



# *vSim for Nursing* **Implementation Guide for Faculty**

*Developed by the National League for Nursing*



# Contents

## ■ vSim Pedagogical Considerations 3

|                                       |   |
|---------------------------------------|---|
| <i>Deliberate Practice</i> . . . . .  | 3 |
| <i>Narrative Pedagogy</i> . . . . .   | 3 |
| <i>Formative Assessment</i> . . . . . | 4 |

## ■ Practical Preparation for the Use of vSim 4

|   |   |
|---|---|
| <i>Familiarizing Yourself with vSim</i> . . . . . | 4 |
| <i>Helping Students Navigate vSim</i> . . . . .   | 5 |
| <i>Fidelity Considerations</i> . . . . .          | 5 |
| <i>Understanding vSim Scoring</i> . . . . .       | 5 |

## ■ vSim Teaching Strategies 6

|  |    |
|--|----|
| <i>Utility as a Teaching Tool</i> . . . . .  | 7  |
| <i>Classroom Approaches</i> . . . . .        | 8  |
| <i>Flipping the Classroom</i> . . . . .      | 8  |
| <i>Classroom Group Debriefing</i> . . . . .  | 8  |
| <i>Small Group Concept Mapping</i> . . . . . | 9  |
| <i>Coursework</i> . . . . .                  | 9  |
| <i>Targeted Lab Activity</i> . . . . .       | 10 |
| <i>Remediation</i> . . . . .                 | 10 |

## ■ Resources and References to Support Simulation 11

|                             |    |
|-----------------------------|----|
| <i>Resources</i> . . . . .  | 11 |
| <i>References</i> . . . . . | 11 |

This guide provides strategies for use of vSim for Nursing in programs across all types of nursing education. It provides faculty with ideas to integrate vSim into existing curricula and offers ways to develop and/or enhance current teaching strategies. The guide is based on data collected from faculty who participated in pilot testing of vSim for Nursing | Medical-Surgical during spring 2014 and who submitted feedback to the National League for Nursing. These faculty members provide instruction in a wide array of classroom, clinical, lab, and simulation settings.

## ■ vSim Pedagogical Considerations

The following brief points are provided for faculty consideration of an integrated approach for the use of vSim for Nursing in a curriculum.

### Deliberate Practice

vSim for Nursing provides a unique learning opportunity for nursing students to interact with a patient in a safe, realistic environment that is available anytime, anywhere. vSim is based on the theory of deliberate practice and thus engages students with the opportunity to repeat an activity continually to achieve mastery. The literature supports that simulation-based education with deliberate practice is effective in achieving specific clinical goals (McGaghie, Issenberg, Cohen, Barsuk, & Wayne, 2011).

When asked how students were instructed to repeat the vSim scenarios, participants in the pilot study most frequently stated that they asked students to repeat the scenarios until they achieved a specific target score. Students in the pilot often repeated the scenarios until they achieved at least the target score or higher.

- Integrate vSim as a component in the lab or classroom to provide an opportunity for students to engage in repetitive thinking and doing.
- Direct students to repeat the scenarios until they have achieved specific learning objectives (e.g., thinking and reasoning encounters).
- Direct students to repeat the scenarios until they have achieved a specific target score.

### Narrative Pedagogy

Narrative pedagogy in nursing became popular in the 2000s. It embraces learning through sharing narrative accounts of practice (Diekelmann, 2001; Ironside, 2005). Stories (narratives) are easily remembered because they are stored in our memory through visual, auditory, and other sensory experiences and then recalled when one experiences a cue in the environment. Learning that occurs within the context of a story is powerful and has a greater chance of being recalled and then transferred to new learning situations (Forneris & Peden-McAline, 2006).

vSim provides an opportunity for faculty to engage students in story through the evolving clinical stories of patient encounters. The problems encountered in these patient stories focus the student on the “process of thinking” as opposed to the process of learning factual knowledge. The focus of the vSim stories (scenarios) is on achieving goals relevant to an evolving patient context as opposed to learning in a decontextualized setting.

- Work through the simulation as an evolving story by using vSim in the classroom or lab.
- Use the Guided Reflection Questions that accompany each vSim scenario as individual student activities or as a group reflective-practice learning activity.
- Engage students in narrative discussion of all aspects of the patient’s story by using the Debriefing Guides found in the vSim Instructor Resources. (See also “[Classroom Approaches](#)” for vSim Teaching Strategies below.)

