

vSim for Nursing Curriculum Integration Guide for Faculty

Developed by the National League for Nursing



Addendum: Health Assessment



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■ Introduction

This addendum provides strategies for use of the vSim Health Assessment product in nursing programs of study. It provides faculty with ideas on how to integrate vSim Health Assessment into existing curricula and offers ways to develop and/or enhance current teaching strategies. The addendum is based on data collected from faculty who were early adopters or trialers of the vSim Health Assessment scenarios during fall 2016 and submitted feedback to the National League for Nursing. Faculty included those providing instruction in classroom, clinical, lab, and simulation settings. Before integrating vSim Health Assessment into the curriculum, it is important for faculty to review the primary vSim Curriculum Integration Guide for specific information on practical preparation for use of vSim and on vSim pedagogical considerations.

■ vSim Pedagogical Considerations

Formative Assessment

vSim provides an opportunity for faculty to engage students contextually through the use of story. The problems encountered in these patient stories focus the student on achieving goals as those goals relate to an evolving patient context. Used as a means of formative assessment, the stories focus the participant's progress toward goal attainment and provide constructive feedback for improving performance (Bourke & Ihrke, 2016; INACSL, 2016; Prion, 2016).

Faculty in the Health Assessment pilot utilized vSim as a formative assessment in the following ways:

- As a means for faculty to understand student learning in the classroom. Use of vSim Health Assessment during class enhanced student interaction by bringing "context" into a classroom with beginning nursing students who are more acontextual early on in their coursework.
- As a benchmark for students to work toward. Among the pilot schools who instructed students to meet a target percentage score on the vSim Health Assessment scenarios, most specified a target percentage of 80%. Similar to the Fundamental vSim scenarios, slightly more than half of students were likely to repeat the scenarios until achieving slightly higher scores (most frequently 80% or higher).
- As a dose-response measure (i.e., repeating vSim attempts to enhance a student's level of content knowledge or reasoning and decision making). Students get concrete feedback on their thinking in action through the feedback log, which provides specific rationales for the order of decision making as well as inclusion and/or omission of activities in error. vSim Health Assessment faculty users reported this feature as extremely valuable for novice learners as *focused assessments* are introduced. Students begin using the content knowledge immediately, within context.
- As a way to direct student remediation. The feedback log provides students with textbook references to direct and focus their remediation activities. (For those who have the corresponding Wolters Kluwer CoursePoint+ product, these references are linked to the corresponding material in the ebook.)

