Special Article

Test Reviews in Nursing Education: A Nurse Educator's Guide

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Abstract

Test review is an essential aspect of teaching and learning in nursing education. The is a lack of a test review guide exists to facilitate novice nursing faculty in a formative assessment process. In this paper, the authors discuss and describe test review processes, appropriate timing and location, and offer a guide to help facilitate nursing faculty with test reviews. In conclusion, a teacher's guide and checklist have been identified which can support student and faculty with teaching and learning didactic and clinical content, and support student study needs, and future success on next exams.

Key words: examination review, test review, test guidelines, nursing education.

Introduction

Nursing programs are loaded with heavy content, thus taking examinations are inevitable and common place during nursing school (Williams, 2019). During a nursing student's tenure, she or he may take an enormous amount of examinations and quizzes. Many students have test success and some have disappointments and failure leading to frustration with test reviews and test administration by the faculty. Test review, as part of assessment in nursing education, facilitates teaching and learning and benefits students and faculty (Evans et al., 2014).

According to Ieardi (2014), Poorman and Mastorovich (2008), there is a gap in the literature regarding the test review process in nursing education. To date, there is limited information existing on the investigation of the time and location appropriateness of test reviews in nursing education. Test review timing and location of the test review may be done in a variety of ways. For example, many test reviews are handled immediately after the test. Students may prefer this strategy due to the didactic content being recent on their minds and it may help facilitate their immediate gratification. Moreover, students and faculty may prefer to have test reviews immediately following exams supporting their plans for study preparations, future test success and content delivery. Timing is essential to future success for students and faculty.

Test review environment and logistics

Location of test reviews have been consistent over the years with the same classroom, same location. For the logistics (structure) of test review, initially, faculty have decided on the rules of test review and ensure these are printed in course syllabus and student handbook. The rules may consist of do's and don'ts and the faculty adherence to a well-structured test review policy. Most schools of nursing have either a statement regarding test review or a testing policy that spells out dos and don'ts during testing and or code of conduct for testing. Whichever, the faculty may need to briefly

discuss this with nursing students at the beginning of the semester, periodically throughout, and before tests are administered. With beginning nursing students, it essential to share this information upon receipt of student handbook, syllabus, and prior to any tests so that students have time to read documents, acknowledge receipt, and share concerns or questions.

Test reviews are similar to debriefing. When test reviews are used in simulation and games, it marks a point where students and teachers get questions answered and final clarity of muddy points, if they exist. Students need this immediate clarity to the entire test so that they gain the knowledge necessary to build upon for the next test. Teachers must be patient and listen to students concerns allowing them to express themselves professionally and considering the rules of test review. Most teachers will remind students of the policy prior to conducting test review, such as no pencils, pens, cell phones or electronic devices may be used during test review. Teachers may be on the lookout for persons attempting to cheat during test review, such as take pictures of test; share information with plans to record some or any aspect of the test.

Test review can be best accomplished by the following interventions: 1) plan to conduct test review with at least three teachers; 2) prior to test review, explain rules and where test review will be and that it is optional; 3) during test construct, be sure to key the test for review and check it with other faculty; 4) allow students to tally the number of questions missed and write concerns for items missed (this is usually their biggest concerned; "did I pass"; 5) be sure to take the test key down after all students have reviewed; 6) review student comments with cohorts. Reviews can also be conducted using a PowerPoint slides with only letters (A, B, C…) and the teacher reads the questions, or by use of an overhead project showing only letter choices as the teacher reads the questions. It may be applicable to use of more than one faculty during test reviews. This is so that if students have questions the faculty can be available to answer questions. After each test review it should be part of academic practice to rotate questions over the next several semesters.

Testing in Clinical & Review

Clinical examinations are essential to learning from the practice stand point. Students benefit from clinical quizzes, formal and informal testing. Because it is critical to validate and clarify student's knowledge and competency in clinical, nurse educators need to use more formative methods of examination such as quizzes and tests. According to Gaberson and Oermann (2010) clinical exams are structured evaluations of clinical performance in labs, thus limiting distractions and aiding in student performance. Clinical simulation (ie..games) can benefit students and faculty by integrating fun and review of essential content (Gaberson & Oermann, 2010; Potter & Tolson, 2017). Also, the vastly growing use of simulation nurse educators will continue to benefit from simulation testing. The framework of testing in clinical can be best structured by essential test construction components such as test blueprint (Miller et al, 2013).

Student should be strategically tested from the course objectives and learning goals during the clinical component of the professional program. In review of clinical testing, it is essential that the faculty consider self-evaluation. Faculty may discuss students' clinical performance and explain performance in relation to clinical objectives and competencies. By asking students to describe perceptions of performance in relation to objectives and discuss any discrepancies in clinical performance. It is critical for faculty to be sure to identify with the student their strengths and areas for improvement.

