Lippincott® Nursing Education *Trends and Insights*

Simulation across settings and methods: Active learning at its best

Purpose: To offer evidence and guidance to nurse educators and leaders supporting the integration of simulation in all nursing education settings and throughout the curriculum as a critical method to build clinical judgment skills, enhance competent nursing practice, and improve client outcomes.

Simulation:

- Is inherently a powerful active learning strategy, providing real-world experiences.
- Fosters clinical judgment without harm to clients, students, or others, while allowing students to feel psychological safety in learning.[1-4]
- Includes high-fidelity mannequins, low-fidelity simulation, human patient simulation, standardized patients, actors, skills training, virtual screen-based, and virtual reality simulations, along with creative low-technology options.[5]
- Is based on scenarios that range from fundamental concepts to complex cases, allowing educators to facilitate meaningful learning, conduct reflective debriefing, implement client-based remediation, and evaluate learning and learners.
- Provides exposure to a range of client situations and conditions, including multi-patient experiences, which are difficult to replicate in the clinical world.

Simulation in any setting:

Recognizing that simulation is a process (not a place) provides motivation to implement this strategy effectively in all areas of learning. Although traditionally taking place in a lab or simulation center, newer evidence supports the use of simulation in all learning settings, such as seminars, classrooms, and virtually, offering a streamlined approach to nursing education.[4,6]

Separating the didactic portion of learning in the classroom from the "doing" learning strategies in the simulation lab and clinical settings creates siloes and interrupts learning. Bringing clinical to the classroom ensures learning that is situated in authentic client care.[7]

Robust use of simulation allows for realistic sharing of information, reinforcement of priorities, application to clinically based situations, development of clinical judgment, and evaluation of learners' levels of understanding.

Simulation in every setting provides students with opportunities for hands-on learning to exercise clinical judgment that are not limited to an infrastructure or physical building. Bringing high- and low-fidelity mannequins into the classroom, along with other strategies, allows students to scaffold (build new on previously learned material) and transfer (apply information to new challenges in client care and prioritization).[8]

Newer technologies, like virtual screen-based and virtual reality simulation, allow simulation to be completed spontaneously and frequently in every class, upon every student encounter, and in any setting where there is a device. Immersive environments engage students in realistic communication, such as in those using conversational artificial intelligence (AI), and decision-making challenges. Research demonstrates the effectiveness of virtual simulation in enhancing clinical judgment, building on learning from clinical experiences and live simulation, increasing student engagement, and fostering professional nursing behaviors, such as caring, delegation, priority-setting, and teamwork.[9-11] Computer-based simulation, wheth

er virtual screen-based or virtual reality, provides accessible, effective, acceptable, affordable, diverse, innovative, portable, convenient, fun, game-like, and challenging methods to engage in active learning.[9-11]

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The critical nature of prebriefing and debriefing:

- The reflection and guided discussion in simulation prebriefing and debriefing are critical elements regardless of the simulation setting or method.
- Prebriefing ensures students are prepared for and ready to participate in the simulation. Following the simulation experience, debriefing, or the clinical pause, offers students the opportunity to share insights, examine actions, reflect on decisions, evaluate collective performance, and clarify misconceptions.12
- Nurse educator guidance in debriefing ensures learners appreciate the purpose of the activity, reducing the likelihood of pushback against active learning strategies in favor of more passive modes of learning.
- Debriefing through meaningful Socratic questioning and reflection fosters clinical decision-making, fuels learner cognitive development, and encourages group analysis of perspectives and priorities.
- Computer-based simulation platforms often include digital debriefing opportunities for student reflection, allowing for independent, peer-focused, collaborative, and instructor-supported reflective learning.

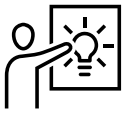
Suggested best practices:

Use ***unfolding case studies***, designed with unexpected obstacles, detailed contexts, and complex electronic health records, to replicate NCLEX®.[13-15]

Engage students with ***reverse case studies*** by giving minimal information and allowing them to build the client individually, in pairs, or in groups.[16-17]

Develop exercises that encourage ***compare and contrast*** exercises with clients cared for in simulation, clinical, cases/exemplars in class, class preparation, or from individual experiences.[7]

Stimulate ***clinical imagination*** as students create cases using words, images, videos, posters, word clouds, presenting software, and other tools.



Assign ***virtual simulations*** for students to prepare for class, lab, clinical, or simulation; then base your teaching on these modalities as clients in class to present/replace lecture material.[12, 19]

Use ***virtual reality or virtual screen-based simulations*** as methods for quiz and exam ***remediation***. Focus on student learning gaps. Students remediate in pairs, groups, as a class, or individually.[7, 9-11]

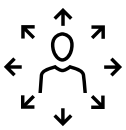
Create video scenarios, or seek out commercial ones, to discuss focused "***thinking questions***." Create writing and case exercises to engage learners and assess student learning during class exercises.[7, 20]

Replace classroom lectures with ***low- and high-fidelity simulations***, along with strategies to engage in scenarios and provide active roles for all students, including peer review, family members, or team members.[4, 6, 21]

Prebrief and debrief all simulations with probing, Socratic questioning, or writing exercises (write a letter to the client, SBAR, nursing note, reflective journaling, ah-ha's).[7]

Use ***virtual simulations*** to introduce or reinforce information, assisting students to experience a variety of specialties, levels of complexities, cultures, and perspectives.[9-11, 18]

Use ***Escape Rooms***, created by you, your students, with the help of AI, or in the literature that are fun, easy to implement, impactful, and challenging.[22-23]



Engage students in low-tech ***role-play*** to develop communication, clinical judgment, decision-making, interprofessional, priority-setting, and collaboration skills.[24-26]

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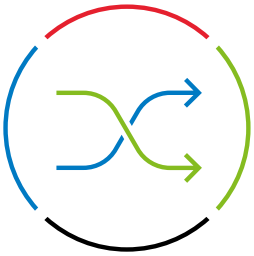
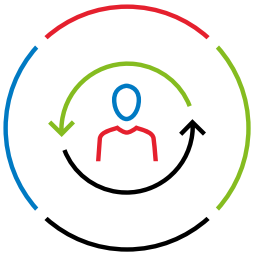


Implement simulation strategies across the curriculum in every learning setting, including classrooms, seminars, conferences, workshops, meetings, labs, clinical environments, and virtually.

Enhance learning through meaningful and reflective prebriefing and debriefing.



Best practices indicate that active learning strategies be used frequently with various modes of simulation to create context-based, clinically relevant, meaningful, and challenging experiences in any learning setting.

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