

15.4.6: Recipients of Sabbatical Leave shall be required, during the first semester of their return, to submit a written report in electronic form outlining their experiences and achievements in keeping with the purposes for which the leave was granted.

Sabbatical Leave Reports will be posted to the Provost web page.

Return Report: Sabbatical Leave

1. **Name of Professor:** Kathy Berchem, DNP(c), MSN, RN, APRN
2. **Department:** Nursing
3. **Time Frame of the Sabbatical Leave:** AY 2013-2014
4. **Title of Sabbatical Leave Proposal:** *Preparing Nurse Faculty to Educate with High-Fidelity Simulation: The Simulation Faculty Development Program at Lake Superior State University*
5. **Sabbatical Leave Proposal:**

Executive Summary

My application for sabbatical for the AY 2013-2014 is based on my desire to pursue advanced education in my professional field. I have been accepted to RUSH University in Chicago, IL for their Doctorate of Nursing Practice program (Systems Leadership track) to begin January 2013. This advanced education opportunity will provide me with the tools to engage in a higher level of quality instruction for the students at LSSU. As this is a clinical doctorate that builds upon my clinical Masters from MSU, I am requesting that I be considered for sabbatical so that I may meet the clinical hours required by this program during fall 2013 to spring 2014.

Project Description

1. Introduction

Successfully integrating a complex new technology into a nursing curriculum that is steeped in decades of tradition and history requires a solid foundation of evidence-based reasoning. Nursing faculty and students will be faced with an evolving method of teaching and learning that will challenge them to think outside of traditional methods. The success of this learning will be greatly influenced by variable aspects that I hope to address in this doctorate program.

2. Background

The use of simulation to augment nursing education has evolved into a critical element to the School of Nursing's ability to achieve its mission of graduating outstanding students who are ready and able to provide professional nursing services using theory and evidence based practice. The use of mechanical simulators provides a safe and interactive environment that simulates a variety of clinical situations that are not readily available in rural settings such as Sault Sainte Marie, Michigan.

The use of such technology requires its' integration into both our curriculum as well as into the teaching and learning methods of both our nursing faculty and students. I am a member of the Simulation Team from the School of Nursing who is partnering with War Memorial Hospital in the creation of a freestanding Simulation Education Center. This Center would be the foundation to the School of Nursing's vision to be a Center of Excellence in Nursing Education for the region.

The School of Nursing currently has one human simulator in its Skills Lab. I have integrated this simulator into case studies and application for NURS 212 Health Appraisal, the first course for nursing students when they are admitted to our program. Through this simulation experience, students are able to learn clinical skills in a safe environment, while also experiencing situations that they would otherwise not encounter.

While working through integration and application of this technology to the students learning, I realized how crucial the PROCESS of technology integration is to the learning success of both the students AND the faculty. This process will be the focus of my research proposal for my doctorate program.

3. Outcome

Having a positive influence on the quality of instruction for LSSU is a paramount outcome of this proposal. By earning my doctorate, I will work through a project that addresses three issues:

- a. The need for research addressing simulation integration into curriculums for both faculty and students.
- b. The needs of the School of Nursing to have in place a simulation integration plan.
- c. The need of our accrediting organization, the National League of Nursing (NLN), to have doctorate prepared nurses directing and teaching our curriculum.

4. Timeline

I will be beginning this doctorate program January 2013 and be taking classes through December 2014. My capstone research project will be defended November 2014 after which I plan on successfully completing this program and earning my Doctorate of Nursing Practice.

The goal for beginning utilization of our Simulation Education Center is fall of 2013. Development of my clinical research project will be directly linked to the beginning and execution of operations at this center, as faculty will be integrating simulation into our curriculum to ensure success.

6. Narrative of Sabbatical Leave:

During my sabbatical leave for the AY 2013/2014, my work was focused on the development of a nursing faculty simulation development program. My coursework at RUSH university built a foundation for the development of this program which began its initial stage of implementation in summer 2013 and continues to be active.

The theoretical framework, by which this education process has been constructed, is Pat Benner's Novice to Expert construct. Benner (1984) organized nurse's skill learning into 5

definable stages through which each nurse must pass to develop the highest levels of competency. Differentiation among the levels is determined by the nurse's experience and theoretical knowledge (Waxman et al, 2009). Application of Benner's concepts served as the guiding framework for the training program.

The following outlines the Nurse Faculty Simulation Development Program's Objectives and Outcomes.

