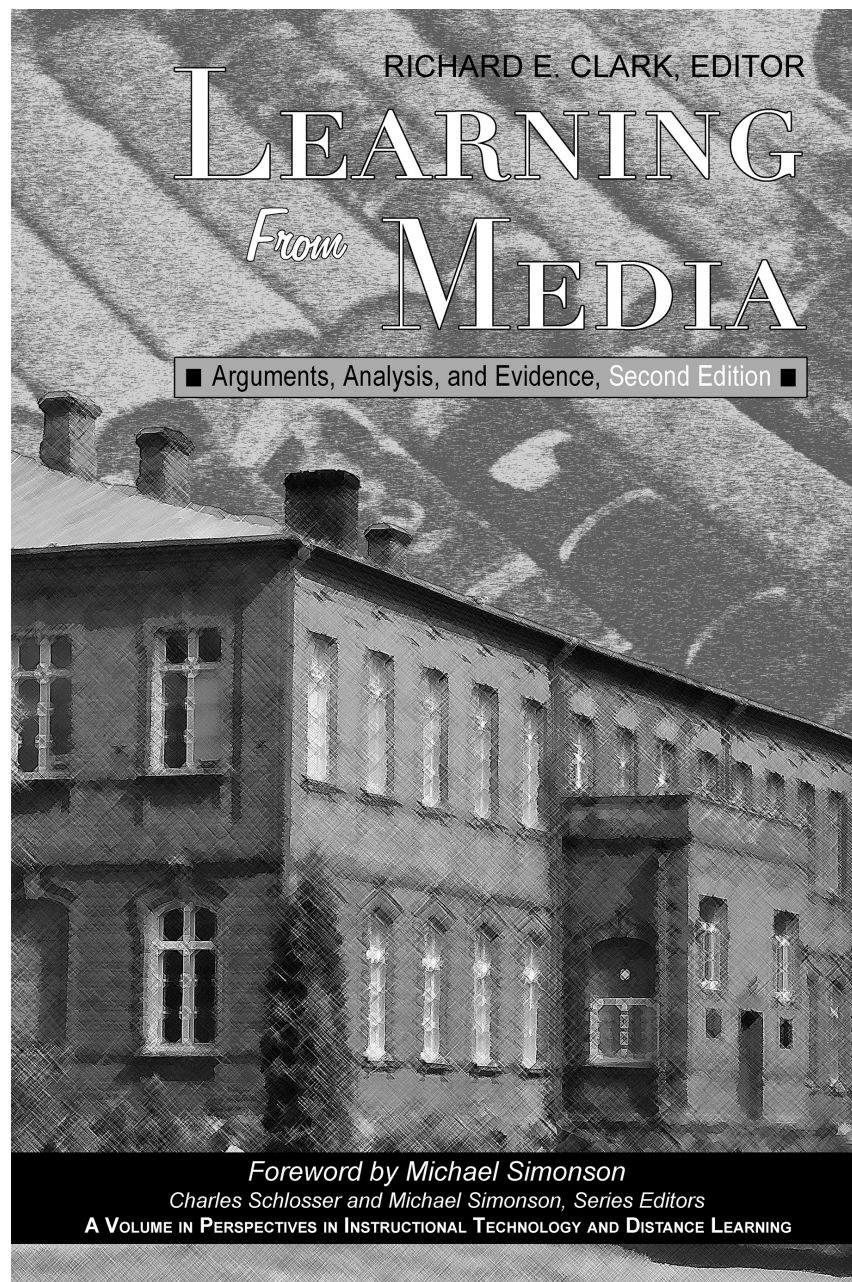
CONCLUSION

The field of nurse education is more complex and challenging than ever. Nurse administrators and faculty stand to benefit from a sound understanding of the role of an instructional designer to maximize educational effectiveness. By bringing an instructional designer onto the team, nurse faculty will be able to appropriately apply educational technology and innovation. Embracing a multidisciplinary approach, including faculty from the world of instructional design, will only propel and expand educational opportunities and potential breakthroughs.

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