Lastly, faculty help students identify any learning activities that would help improve their performance. A mid-point/mid-term performance review with the student has the potential to assist with performance improvement. According to Gaberson and Oermann (2010) clinical testing is recommended throughout the curriculum to better prepare students for real life situations and best and current practices. The complexity, content, and length of clinical tests or quizzes depend on the level of professional program and the overall curriculum objectives or competencies. Brief metacognitive learning activities can enhance student learning (Poorman & Mastorovich, 2016; Schuler & Chung, 2019).

Measurement, Assessment and Retention

Using reliability and item analysis are essential to evaluation of teacher developed test (Quaigrain & Arhin, 2017). Item analyses includes looking closely at the results of an examinee's performance to analyze the difficulty index (DI) and the DI of each multiple-choice item. Miller et al (2013) asserted that the role of faculty measurement ad evaluation "the proper interpretation of test scores requires awareness of what the test measures, the students' characteristics and background, the type of decision to be made, the amount of error in the score, and the extent to which the score agrees with the available data" (p. 477). Tinnon (2018) student retention is impacted by well-constructed teaching and learning experiences. Formative assessment provides students with feedback on their progress of their learning prior to the summative evaluations, according to Koh (2010).

Conclusion

Test review is fundamental to assisting nursing students with understanding why the answer was correct by providing clarity. It also assists the faculty with showing caring and remaining open to student's learning needs at each administered test. It is an informal way to assess and evaluate student's understanding of content and the ability to apply test taking skills on a teacher-based exam. It is the teacher's responsibility to ensure that students are afforded the opportunity to review (individually)/and to provide group review immediately following the exam. A guide to test review can assist nurse educators as they prepare and evaluate tests. Novice nurse educators may benefit from the use of this paper and consider incorporating the guidelines as an extra method to ensure test review methods are appropriate for their program.

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Guide for Test Review

- ☑ As much as possible, develop test from a test bank; and update the test bank on a continuous basis.

- ☑ Utilize required textbook test bank to develop test

- ☑ Note the objectives of course content for test development

- ☑ Note the number of items to achieve the whole test

- ☑ Note the number of items per content area and the time spent covering this material in class

- ☑ A test blueprint may facilitate the framing of the test across Bloom's Taxonomy

- ☑ Note if the entire test is free of distracters. ie..misspelled words, excessive biases, stereotypes, fonts, caps, or use of any punctuation.

- ☑ Have a cohort/colleague share the responsibility of proof-reading the entire test.

- ☑ Be very sure that all stems are clear and have one focus

- ☑ Be very sure that all distracters distract and do not overlap the correct answer in any way.

- ☑ Review questions on a continuous basis; and update questions with prior stem/distracter issues

- ☑ Maintain test security; an electronic file accompany a hard copy file.

- ☑ Keep in a double locked file with a personalized key for single entry

Test Review Checklist

- ☑ Explain the rules of test review (Prior to test administration and whenever necessary)

- ☑ Ensure the syllabus and student handbook have printed rules and policies listed for students to refer to

- ☑ Prior to administering a test, Explain where and how test review will be conducted

- ☑ Ensure that there will be at least 2 faculty available to conduct test review

- ☑ Provide student small index card to jot down their concerns for test items and to tally items missed

- ☑ Collect all student index cards; review common concerns with colleagues during the post test review

- ☑ Remember to take down the test key

- ☑ Note items concerns; Vote on whether not to keep a question or toss it

Test Review Guideline/Checklist

Test review can be best accomplished by the following interventions:

Preliminary Preparation for Test Review

1)   Prior to the start of the semester, it is ideal to develop the test blueprint/test map for each exam to be administered for the entire semester

2)   Test blueprints should be discussed and explained to students prior to posting or sharing them with students. Each exam including clinical quizzes or exams should be have its own test blueprint.

3)   At a minimal, a test blueprint can consist of total number of items on the exam, all content areas/topics with distribution of items per nursing process, per bloom's taxonomy beginning with application level and up.

4)   plan test monitoring and review along with each test construction

5)   as team of faculty decide at the beginning of the academic year the test review format; assess and evaluate test review format regularly or as needed

6)   depending on format of test review, all teachers, if possible should be present for conducting test reviews or at least two to assist with feedback

7)   assure at the beginning of the semester planning that assignments are facilitated to make sure who will pull it all together and when test questions are due to the lead faculty;

8)   during test construction, ensure

9)   upon completion of test construction, ensure students know rules of

During Test Review

1) prior to test review, and preferably at beginning of each semester, faculty should discuss and explain rules of test review and where test review will be conducted;

2) during test construction, be sure to key the exam for review and check it with cohorts;

3) allow students to tally the number they missed and write concerns for items missed (this is usually their biggest concerned; "did I pass";

4) be sure to take the test key down after all students have reviewed;

5) review student comments with cohorts.