## Formative Assessment

Formative assessment is a means of small-scale evaluation that helps faculty determine what students are learning. Improving teaching and learning requires the use of classroom assessment techniques that can guide course revisions and classroom instruction (Billings & Halstead, 2012).

Both the Post-Simulation Quizzes and vSim scenarios provide students and faculty with percentage scores as a tool for formative assessment, allowing opportunities for remediation and providing a measure for improvement over time or with practice. The Post-Simulation Quiz scores provide faculty with a snapshot of how well students have grasped the learning targeted by the simulation scenario, but they do not represent a summative assessment of mastery of a content area. The vSim scenario Feedback Log provides a percentage score that represents a comparison of the student's vSim performance to a gold standard performance. Similarly, it does not represent a summative assessment of mastery. As a means of formative assessment, it provides feedback that assists in remediation of a student's clinical understanding and prioritization/clinical reasoning ability.

Faculty in the pilot used vSim as a formative assessment in the following ways:

- A means for faculty to understand student learning of content and clinical reasoning/judgment following class, lab, or clinical environments. Faculty in the pilot incorporated vSim in a variety of ways, such as the nursing skills lab, simulation lab, post-clinical follow-up, and/or post-classroom discussion.
- A benchmark for students to work toward. Among the pilot schools who instructed students to meet a target percentage score on the vSim scenarios, most specified a target percentage of 75% or 80%. Students were slightly more likely to repeat the scenarios until achieving scores slightly higher than the target (most frequently 85% or higher).
- A dose-response measure. In other words, does increasing the number of vSim attempts change the student's level of content knowledge or reasoning and decision-making skills? The Feedback Log provides specific rationale for the order of decision making as well as inclusion and/or omission of activities in error. Students get concrete feedback on their thinking in action.
- A way for faculty to understand the student's performance level and ability to operationalize content. Faculty involved with the vSim pilot found that the scenario score and Feedback Log content were useful for assessing how well students operationalized their content knowledge. This information allowed faculty to guide and correct their students' thinking, as needed. Faculty can view students' best scores as well as scores for every submission of each Post-Simulation Quiz and vSim scenario.
- A way to direct student remediation. The feedback on quizzes and the virtual simulation provides students with textbook references and SmartSense links to direct and focus their remediation activities.

## ■ Practical Preparation for the Use of vSim

Before integrating vSim into the curriculum, it is important for faculty to be familiar with the program's basic functionality, features, and potential benefits for students. This preparation will help instructors understand the best ways to integrate this teaching tool into their curricula, communicate their expectations to the students, and direct their students in how to use the tool most effectively.

### Familiarizing Yourself with vSim

In preparation for using vSim, faculty are provided with an Instructor's User Guide. This resource will help instructors orient their students to the vSim product, navigate the vSim scenarios, set up and manage classes, and

review student results. A video Tutorial that explains navigation of the simulation platform is also available for both students and faculty. Faculty are encouraged to review both the Instructor's User Guide and the Tutorial thoroughly to prepare for effective implementation of the product.

Faculty in the vSim pilot provided the following feedback about preparing to use vSim for Nursing:

- The Tutorial eases scenario navigation.
- Run through a vSim scenario to experience the navigation features before assigning scenarios to students (e.g., the pause feature is an important navigation feature).
- Be aware that the simulations are delivered online and that time is required for the scenarios to load.
- Become familiar with the minimum system requirements outlined in the User Guide to avoid technical issues.
- Familiarize yourself with the technical support availability (e.g., coverage during evenings, weekends) relative to assigning vSim activities.

## Helping Students Navigate vSim

Although navigating vSim can be intuitive for many students, it is essential to orient them to features that can help them control the technical aspects of the program. The sooner students master operation of the vSim program, the more time they will have to think and develop their prioritization skills.

Faculty in the vSim pilot provided the following suggestions for navigating vSim for Nursing:

- Students are more satisfied with the overall learning experience if they **use the Tutorial before beginning a scenario**.
- Review the Tutorial with students or assign the Tutorial as homework to enhance students' abilities to navigate the program and improve their overall performance.
- Familiarize students with the categorization of intervention tabs and the search feature to assist with locating nursing interventions. Pilot faculty found this to be a critical step.

