Sim Beyond the Sim Lab

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Summary

- **Nursing education leaders agree that active, contextual learning leads to positive student outcomes and professional success.**

- **Simulations are ideal for helping students experience how healthcare works in context.**

- **Using story and narrative enables students to make meaning and patterns out of knowledge.**

- **There are numerous creative ways to use story in a simulated environment.**

- **The Socratic method of teaching can enhance simulation tools in promoting active, contextual learning.**

Introduction

More and more, nurse educators are recognizing the importance of creating and implementing teaching methodologies that replace inactive, traditional classroom learning environments with strategies that foster active, learning—giving context to knowledge gained in the classroom. Simulation exercises can be particularly effective at enabling students to make real, actionable meaning out of knowledge gained in the classroom—as demonstrated by a recent NCSBN Landmark Longitudinal that looked at how simulation could work in tandem with specific learning outcomes. Indeed, simulation as a means to transforming nursing education has been codified in National League for Nursing Vision series documents—observations on the current state of nursing education and ways to roadmap the future state—for the better part of the last decade. The most recent paper in the series, **Debriefing Across the Curriculum**, was published June of 2015 in collaboration with INACSL. It builds on an April 2015 paper—introduced the pedagogical aspects of simulation activities to focus on how to disseminate ideas on simulation use.

However, as both **Elaine Tagliareni** and **Susan Forneris** point out, the challenge is to expand upon and operationalize the vision heralded in these studies and papers. How can administrators, and faculty be facilitators and, in effect, co-creators of knowledge with their students? How can faculty integrate simulation into the curriculum and thoughtfully move from merely "depositing" content to strategies that actively engage the learner in actually "using" that content.

Simulation should be brought back into the curriculum thoughtfully to engage students contextually.

We need to move our nurses from signs and symbols to the story.

Storytelling as an Effective Teaching Tool

Teaching through storytelling—using narrative and narrative testimony—is a very common and ancient methodology. For nursing educators, storyboarding—depicting a story in graphic form via a set of images—is a basic storytelling tactic, an important first step for novice learners just starting out on their nursing practice lifecycle. Tagliareni and Forneris offer four simple examples of storyboards that can go a long way toward training students on key nursing fundamentals: 1) critical **locations** where nurses will be expected to perform their duties, such as the bedside, nurses station, or ER; 2) members of the **healthcare team**—physicians, providers, pharmacists, chaplain, families, and caregivers who influence care and with whom nurses must interact; 3) **actions** specific to the discipline of nursing, including healing, touch, inspection control, and safety; and 4) **technical skills** such as IV insertion, catheters, transfer lists, and vital sign monitoring equipment (these are separate from interventions and care activities).

Presented with a storyboard such as these four examples, a new learner may initially spot only a bunch of individual images, actions, interventions or medications. Veteran nurses, however, see things differently. From their many years of practice, they're able to distinguish patterns from the symbols, and identify entire holistic, big-picture processes. Their training, history, and knowledge of the patterns allow them to see a story that novice learners don't.

Therefore, as Tagliareni and Forneris argue, faculty should teach the whole story from the start. Why wait for the later stages of a student's educational career? Faculty need to move away from teaching novice learners separate signs and symbols and, instead, enable them to derive patterns out of symbols and meaning out of patterns. That way, nurses can learn more easily and quickly what it means to be a reflective practitioner, to see the world in context.

Using Story in a Simulated Environment

Storytelling helps educators transform the educational experience from one that allows students to simply deposit content to one that requires them to learn how to use the content they read about in their textbooks and other materials. They need to come up with activities and strategies not aligned to the content itself, but to innovative processes allowing that to happen. This requires faculty to better manage students' expectations of the curriculum as well as the practice of nursing. How then, can educators use story as a vehicle for learning so students can draw from those stories in their professional practice? Tagliareni and Forneris believe there are a variety of innovative yet simple ways to do this.

Employing a virtual simulator in a **flipped classroom** can easily bring a clinical context to reading material. For example, teachers could run a simulation and let it unfold as if it were a real case— organizing students into small groups and periodically pausing the simulation to allow groups to discuss the patient's condition, possible interventions, or different aspects of the simulated care situation. Thematic simulations delivered via a gaming platform could also be incorporated into a variety of care training settings. Ensuring that students prepare ahead of time for the simulated activity means they come with a foundation of knowledge to work in context and build a story with the faculty member as a guide.