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

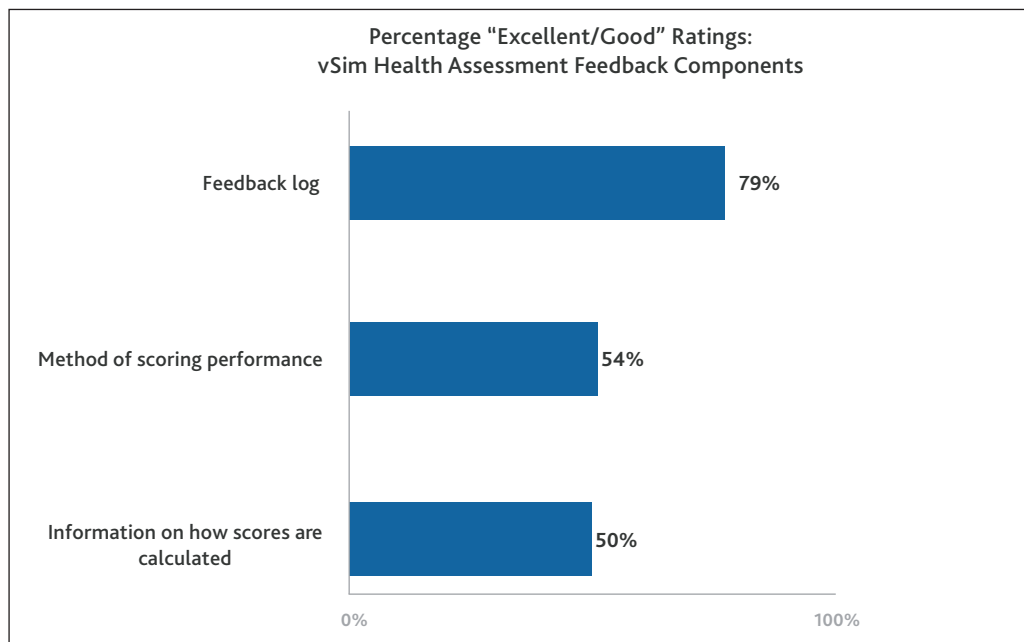


FIGURE 1

vSim Teaching Strategies

Faculty involved in the Health Assessment pilot viewed vSim as offering more value and utility than other teaching methods (e.g., case studies on paper, care plans). Students readily embraced the vSim activity, providing an opportunity for faculty to focus their teaching efforts in other ways (e.g., engaging students to use the content vs. lecturing to provide the content). A variety of strategies may be used to integrate vSim into curricula.

Utility as a Teaching Tool

vSim enables students to build and test their knowledge before virtual simulation through reading assignments and pre-simulation quizzes. Engaging in the virtual simulation scenario, students integrate new knowledge as they care for the patient. Prioritization and decision making are central to the vSim design. Faculty adopting the vSim Health Assessment product found that the scenarios provided a strong scaffolding component, enhancing student understanding of when and how *focused physical assessments* are used in the nursing assessment process. Students reported better understanding of how details of focused assessments build on one another. Faculty in the pilot recommended using a thoughtful approach to integrating vSim Health Assessment into beginning nursing courses to blend the steps of the physical assessment skill with the clinical reasoning processes required to develop sound assessment techniques. As shown in Figure 2, the rate of usage of individual scenarios ranged from 57% for the most popular scenarios—respiratory system assessment (Christopher Parrish) and neurological sensory motor system assessment (Kim Johnson)—to just below 30% for scenarios on pain assessment (Sara Lin), neurological cognitive system assessment (Edith Jacobson), and abdominal system assessment (Marvin Hayes).

