

The Journey to Active Learning

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Abstract

Upon completion of the required educational and clinical component, many undergraduates from health science programs are required to take and successfully pass a certification exam prior to entering the workforce. Typically, these certification exams set the standard for entry into practice at a safe, competent level. To achieve success on these exams, the student must routinely apply concepts to different clinical scenarios. Within pre-licensure nursing programs, the ability to safely navigate a variety of patient scenarios in the provision of care demonstrates the student's application of clinical judgment. Their clinical judgment, as measured on a standardized test, is intentionally reflective on the student's ability to apply those same clinical judgment concepts at the bedside.

Keywords: Clinical judgment; Flipped classroom; Active learning

Introduction

The BSN Program at Southern Illinois University began in fall of 2020, using a mix of traditional lecture and learning opportunities as dictated by COVID restrictions. With the shift back to pre-COVID spacing requirement in fall 2021, the majority of course work was delivered via a traditional lecture model. With the advent of a new licensure exam deployed to nursing students in the Spring of 2023, the nursing faculty believe it is crucial to develop nursing clinical judgment.

This clinical judgment development will assist nursing students not only to perform better on high-stakes tests such as the Health Education System, Inc. (HESI) Exit exam and National Council Licensure Examination for Registered Nurses (NCLEX-RN), but will also foster safety in clinical practice [1]. Providing nursing students with the knowledge and skills needed to repetitively apply them to practice assists the nurse to identify threats to patient safety, and implement strategies crucial for the provision of safety within the health care delivery system [2].

Utilization of a flipped classroom approach has been effectively utilized in health science programs specifically designed to prepare students for employment in health care fields [3]. With an emphasis on application of knowledge, the flipped classroom approach requires the student to assume a baseline responsibility for pre-class knowledge so they are adequately prepared to actively engage during structured class time with specific learning activities [4].

One challenge facing faculty in the utilization of flipped teaching is the development of meaningful classroom learning activities that build upon pre-class reading assignments. These specific learning projects provide students with an opportunity to apply those concepts to specific scenarios. When educating

an individual to function within an interdisciplinary health care team, these active learning scenarios provide the student with the safe environment to discuss what could happen if a specific action was or was not taken. Consistently requiring the student to apply knowledge to health care scenarios within a safe environment fosters their development of clinical judgment crucial for the provision of care post-graduation.

Case Report

Faculty within a nursing program at a Midwest, public university completed a workshop designed to facilitate faculty development in the utilization of a flipped classroom approach to teaching. This workshop, held in person, provided the participants with the knowledge, tools and access to experts needed to develop one traditional lecture course to a flipped classroom approach. While the goal of the workshop was to encourage all faculty members to develop one flipped class session, all of the faculty members exceeded that initial request. As a group, the faculty members were able to discuss and answer the following:

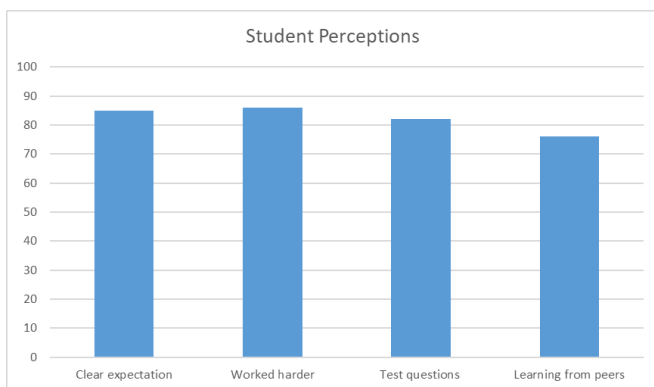
- What is an appropriate amount of content to expect a student to read prior to attending class?
- How can the students' understanding of the class preparation best be assessed?
- What are meaningful learning activities to be used in class?
- How can the faculty best utilize the flipped classroom learning approach to bridge the gap between knowledge acquisition and application (noted by development of clinical judgment)?

All faculty utilized a flipped classroom approach to teaching in at least 50% of their face-to-face courses in the fall semester. Courses ranged from fundamentals to the provision of care to

both adults and geriatric clients and pathophysiology. To best prepare for class, each course utilized a course map, detailing the scheduled course date, content to be individually covered via electronic text and other selected materials prior to class as well as an overview of what would be covered within class. Classroom instruction ranged from brief mini-lectures at the beginning of class to more directed presentations by the faculty. Following this sharing of information, students were regularly divided into small groups, ranging from 3-5 students, and completed a group activity. Group activities included case studies and active learning strategies. The intent of all group activities was to assist the student to translate the massive amounts of information presented at a knowledge and comprehension level to a higher level of learning by the application, analysis, and synthesis of the material [5]. Additionally, the faculty was able to assist the students to critically think through the information in a way that fosters the development of clinical judgment [6].

The development of clinical judgment is fostered by providing the student with intentional support to guide their thought process through material in a way that provides repetition of skill and concept application to a variety of scenarios [7]. To

Table 1: Over 85% of the respondents reported a clear understanding of what content they needed to review prior to attending class. 100% of respondents reported spending over 60 minutes a week on homework for 3 credit-hour courses. 86% of respondents reported they worked harder on the course presented in a flipped format than they did in courses presented in a traditional manner. 82% of respondents reported the use of test-type questions within the classroom setting to benefit their learning. 76% of respondents reported they were able to learn from peers in group learning activities.



stimulate this development, students build upon foundational information they have assumed responsibility for in an attempt

to apply that knowledge in the safe setting provided in limited class-time. To best obtain student buy-in for this approach, it is essential that the faculty member clearly demonstrate how the student's growing ability to apply concepts to practice relates not only to academic performance, but the provision of care. Failure to clearly define how active learning will assist the student to consistently think through clinical scenarios may result in the student's perception that they are simply teaching themselves the material and not receiving the academic support they traditionally experience.

Discussion

Student feedback was obtained anecdotally for qualitative purposes as well as via an electronic survey to obtain quantitative data. Over 85% of the respondents reported a clear understanding of what content they needed to review prior to attending class. 100% of respondents reported spending over

60 minutes a week on homework for 3 credit-hour courses. 86% of respondents reported they worked harder on the course presented in a flipped format than they did in courses presented in a traditional manner. 82% of respondents reported the use of test-type questions within the classroom setting to benefit their learning. 76% of respondents reported they were able to learn from peers in group learning activities. Open-ended responses were evaluated thematically. Consistent themes that emerged were the student preference for lecture with power points, with instructors providing specific examples of what is needed to perform well on tests. Two respondents reported being very frustrated by this learning style and felt it was not beneficial to them.

Conclusion

Strategies to continue the development of clinical judgment via the active learning provided by a flipped classroom approach will continue to be utilized within the nursing program. Ultimately, anticipated results include higher performance within the nursing program on cumulative specialty exams (HESI Specialty Exams), NCLEX-RN predictor tests (HESI Exit Exams), NCLEX-RN pass rates, and competency within employment post-graduation. These results will be monitored via student surveys utilized at the end of each semester, HESI Specialty Exams trends, HESI Exit Exams trends, NCLEX-RN pass rate trends and feedback from both students and employers post-graduation.

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