

The Online Course Combo:

Robotic Tele-presence Simulation, E-Simulation,
and Video Simulation with QM Seasoning



Kathleen Huun PhD RN

Why???

Evidence-based practice:

“Simulation replicates key aspects of a clinical situation to facilitate student learning . . . to promote critical thinking and self-efficacy” (Richardson, Goldsamt, Simmons, Gilmartin, & Jeffries, 2014, p.309).

Web-based simulation has inherent benefits that are above and beyond those of a traditional simulation notably repeatability, accessibility, feasibility, and “allows integration of multiple ways of learning” (Cant & Cooper, 2014, p. 1440).

Directive from NLN Vision (2012):

Priority need for research in nursing education to study “the use and cost effectiveness of technologies (e.g., online, simulation, tele-health) to expand capacity in nursing education” (NLN , 2012, p. 3).

Objectives

Learning Objective 1: Assess the worthiness of an e-simulation program for inclusion in a QM certified/aligned course.

Learning Objective 2: Identify ways to integrate various simulation entities to an online course to enhance student success without adding to faculty workload.

Learning Objective 3: Identify the necessary elements of a simulation modality to ensure continuity in a sequence of courses.

Rationale: Use of e-Simulation, Video-simulation, and Tele-presence simulation

Safe Environment: Do No Harm

“Simulation is recognized for its ability to provide an **authentic but safe practice field** for novice learners to gain competence with risky procedures or high stress patient care situations” (Dunnington, 2014, p. 16).

Deliberate Practice

“a systematic, recursive approach to developing mastery of the representative tasks of a domain” (Chee, 2014, p. 250).

“Through deliberate practice students gain expertise in psychomotor skills and the ability to integrate them, alongside affective and cognitive knowledge, into clinical practice” (Chee, 2014, p. 251).

Rationale: Use of e-Simulation, Video-simulation, and Tele-presence simulation

Repeatability

“In simulation, the scenario can be repeated and the consequence undone” (Dunnington, 2014, p. 20).

Debriefing and/or Feedback

“Educators must assure that mis-educative perceptions from simulations are acknowledged and stand corrected to safeguard against errors or departures of fidelity from becoming real errors applied to patient care” (Dunnington, 2014, p.21).

What Time?

1. Synchronous: tele-presence simulation
2. Asynchronous: e-simulations, video simulation

synchronous



asynchronous



Advantages and Disadvantages of e-Simulation

Table 1

Advantages and disadvantages of e-simulation for learning^a.

Advantages of e-simulation	<ul style="list-style-type: none"> Interactive, stimulating and enjoyable for learners Single-user or team interaction Provide realistic or real-world scenarios Enable controlled and predictable outcomes Promote trial-and-error learning in a risk-free setting Reduce face-to-face time and teaching resources Provide the basis for further discussion Controlled access (through passwords) with feedback Wide availability
Disadvantages of e-simulation	<ul style="list-style-type: none"> Can be expensive and time-consuming to build Often context and discipline specific May require extensive technical skills Potential for loss in speed through network traffic Vulnerable to security issues

^a Extracted from Virtual Situated Learning Environments: Developing e-Simulations: module plan 002. Deakin University, Melbourne, (2013, [p.4]) and from Byrne et al. (2010).

ACCENTUATE THE POSITIVE

- Interactive and stimulating for learners
- Single-user or multiple-user interaction
- Essence of real-life scenarios
- Enable controlled and structured outcomes
- Enable trial and error learning
- Provide a risk-free setting
- Less expenditure of teaching resources
- Provide a foundation for continued exploration
- Secure access
- Feedback through prompts or debriefing
- Wide availability
- Ease of use
- Ability to align with course content
- Cost effective
- Time flexibility (asynchronous components)

ELIMINATE THE NEGATIVE

- Network and connection issues
- Scheduled maintenance

The Eight General Quality Matters (QM) Standards

QM is “a set of standards based upon current literature, best practices, and national standards for course design. These standards can be used as a framework to design, revise and improve online and hybrid courses” (Valencia College, 2015).

STANDARD		EXPLANATION OF STANDARD
1	Course Overview and Introduction	“The overall design of the course is made clear to the student at the beginning of the course.”
2	Learning Objectives (Competencies)	“Learning objectives are measurable and are clearly stated.”
3	Assessment and Measurement	“Assessment strategies are designed to evaluate the student progress by reference to stated learning objectives, to measure the effectiveness of student learning; and to be integral to the learning process.”
4	Instructional Materials	“Instructional materials are sufficiently comprehensive to achieve stated course objectives and learning outcomes.”
5	Learner Interaction and Engagement	“Forms of interaction incorporated in the course motivate students and promote learning.”
6	Course Technology	“Course navigation and technology support student engagement and ensure access to course components.”
7	Learner Support	“The course facilitates student access to institutional support services essential to student success.”
8	Accessibility	“The course demonstrates a commitment to accessibility for all students.”

(Cheyney University, 2015)

ACCESSIBILITY: DISCIPLINE SPECIFIC

Essential Abilities

In concert with the *Indiana State University Mission Statement* and *Nurse Faculty Philosophy*, the following Essential Abilities Policy has been developed. The nursing faculty reserves the right to determine eligibility of all students applying to the nursing program according to the guidelines set forth by *The Americans with Disability Act* and the U.S. Department of Labor. The nursing faculty has specified essential ability requirements and standards critical to insure success in all Indiana State University nursing programs.

<http://www.indstate.edu/health/sites/health.indstate.edu/files/bn-essential-abilities-policy.pdf>

ESSENTIAL ABILITIES

The nursing faculty reserves the right to determine eligibility of all students applying to the nursing program according to the guidelines set forth by *The Americans with Disability Act* and the U.S. Department of Labor. The nurse faculty has specified essential ability requirements and standards critical to insure success in all Indiana State University nursing programs.

- **Essential Communication and Interpersonal Skills**—Demonstrates ability to read, write and speak Standard American English intelligibly in order to competently convey information, perform evaluations, educate others, and interact with health team members.
- **Essential Neurological and Sensory Functions**—Demonstrates ability to use the senses of sight, hearing, touch, and smell in order to observe, listen, understand, and make decisions regarding patient conditions.
Visual requirements include reading computer screens, see objects 20 feet away, recognize depths and use peripheral vision. Visually monitor patients, chart and machine indicator lights in low lighted areas.
Hearing requirements include ability to hear alarms, emergency signals, normal speaking levels, and auscultatory sounds for basic assessments.
Tactile requirements include the ability to feel vibrations such as a pulse, distinguish temperature changes, utilize fine motor skills in order to pick up objects, and write with a pen.
- **Essential Physical Mobility**—Ability to move independently and to walk and stand for extensive periods of time. Ability to lift averaging between 10-50 pounds such items as supplies, medical equipment, medications, charts, as well as lifting, and maneuvering patients.
- **Intellectual and Conceptual Skills**—Ability to measure, calculate, analyze, synthesize, and evaluate to engage competently in the safe practice of nursing.
- **Essential Emotional and Behavioral Skills**—Ability to mentally focus attention to tasks, monitor own emotions, cope with the unexpected, collaborate and function as part of a team, use appropriate communication styles in reaction to types of behaviors exhibited to safely engage in the practice of nursing.

