



# Enhancing Perioperative Learner Engagement Through Escape Room Instructional Methodology



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## Clinical Issue

Between 2021-2022, the US Navy's Perioperative Training program directors on both coasts noticed a distinct trend that perioperative students were scoring between 80% – 90% on their AORN Periop 101 didactic final exam

In some cohorts, there would be only one or two students out of a maximum class size of six that would score higher than 90%. Through the pandemic, we learned the value of simulation and being able to think “outside of the box” to meet the educational needs of our students.

The aim of this quality improvement project remains to prepare the US Navy's Periop 101 students to improve their retention of the educational material and assist the perioperative students to achieve a 90% or better on the Periop 101 didactic final exam using an escape room instructional methodology.

## Description of Team

The team included active-duty US Navy Nurse Corps Officers enrolled in the Navy's Perioperative Training program on both the East and West Coasts as well as the respective Perioperative Program directors.

## Preparation and Planning

A review of the low scoring content areas from previous cohort's didactic final exam questions was completed for a two-year period. The perioperative program directors incorporated those identified low scoring content area material and content from AORN Periop 101 curriculum to design the tasks and educational material for the escape room. Once a class finishes their final didactic exam, their missed questions are utilized to enhance the escape room for the next class.

## Assessment

Barrow's (1986) taxonomy of problem-based learning methods was essential in the decision of what type of learning method to use. Periop 101 students are adult learners that tend to be more self-directed and motivated to learn. Barrow's four objectives for clinical education of structuring knowledge, reasoning, self-directed learning, and motivation make an instructional methodology like escape room a perfect fit for adult learners.

## Implementation

Periop 101 students participate in a perioperative themed escape room scenario that has been set up in an operating room. They are briefed on the ground rules and begin their first task to find the subsequent clues and progress in this fashion until they reach the final task that grants them access to “leave” the escape room.

The tasks consist of activities that include crossword puzzles, word scrambles, fill-in the blanks, sequence, and item recognition that focuses on perioperative nursing. The escape room is a timed event and students have 45 minutes to work together as a team to complete the tasks and escape the room.

## Outcome

Overall, utilizing an escape room to help Periop 101 students retain information through problem-based learning methods has not only shown improvement in Periop 101 final didactic exam scores, but also an increase in student satisfaction with the program overall.

	n	Scored higher than 90% on Periop 101	Avg Test score on Periop 101
<b>West Coast</b>			
Jun 2022	4	50%	90%
Oct 2022	4	50%	88%
Feb 2023	4	50%	89.75%
<b>East Coast</b>			
Oct 2022	2	50%	92.5%
Feb 2023	4	100%	98.75%

Factors other than our interventions could have also affected the scores on AORN Periop 101 didactic exams. We, however, noted no obvious changes within the program, other than our intervention, over the course of the quality improvement project that could have accounted for the changes in provider practice we observed. The next class will be taking part in the escape room in May 2023 and data collection remains ongoing.

## Implications for Perioperative Nursing

Incorporating problem-based learning methods to the Periop 101 curriculum enhanced the students' experience during their perioperative education.

Utilizing “outside of the box” learning methods, like this perioperative escape room, help perioperative nurse educators find ways to engage their adult learners. This ensures that the perioperative students can take the knowledge they gained in the didactic portion of the course and transfer it to the clinical portion – ultimately setting them up for success in the operating room..

### References

- Association of Operating Room Nurses. (2020, April 28). *Periop 101: Core curriculum*. <https://www.aorn.org/education/facility-solutions/periop-101>
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