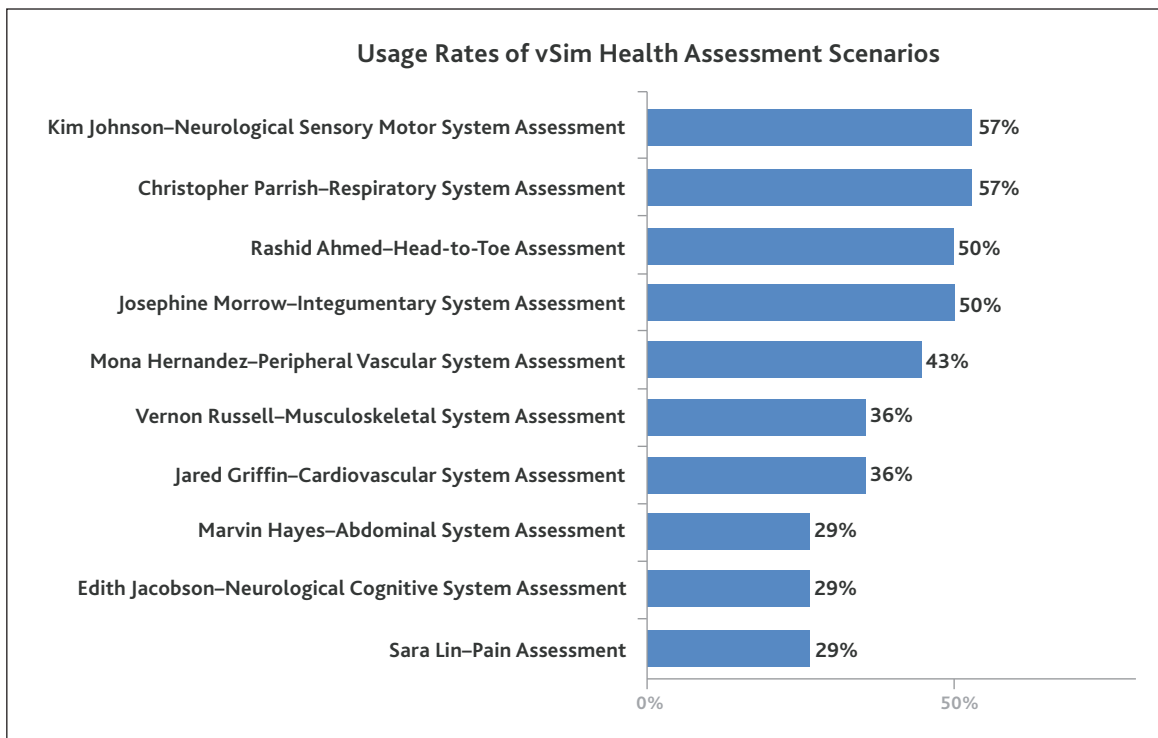


FIGURE 2

Learning Objectives

When vSim Health Assessment users were asked to identify their primary learning objective for each scenario, 70% of faculty reported “improve students’ clinical skills,” followed closely by 65% citing “improve students’ clinical reasoning and ability to prioritize.” vSim Health Assessment scenarios were used by 50% of the faculty to improve clinical skills focused on musculoskeletal system assessment (Vernon Russell) and integumentary system assessment (Josephine Morrow). Use of vSim Health Assessment *to improve students’ clinical skills* is a departure from the primary learning objective of improving clinical reasoning and prioritization skills as seen in the use of vSim for Nursing in other areas (e.g., Fundamentals, Pharmacology, Medical-Surgical). vSim Health Assessment pilot faculty noted that the Health Assessment scenarios provided a context for students to develop both the clinical assessment skill coupled with the thinking process. An important point here is vSim assisting students to develop their knowledge on the variation of steps between focused assessments with emphasis on the reasoning behind the steps chosen. Students were able to make sense of the reasoning behind the clinical assessment skill.

With regard to evaluation of learning, 43% of faculty reported using the vSim Health Assessment scenario on head-to-toe assessment (Rashid Ahmed) to evaluate both students’ clinical and prioritization skills. vSim provided a platform for emphasis on both the assessment and clinical reasoning skills.

Finally, 50% of faculty reported the learning objective of *deepening understanding* of specific concepts was their primary learning objective. Faculty reported use of two vSim Health Assessment scenarios to enhance student learning on more complex assessment concepts such as neurological cognitive system assessment (Edith Jacobson) and integumentary system assessment (Josephine Morrow). Post-simulation quizzes, guided reflection questions, and documentation assignments complete the learning experience.

Figure 3 summarizes how the faculty in the pilot rated the primary learning objectives for utilization of the vSim Health Assessment scenarios.