Quality Matters General Standards Topics: Course Design adapted for Component Design

General Standard Course Design		General Standard Component Design
Course Overview and Introduction	➡	Product/Component Introduction
Learning Objectives/Competencies	➡	Simulation Learning Objectives/Competencies
Assessment and Measurement	➡	Assessment and Measurement
Instructional Materials	➡	Content Aligns with Course Module Materials
Course Activity and Learner Interaction	➡	Learner Interaction via Simulation Modality
Course Technology	➡	Technology Requirements to “RUN” Simulation Modality
Learner Support	➡	Learner Support (built in product or otherwise available)
Accessibility and Usability	➡	Accessibility (within constraints of physical performance requirements for nursing students). Ease of Use.

Simulation: Replacement or Complimentary

1. e-Simulation

a) Health Assessment and Communication

Compliment to clinical hours

b) Skills and Procedures

Compliment to clinical hours and
Replacement of clinical hours

2. Video simulation

Replacement of clinical hours

3. Tele-presence simulation

Replacement of clinical hours



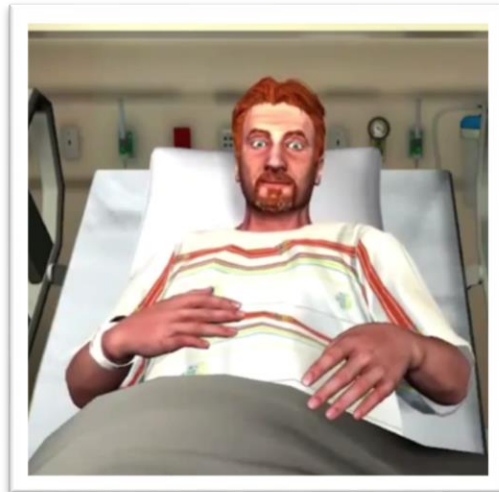
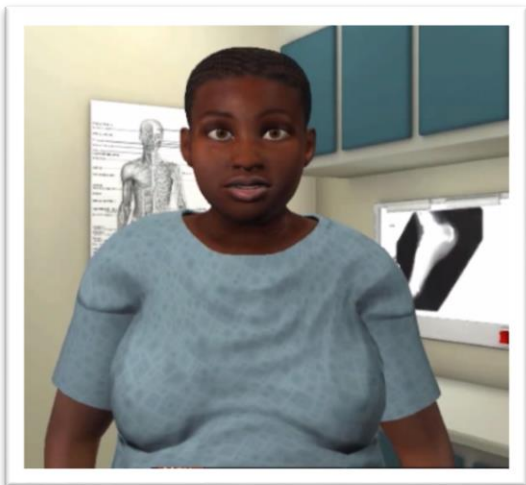
e-Simulation: Assessment and Communication

Nursing Care of Adults II: **Head-to-toe assessment** and communication

1. Avatar, 28 year-old female
2. Responds to questions and treatment
3. Allows for **repetition**
4. Immediate **feedback** (preceptor prompts and model responses)

Nursing Care of Adults III: **Focused assessment** and communication

1. Avatars, 58 year-old male and 78 year-old female
2. Respond to questions and treatment
3. Allows for **repetition**
4. Immediate **feedback** (preceptor prompts and model responses)



QM General Standards: e-Simulation, Health Assessment and Communication

The screenshot displays a digital clinical experience interface. On the left, a 3D avatar of a patient is shown with a 'Turn On Penlight' button. A 'Penlight' overlay provides instructions for 'Objective Data Reporting', stating: 'After conducting each test and tool, report what you observe.' and listing steps: 'Select "No visible abnormal findings (PERRL)" in the Objective Data tab.' and 'Click Next.' Below the avatar is a chat window with a question mark icon and the text 'hello Tina' and 'Hey.'. At the bottom, there is an 'Ask a question' input field and buttons for 'Ask', 'Educate', 'Empathize', 'Instructions', and 'Submit'. On the right, the 'Electronic Health Record' for 'Tina Jones' is shown, with tabs for 'Patient Chart', 'Notes', 'Vitals', and 'Objective Data'. The 'Objective Data' tab is active, showing 'Inspected pupils' with a dropdown arrow and 'Observations with penlight' with a list of options: 'No visible abnormal findings (PERRL)', 'Unequal', 'Irregular', 'Miosis', 'Mydriasis', and 'Non-reactive to light'. Below this is a 'Percussed chest wall' button.

Digital Clinical Experience Orientation

<https://shadowhealth.com/>

The screenshot shows the 'Conversation Concept Lab' interface. At the top left is a 'Table of Contents' menu. The main heading is 'Substances'. Below it, instructions state: 'Type questions to Ms. Adler to:' followed by a numbered list: '1. Determine what substances - if any - Rachel might have experienced.' and '2. Follow up to gather data about timeline, frequency, patient attitude, and other details.' Below the list, it says: 'When you have covered as many topics as you can think of, click "Continue" to get feedback.' A 3D avatar of a woman is shown sitting on a chair. At the bottom, there is an 'Ask a question' input field with a microphone icon and buttons for 'Ask', 'Educate', 'Empathize', and 'Submit'. Navigation buttons for 'Back' and 'Continue' are also present.

Hardware and Performance



To conduct each simulated patient exam, you will need a computer and a reliable internet connection. To ensure a smooth experience, perform these two tasks before every assignment:

1. If you use a laptop computer, plug in your power adapter.
2. Close any other browser tabs, windows, and programs you are not actively using.

To continue:


Click **Next**.

QM General Standards: e-Simulation, Health Assessment and Communication

Table of Contents

Quantifying Question Practice

Choose the **quantifying** question:



Good choice. This is a quantifying question, because it begins with "when" and asks the patient to provide specific numerical detail.

Do you wake up feeling rested?

When do you go to bed? ✓

Can you tell me about your sleep habits?

(Try selecting other options to see additional feedback.)