## Fidelity Considerations

Fidelity represents the degree of accuracy or authentic representation of the simulation to real-life circumstances. Fidelity is an important consideration in maximizing learning. vSim's fidelity lies in the **interactive decision-making challenges provided to students**. While vSim represents a range of what students can expect to see in clinical settings, the fidelity of the simulations is enhanced by the interaction and degree to which students must accurately prioritize and reason through the scenarios. Students are able to experience and understand the consequences of their decisions and provide a rationale to explain their correct or incorrect actions or non-actions. As outlined above, to benefit most from vSim's fidelity, **students need to understand how to navigate the intervention tabs** as opposed to using it intuitively.

## Understanding vSim Scoring

Feedback on student performance is provided to faculty and students in a number of ways, and it's important for both faculty and students to understand how to interpret feedback and scores before engaging with vSim. Refer to the Instructor's User Guide for details on how scores are calculated and reported to instructors, and consider reviewing the purpose of scoring with students before they begin work in vSim.

The Pre-Simulation Quizzes provide students with an overview of the content areas highlighted in the vSim scenario. Students receive immediate feedback on their quiz responses, including a rationale and a reference for

remediation. They can change their answers as they work through the quiz and click on SmartSense links for readings to provide immediate remediation, so no score is calculated or reported. In My Classes, faculty can see whether each student has completed the Pre-Simulation Quiz in order to track whether students have prepared for the activity. Faculty can encourage students to use this quiz as a mental warm-up activity and a self-check to determine preparedness for a successful simulation experience.

The Post-Simulation Quizzes provide a score that represents the number of correct responses to questions focused on content knowledge highlighted in the vSim scenario. Students receive feedback and rationales after they submit the completed quiz, so the score is calculated before they have the opportunity to explore SmartSense links for remediation reading. Quizzes can be taken multiple times for student self-review and to improve performance. Faculty can use the Post-Simulation Quiz to track student learning in a targeted area. It provides faculty with a snapshot of how well students have grasped the learning targeted by the simulation scenario, but it is not a comprehensive assessment of a content area.

The vSim scenario Feedback Log provides detailed feedback on each action taken or not taken during the simulation and also provides a percentage score that represents a comparison of the student's vSim performance to a gold standard performance. The percentage score does not necessarily correspond to a letter grade; instead, it is intended as a means to compare performance and gauge improvement. See the section on "[Formative Assessment](#)" for further considerations about understanding and using vSim scores.

Throughout vSim for Nursing, textbook references and SmartSense links help direct student remediation and further reading. This encourages and supports students to work to improve their scores with practice.

Figure 1 summarizes the evaluation of the vSim scoring features by faculty who participated in the pilot study.

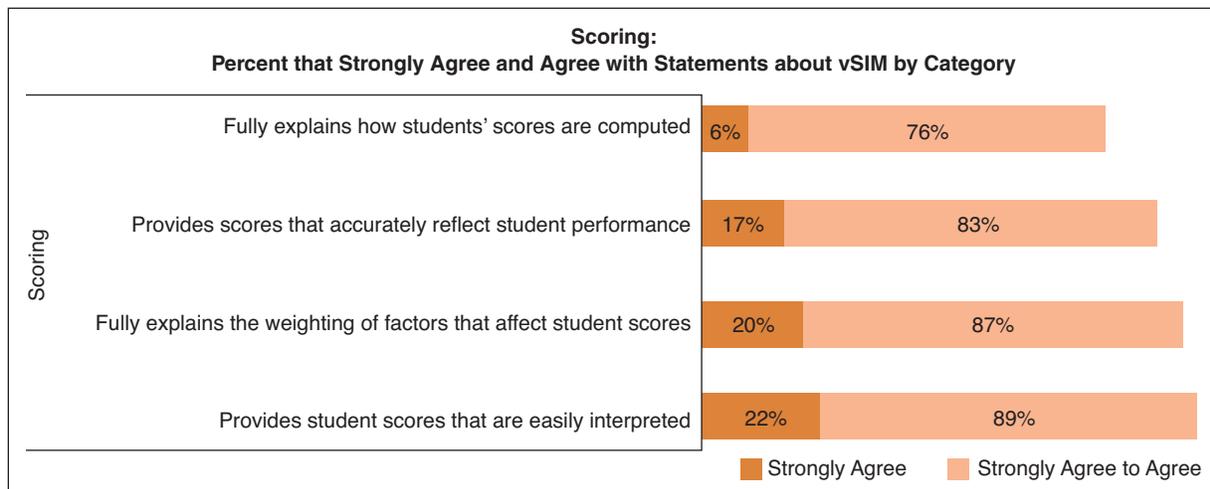


FIGURE 1

## vSim Teaching Strategies

Faculty participating in the pilot study viewed vSim as offering more value and utility than other teaching methods. Students readily embraced the vSim activity, providing an opportunity for faculty to focus their teaching efforts in other ways. A variety of strategies may be used to integrate vSim into curricula.