Project Objectives and Outcomes

- **Objective #1:** Knowledge acquisition in nursing faculty who participate in the nurse faculty simulation-training program.
- **Outcome Indicator:** dependent t-test. Multiple-choice quiz (pre-training and post-training) testing knowledge of simulation concepts.
Outcome: 80% of nursing faculty will demonstrate knowledge acquisition in the use of high-fidelity simulation across the curriculum as measured by minimum *target:* 20% increase on post-test grades. This score on the testing indicates a higher level of knowledge simulation teaching concepts.
- **Objective #2:** Increase in self-confidence of nursing faculty in the use and integration of high-fidelity simulation education across the curriculum.
- **Outcome Indicator:** Learner evaluation utilizing NLN's "Student Satisfaction and Self-Confidence in Learning" tool (5-point scale) (NLN, 2005).
Outcome: 80% of nursing faculty will demonstrate an increase in self-confidence in the use of high-fidelity simulation across the curriculum as measured by *target:* minimum average score of 52 out of a possible 66. This minimum target score translates to the faculty choosing 'AGREE' or 'STRONGLY AGREE' to positively phrased questions regarding their satisfaction and self-confidence in learning about simulation.
- **Objective #3:** Evaluate and revise the nursing faculty training program to ensure it delivers the necessary content for effective integration of high-fidelity simulation across the curriculum.
- **Outcome Indicator:** Learner evaluation utilizing NLN's "Simulation Design Scale" tool (5-point scale) (NLN, 2005).
Outcome: 80% of faculty will rate the program as effective based on measurement of program satisfaction scores as measured by *target:* minimum average score of 80 out of a possible 100 points. This minimum target average demonstrates that faculty has rated the simulation education design highly as they have chosen to 'AGREE' or 'STRONGLY AGREE' to the positively phrased evaluation questions.
- **Objective #4:** Evaluate and revise the program based upon student outcome rating effectiveness to ensure faculty effectiveness in applying program concepts at 1, 6, and 12-month intervals.
- **Outcome Indicator:** Learner evaluation utilizing NLN's "Educational Practices Questionnaire (Student Version)" tool (5-point scale) (NLN, 2005).
Outcome: 80% of students will rate the program as effective based on measurement of program satisfaction scores as measured by *target:* minimum average score of 64 out of a possible 80 points. This minimum target average demonstrates that students have rated the educational practices of the faculty highly as they have chosen to 'AGREE' or 'STRONGLY AGREE' to the positively phrased evaluation questions.

The following timeline summarizes the process by which this faculty development plan is being executed.

Benner's Level	Activity	Timeline	Info
	<ul style="list-style-type: none"> Faculty Needs Survey 	Spring 2014	<ul style="list-style-type: none"> Eleven out of thirteen faculty members (84%) completed the survey 80% of faculty chose either 'agree' or 'strongly' agree when questioned about insufficient education/training being a barrier to their use of high-fidelity simulation
Level 1: Novice	<ul style="list-style-type: none"> Basic Training <ul style="list-style-type: none"> Laerdal: simulator manikin 	Summer 2013 and ongoing	<ul style="list-style-type: none"> All nursing faculty underwent simulator manikin training
	<ul style="list-style-type: none"> Faculty Sim Ed Program <ul style="list-style-type: none"> Modules Development day 	July 2014 <ul style="list-style-type: none"> NLN modules 	<ul style="list-style-type: none"> Faculty view NLN simulation modules independently prior to Dev't Day. Modules purchased with funding from Title III grant from LSSU
		August 18 th <ul style="list-style-type: none"> Nursing Faculty Simulation Development Day 	<ul style="list-style-type: none"> Faculty take pre-test via Survey Monkey Simulation education including a mentored simulation with debriefing Faculty take post-test online (on-site) Faculty complete NLN Development Day evaluation surveys on-site via Survey Monkey
		Fall 2014	<ul style="list-style-type: none"> Analysis of data: <ul style="list-style-type: none"> Pre and Post test scores for faculty knowledge gain NLN development day program evaluations
Level 2: Advanced Beginner	<ul style="list-style-type: none"> Faculty Sim Ed Program <ul style="list-style-type: none"> Process Planning Active Sim development Mentored simulation 	2014-2015	<ul style="list-style-type: none"> Faculty continue to implement concepts and skills from Development day and NLN Modules into student simulation events. Sim Educator participates in a mentored simulation with faculty during this year.
Level 3: Competent	<ul style="list-style-type: none"> 4 semesters of Sim teaching <ul style="list-style-type: none"> Reassessment 	Fall 2014 – Fall 2016	<ul style="list-style-type: none"> Reassessment of nursing faculty simulation knowledge with use of DASH evaluation tool

Please Return to the Office of the Provost

	each year by Sim Educator		<ul style="list-style-type: none"> Yearly Nursing Faculty Simulation Development day
Level 4: Proficient	<ul style="list-style-type: none"> Peer mentorship 	Fall 2016 onward	
Level 5: Expert	<ul style="list-style-type: none"> Simulation research 	Fall 2016 onward	

This timeline demonstrates the ongoing nature of the Nursing Faculty Development program which will continue to be improved via evaluation data and implemented yearly for any new nursing faculty. Please also see attached Development Day curriculum for detailed content and resources.