Back

Student Name	Status	DCE Score	SPI National Avg. (80%)	Subj. Data	Obj. Data	Info. Proc.	Edu. & Emp.	Time (Exam)	Time (Post-Exam)	Time (Total)	Proficiency Level	Thresh.
	Completed Apr-01-2016 Turned In	N/A	71.3%	56.7%	92.1%	N/A	N/A	41 min	13 min	54 min	Beginning	N/A
	Completed Apr-03-2016 Turned In	N/A	83.0%	86.7%	77.8%	N/A	N/A	64 min	1 min	65 min	Developing	N/A
	Completed Apr-01-2016 Turned In	N/A	77.8%	66.7%	93.7%	N/A	N/A	41 min	2 min	43 min	Beginning	N/A
	Completed Mar-30-2016 Turned In	N/A	66.0%	56.7%	79.4%	N/A	N/A	51 min	3 min	54 min	Beginning	N/A
	Completed Mar-28-2016 Turned In	N/A	65.4%	53.3%	82.6%	N/A	N/A	89 min	3 min	92 min	Beginning	N/A
	Completed Apr-2016 Turned In	N/A	74.8%	70.0%	81.8%	N/A	N/A	139 min	12 min	151 min	Beginning	N/A
	Completed Apr-2016 Turned In	N/A	7.8%	13.3%	0.0%	N/A	N/A	1 min	1 min	2 min	Beginning	N/A
	Completed Apr-2016 Turned In	N/A	75.8%	73.3%	79.4%	N/A	N/A	108 min	17 min	125 min	Beginning	N/A
	Completed Apr-2016 Turned In	N/A	51.6%	26.7%	87.3%	N/A	N/A	53 min	16 min	69 min	Beginning	N/A

Lab Pass - Certificate of Completion

Student: _____

Assignment: Focused Exam: Chest Pain (clinical assignment #1)

Course: Nursing 424 Care of the Adult III - January 2016

Institution: Indiana State University

Completed On: 19 Jan 2016, 02:51 AM EST

Performance Summary

Time (Exam)	135 min
Time (Post-Exam)	4 min
Time (Total)	139 min
Subjective Data Collection	95.5% (21 of 22)
Objective Data Collection	100.0% (15.0 of 15)
Clinical Reasoning Overall Score	97.3% (36.0 of 37)

Feedback and Results

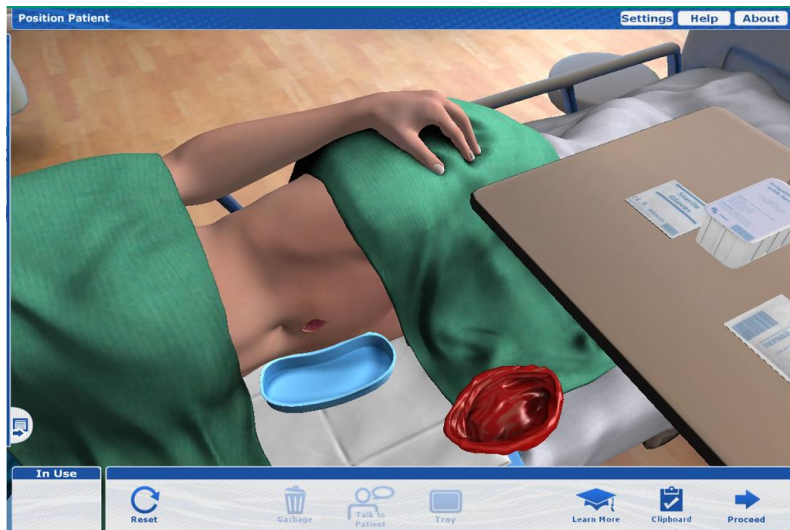
QM General Standards: e-Simulation, Health Assessment and Communication

General Standard Component Design (e-simulation: Assessment and Communication)	Within Product Design	Faculty Time/Resources
Product/Component Introduction	Introductory video and Communication Concept Lab	
Simulation Learning Objectives/Competencies	Basic	Align with course objectives (minimal time)
Assessment and Measurement	Provides DCE scores	Set benchmarks for scoring (minimal time)
Content Aligns with Course Module Materials	Physical assessment	Aligned content (minimal time)
Learner Interaction via Simulation Modality	Communication, examination and documentation	
Technology Requirements to "RUN" Simulation Modality	dce-recommended-system-specifications	
Learner Support (built into product and/or otherwise available)	Support page, email, contact info, and 24/7 phone inquiries except Sundays	
Accessibility (within constraints of physical performance requirements for nursing students). Ease of Use.	Recommend headphones. Can type communication or speech-to-text	

e-Simulation: Skills and Procedures

Nursing Care of Adults II:

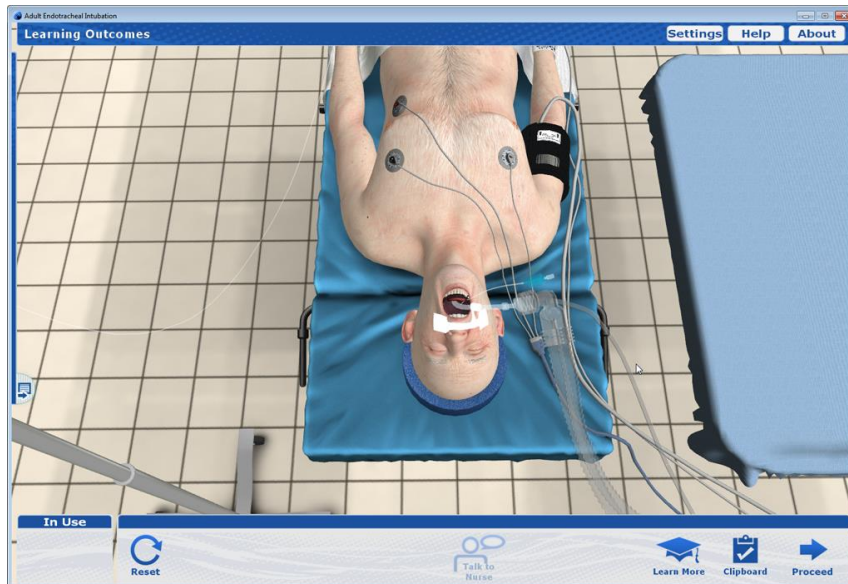
1. Content items include:
 - a) Peripheral IV insertion
 - b) Urinary catheterization (male and female) and maintenance
 - c) Nasogastric intubation
 - d) Wound irrigation and packing
 - e) High Risk Pathogens PPE, donning and doffing
2. Avatar, variety
3. Tutorial mode for repetition, prompts, and feedback



