

Background & Problem Identification

CUSOM Anesthesiologist Assistant (AA) Program is a 28-mo master's program preparing its graduates to function as critical parts of the Anesthesia Care Team.

CV Physiology is widely regarded as the most difficult course in the program.

The shift to online learning in Spring 2021 exposed several weaknesses:

- Passive and unengaging curriculum consisting of 16 two-hour lectures.
- Grading based on midterm and final exams with no checkpoints.
- 2021 Midterm exam avg=77%, with four students failing. 2020 Midterm exam avg=84% with no students failing.

AA Program leadership set a goal to transform the curriculum to 80% active learning by 2026.

Objective

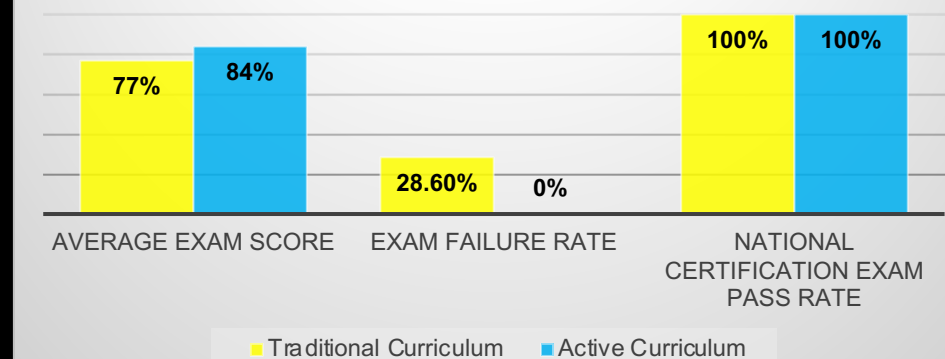
To develop, implement, evaluate, and assess a more active curriculum for Cardiovascular Physiology in the AA Program

Educational Methods

| Concept | Action |
|---------------------------|---|
| Priming | Creation of pre- and post-lecture quizzes (24 total) |
| Interleaving | Lectures to start with review questions |
| Team Based Learning (TBL) | Development and implementation of two round robin TBL sessions with 4 PBLDs/session using the Nooks online platform |
| Active Participation | Creation of Jeopardy-style game about EKGs using Factile |
| Assessment | Required post-lecture surveys. |

Evaluation and Assessment

Metrics Comparison Traditional vs. Active Curriculum



Assessment:

- Responses to surveys were strongly positive.
- Students reported the new format was more enjoyable and made the material easier to understand.

References

Kern, D. E. Curriculum development for medical education: A six step approach. Baltimore: Johns Hopkins University Press, 2006.
Brown, Peter C. Make It Stick : the Science of Successful Learning. Cambridge, Massachusetts :The Belknap Press of Harvard University Press, 2014.
Guyton and Hall Textbook of Medical Physiology. 13th edition. Philadelphia, PA: Elsevier, 2016.

PREVIEW **CV PHYSIOLOGY-EKGs** <https://www.playfactile.com>

| Wiring | The Normal EKG | Tachyarrhythmias | Conduction abnormalities | Drugs and Electrolytes | Pathologic Potpourri |
|--------|----------------|------------------|--------------------------|------------------------|----------------------|
| \$100 | \$100 | \$100 | \$100 | \$100 | \$100 |
| \$200 | \$200 | \$200 | \$200 | \$200 | \$200 |
| \$300 | \$300 | \$300 | \$300 | \$300 | \$300 |
| \$400 | \$400 | \$400 | \$400 | \$400 | \$400 |
| \$500 | \$500 | \$500 | \$500 | \$500 | \$500 |