In this fall 2014 semester, I am continuing my work on integration of high-fidelity simulation and faculty education in the nursing curriculum at LSSU. My goals include:

1. Assess current use of Simulation at LSSU SON for:
 - a. Use of objectives and distribution of content
 - i. Develop curriculum simulation plan
 - b. Preparation method of students
 - i. Consider adoption of standardized method
2. Evaluation
 - a. Student evaluation of each simulation
 - b. Student evaluation of debriefing sessions
 - c. Faculty evaluation of debriefing sessions
 - d. Faculty evaluation of simulation event
3. Develop clinical faculty simulation program for implementation for Spring 2015
4. Begin work on creating a program for Continuing Education (CE) modules

This process of the creation of a Nursing Faculty Development program is one component of my sabbatical leave and a critical element to my successful completion of my Doctorate in Nursing Practice at Rush University in Chicago, IL. This sabbatical leave enabled me to complete the clinical hours required as part of the doctorate program, as well as travel to Chicago, IL for on-site education and clinical weeks.

In addition to this, the sabbatical leave provided me the opportunity to build upon my role at LSSU in enhancing the Simulation program as an integral component of the education of nursing students by the School of Nursing. Establishing a nursing faculty simulation education program is essential to ensuring that the nursing curriculum is implemented by nursing faculty educating with evidence-based standards on best practice. The doctorate program at Rush University has given me the tools to build a sustainable education program, while at the same time enhancing my current teaching practice.

Nursing Faculty Simulation Development Day

Learner Objectives	Content Outline	Time Frame	Didactic Activity	Resources
<p>1. Examine the evidence base for use of simulation</p>	<p>I. Effectiveness as teaching-learning strategy.</p> <ul style="list-style-type: none"> • Knowledge • Skill performance • Learner satisfaction • Critical thinking • Self-confidence <p>II. Learning Process</p> <p>III. Standards of Practice</p> <ul style="list-style-type: none"> • Standard I: Terminology • Standard II: Professional Integrity of Participant(s) • Standard III: Participant Objectives • Standard IV: Facilitation • Standard V: Facilitator • Standard VI: The Debriefing Process • Standard VII: Participant Evaluation and Assessment 	<p>45 min</p>	<ul style="list-style-type: none"> • Pre-Test for all Nursing Faculty • PowerPoint lecture and handouts 	<ul style="list-style-type: none"> • Kirkman, T.R. (2013). High fidelity simulation effectiveness in nursing students' transfer of learning. <i>International Journal of Nursing Education</i> <i>Scholarship:10(1): 1-6</i> • Issenberg, S. B., McGaghie, W.C., Petrusa, E.R., Gordon, D.L., & Scalese, R.J. (2005). Features and uses of high-fidelity medical simulations that lead to effective learning: a BEME systematic review. <i>Medical Teacher</i> <i>27(1): 10-28</i> • Standards of Best Practice: Simulation (INASCL), Clinical Simulation in Nursing Vol 9(6S), June 2013
<p>2. Examine the roles of different participants in simulation</p>	<p>I. Roles of participants in simulation planning, implementation, and evaluation</p> <ul style="list-style-type: none"> • Student • Instructor • Director of Simulation Education • Lead Simulation Specialist • Simulation Technician • Standardized Participant (SP) 	<p>30 min</p>	<ul style="list-style-type: none"> • PowerPoint lecture and handouts • Simulation video 	<ul style="list-style-type: none"> • NLN Module: <ul style="list-style-type: none"> o Teaching and Learning Strategies • SP: videos comparing simple and complex scenarios in 'Designing & Developing Simulations' module – under 'Cues During Simulation – family cues'

<p>3. Describe the differences between low-, medium-, and high-fidelity simulations</p>	<p>I. Range of simulation learning</p> <ul style="list-style-type: none"> ● Fidelity <ul style="list-style-type: none"> ○ Low ○ Medium (Mid) ○ High ● Types of learning experiences 	<p>30 min</p>	<ul style="list-style-type: none"> ● PowerPoint lecture and handouts 	<ul style="list-style-type: none"> ● Simulation video
<p>4. Describe the process of developing and implementing a simulation</p>	<p>I. Simulation Design</p> <ul style="list-style-type: none"> ● Utilization of Simulation <ul style="list-style-type: none"> ○ Course enhancement ○ Remediation ○ Clinical replacement ● Objectives ● Fidelity & Realism ● Simulation Scheduling ● DocuCare and Simulation ● Evaluation ● Debriefing: DASH 	<p>2 hours</p>	<ul style="list-style-type: none"> ● PowerPoint lecture and handouts ● Discussion 	<ul style="list-style-type: none"> ● NLN Modules: <ul style="list-style-type: none"> ○ Designing and Developing Simulations ○ Debriefing and Guided Reflection <p>Simulation Template with Instructions for Faculty</p>
<p>5. Collaboratively design, implement, and evaluate a mentored high-fidelity simulation event</p>	<p>I. Faculty-centered Simulation Immersive Learning</p> <ul style="list-style-type: none"> ● Scheduling ● Design ● Implementation ● Debriefing ● Evaluation 	<p>2 hours</p>	<ul style="list-style-type: none"> ● Simulation of the scheduling, design, implementation, and evaluation of a high-fidelity simulation event ● Collaboration with Sim Educator in high-fidelity simulation design and implementation ● Post-Test for all Nursing Faculty 	<ul style="list-style-type: none"> ● NLN Case Study: Complex Scenario <ul style="list-style-type: none"> ○ The First 5 Minutes ○ Faculty Debriefing mentoring