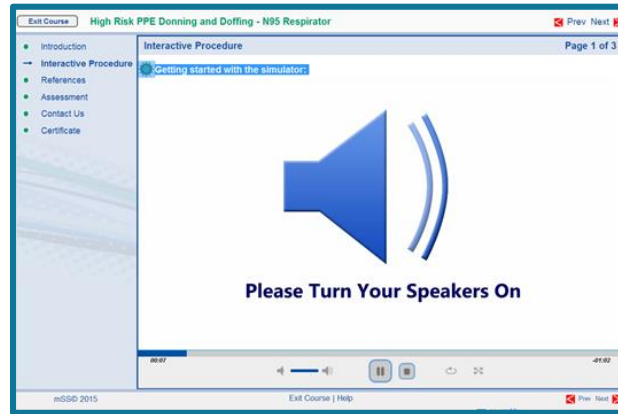
e-Simulation: Skills and Procedures

Nursing Care of Adults III:

1. Content items include:
 - a) Central venous catheter maintenance
 - b) Tracheostomy suction and care
 - c) Adult endotracheal intubation
 - d) Adult cardiopulmonary arrest
 - e) Chest tube thoracostomy
2. Avatar, variety
3. Tutorial mode for repetition, prompts, and feedback



e-Simulation: Skills and Procedures: Overview and Instructions for Use



A diagram illustrating the simulation workflow. It features three circular callouts: "Follow the detailed checklist.", "Perform tasks", and "Recognize errors". The "Follow the detailed checklist." callout points to a screenshot of a checklist table. The "Perform tasks" callout points to a screenshot of a hand being prepared for a procedure. The "Recognize errors" callout points to a screenshot of a hand being prepared for a procedure.

#	Step Name	Status
1	Verify Patient ID and Gather Supplies	Completed
2	Perform Modified Allen's Test	Completed
3	Prepare the Patient and Don PPE	Completed
4	Identify and Prepare the Needle	Completed
5	Obtain Arterial Blood Sample	Completed
6	Prepare Results and Label	Completed
7	Remove PPE and Document the Procedure	Completed

e-Simulation: Skills and Procedures:

Example Outcomes


Central Venous Catheterization

Current evidence suggests that healthcare institutions should ensure practitioners responsible for insertion of Central Venous Catheters, or central lines, are updated on procedural changes and current recommendations. This simulation is designed to help participants to practice, improve and increase their skills in the insertion of a central line.

Upon completing this simulation, you should be able to:

- Describe anatomy of areas central venous catheters are placed.
- Identify the indications and contraindications for central venous catheterization.
- Identify the materials used in central line placement.
- Demonstrate the proper procedure for central line placement.
- Identify complications caused by central line placement.
- Identify ways of preventing central venous catheter infections.
- Utilize ultrasound guidance in placing central venous catheter.

Simulations provide a way for learners to practice skills and techniques needed to perform a number of emergency interventions required in a clinical setting. This interactive simulation focuses on procedure-based learning in a virtual environment. The learner will interact with the 3D environment and perform the procedure on a virtual patient. Learners are given the opportunity to learn utilizing several adult learning styles. Tutorial and Perform modes enable the learner to confirm proficiency throughout the entire procedure or explore with real-time learning feedback. The module tracks each step and offers feedback as well as a detailed outcome report upon completion.

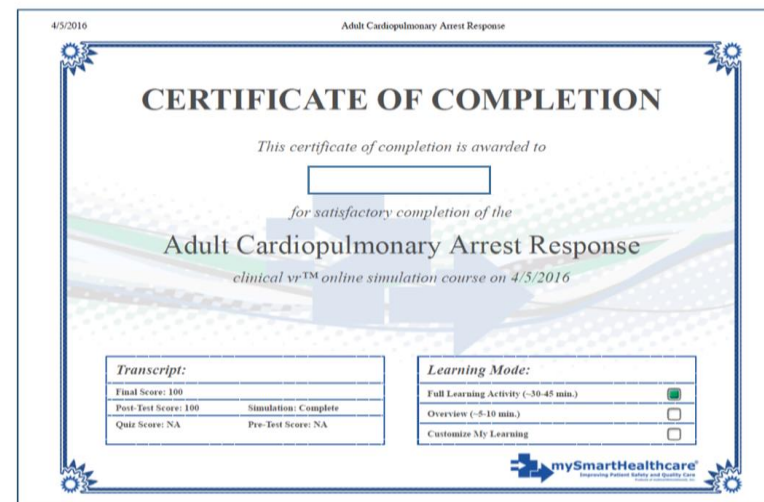


Example Performance

Neonatal Endotracheal Intubation

Admin User Mode: PERFORMANCE
 Started Time: 08/28/14 11:12:43 End Time: 08/28/14 11:16:43 Total Duration: 00:02:49 Final Result: FAIL
 Click the simulation steps to view a detailed report on each attempt.

Simulation result details:		
+	Step Name: Introduction And Learning Objectives	PASS
+	Step Name: Verify Patient ID And Prescriber's Order	PASS
+	Step Name: Perform Hand Hygiene And Don Gloves	PASS
+	Step Name: Prepare Laryngoscope And Endotracheal Tube	PASS
-	Step Name: Check Suction	FAIL
1	Mode: Mouse Start Time: 08/28/14 11:14:45 Duration: 00:00:05 Comment: You did not set the suction at a high enough level to adequately suction.	FAIL
+	Step Name: Position Patient	PASS
+	Step Name: Provide Breaths	PASS
-	Step Name: Insert Endotracheal Tube	FAIL
1	Mode: Haptic Start Time: 08/28/14 11:15:25 Duration: 00:00:35 Comment: You inserted the endotracheal tube too far.	FAIL
+	Step Name: Verify Depth	PASS
+	Step Name: Ventilate And Assess Lungs	FAIL
+	Step Name: Secure Endotracheal Tube And Reassess Placement	PASS
+	Step Name: Learning Outcomes	PASS



e-Simulation: Skills and Procedures

General Standard Component Design (e-simulation: Skills and Procedures)	Within Product Design	Faculty Time/Resources
Product/Component Introduction	Introductory videos	
Simulation Learning Objectives/Competencies	Provide objectives/outcomes	Align with course objectives (minimal time)
Assessment and Measurement	Provides completion certificate (Perform Mode)	
Content Aligns with Course Module Materials	Evidence-based practice guidelines	Aligned content (minimal time)
Learner Interaction via Simulation Modality	Practice skill acquisition (Tutorial Mode)	
Technology Requirements to "RUN" Simulation Modality	E-simulations can be accessed online or installed. Easy access from any major web browser	
Learner Support (built into product and/or otherwise available)	Prompts during simulation. Email and phone contact provided.	
Accessibility (within constraints of physical performance requirements for nursing students). Ease of Use.	Requires reading skills	



Video Simulation

“A video-recorded simulation is a teaching technology that allows one to represent reality under controlled conditions, both of the environment and the individuals involved, which in turn favors learning” (Cardoso et al., 2011, p. 709).

