Reducing Performance Exam Anxiety: Student-Centered Skills Performance Exams Using Video and Peer-to-Peer Mentoring

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Disclosures
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Why did we do this?

• There was a noticeable correlation between student stress and performance.
• Some students also exhibited somatic stress/anxiety response
  – Nausea, vomiting, crying
  – Syncopal episodes, dizziness
• Students commonly practiced just before the performance exam, but, did not practice enough to retain the skill over time.
• This increased the need for review before performance and lack of confidence at the bedside.
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Why did we do this?

- The existing testing process was:
  - Subjective
  - Time consuming
  - Poor interrater reliability
  - High pass rates with poor repeat performance
  - Overly stressful to the students
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Why did we do this?

• Instructor experienced limitations with:
  – Poor visualization
  – Time constraints for providing feedback
  – Inability to support failing grades if contested
  – Inconsistencies among instructors (some graded easier/harder)
  – Finding clinical opportunities for students to perform skills in the clinical setting
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**Goals of the new testing method:**

- To provide an alternate student-centered method of nursing skills instruction and evaluation.

- Improve student skill mastery “muscle memory” by creating an environment that allows students to determine their own learning needs and styles required to master nursing psychomotor skills.
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Goals of the new testing method:

• Provide an instructional method that slows nursing skill degradation over time.

• Improve clinical performance as a result of psychomotor skill mastery.
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**Benefits with the new testing method:**

- Allows for critical visual examination and evaluation of nursing skill performance.

- Provides a method for constructive feedback with visual exemplars within the performance.

- Stimulates discussion within the peer team on skill performance/criteria.
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Benefits with the new testing method:

• Encourages deliberate practice that promotes mastery of the designated skill(s) activity.

• Evaluation of peer team dynamics especially communication.
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Key benefits for Instructor:

• Ability to analyze a student’s skill performance from several angles.
• Compare it to past performances and best practice models.
• Increase ability to identify students needing additional one-on-one instruction.
• Allows time to give timely and pertinent feedback.
• Less fatiguing, improves interrater reliability.
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**Implementation:**

- Opened a pilot video skills lab.
- This required outfitting with video equipment, cameras, iPad or laptops, software, work surfaces, simulated skill models, and microphones.
- Started with a small cohort of students.
  - Large increase in student practice time
  - Improved clinical performance
- Within 2 semesters we had incorporated into both nursing skills courses.
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Process:

- Student attends skills class, selects testing partner.
- Practices skill with partner in class and open lab.
- Must be approved to move into testing phase.
- Self schedule for testing space – 2hr increments.
- May repeat this process as many times as needed within the open testing timeframe (2-4 weeks varies by skill).
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Process Cont:

• Peers in team must grade each other during the testing process.

• Peer points out practice deviations, video stops.

• Team discusses giving constructive feedback, resumes video from beginning.

• Student must grade their own video prior to submission.
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Process Cont:

• Student submits self-selected exemplar video – no deviations from EBP guidelines allowed.

• Pass or Fail based on defined criteria.

• First fail - gets one repeat.

• Second fail – face-to-face with two Instructor.

• Third fail – no credit for course.
Video Examination Procedure

Before Class
Assigned videos and readings

In Class
Skills lecture
Watch faculty demonstration

Practice
in class with peer

Practice in open lab with peer
Practice outside of class with peer

Video performance exam
Perform skill

Rerecord

Mistake
Exemplary video

Submit video to faculty

FAIL
PASS
Screen Shot
## Testing Timeline

<table>
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<th>Skills Tested</th>
<th>WK 4</th>
<th>WK 5</th>
<th>WK 6</th>
<th>WK 7</th>
<th>WK 8</th>
<th>WK 9</th>
<th>WK 10</th>
<th>WK 11</th>
<th>WK 12</th>
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**Time frames varied according to class size**
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**Barriers:**

- Some barriers were:
  - Instructors
    - Initially resistant to deviate from traditional teaching methods.
    - Initially intimidated by the technology.
    - Skeptical of the effectiveness of the teaching strategies.
  - Space can be an issue, good timing is essential.
  - Start-up can be expensive.
  - Must have solid grading criteria in place.
  - Supply usage may increase.
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Project Impact on class:

• Students
  – Performing better in clinical.
  – Practice time increased >400%.
  – Improved retention of the skill over time.
  – Increased sense of autonomy.
  – More control over their schedules.
  – Reduced anxiety and stress.
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Project Impact on class:

• Instructors
  – Improved visualization.
  – Ability to give more concise feedback with visual aid of video.
  – Increased flexibility in schedules.
  – Supportive evidence when students do not progress due to performance.
  – Opens time for students with:
    • Learning accommodations
    • Needing 1-on-1 remediation
Resources


