

# Creating Simulation Communities of Practice: *An International Perspective*

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HIGH LEVELS OF INTEREST IN USING SIMULATION IN NURSING EDUCATION HIGHLIGHT THE NEED TO ADDRESS FACULTY DEVELOPMENT. In April 2007, the National League for Nursing (NLN) announced a new three-year grant aimed at faculty development in the use of simulation as a teaching/learning strategy to promote and evaluate learning in nursing students. This grant, given by Laerdal Medical, has funded the creation of SIRC, the virtual Simulation Innovation and Resource Center (<http://sirc.nln.org/>) by a team including nine experts in nursing education and simulation from the United States. Reflective of global interest in simulation technology, the team also includes eight international educators from seven countries: Australia, Canada, Chile, Japan, Norway, Scotland, and two from China.

- *The SIRC features innovative web-based courses that deliver content about simulation through video clips of simulation scenarios and interactive activities. Course content includes instruction on designing and implementing simulation experiences; using simulation as a formative or summative evaluation of students' progress; integrating concepts critical to an academic program's curriculum into simulation experiences; and conducting research in the use of simulation. Educators using this web-based resource can engage in dialogue with experts and peers; access a directory of simulation researchers and a comprehensive bibliography of articles related to simulation; and keep abreast of world news about simulation and pertinent conferences.*
- As members of a global society and profession, nurse educators have many questions and needs that cross national boundaries. Anyone who has participated in multisite research or projects is aware of the challenges of working without the advantage of geographic proximity. HOWEVER, THE CREATION OF THE SIRC IS TIMELY AND IMPORTANT TO EDUCATORS INTERNATIONALLY. Ultimately, the SIRC will be beneficial to nursing students throughout the world.
- This article is a product of the shared perspectives of the project leaders and the international participants. By sharing the challenges and barriers to working on a multisite, collaborative, international project with US experts, two technology teams, the NLN, and a large corporate vendor, the authors hope to benefit future nursing educational endeavors. The development of the SIRC was challenging, and the participants learned many lessons. The significance of the work, the process, the challenges and barriers, and the benefits, rewards, and outcomes of the work are described in the following sections.

**ABSTRACT** A three-year National League for Nursing grant aimed at faculty development in the use of simulation as a teaching-learning strategy to promote and evaluate student learning outcomes was funded in 2007 by the Laerdal Medical Corporation. The focus of the faculty development project was the creation of nine web-based courses written by nine United States authors with the assistance of eight contributing partners from seven different countries. The process is described from the view of the international participants who worked together with the US experts. The significance of the work, the process, the challenges and barriers, and the benefits and rewards of the work are described. Recommendations for working on a multisite, international collaborative project are also discussed.

**Significance of the Collaborative Project** Nursing curricula and programs for nurses in practice demonstrate similarities around the world. Communication and travel in the 21st century have made it imperative for the international nursing community to share concerns and solutions to address the nursing educational challenges that all countries face. Demand for high quality health care exists around the world. In fact, this demand has increased worldwide because people are better informed through the Internet and other media.

Economic levels have also improved in many countries, and patients and families are demanding better medical and nursing care. Meeting these demands requires educators to alter learning experiences so that graduates are prepared to deliver safe and effective patient-centered care employing evidence-based practice. The use of simulation in nursing education has demonstrated the ability to assist nursing students in analyzing data, making clinical decisions, and solving problems, and it has also provided opportunities for nursing students to reflect on their practice (Tanner, 2006). Even in developing countries, the use of simulation as a teaching strategy can significantly help prepare competent health care professionals.

Currently, shorter hospital stays, complex disease processes, and staffing shortages exist not just in developed countries, but also in developing countries, affecting the quality of care delivered. At the same time, increased enrollments in schools of nursing create increased demands for clinical experiences and, often, less access to adequate clinical placements for students in number and/or quality. For instance, some hospitals do not allow nursing students to do invasive interventions out of concern that patients will be harmed. Simulation experiences offer clinical practice opportunities that may not be readily available in clinical settings: the death of a patient; the sudden change in condition of a patient who has a Do Not Resuscitate order; or an accident victim who needs to be rescued and treated with neck and back immobilization to prevent injury or death.