1. Topic based on content of need
 - a) Respiratory Distress (Nursing Care of Adults II)
 - b) Sepsis/Intubation/Central Line (Nursing Care of Adults III)

2. Utilization of RN role model

“Observation of an expert role model and simulation can impact student development of clinical judgment” (Lasater, Johnson, Ravert, & Rink, 2014, p. 263).

3. Standardized patient and family member

The use of standardized patients in simulation “provide rich clinical experiences for undergraduate nursing students” (Sideras, McKenzie, Noone, Markle, Frazier, & Sullivan, 2013, p. 425).

4. Complete patient chart (H&P, orders, labs, diagnostics etc).



Video Simulation



Union Hospital, Inc.
1806 North 7th Street • Terre Haute, IN 47804
Emergency Department Record

Identification
NAME: Harold Haute
DOB: 08/28/1936
Dictated by: Dultz, L. MD
Encounter Date: Today Triage Time: 0405 Discharge/Admission Time: 1055
Admitting Physician: Sandeson

CC (chief complaint): Shortness of breath, weakness

History of present illness
Patient arrived per EMS. EMS reports being called to residence for patient being short of breath. Mr. Haute's wife reported to them they had been real tired for a couple of weeks and started to develop weakness the past few days. EMS reports that the shortness of breath started yesterday.

Triage Vital Signs - 0405
HR - 105
BP - 98/70
RR - 28
O2 Sat - 88%
Temp - 100.2

Home Medications
1. Aspirin 81 mg PO Daily
2. Lasix 20 mg PO Daily
3. Toprol 25 mg PO Daily

Past medical/surgical history
1. Congestive Heart Failure
2. Hypertension
3. Cholecystectomy - 2008

Social History
Unable to obtain.

Allergies
None

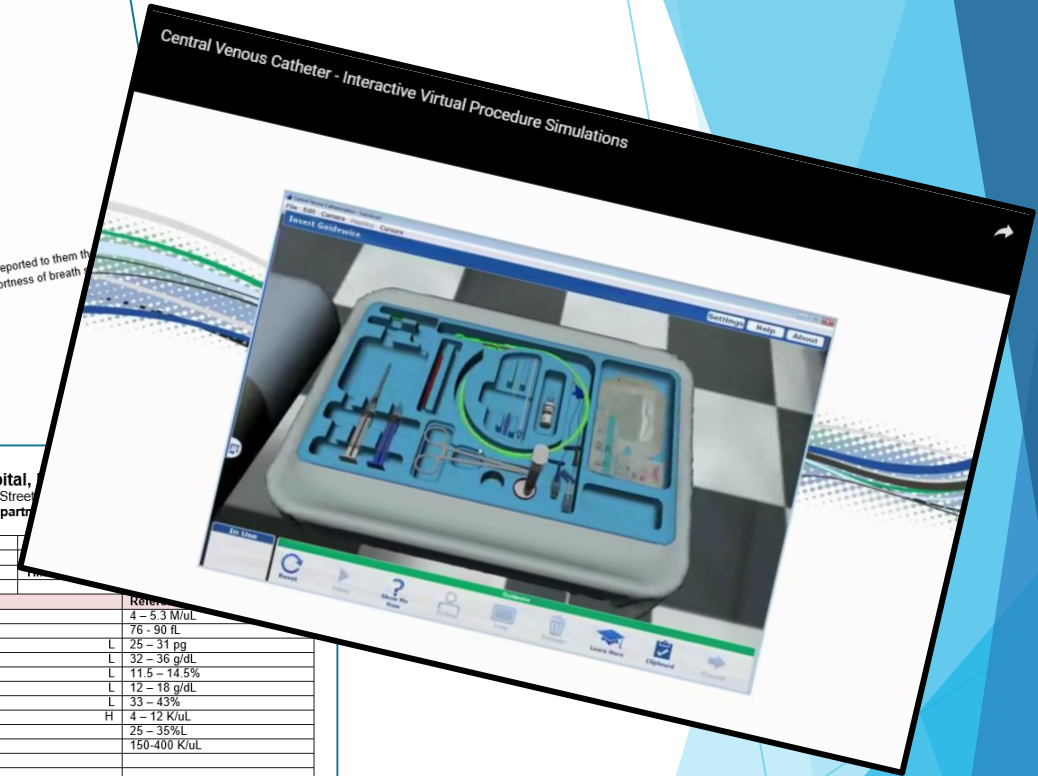
Review of Systems
General appearance: Well developed/developing
Head: Normocephalic, no masses/lesions
Eyes: Visual fields intact, PERRLA, conjunctivae pink
Ears: TM's with mild erythema and bulging
Nose: Nares patent, no deformity, septum midline
Throat: Pharynx non-injected, no white patches

Union Hospital, Inc.
1806 North 7th Street
Emergency Department

Patient name: Harold Haute
DOB: 08/28/1936
Date: Today

Complete Blood Count	Result	Reference Range
RBC	5	4 - 5.3 M/uL
MCV	76	76 - 90 fL
MCH	24.7	L 25 - 31 pg
MCHC	30.4	L 32 - 36 g/dL
RDW	11.4	L 11.5 - 14.5%
HEMOGLOBIN	11	L 12 - 18 g/dL
HEMATOCRIT	32	L 33 - 43%
WBC	13.1	H 4 - 12 K/uL
LYMPHOCYTES	31.8	25 - 35%L
PLATELETS	210	150-400 K/uL

Basic Metabolic Profile	Result	Reference Range
ALBUMIN	2	2.9 - 5 g/dL
ALT	53	17 - 56 U/L
ALK PHOS	105	30 - 132 U/L
AST	60	H 5 - 35 U/L
TOTAL BILIRUBIN	1.2	0.1 - 1.3 mg/dL
BUN	26	H 8 - 25 mg/dL
BUN/CREATININE RATIO	29	H 6 - 28
CALCIUM	8.7	8.5 - 10.5 mg/dL
CHLORIDE	97	95 - 105 mEq/L
GLUCOSE	111	H 65 - 110 mg/dL
POTASSIUM	5.6	H 3.5 - 5.3 mEq/L
PROTEIN	7.2	6 - 8.4 g/dL
SODIUM	136	135 - 145 mEq/L
CREATININE	1.4	0.8 - 1.4 mg/dL
CO2	18	18 - 30 mEq/L
BNP	380	H 0-99



Video Simulation

General Standard Component Design (Video Simulation)	Within Product Design	Faculty Time/Resources
Product/Component Introduction	(set up for continued use once created)	Intro by faculty
Simulation Learning Objectives/Competencies	(set up for continued use once created)	Developed by faculty, align with course objectives
Assessment and Measurement		Assignment developed by faculty. Grading by faculty
Content Aligns with Course Module Materials	(set up for continued use once created)	Aligned content (minimal time)
Learner Interaction via Simulation Modality	Video observation, participation in discussion board (can repeat viewing)	
Technology Requirements to "RUN" Simulation Modality	Ability to run video You-tube link	
Learner Support (built into product and/or otherwise available)		Faculty email
Accessibility (within constraints of physical performance requirements for nursing students). Ease of Use.	Requires visual, auditory, and writing skills. Easy to use	



Simulation: Robotic Tele-presence

Point of Need to Point of Learning:

Increasingly, tele-presence robots are being used in the medical arena to allow distanced physicians and/or providers to be placed at the *point of need* instantaneously (Grifantini, 2015).