## Utility as a Teaching Tool

vSim may be incorporated as an adjunct to existing curricular activities to enhance course learning outcomes. Pilot faculty indicated that they added vSim to their course activities (e.g., optional classroom prep activity, post-classroom homework activity) to better meet diverse learning needs. (See “[Classroom Approaches](#)” below.)

The quality of vSim content is an important consideration in achieving student learning outcomes. Pilot faculty identified that vSim content quality accurately depicted actual clinical scenarios with a good range of content (Figure 2).

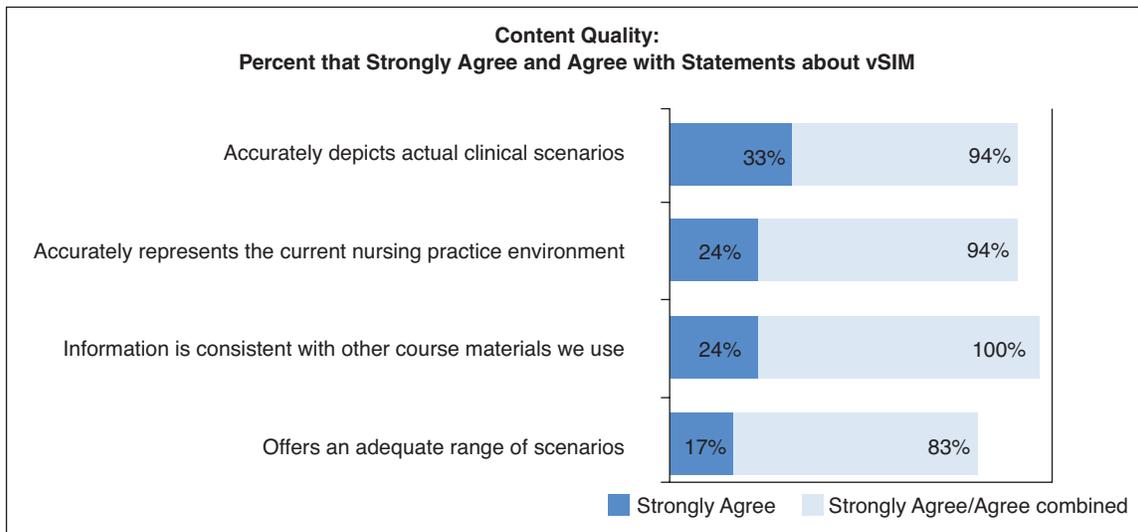


FIGURE 2

vSim may also be incorporated as a strategy to enhance prioritization and reasoning skills. When faculty involved in the vSim pilot were asked to indicate all of the learning objectives attempted with vSim, participants most frequently indicated “deepening understanding of nursing concepts” and “improving clinical reasoning and ability to prioritize” (Figure 3).

