Transforming Graduate Nursing Education Through Innovation: A Team-Based Learning Approach

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BACKGROUND

- Transitioning from passive learning strategies to active learning strategies such as team-based learning (TBL) necessitates development, implementation, and evaluation.
- TBL encourages collaboration through various teaching and learning strategies to enhance learner engagement and promotes deep learning and greater retention.
- Studies show that TBL improves peer collaboration, engagement, and critical thinking. However, there are a dearth of reports about TBL in Doctor of Nursing Practice (DNP) education. Our study purpose was to provide a descriptive report of TBL implementation for DNP students.

BENEFITS OF TBL

When compared to traditional teaching methods, TBL improves:

- Learner engagement[1]
- Exam scores[2, 3]
- Content mastery[3]
- Learner collaboration[4]
- Application of content to problems relevant to future role[4]
- Learner accountability[5,6]
- Critical thinking[6]
- Learner course satisfaction[6]

METHODS

Participants: Nine adult/gerontology acute care DNP students in Spring, 2023

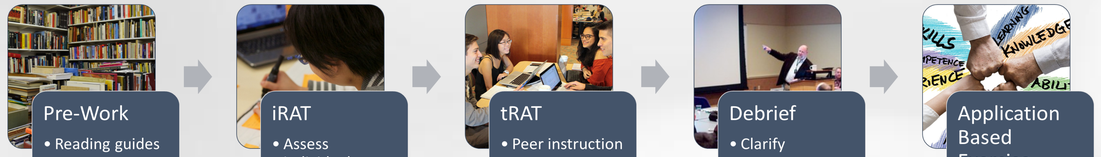
Design: Single-group pretest-post-test; post-only test; qualitative inquiry

Procedures: TBL employs a flipped-classroom instructional design. Students complete pre-work reading assignments. For challenging content, pre-recorded lectures are available. Class, via videoconferencing, begins with an individual readiness assessment test (iRAT) to assess foundational knowledge. Next, each student team discusses and submits a single team RAT (tRAT). A debriefing session follows the iRAT/tRAT, to prepare students for an application-based exercise (ABE).

Measures: Formative surveys elicited the students' reaction to and satisfaction with TBL as well as impact on engagement and critical thinking. Comparison of iRAT/tRAT scores, collected via InteDashboard, a learning management system specifically designed for TBL, sought to demonstrate the effect of peer instruction on preparedness for the ABE. Examination scores measured the students' knowledge.

Analysis: Descriptive

TBL DESIGN AND IMPLEMENTATION



RESULTS

Evaluation

- Formative survey, and post-course anonymous questionnaires
- Majority of learners were satisfied with TBL (Descriptive statistics)
- Learners reported TBL promoted engagement and critical thinking (Descriptive Statistics and Qualitative Inquiry)
- tRAT scores > iRAT scores (Wilcoxon Signed Rank Test)
- 88.9% understood rationale for TBL pedagogy
- 100% reported content was relevant for future practice
- 100% enjoyed working in teams
- 100% earned "A" or "B" for course

Critical Thinking

- 100% significantly or completely found information relevant, understood key concepts, felt they had to "think" to understand
- 100% significantly or completely thought TBL assisted with thinking more logically, objectively, and deliberately
- 89% significantly or completely had to think scientifically to grasp the material

Approach to Learning

- 76% took a deep approach
  - Deep Approach: Learners actively seek to understand material using supportive evidence
- 76% took a strategic approach
  - Strategic Approach: Learners intend to obtain high grades through organized study and time management
- 47% took a surface approach
  - Surface Approach: Learners try to memorize to transmit information, lack purpose

Engagement

- >75% mostly of completely increased emotional, behavioral and cognitive domains
- Common themes:
  - Emotional: Learners enjoyed teamwork
  - Behavioral: Learners prepared for class, actively contributed to team
  - Cognitive: Learners self-identified areas of weakness, understood clinical application

DISCUSSION

- 89% were satisfied or extremely satisfied with learning environment, course organization, faculty teaching methods, and faculty encouragement of learner engagement.
- > 75% reported implementation of TBL increased critical thinking, engagement, and deeper, strategic learning
- TBL fostered more strategic and deep learning than surface learning
- Qualitative inquiry revealed learners benefitted from team collaboration by hearing others' perspectives and rationales
- Learners were motivated to complete pre-work when held accountable to team success on the tRAT and application based exercises
- TBL improved problem-solving skills as learners completed application based exercises that translate into real-life clinical scenarios

CONCLUSION

- One limitation of our study was a small cohort of nine DNP students; thus, future implantation is needed to observe long-term learning outcomes.
- Our project suggests TBL fosters deeper knowledge when preparing learners for challenging healthcare systems.
- Integration of TBL into foundational DNP courses prior to entering the adult gerontology acute care specialty could further prepare learners for clinical practice.
- The primary author has incorporated TBL on a smaller scale as a pilot in an advanced physiology and pathophysiology course this fall. Success of the pilot is pending.

REFERENCES

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