Patient safety is a universal concern for nurses and all health care professionals. Likewise, national governments are responsible for the health and safety of their citizens. In October 2004, the World Health Organization launched the World Alliance for Patient Safety in response to a World Health Assembly Resolution urging WHO and member states to pay the closest possible attention to the problem of patient safety (WHO, 2004). The Commonwealth Fund report (McCarthy & Staton, 2005) stated that the use of simulation assists in resolving the patient safety issue while promoting student learning. The international collaboration in the SIRC project contributes to patient safety internationally.

Nursing professionals can be better prepared to manage disaster situations through the use of simulations within laboratory settings, hospitals, or in mock field disaster sites with interdisciplinary groups such as the military, police, firefighters, paramedics, and physicians. During the past decades, the world has seen many natural and man-made disasters, including hurricanes, floods, earth-

quakes, fires, and terrorism. Disasters follow no rules. No one can predict the complexity, time, or location of the catastrophe. Simulation experiences create situations for health care providers to develop their abilities to respond to disasters. These simulations mimic reality and can be creatively engineered. Preparation is not a one-time occurrence but must be repeated frequently in order for medical responders to be most effective in disaster situations. The use of simulations of varying types has shown that simulations can greatly improve the competence of students before they have clinical experiences and can maintain the competence of nurses already in practice.

This collaborative work adds to the science of nursing education and the improvement of nursing practice in the acquisition and maintenance of high-quality care through tools to increase knowledge and skills for nurses and health professionals worldwide. Simulation can be used universally as a response to the demand to improve health care. The international collaboration on this project reflects continued growth and improvement in professional education and practice.

**The Process of Collaboration** During the preplanning phase of the project, a call for national simulation educational experts was issued by the NLN. The content of the online courses was also determined and included common topics of interest to faculty as they design, implement, and evaluate simulation experiences. It was decided that the US experts would be primarily responsible for developing the core content of the nine courses. The applicants, 159 in number, ranked their interest and their expertise in the course areas as part of the application process. At this time, in consideration of the range of world communities who access web-based educational materials, a commitment was made to incorporate international perspectives into the future course content and website. Laerdal Medical was instrumental in identifying global project partners based on their experiences and interactions with schools worldwide where interest in simulation was strong.

Phase I work was initiated during a three-day working retreat in Connecticut in June 2007. Nine US educators/authors, eight educators from other countries, representatives from Laerdal Medical, and production experts were oriented to the goals of the project by the administrative team. The initial project goals were to create a model of online education for the design, development, and evaluation of simulation scenarios; develop and test a simulation innovation and resource center where educators could access content, research, protocols, and exemplars surrounding the use of simulation in undergraduate and graduate education of nurses; and develop and test cost-effective interactive and competency-based web courses to prepare educators to use simulation in their teaching and learning environments.

The nine US simulation experts were each assigned to one of the nine courses, and individual work time was used for the drafting of preliminary course content. The administrative team met with the international educators to determine the direction the group would

take during the first phase of the project. It was decided that the role of the international educators was to provide global content to the courses by seeking input from all international members and educators in their countries. Each international project member was assigned to collate the contributions of the international project members significant to a course or courses and send them electronically to the US author(s). At the end of the retreat, the first draft of each course was presented, suggestions for revisions and clarification were offered, and each international participant was tasked with staying connected with her American author as the work was consolidated over the ensuing months.

During the months immediately following the retreat, the courses, in their preproduction status, were posted as Google documents for review by the entire team. Other educators, experienced in specific course content areas, were invited to complete an external review, supplementing the peer review of the modules by the team of simulation authors. Using all content revision suggestions, the US authors finalized the content in their respective courses and turned their focus to the enrichment of the courses with interactive activities, video clips of simulation scenarios, tools for evaluating simulation experiences, and other resources for educators.

After external and internal review, a three-day video shoot was conducted to incorporate culturally sound videos and images to focus the modules on particular teaching points. The project team then met for the second time in San Jose, California. This was an exciting time, as the SIRC was launched on the NLN website and the first three courses were made available for purchase by educators around the world. The project team worked together on plans for Phase 2 of the project and on further developing courses and resources for educators globally.