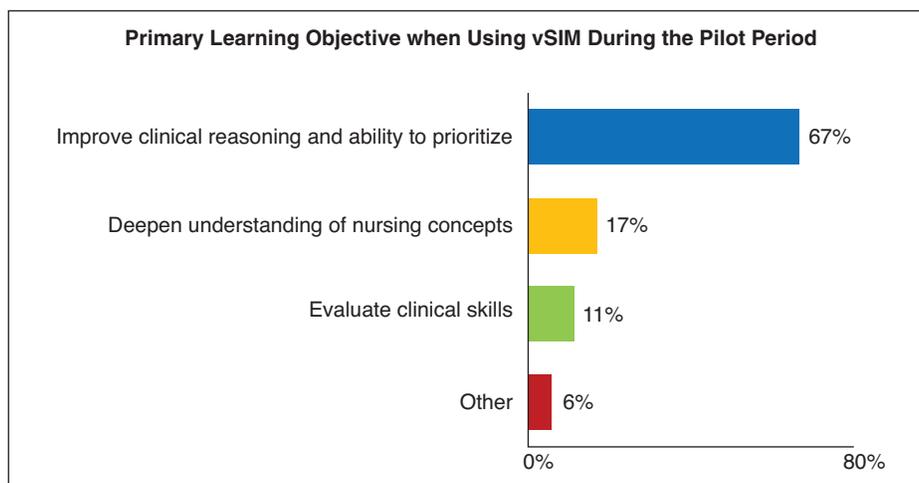


FIGURE 3

Finally, consider how time in the curriculum can best be allocated to meet objectives and how vSim may substitute for other curriculum activities. During the pilot period more faculty reported that they had used vSim as a substitute for either classroom teaching or actual clinical experiences (41% and 38%, respectively) than those who reported using it as a substitute for standardized patients (25%), training manikins (19%), or simulation labs (12%). However, even though the same percentage of faculty (41%) expected to substitute vSim for actual clinical experiences in the future, much larger percentages predicted that they would frequently substitute vSim for simulation labs (35%) and training manikins (27%) in the future (Figure 4).

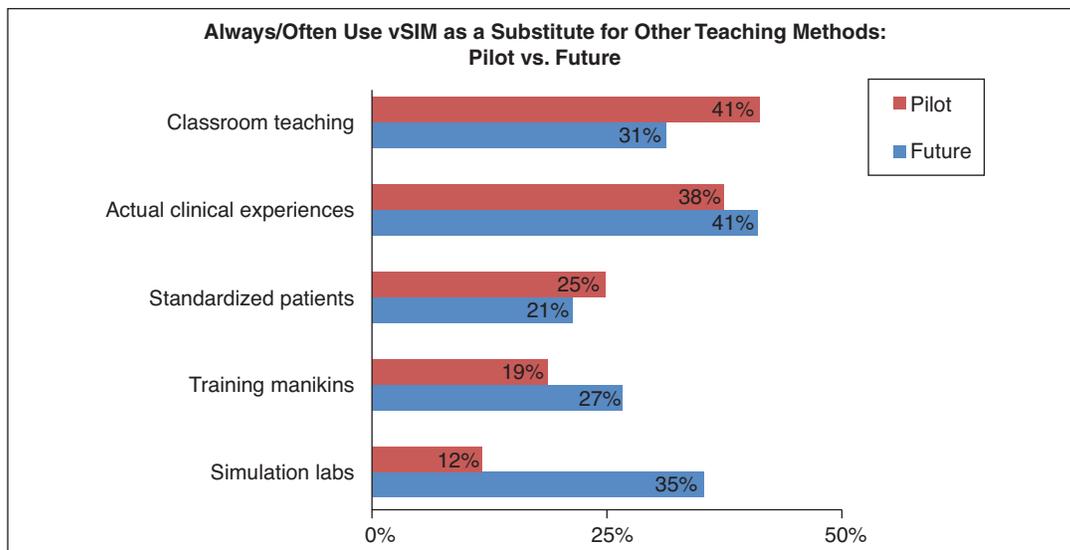


FIGURE 4

## Classroom Approaches

The use of simulation in the classroom is gaining increasing attention. Nursing educators are continuously challenged to use interactive learning and teaching strategies whereby students learn through the experience of doing (Skiba, Connors, & Jeffries, 2008). Using vSim in a classroom approach to demonstrate thinking in action provides an opportunity for immediate feedback. This helps to strengthen student thinking.

### Flipping the Classroom

vSim can enhance a “flipped approach” to classroom lectures by bringing the clinical into the classroom. Using a guided approach, instructors can engage students in a dialogue about the correct clinical actions and the students’ reasoning for those actions. All or parts of the vSim scenario and student workflow on thePoint can be used in this way.

**EXAMPLE:** Examine the pathophysiology and care management strategies of hypoglycemia using Skyler Hansen’s visit to the Emergency Department.

### Classroom Group Debriefing

vSim completed as a group activity provides an opportunity for students to dialogue with one another on rationales for action. Guided by faculty, clinical reasoning can be role modeled. A group setting can also provide an opportunity for students to think cooperatively through a situation and help them assess both the *what* and the *why* surrounding patient care decisions.