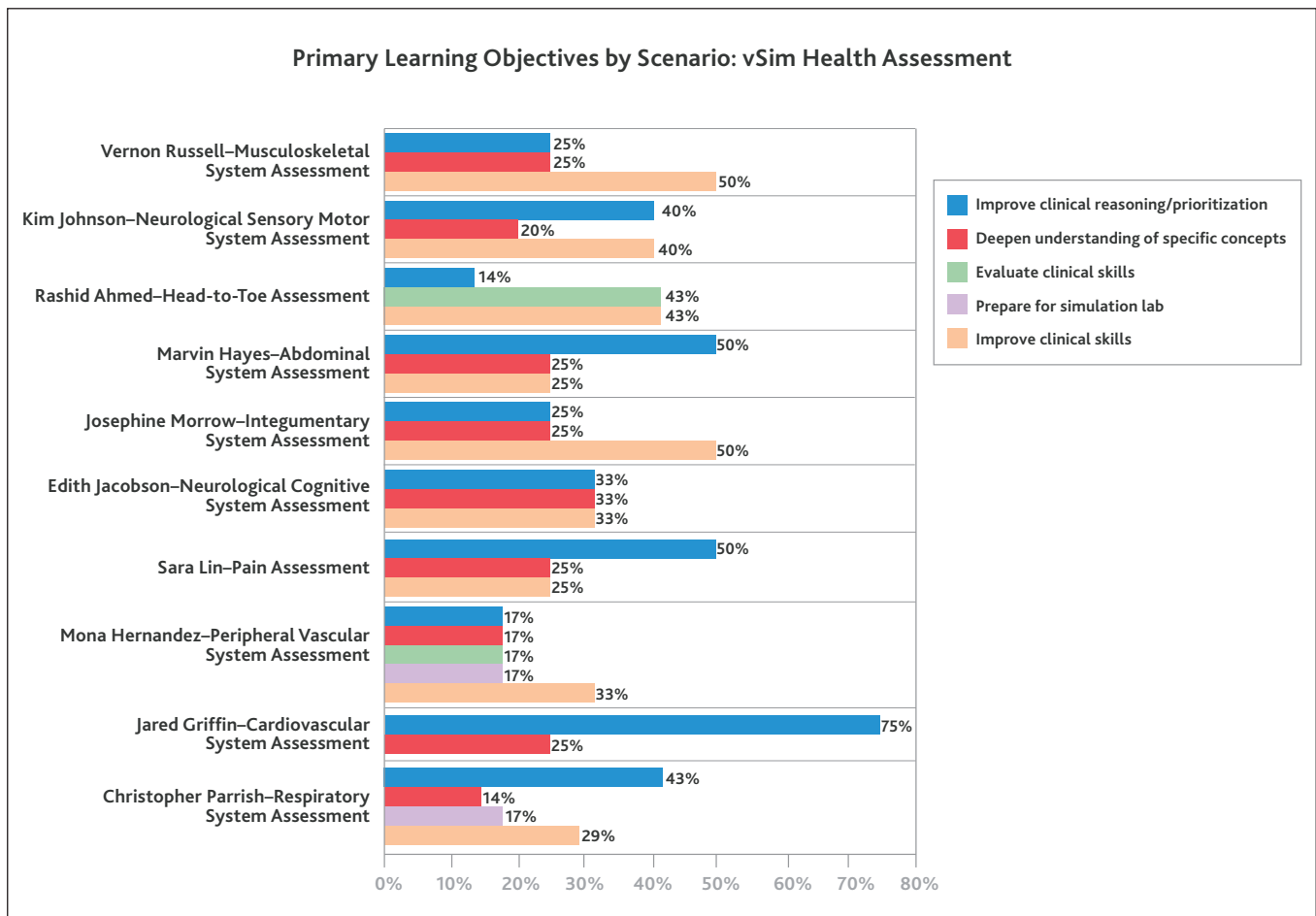


FIGURE 3

Challenging student thinking and learning is an important component with active learning teaching strategies. Faculty using vSim Health Assessment rated the challenge level of the scenarios with respect to a number of skill requirements. In terms of clinical reasoning, the vast majority of vSim Health Assessment users reported that the challenge level was “about right” for beginning and intermediate Health Assessment students. See Figure 4.

