Thank you for your interest in administering the VNuurse Simulation Training Tool to your students at your institution. We are excited that you have agreed to help us test our modules while simultaneously creating a supplemental educational opportunity for nursing students to better serve their patients. The following includes: (1) an overview of the research and the tool, (2) the technical support provided when testing the tool, (3) instructions for administering the assessment instruments, and (4) data collection monitoring. In summary, agreeing to participate in this research means that you are willing to require your students to use the tool during one to two separate classes for a minimum of 8 hours each, administer the assessment instruments according to the instructions provided, and adhere to the instructions for use of the tool.

OVERVIEW OF RESEARCH & TOOL:

**Project Title:** VNurse: Modular Dynamic Simulation Framework for Nurse Training

**Sponsor Information:** The following information includes an in depth explanation of the Human Use protocols required for the VNurse Phase II project that is sponsored by the U.S. Department of Defense (DOD) Telemedicine and Advanced Technology Research Center (TATRC).

The principal investigator of this project is:

**Dr. Rasha Morsi**, Professor of Engineering and Director,
Creative Gaming and Simulation Lab
Norfolk State University
700 Park Avenue
Norfolk, VA 23504
(757) 823-0047 * Telephone
(757) 823-2698 * Fax
EMAIL: rmorsi@nsu.edu

External Evaluator of this project is:

**Dr. Gwen Lee-Thomas**, CEO
Quality Measures, LLC
131 Hanbury Road, West, Suite B
Chesapeake, VA 23322
(757) 410-9812 or (877) 806-2515 * Telephone
EMAIL: gleethomas@qualitymeasuresllc.com
Website: www.qualitymeasuresllc.com
The mission of the Army Medical Department is to maintain soldier health. In 2005, the Army was struggling to recruit enough doctors, dentists, nurses, and other healthcare professionals to treat soldiers on the front lines and on their return. The efficient training of healthcare professionals in a manner that reduces risk to life can help address this problem and further the mission of the Army Medical Department. Simulation is used to provide realistic, safe, and repeatable training opportunities for many occupations. Recent research has revealed the lack of preparation of new nursing graduates. Some of the problems noted include the inability to manage more than 3 patients at a time, a lack of knowledge in pharmacology, and a difficult transition into the workplace. VNurse will provide an opportunity to increase the training and efficiency of nursing students in these and other areas. The project intends to evaluate the learning of clinical content and how this is translated into the performance of clinical tasks.

A modular dynamic PC-based simulation framework for nurse training in a semi virtual environment - the Virtual Nurse (VNurse) training environment has been developed. VNurse is expected to address current issues regarding nurse preparation. It is also expected to train and evaluate nurse performance using curriculum based module instruction. The enabling technologies used in the VNurse environment include: realistic 3D virtual environments and interfaces, 3D simulation videos, simulated animations, and verbal and visual instructions and cues. There are numerous skills that are considered vital for effective nurse performance. VNurse intends to address some of the skills that are deemed most important in consultation with the Subject Matter Experts (SME) in nursing.

The VNurse framework is comprised of a number of individual training units:

- Medical Surgical Unit
- Learning Center
- Case Studies Unit
- Pre/Post Testing Unit

To evaluate the VNurse tool’s effect on student learning, perceived competence, and confidence, the overall project evaluation will be guided by the following three assessment questions:

a) To what extent did the VNurse tool enhance students' knowledge and skills while enrolled in their nursing programs?

b) To what extent did the VNurse tool contribute to students' confidence and competence in nursing practice upon entry into the field of nursing?

c) To what extent did the VNurse tool represent an accurate reality for practicing in the field of nursing?

To provide data that respond to these assessment questions, evaluative efforts of the VNurse tool will occur at integral stages throughout the development of the modules to represent formative evaluation, and also provide summative evaluation at the very end of the project that measures learning, confidence, and competence of nursing students as well as the overall development and effectiveness of the VNurse tool itself.
INSTRUCTIONS FOR ADMINISTERING THE ASSESSMENT INSTRUMENTS & DATA-COLLECTION MONITORING

The following includes the instructions for administering the assessment tools and data collection protocols for submission to Quality Measures LLC (QM), the evaluator, for the V-Nurse project.

**Preparation:**

The following assessment tools and supplies relevant to the V-Nurse project will be provided in a packet for data-collection. You should have a copy of each assessment tool for the number of students you indicated for each of the classes you will assign VNurse:

1. Assessment Code Assignment Form
2. Commitment and Consent Form for the students to participate in the V-Nurse evaluation
3. Self-Efficacy in Learning with Technology Survey
4. Nursing Competencies Self-Assessment Questionnaire
5. Nursing Student Observation Form
6. Nursing Student Satisfaction Survey
7. VNurse Module Tracking Form
8. Pre-Assessment and Post-Assessment Return Boxes or envelopes for Collected Data

**Instructions for Administering the Assessments:**

To ensure that all data are collected in a uniform manner across participating institutions, the following protocols should be followed at all times as part of the data-collection process. If you have any questions at any point in the data-collection process, please contact Gwen Lee-Thomas of Quality Measures LLC at 877-806-2515 or 757-410-9812 or email at gleethomas@qualitymeasuresllc.com.

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**Prior to Using the V-Nurse Tool**

1. QM will send each site a set of Assessment Codes based on the number of students expected to participate in the use of VNurse. The course instructor must assign each student an Assessment Code and track all student information for the VNurse assessments via their respective codes. The codes must also be used to include the students’ final course grade. A form to enter the student’s name and/or other identifier to track their Assessment Code is included. The students’ Assessment Code **must be entered on each document that the student will submit to QM which includes all assessment instruments.** For ALL paper copy documents, the Assessment Code **MUST** be entered in the box in the top right corner of the document. The students’ Assessment Code will consist of three letters of the alphabet and four numbers—in that order—and end with your institutions 2-digit code. For example “ABC-8976-00” or “XYZ-2222-05.”