**Challenges and Barriers** At the first meeting of all parties involved with the project, the level of involvement and scope of input the international experts might offer were yet to be determined. As details of the project unfolded and the international members became familiar with each other and the US team, different models of contribution were debated and analyzed. The international group agreed on a model of providing collective input into the content of each course and the overall website. Consensus was reached among group members to review each of the nine courses, and then provide input via a delegated international member to the respective US

author. It was decided that this approach, discussed and agreed upon by the project leaders, would offer greater opportunity for input from all group members regardless of cultural background or first language. The challenges and barriers of working through the project are discussed here. Recommendations for working with an international, multisite group are presented in the [Sidebar](#).

**RIGOROUS TIME FRAME** One particular challenge related to this approach was the shortened time frame for course development. The initial three-year time frame for project development changed to seven months for final comments on all content. The large workload in reviewing all courses and offering feedback in a timely fashion challenged all international participants. Varying levels of sophistication and experience with simulation methodologies also influenced the range of feedback that could be offered. One member of the team appeared to drop out of email communication; thus, feedback related to this assigned course was delayed.

**CHANGING ROLES AND WORK COMMITMENTS** Changing work commitments and significant life events affected feedback capability within the stipulated time frame for the international partners. Two participants were currently enrolled in PhD courses in addition to working their full-time positions. Two members of the international team held dean positions in their countries. Changes of roles, responsibilities, and life events created a challenge for the writing and reviewing deadlines.

**DIFFERENT TIME ZONES, UNIVERSITY SCHEDULES, AND CULTURAL EXPECTATIONS** Differing university schedules across Northern and Southern Hemispheres had a small but noticeable influence on capacity to work on the project. While some group members had university breaks following the initial meeting, others continued with work commitments through to the end of the calendar year. When the international contributors had reviewed the courses and returned comments to the delegated international member, there was initially limited communication from the US authors and development team because of the rigor of the production schedule, including final programming and edits. Hence, it was difficult for the international participants to know if content had been changed in the reviewing process or if any other contributions were needed. Because of the short time frame for external review and for author edits based on the reviews, the international group did not have an opportunity to conduct a second review of the course content before production started.

**Sidebar. Nursing Recommendations  
When Working on a Multisite  
International Collaborative Project**

- Communicate often and with clarity to all project participants.
- Provide time for discussion among all participants to ensure that all individual perspectives are heard.

- When roles/responsibilities are assigned, ensure that all understand their roles, and clarify, if necessary.
- Make sure individuals receive feedback about their positive contributions to the project.
- For a large, longitudinal, multiphase project, summarize where the project is on a

consistent basis (e.g., every month), to keep participants informed, motivated, and committed.

- Demonstrate consideration of all participants, who come with varying backgrounds, expertise, language barriers, and cultures.

**NEED FOR CLEAR ROLES AND EXPECTATIONS** Clearer role definitions, responsibilities, and lines of communication across groups could have helped maintain a greater sense of connectedness to the project. With a diverse group of international participants, with different degrees of competence in English as a second language, contributions of the international participants varied in the courses. Strategies for dealing with similar issues going forward were discussed at the second face-to-face group meeting.

**Rewards, Benefits, and Outcomes from a Collaborative International Project** International members brought individual perspectives and richness to the course development. Fortunately, the international group shared a similar vision of the contributions they could make to the course development and were comfortable sharing their views with the larger group. The rewards and benefits are described.

**A DIVERSE PERSPECTIVE FOR FACULTY DEVELOPMENT IN SIMULATIONS** The international collaboration provided another set of lenses to view professional development in simulation-based education. The unique lived experiences from countries as far as Australia and Chile enhanced the context of the courses. For example, as scopes of practice of nursing varied in different locales, each international member could contribute insights into how simulation could be integrated into levels of curricula.

**DEVELOPMENT OF A COMMUNITY OF INTERNATIONAL FACULTY** The international members formed their own community of simulation practice and have maintained communication linkages via the Internet. In addition, the US authors have sought out international members to join research and literature review teams. This has enhanced knowledge of the integration of simulation-based education globally, and connections have been made across countries. For example, a project director (US) worked with another expert (Chile) to initiate the first interdisciplinary simulation conference in Santiago, Chile, during August 2008. International/US collaborations are just beginning to develop and will expand and grow in richness.

