Implementing Collaborative Testing across a Prelicensure Program
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Collaborative Testing
- Collaborative testing is a learning strategy and assessment technique which emphasizes clinical reasoning, communication, and interpersonal skills (Sandahl, 2009).
- During collaborative testing, several learners complete an exam by analyzing items and potential answers together using critical-thinking skills with peer interaction to arrive at a consensus for the rationale of the best answer.
- Improved content retention has been reported as a benefit of collaborative testing in all types of prelicensure programs (Green et al, 2018; Hanna, et al, 2016; Rivaz et al, 2015).
- Various methods of collaborative testing in nursing education programs have been described, generating evidence to support wider adoption of the technique (Billings, 2017).

The Science of Nursing Practice with Childbearing Families
- Students complete three unit exams in class collaboratively.
- After students finish a 40-question proctored unit exam with secure assessment software, students are randomly assigned by faculty to a group of four students and immediately complete the exam again as a group on the learning management system.
- Exam items include multiple choice, multiple answer, and short answer, at application level.
- The unit exam grade is derived from 70% of individual exam score plus 30% of team score. A cap of 5 points is applied. Unit exams comprise 57% of course grade.
- The purpose of collaborative testing in the childbearing course: to consider peers’ rationales and enhance critical-thinking on application items.

The Science of Community and Public Health Nursing
- Towards the end of class, students self-selected to groups of two to four students to complete a ten-item quiz based on the day’s lecture.
- Ten quizzes are administered during the semester.
- Quiz items are primarily knowledge-based with a few application questions.
- After students complete the quiz, faculty reviews quiz items and students discuss “muddy points”.
- Quizzes are not graded. Completion of the quiz is factored into class participation, which is 30% of the course grade.
- The purpose of collaborative testing in community and public health nursing is to provide opportunities for students to discuss the lecture content together, and to practice and prepare for course exams.

Implementing Collaborative Testing across a Prelicensure Program

Students’ group selection process negatively influenced some groups’ performance.
- Students randomized into groups based on exam completion time exam favored strong students grouping with strong students.
- Self-selection of peer groups may result in weak students choosing weak students.
- Without identified course grade component, students are less accountable for class discussion and participation.
- Without assigned collaboration, students lacking friends in a class can be disadvantaged during self-selection and prefer to work alone rather than seek a group.

References and Contact Info

Implementation
- At an accelerated prelicensure program, faculty of four nursing courses implemented a formative collaborative testing method to all sections of each course.
- Each faculty member independently designed the method and evaluated outcomes of collaborative testing in their course.

Evaluation
- Collaborative testing has become an essential aspect of each course, contributing significantly to students’ academic success.
- Course evaluations highlighted student satisfaction with collaborative testing.

Challenges
- Students’ group selection process negatively influenced some groups’ performance.
- Students randomized into groups based on exam completion time exam favored strong students grouping with strong students.
- Self-selection of peer groups may result in weak students choosing weak students.
- Without identified course grade component, students are less accountable for class discussion and participation.
- Without assigned collaboration, students lacking friends in a class can be disadvantaged during self-selection and prefer to work alone rather than seek a group.

The Science of Psychiatric/Mental Health Nurse Practice
- During class, students self-select to groups of four to eight to complete a quiz of multiple answer application level items collaboratively.
- Two quizzes are administered during the course, totaling 5% of the course grade.
- The collaborative testing assignment was designed to motivate student engagement with complex mental and behavioral health content, to facilitate critical thinking, and to bolster group study skills before unit exams.

The Science of Nursing Practice with Adults
- Students self-select into groups of any size to answer essay items based upcoming lecture.
- Quizzes are due before each class and are submitted to plagiarism detector.
- Students are encouraged to collaborate with peers on each quiz but are not required to collaborate or to work with the same peer on successive quizzes.
- Six quizzes are administered during the course, the top five quiz grades comprise 10% of grade.
- Discussion of medical-surgical nursing concepts outside of class encourages more robust understanding in preparation for lecture.