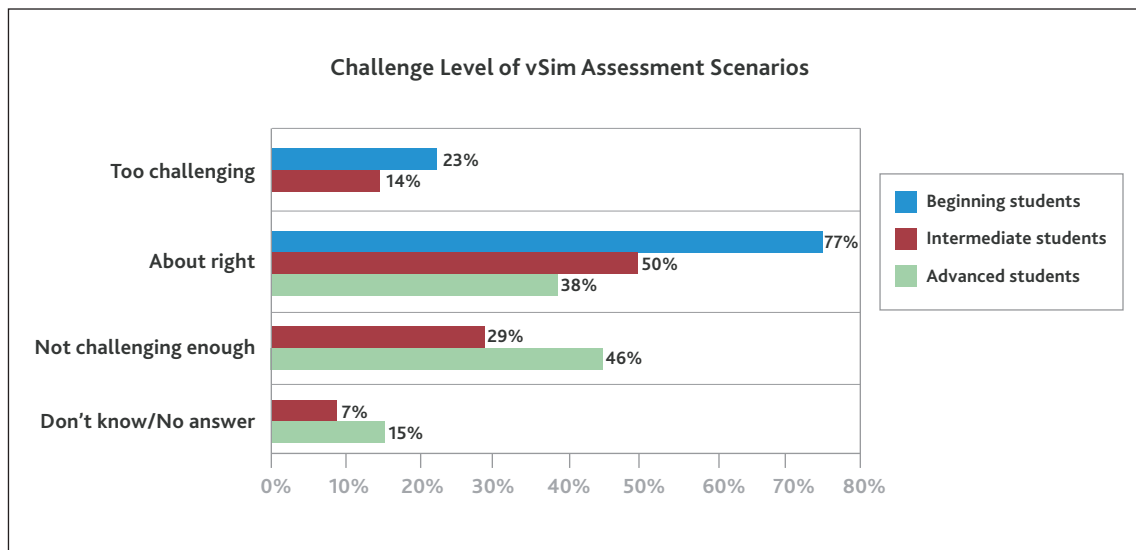


FIGURE 4

Curriculum Approaches

The use of simulation in the classroom continues to grow as an effective interactive teaching strategy, engaging students in learning through the use of doing (Skiba, Connors, & Jeffries, 2008). Using vSim as a classroom approach to demonstrate thinking in action provides an opportunity for immediate feedback. This helps to strengthen student thinking to enhance course learning outcomes. Like vSim Fundamentals, vSim Health Assessment provides context for the novice learner who is new and acontextual. Faculty reported the use of vSim Health Assessment as a valued teaching strategy to lay a solid foundation in developing the physical assessment skill components and the role of the nurse as patient educator. Faculty commented that students reported the scenarios reinforced the need for patient education with nursing assessment activities. As compared to vSim Fundamentals, the vSim Health Assessment scenarios were used more frequently as classroom and lab activities. Students reported that working through a virtual physical assessment in a small group helped them be more successful individually. Additionally, students reported that vSim Health Assessment scenarios require an assessment approach that mirrors the necessary detail expected in real-life practice. Students reported that the feedback and score they received reflected ill-advised assessment shortcuts they took that may have not been caught when practicing on a manikin.

Figure 5 illustrates the primary uses of the vSim Health Assessment scenarios.