**EXAMPLE:** Examine a group vSim Feedback Log of care management activities provided for acute asthma patient Jennifer Hoffman. The associated debriefing questions can be used to uncover student content knowledge and rationale for action.

### Small Group Concept Mapping

vSim can be very effective in a concept-based curriculum by targeting scenarios to operationalize important patient care concepts, such as oxygenation, surveillance, infection, inflammation, fluid balance, and others. This discussion can be structured to identify issues that can be outlined on a concept map. vSim provides immediate feedback and rationale that can bring the concept map to life.

**EXAMPLE:** Examine the concept of oxygenation and map the associated pathophysiology and intervention strategies using Carl Shapiro and his diagnosis of chest pain.

### Coursework

vSim scenarios can be assigned for students to complete either as preparatory or follow-up coursework.

Completion of vSim components can serve as an electronic ticket to class, lab, clinical, or simulation lab. Students in the pilot reported the scenarios helped give them a starting place to focus their learning in preparation for discussion. The prep work generated good questions for further discussion. Students reported that a vSim assignment did not feel like "busy work," as they were actively involved in decision making with immediate feedback.

As with preparation, vSim can be used as an adjunct follow-up activity after a class, lab, clinical, or simulation lab. Students in the pilot study reported being able to take their time, do the activity on their own, and then go back and repeat the activity after class.

Aside from the actual clinical scenario, the Pre-Simulation and Post-Simulation Quizzes were the vSim elements rated highest by pilot faculty, with a 67% rating of "Excellent." Guided Reflection questions and Documentation Assignments followed with 56% and 39% ratings of "Excellent," respectively (Figure 5).

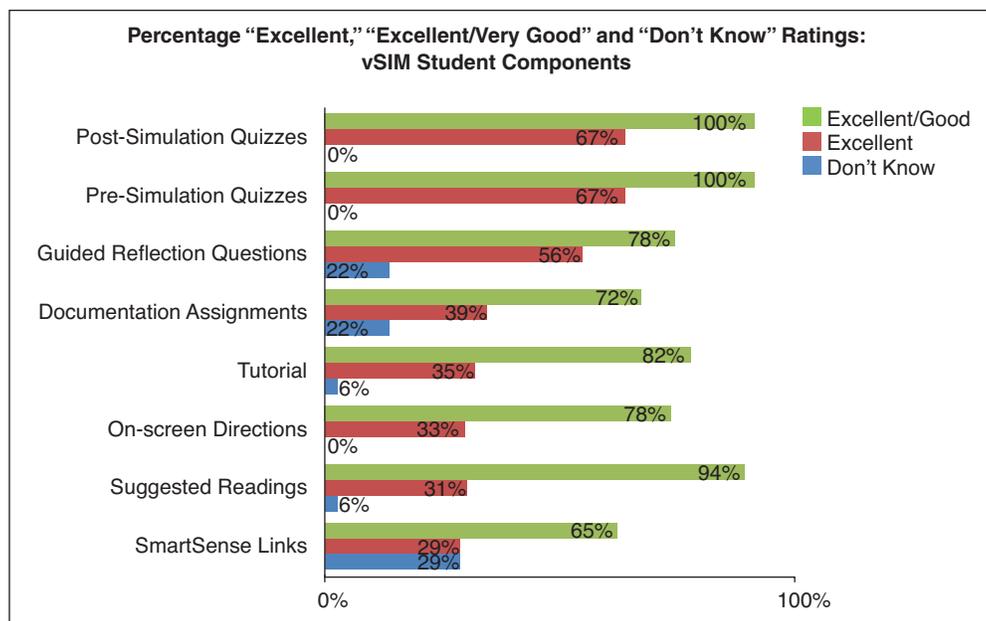


FIGURE 5

## Targeted Lab Activity

As a lab activity, vSim provides a platform for either individual or group skill review in the areas of prioritization and clinical decision making. Whereas conventional nursing labs and clinical are designed to focus on both psychomotor and cognitive development activities, too often the focus for students is only on “the doing.” The thinking and reasoning that surround implementation of psychomotor skills are equally as important.

Use vSim as a targeted critical thinking activity to enhance prioritization and decision-making skills. Students will have the opportunity to engage in the thinking and questioning that surrounds nursing interventions along with the rationale for action. With immediate feedback through natural consequences, students can work through critical-thinking activities. vSim pilot study results indicated that the degree of challenge that vSim poses to students is “about right.” This was the case when rating the challenge of the product overall and specifically the extent to which vSim challenges students’ prioritization or clinical reasoning skills.