2. After the course instructor assigns each student an Assessment Code, the course instructor must keep a record of the students’ Assessment Code by student name, (and/or some other identifier appropriate to the home site), but **must not include the students’ name** on the assessment code assignment sheet/information given to the evaluator.
3) Before introducing the students to VNurse, please make sure each student completes items #2 (Consent Form to Participate in Research), #3 (Self-Efficacy in Learning with Technology Survey), and #4 (Nursing Competencies Self-Assessment Questionnaire) and confirm that their individual Assessment Code has been placed in the upper right corner on each.

4) It is imperative that the students complete these three pre-assessments **BEFORE** any exposure to the VNurse tool.

5) Administer post-assessments (Items #4 and #6) **AFTER** the students have completed the VNurse tool.

6) Ensure that all completed assessments with student responses are secured in a location accessible only to the faculty member or designee.

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**In-Class Use of V-Nurse Tool**

**Faculty, Course Instructor, or Designated Observer:**

- During class while the students are working with the VNurse tool, the faculty/course instructor or designated observer will use the “VNurse Student Observation Form” to rate the students’ level of engagement and overall class observations of behaviors toward working with VNurse. In addition, the faculty member can include additional comments in the “General Comments” section. This should be a collective observation rather than observing individual students. (Note: In order to ensure all comments are properly included as part of the research, please write legibly.)

- The observation form must be completed each time the students use the VNurse tool in-class. **Out-of-class observations are not expected.**

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**After Use of V-Nurse Tool**

**Instructions for Collecting the Data:**

1) Collate the students’ assessments so that they are returned with that student’s Assessment Code. *(Note: Do not group the assessments by instrument, but rather by student.)* For instance student A with the assessment code BXZ-2245-01 should have stapled or paper-clipped together completed versions of the following:
   a. Consent Form to Participate in Research
   b. Self-Efficacy in Learning with Technology Survey (Pre-Test)
   c. Nursing Competencies Self-Assessment Questionnaire (Pre and Post Tests)
   d. Nursing Student Satisfaction Survey (Post Test)

2) Coordinate with the external evaluator a time to call and conduct a phone interview with the faculty member and a conference call (or onsite if local) focus group with the students before the end of the same semester in which V-Nurse was assigned.

3) Along with the faculty member’s completed observation forms (where appropriate), place all of the student assessments (grouped by student assessment code) in the return box (or envelope) to ensure delivery to Quality Measures LLC. All postage has been paid.
EVALUATION PROCESS:

Phase I: (Pilot Test the VNurse Tool and Assessments)
A. Participate in a webinar regarding the use of the VNurse tool

Phase II:
A. Identify specific points in the curriculum where the student will be required to use the VNurse tool as an in-class assignment or out-of-class assignment.
B. Administer the set of pre-assessments (Items #2, #3, and #4) which will be marked on the envelop.
C. Require students to use the tool for a minimum of 8 hours during the semester either as in-class or out-of-class assignments.
D. Using the Monitoring form provided, have students track their start and stop times of using the VNurse tool and indicate what modules they completed or attempted.
E. As the faculty member, conduct observations using the Observation form provided if VNurse is used in-class. (No observation form will be expected if the use of VNurse is an out-of-class assignment).
F. After students have used VNurse, administer the set of post-assessments (Items #4 and #6)
G. Schedule a focus group (conference call for out-of-town sites) for students using the tool with the external evaluator.
H. Return all assessments to Dr. Lee-Thomas at Quality Measures LLC (postage pre-paid).

TECHNICAL SUPPORT
Once the information to access the VNurse training tool is received, Dr. Rasha Morsi will provide the faculty member with specific instructions for launching the VNurse tool and testing it on their systems. In addition, Dr. Morsi or one of her assistants will provide technical support via telephone (similar to a help desk) to walk the faculty through any challenges or glitches in the software, to ensure maximum use of the VNurse tool.

By agreeing to administer and test the VNurse tool you will be asked to participate in a few assessments (other than observation of the students).
NSU_V-Nurse Simulation Training Tool TEACHING AGREEMENT

Please sign below to indicate that you have agreed to fulfill the requests of this invitation to the best of your ability and return a signed copy to Dr. Rasha Morsi, Principal Investigator.

I, ______________________________ (Faculty’s Name) located at ______________________________ (College/University) agree to fulfill all stated obligations regarding the testing of the VNurse simulation tool developed by the Creative Gaming and Simulation Lab in the Department of Engineering at Norfolk State University.

Please initial each of the following, complete the information at the bottom of the form, and return to Dr. Rasha Morsi, Principal Investigator, prior to beginning the use of the VNurse Practice Tool.

_________ Ensure students are using the tool correctly

_________ Assign either in-class or out-of-class work to give the students for a minimum of 8 hours during a semester to test the tool.

_________ Assign students Assessment Codes to track and monitor their assessments and use of the tool.

_________ Administer the pre & post assessments provided and follow all guidelines for tracking and Observe students’ while using the VNurse tool.

_________ Collect completed assessment instruments.

_________ Schedule a focus group (conference call for out-of-town sites) for students using the tool with the external evaluator.

_________ Assign a room for the conversation along with basic equipment for a face-to-face or conference call to ensure a focus group conversation.

_________ Ensure that the VNurse Tool Software is returned in the provided envelop and uninstalled from all machines in your unit at the end of the project (date provided by Dr. Morsi).

____________________________________________
(Signed Name)

____________________________________________
(Printed Name)

_________ Position/Title: ______________________________

____________________________________________
(Date: ______________________________

____________________________________________
(Signature)

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(Preferred Phone: ______________________________