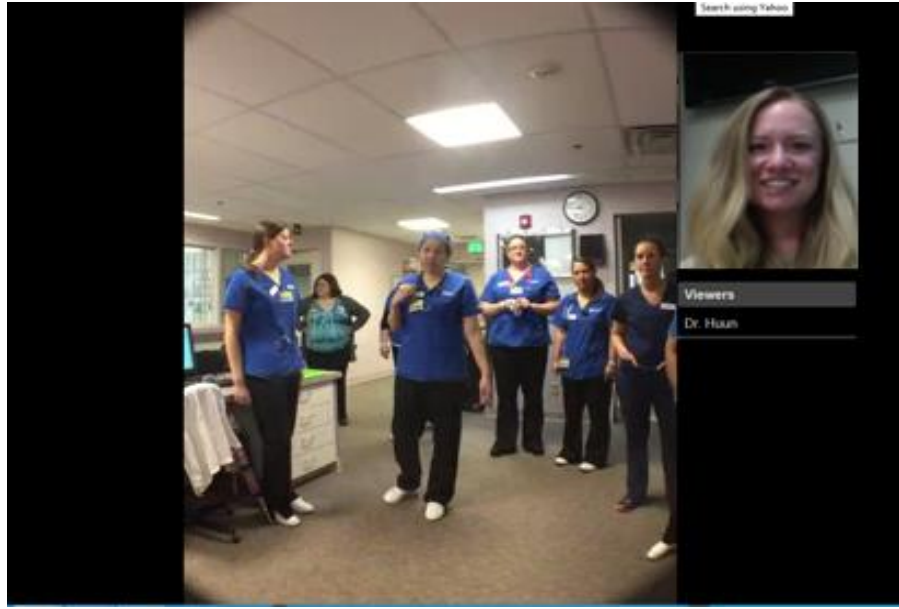
Similarly, tele-presence robots can bring distanced students to the simulation lab, the *point of learning*.

www.doublerobotics.com



VANTAGE POINT

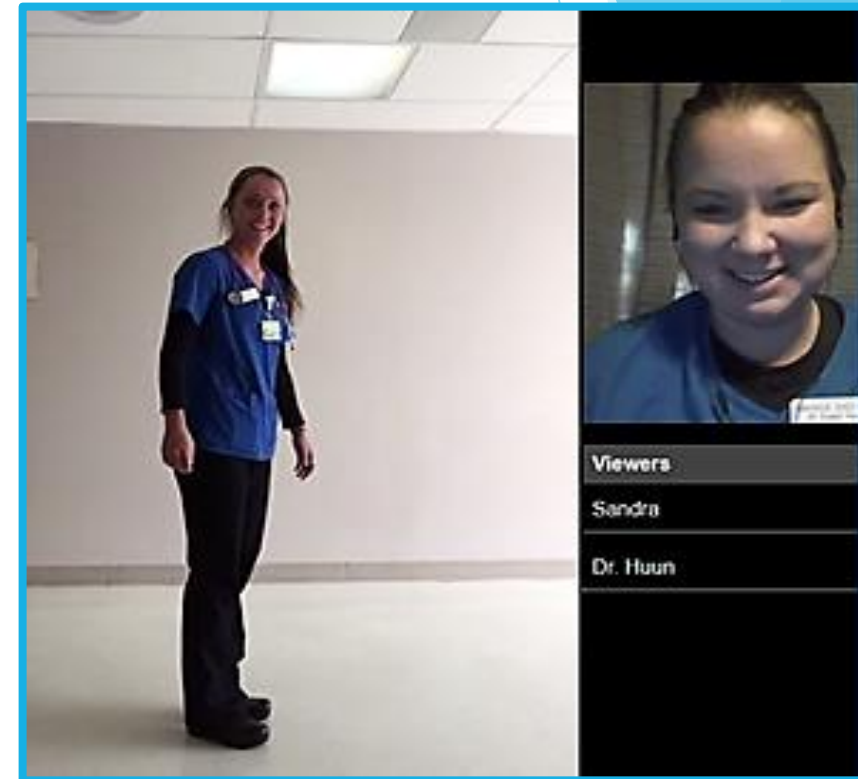
Piloting and Co-piloting



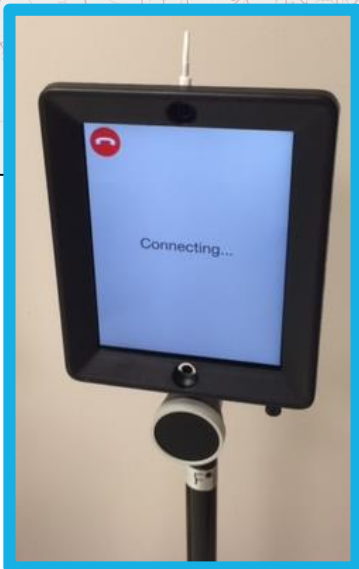
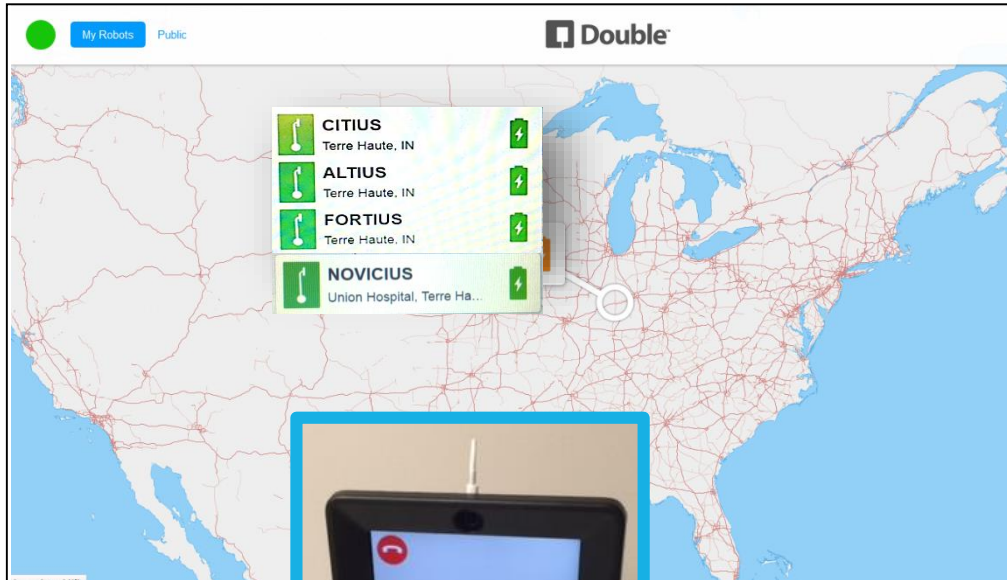