**OPPORTUNITIES TO WORK COLLABORATIVELY ON A GLOBAL PROJECT** The opportunity to work on a multisite, global project does not happen often because of the time and money involved. This project not only provided the opportunity, but also allowed interaction with nursing education institutions beyond the individual contacts. Obtaining funding for a development opportunity such as this is not possible for most nursing programs. The participants in this project have learned and benefited from resources that might not be available to them in their respective countries.

**Summary** Faculty development is an integral part of the ongoing professional development of nurse educators around the world. The use of simulation in nursing education has increased rapidly in recent years, particularly with the availability of high-fidelity simulators. Research indicating the potential of simulation to promote increased learning and better preparation of stu-

dents and staff for clinical interventions is another important factor. This project, the second of the NLN/Laerdal Grants, focuses on faculty development for educators using simulation in nursing education. The effort includes the development of the SIRC, a rich resource for those interested in simulation, including web-based courses for educators wanting to learn how to develop simulation scenarios and implement them in their teaching. Nurse educators from Australia, Canada, Chile, China, Japan, Norway, and Scotland are involved with US nurse educators in this project to ensure an international perspective for the courses. All of the participants are experienced in the use of various types of simulation in teaching.

The challenges and benefits of a project involving many cultures and languages, along with various pedagogies influenced by cultural norms, are addressed. The significance of these interactions in developing a common framework for the community of nursing education around the world is apparent. The richness of this project, demonstrating a professional/business partnership with multinationals, will benefit the nursing community worldwide and improve the quality of health care for all.

The approach described here is one model involving eight international participants, nine US authors, and numerous project team members across the world, working together to develop a global project that includes the SIRC and web-based modules for the development of nurse educators wishing to effectively use simulation. Many lessons were learned, and the experience and the opportunities for the participants have been rewarding. Contributing, it is hoped, a value-added benefit to the project.

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**Key Words** Multisite Research – Nursing Education – Simulation Technology – International Collaboration – Web-Based Courses

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## Resource CENTER

### NLN PUBLICATIONS ON DIVERSITY

Among several new books recently published by the NLN is *Asian American Voices: Engaging, Empowering, Enabling*, edited by Dr. Lin Zhan, the first in a series designed to promote diversity in nursing and nursing education. *African American Voices* and *Hispanic Voices* are due later this year. The NLN also offers *The Soul of Leadership: Journeys in Leadership and Achievement with Distinguished African American Nurses* by Dr. Hattie Bessent. Visit the Marketplace on the NLN homepage [www.nln.org](http://www.nln.org).

### NEW RESOURCES

#### Nursing Research Grant

The American Nurses Foundation, through the Nursing Research Grants Program, provides funds for all areas of nursing to beginner and experienced nurse researchers. The deadline for submissions is May 1. Visit [www.anfonline.org/](http://www.anfonline.org/) for details and an application.

#### Career for a Lifetime

The National Student Nurses' Association has a new DVD, produced with the support of the National Council of State Boards of Nursing. "Nursing: The Career for a Lifetime" is a 12-minute program showcasing the

career paths of nurse leaders and new nurses, highlighting the benefits of continuing education. Visit [www.nсна.org/career/ultimate\\_adventure.asp](http://www.nсна.org/career/ultimate_adventure.asp) to view the video and order copies.

#### Family Teaching Toolbox

This toolbox is a series of illustrated guides, originally published in *Advances in Neonatal Care*, that helps parents care for a newborn. Each article highlights a different topic most often addressed by NICU nurses. Visit the website of the National Association of Neonatal Nurses at [www.nann.org](http://www.nann.org) for details.

### ON THE WEB

<http://ahrq.hhs.gov/>

#### Healthcare Research and Quality

The website of the Agency for Healthcare Research and Quality's National Resource Center for Health Information Technology is updated weekly. The site provides information on electronic health record implementation, telehealth, and emerging lessons from AHRQ-funded research projects.

[www.StressedOutNurses.com](http://www.StressedOutNurses.com)

#### HCP Pro Inc.

This site provides students and nurses with a forum to share study tips, bedside best practices, and answers to clinical questions. Stress relief is provided through activities such as games, polls, and contests.