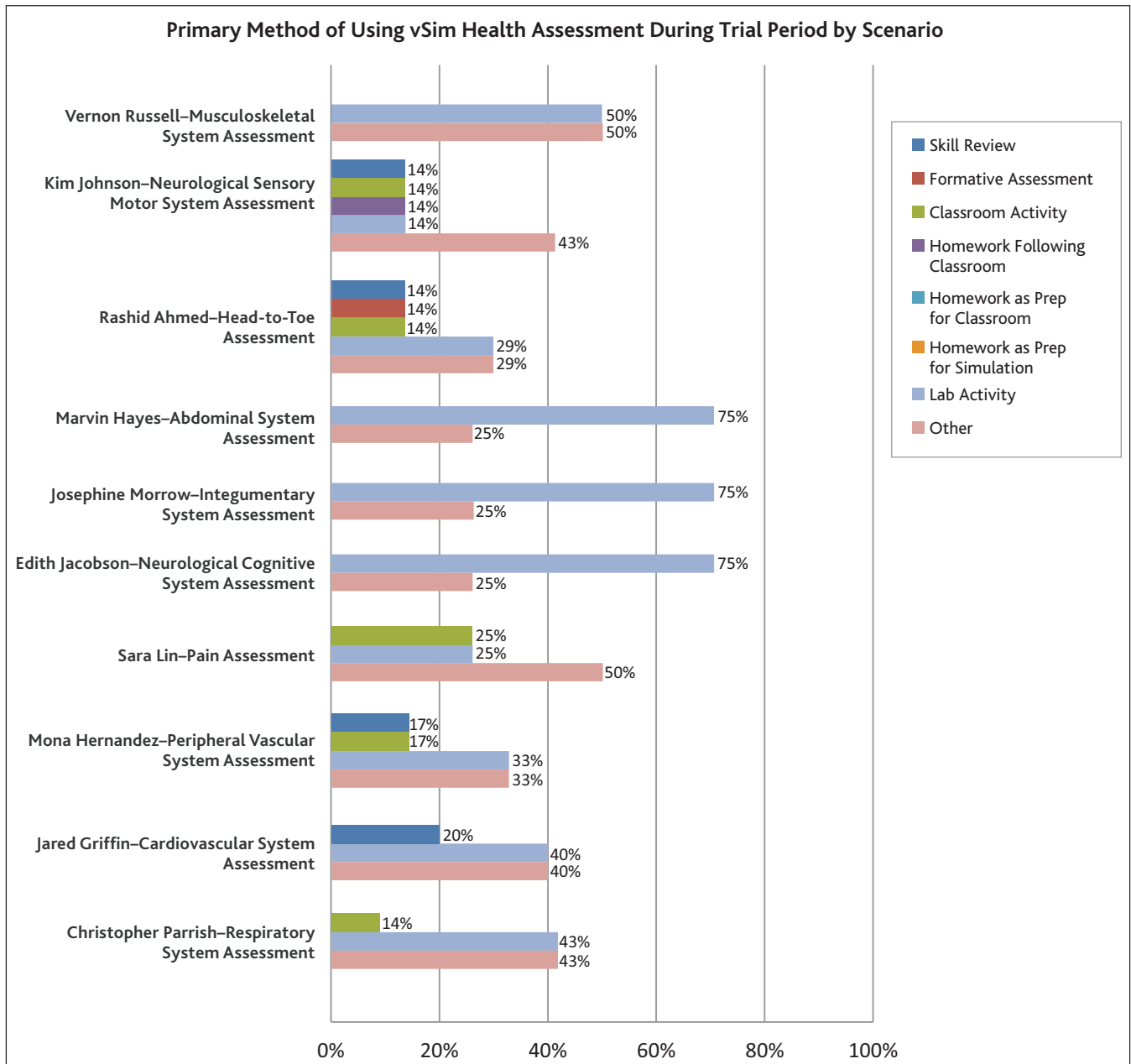


FIGURE 5

Flipping the Classroom

vSim is used to facilitate an active classroom approach to engage in a dialogue with students on content knowledge using an interactive patient story that unfolds within context. vSim Health Assessment faculty reported that novice learners struggle with understanding the concept of focused assessments. Providing the opportunity for students to actively differentiate a general head-to-toe assessment from a focused assessment is a strength of the vSim Health Assessment scenarios. Novice learners are inquisitive and hungry for knowledge. vSim Health Assessment provides the opportunity to use content knowledge in the context of learning.

EXAMPLE: Examine the difference between a general head-to-toe assessment (Rashid Ahmed) and a pain assessment (Sara Lin) or a focused abdominal assessment (Marvin Hayes). Highlight the class conversation on the history taking components that accompany focused assessments to differentiate the scope of differing physical assessments. The virtual responses can be discussed within context as the health history questions are incorporated into the virtual scenario activity. This approach will engage the learners and provide the opportunity to use content knowledge within the context of learning.

Small Group Conversations

Faculty reported that use of vSim in the classroom through small group conversations was an instrumental approach to enable a robust dialogue. A grouping of vSim Health Assessment scenarios can be assigned to students prior to class. During class, small groups can be randomly assigned an assessment scenario for discussion, with students sharing their thinking and engaging in a dialogue with their classmates on assessment steps and rationales for action. A group setting provides an opportunity for students to think cooperatively through an assessment activity, focusing on a combination of the assessment and thinking skills. Learning is incorporated through the variations in thinking and decision making, and the corresponding feedback log with correct rationale.

EXAMPLE: Neurological and musculoskeletal systems assessment can be complex. Prior to class assign students the vSim Health Assessment scenarios focused on neurological system assessment (both cognitive [Edith Jacobson] and sensory [Kim Johnson]) and musculoskeletal system assessment (Vernon Russell). In the large class, randomly assign small groups one of these scenarios. Small groups share and discuss their own results as they collaboratively work through the scenarios. Small group scenario results are presented to the larger class, with discussion about assessment areas that were completed correctly and areas that need more work. The class conversations are then used by the students as they continue to rotate scenarios until all groups have experienced each scenario, comparing and contrasting the areas of focus within these systems.

Post-Clinical Learning

Clinical days with beginning learners can be intentionally arranged with physical assessment as the focus. Students are assigned patients with specific focused assessment needs, with an emphasis on the patient education component needed with nursing assessment activities. Faculty can structure post-clinical conversations around vSim Health Assessment activities completed prior to clinical with guided reflection questions on patient education. In this way, students can compare and contrast their vSim experience to patient care health assessment and education issues they encountered in the clinical setting.