RHIC Simulation Center
IPE Nursing, PA, SW & RT Simulation Schedule
Wednesday, March 30, 2016
VIRTUAL NURSING STUDENTS

Group 1 8-10 am	Group 2 9-11 am	Group 3 10 to Noon																																				
<p>Login: 0730 EST MRP: Novicius (D1) Google Chrome: beta.MRProbotics.com Staff Nurses: Karrie, Debbie, Karen Virtual Nurse: Samantha CELL: Samantha (502-628-0838) Email: SLinton2@sycamores.indstate.edu</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>0800-0820</td><td>Report</td><td>ROBOT</td></tr> <tr><td>0820-0900</td><td>Simulation</td><td>ROBOT</td></tr> <tr><td>0900-0910</td><td>Break</td><td></td></tr> <tr><td>0910-0950</td><td>Debriefing</td><td>ZOOM</td></tr> </table>	0800-0820	Report	ROBOT	0820-0900	Simulation	ROBOT	0900-0910	Break		0910-0950	Debriefing	ZOOM	<p>Login: 0830 EST MRP: Altius (D2) Google Chrome: drive.MRProbotics.com Staff Nurses: Jessica, Veronica, Brandon Virtual Nurse: Cassidy CELL: 816-515-1567 Email: Chohson3@sycamores.indstate.edu</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>0900-0920</td><td>Report</td><td>ROBOT</td></tr> <tr><td>0920-1000</td><td>Simulation</td><td>ROBOT</td></tr> <tr><td>1000-1010</td><td>Break</td><td></td></tr> <tr><td>1010-1050</td><td>Debriefing</td><td>ROBOT</td></tr> </table>	0900-0920	Report	ROBOT	0920-1000	Simulation	ROBOT	1000-1010	Break		1010-1050	Debriefing	ROBOT	<p>Login: 0930 EST MRP: Fortius (D2) Google Chrome: drive.MRProbotics.com Staff Nurses: Bryan, Torie, Julie Virtual Nurse: Amanda CELL: 272-215-1865 Email: ARoberts5@sycamores.indstate.edu</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>1000-1020</td><td>Report</td><td>ROBOT</td></tr> <tr><td>1020-1100</td><td>Simulation</td><td>ROBOT</td></tr> <tr><td>1100-1110</td><td>Break</td><td></td></tr> <tr><td>1110-1150</td><td>Debriefing</td><td>ZOOM</td></tr> </table>	1000-1020	Report	ROBOT	1020-1100	Simulation	ROBOT	1100-1110	Break		1110-1150	Debriefing	ZOOM
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Group 4 11am to 1pm	Group 5 1-3pm	Group 6 2-4pm																																				
<p>Login: 1030 EST MRP: Citius (D1) Google Chrome: drive.MRProbotics.com Staff Nurses: Emily, Lance, Jessie Virtual Nurse: Michelle CELL: 916-841-2671 Email: mstillwater@sycamores.indstate.edu</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>1100-1120</td><td>Report</td><td>ROBOT</td></tr> <tr><td>1120-1200</td><td>Simulation</td><td>ROBOT</td></tr> <tr><td>1200-1210</td><td>Break</td><td></td></tr> <tr><td>1210-1250</td><td>Debriefing</td><td>ROBOT</td></tr> </table>	1100-1120	Report	ROBOT	1120-1200	Simulation	ROBOT	1200-1210	Break		1210-1250	Debriefing	ROBOT	<p>Login: 1230 EST MRP: Altius (D2) Google Chrome: drive.MRProbotics.com Staff Nurses: Dusty Candy, Anastasia Virtual Nurse: Peter CELL: 327-584-2345 Email: pedwards4@sycamores.indstate.edu</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>1300-1320</td><td>Report</td><td>ROBOT</td></tr> <tr><td>1320-1400</td><td>Simulation</td><td>ROBOT</td></tr> <tr><td>1400-1410</td><td>Break</td><td></td></tr> <tr><td>1410-1450</td><td>Debriefing</td><td>ZOOM</td></tr> </table>	1300-1320	Report	ROBOT	1320-1400	Simulation	ROBOT	1400-1410	Break		1410-1450	Debriefing	ZOOM	<p>Login: 1330 EST MRP: Novicius (D1) Google Chrome: beta.MRProbotics.com Staff Nurses: Melissa, Lacey, Sally Virtual Nurse: Evette CELL: 430-287-5935 Email: ewillis@sycamores.indstate.edu</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>1400-1420</td><td>Report</td><td>ROBOT</td></tr> <tr><td>1420-1500</td><td>Simulation</td><td>ROBOT</td></tr> <tr><td>1500-1510</td><td>Break</td><td></td></tr> <tr><td>1510-1550</td><td>Debriefing</td><td>ROBOT</td></tr> </table>	1400-1420	Report	ROBOT	1420-1500	Simulation	ROBOT	1500-1510	Break		1510-1550	Debriefing	ROBOT
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<p>Contacts: Dr. Huun: Faculty 123-456-7891 Bob: Simulation/telepresence tech: 123-456-7890</p>	<p>Please Note:</p> <ol style="list-style-type: none"> 1. You are scheduled 30 minutes prior to your simulation time. 2. Your BUDDY is the highlighted name. 																																					