**EXAMPLE:** Examine the critical thinking and clinical judgment involved with medication administration, oxygen administration, focused assessment skills, or electronic health record documentation activities in any of the vSim scenarios.

## Remediation

In addition to the SmartSense links and opportunities for remediation built into vSim activities for students, faculty can assign activities in vSim to students who require makeup work or overall remediation. For example, a series of related vSim scenarios could be assigned as a substitution or makeup work for clinical, lab, or simulation. vSim allows students to complete a lab activity on their own schedule and in their own time frame. Pilot faculty also used vSim to assist students who required remediation of poor performance in the lab, classroom, clinical, or simulation settings.

Figure 6 illustrates a range of classroom teaching strategies used by pilot faculty.

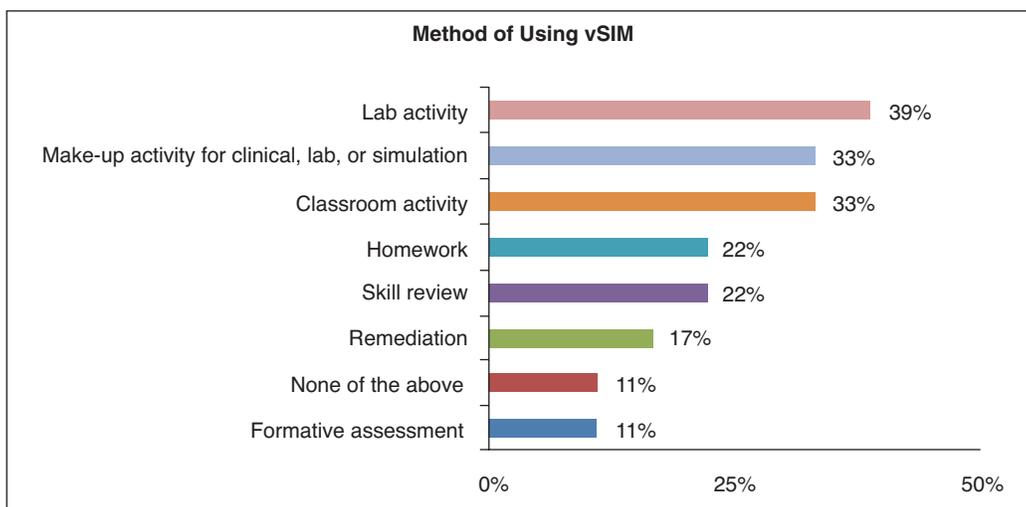


FIGURE 6

## Resources and References to Support Simulation

### Resources

- vSim Instructor Resources: Take advantage of the materials available for faculty on the vSim product page on thePoint, including a Professional Competency Map, the Scenario Overviews, and the Scenario Debriefing Guides (see the Instructor's User Guide on thePoint).
- Lippincott Customer Success Training: Get support and training designed to help you and your students succeed with vSim for Nursing. Training resources are available for faculty and students. Visit <http://thepoint.lww.com/success> for more information.
- Lesson Plans: If you have also adopted the corresponding Wolters Kluwer textbook, the textbook's Lesson Plans on thePoint can help you integrate the vSim for Nursing scenarios into your class curriculum. You will find vSim scenarios mapped to relevant textbook learning objectives. For example, the corresponding textbook for vSim for Nursing | Medical-Surgical, is Hinkle, J.L. & Cheever, K.H. (2014). *Brunner and Suddarth's Textbook of Medical-Surgical Nursing*, 13th Edition.
- National League for Nursing Simulation Innovation Resource Center (SIRC), <http://sirc.nln.org/>
  - SIRC Courses
    - Teaching and Learning Strategies  
<http://sirc.nln.org/mod/resource/view.php?id=96>
    - Curriculum Integration  
<http://sirc.nln.org/mod/resource/view.php?id=98>
    - Debriefing and Guided Reflection  
<http://sirc.nln.org/mod/resource/view.php?id=97>
    - Evaluating Simulations  
<http://sirc.nln.org/mod/resource/view.php?id=99>
  - SIRC Annotated Bibliography (simulation literature)  
<http://sirc.nln.org/mod/data/view.php?id=711>

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