EXAMPLE: Use physical assessment areas for beginning students in the clinical setting focused on the respiratory system assessment (Christopher Parrish) and cardiovascular system assessment (Jared Griffin). Use the post-clinical learning time to review the vSim student feedback logs to compare and contrast their results with the results of their assigned physical assessment patients on the care unit.

Small Group Concept Mapping

Concept mapping for concept-based curricula can target important Health Assessment concepts, such as perfusion, skin integrity, or clotting, and health promotion. These conversations can be structured to emphasize important physical assessment and history taking components highlighted through the use of an active concept map. vSim provides context that can bring the concept map to life. vSim Health Assessment scenarios can easily be mapped to a concept-based curriculum to address both the content knowledge and technical assessment skill thinking and reasoning.

EXAMPLE: For beginning health assessment conversations, assign students the vSim scenarios on integumentary system assessment (Josephine Morrow) and peripheral vascular system assessment (Mona Hernandez). Begin a class conversation on differences between skin integrity issues that surface from changes in the peripheral vascular system (i.e., venous stasis ulcers and venous insufficiency) vs. arterial insufficiency, or initiate a discussion on clotting and differences in assessments of peripheral vascular and respiratory system issues that can surface. Use the vSim feedback logs with correct rationale and links to the latest evidence to create the concept maps. The associated vSim guided reflection questions can be used to uncover student content knowledge and rationale for thinking.

vSim as a Substitute for Other Teaching Methods

Figure 6 illustrates vSim Health Assessment users' views on the use of vSim Health Assessment as a substitute for other teaching methods. Faculty in the pilot reported that it was essential to bring the scenarios into the classroom and lab settings to provide students with a beginning understanding of important health assessment components and approaches to enhance thinking and learning. The more faculty were able to demonstrate effective use of vSim in the classroom, the more readily the students used the vSim resources outside of the classroom. Faculty also reported being more likely to substitute vSim for simulation labs or the use of standardized patients because of the realism and consistency of the virtual assessment findings, which are often a challenge during simulation and when using standardized patients. Using vSim strategically as a substitution for high frequency, low acuity patient health assessment situations can be effective when the goal is to provide every student with the same assessment experience. This goal can be more easily accommodated with a virtual platform.

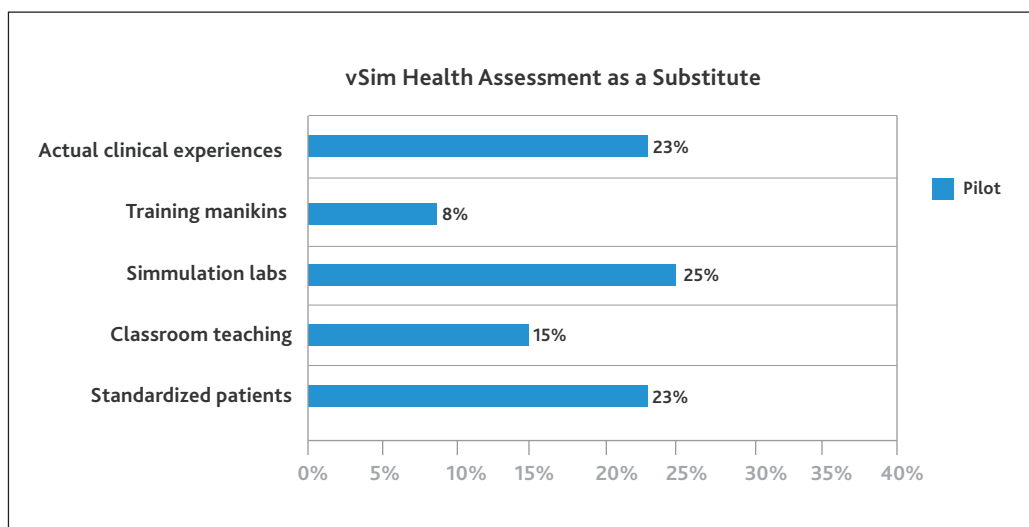


FIGURE 6

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, Scenario Overviews, and Debriefing Guides (see Instructor User's Guide).
- Wolters Kluwer Customer Success Training
- NLN 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 Foundations
<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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