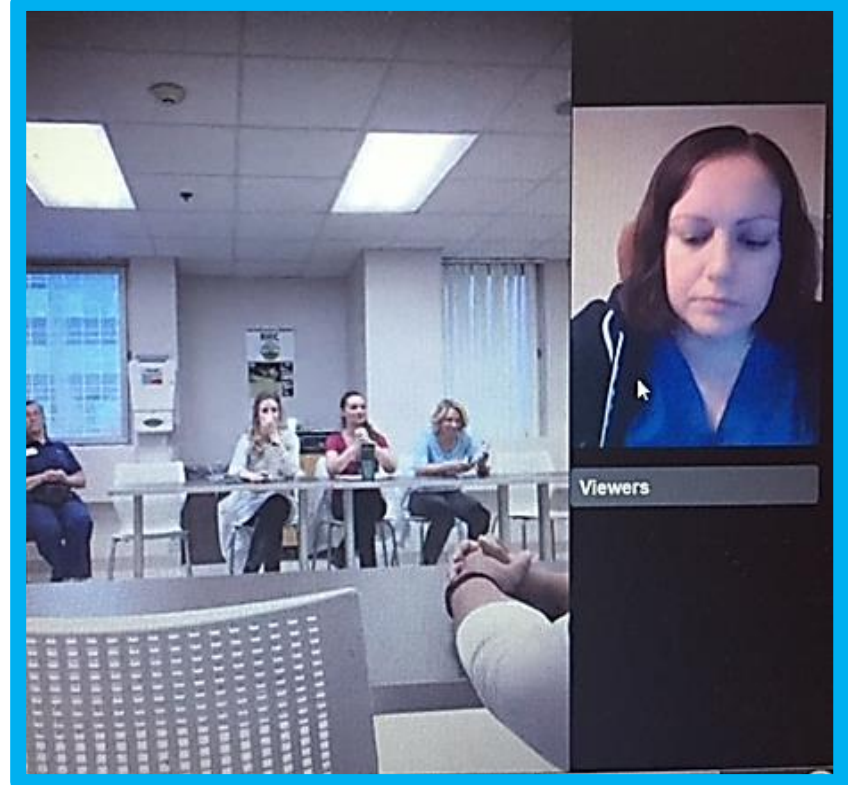


RHIC partnership



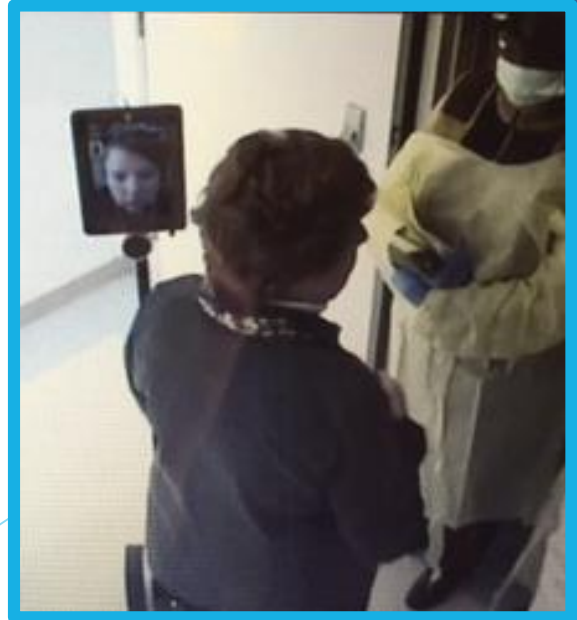
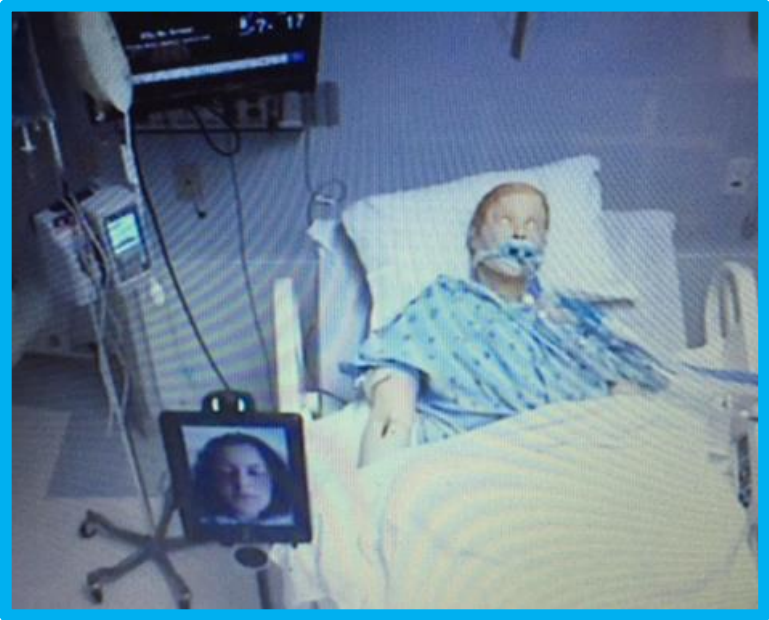


Teamwork



Debriefing

INSTRUCTOR VANTAGE POINT



Tele-presence Simulation

General Standard Component Design (Tele-presence Simulation)	Within Product Design	Faculty Time/Resources
Product/Component Introduction	Basic overview on website	Basic intro by faculty
Simulation Learning Objectives/Competencies		Developed by faculty, align with course objectives
Assessment and Measurement		Assessment by synchronous faculty
Content Aligns with Course Module Materials		Aligned simulation content developed by RHIC & faculty
Learner Interaction via Simulation Modality	Participation in simulation and debriefing via tele-presence	
Technology Requirements to "RUN" Simulation Modality	Requires internet connectivity	
Learner Support (built into product and/or otherwise available)	Email and phone contact	Live, support technician during simulation
Accessibility (within constraints of physical performance requirements for nursing students). Ease of Use.	Requires visual, auditory, and basic mechanical skills. Easy to operate	Easy to use, may co-pilot with student.



The Positives

ACCENTUATE THE POSITIVE	e-simulation: Assessment	e-simulation Skills/Procedures	Video Simulation	Tele-presence Simulation
Interactive and stimulating for learners	X	X	Observation and DB debriefing	X
Single-user or multiple-user interaction	Single-user	Single-user	Single-user	Multi-user
Essence of real-life scenarios	X	X	X	X
Enable controlled and structured outcomes	X	X	X	X
Enable trial and error learning	X	X	Observe role model	X
Provide a risk-free setting	X	X	X	X
Less expenditure of teaching resources	Self-sustaining	Self-sustaining	Self –sustaining (development time)	Faculty involved
Provide a foundation for continued exploration	X	X	X	X
Secure access	Password (Indiv)	Password (Indiv)	Group Password	Group password
Feedback through prompts or debriefing	Prompts + Reflection	Tutorial and prompts	Discussion Board Debriefing	Debriefing
Wide availability	X	X	X	Limited
Ease of use	X	X	X	X
Ability to align with course content	X	X	X	X
Cost effective	\$100 (lifetime)	Free (through RHIC)	X	Start up
Time flexibility (asynchronous components)	X	X	X	Synchronous

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