Many nursing leaders consider **concept mapping** an 'a-ha' moment; taking a single concept and threading it through a hypothetical care experience allows students to—finally—visualize their knowledge through a big-picture lens, and forces faculty to impart their knowledge as they think. Virtual concept mapping inside the classroom offers students and teachers further opportunities for learning how to examine situations holistically, like an expert. This type of mapping could take place on a white board while a specific

patient case unfolds online simultaneously, allowing for pausing and restarting, in order to discuss case specifics, validate students' decision-making, add or remove an element from the concept map, etc. The exercise is a great example of reflexive learning—it reveals all of the things that happen in a care situation and allows students to reflect on what the correct, relevant knowledge is for that situation.

Role modeling in a simulated environment is another way to encourage students to think critically and learn contextually. After viewing a simulation of a specific care case at home, they then take on the role of an expert nurse in class with their cohort, explaining how they worked through the simulation. Role-playing in small groups might even enhance discussion and produce various interpretations of each role player's performance. The goal is to get students thinking how an expert nurse thinks, especially what she does when she doesn't know the answer. If teachers purposely leave out information, there is more onus on the students to come up with that information themselves, thereby increasing their critical thinking skills.

Apart from teaching activities, Tagliareni and Forneris believe there are some core skills that are better served through virtual simulation activities. **Delegation and Supervision** training is one such skill— particularly for senior students transitioning into practice. After organizing students into small groups, faculty could have them do a simulation where they practice prioritizing decisions in real-time with classmates acting as patients. The simulation forces them to explain their decision-making and ensures that rational thinking is the basis for their actions. They'll discover that they need to ask themselves whether they're using accurate knowledge correctly.

Another important area where using simulation activities to tell stories can be critical is in **low acuity-high frequency** care situations. During clinical rotations, students often observe and get training on situations with severe patient outcomes but occur infrequently. Yet there are common, fundamental, low acuity care experiences every student should be comfortable with—and simulation allows them to share these experiences and think through them together. Furthermore, faculty can more efficiently demonstrate how these simple situations can evolve into more

> *By using story telling as a way for students to recognize patterns, learning becomes more powerful.*

complex events so students can identify what happens when signs and symptoms are missed at the basic level and how easily that can affect later diagnoses and care decisions.

Using the Socratic Method to Teach Active Learning

Thus far, this paper has presented numerous methods and tactics that faculty can use to create a contextual learning environment. Yet Tagliareni and Forneris also believe they need to alter their own behavior—to imbue their teaching with the Socratic spirit, which compels them to be truly curious about what students are and are not thinking. How?

■ Ask students for evidence for their positions.

■ Ask for an example of a point a student has made.

■ Ask for an opposing view to facilitate compare and contrast discussions.

■ Suggest parallel examples of counter examples (for example, in a discussion about an elderly patient suffering from dehydration, ask students how they would approach the same condition in an 18-year-old athlete).

■ Ask the entire group of students whether or not they agree on a position.

One of the key benefits of adopting a Socratic approach is it forces faculty to design the simulation with precision and consistency. That means incorporating changes to methodology not just in one class but also in all classes across grade levels. The goal is to ensure students aren't coming up with the right answers by using knowledge incorrectly; in other words, how students apply knowledge generally is more important than reaching the correct answer on merely one specific classroom-based problem.

Conclusion: Resources and a Note of Caution

Resources for helping teachers come up with creative simulation technologies and activities are widely available. Tagliareni and Forneris recommend the National League for Nursing, which supplies numerous foundation simulations of scenarios that progress along a concept basis. Case studies are also freely available right from the NLN website (and converting these cases to first person could help create even more context and more story). Other sources for virtual case studies include TeleHealth and Second Life. Tagliareni and Forneris also suggest Skype as a very simple simulation vehicle for improving students' patient-interaction skills, in probing or chronicling a patient or case history. Students can role-play as both patient and practitioner on either end of a video or audio-only call.

Tagliareni and Forneris are confident and optimistic that simulation and story can move faculty from simply depositing content to using content in different creative ways as part of their teaching agenda and, ultimately, to match curriculum to course learning outcomes. They caution, however, that many of today's students—like, perhaps, students of any era—are wary of simulation; they're uninterested in being forced to practice things they don't want to practice. To combat those students' concerns, Tagliareni and Forneris advise faculty to be transparent about what they should expect from simulation activities and how they translate to outcomes, as well as how faculty should act as their teammate in getting them to the right answers.

Takeaways

- **Stress the importance of simulation activities as a way to prepare students for day-to-day professional practice**
- **Teach context as early as possible, even to novice learners**
- **Align your outcomes to the teaching process in addition to the content**
- **Seek out colleagues as creative partners in devising innovative simulation activities**
- **Incorporate the Socratic method into your teaching**

"When they're thoughtfully integrated, simulations don't just become lab experiences but outcomes. Each simulation should have specific targeted outcomes for students that should assist them in meeting a program/course learning outcome."