A Three-Tiered, Blended Approach to Improving First-Time Test-Taker Pass Rates on the NCLEX-RN® Exam

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Problem

Graduates of approved nursing programs must be able to pass the National Council Licensure Examination for Registered Nurses (NCLEX-RN®) in order to gain employment as a practicing nurse. Because schools of nursing are regulated by their State Board of Nursing, the first-time test taker’s pass rate is used as a measure of program integrity and can potentially call into question the program’s viability and sustainability. Furthermore, the NCLEX-RN® pass rate is viewed as an outward measure of the nursing program quality (Giddens, 2009). As a result, nursing programs must be proactive in preparing their graduates to pass the NCLEX-RN® on the first attempt.

Solution

This paper offers a three-tiered, blended approach to an immediate improvement in pass rates for first-time test-takers of the NCLEX-RN® exam for nursing programs enrolling a high percentage of minority students. This approach blends faculty development, student engagement, and curriculum development. These strategies for success are drawn from the experience of a school that moved from an NCLEX first-time test-taker pass rate of 45.1% in 2008 to 85.1% in 2012.

Figure A: Three-tiered, blended approach to NCLEX-RN® success now!
Faculty

Enhancing the performance of first-time NCLEX-RN® test-takers begins with developing faculty. The faculty of this program took a “just-in-time teaching” approach to expedite improvements in learning outcomes. Faculty was required to attend structured professional development opportunities (conferences and workshops). Faculty received training on test development, item writing, and analysis and instructional techniques. Inexperienced faculty was paired with experienced faculty in a team-teaching model. There was a concerted effort to pool knowledge, materials, and resources for revising individual courses and ultimately revising the curriculum. A teaching and learning materials resource guide was developed and distributed to faculty. This guide compiled every available teaching and learning source available to faculty and included a list of all textbooks and resources used for each course. In an effort to leverage this wide range of learning resources, avoid duplication, and address accountability issues, faculty worked collaboratively in selecting resources. All of these efforts were in support of curriculum planning and implementation.

Faculty received in-services on their university’s available services, accommodations, classroom support, and resources for personal development and student referrals. The Counseling Department and Assessment, Testing, and Career Development Centers provided this training for the nursing faculty. Monthly faculty meetings included time to ensure curriculum and course alignment with both the NCLEX content and test plan and the Quality and Safety Education in Nursing (QSEN) competencies.

An exclusive faculty Blackboard site was set up for collaboration and as a repository for materials and documents from in-services and professional development workshops. Shared files and folders for each course in the curriculum were set up on the shared network to host syllabi and course documents for collaboration between faculty and for transparency. The shared files and folders are accessible to all faculty members from the faculty workstations located within their on-campus office. An assessment of technology needs was conducted (the tool assessed typing skills, familiarity with Microsoft Office Suite and Blackboard functions, use of Smartboards, etc.), followed by training from the dedicated on-site Information Technology specialist.

Faculty was charged with familiarizing themselves with the different types of learning styles (auditory, visual, and tactile), and to reexamine their own learning style, as well those favored by their students. Faculty was urged to direct students to assess their preference for learning by encouraging student to take the Learning Style Inventory (LSI) paper and pencil quiz found in the school’s Success Booklet. The learning styles assessment would be taken into consideration for course content delivery. To solidify reasons for taking on this approach, faculty received an electronic copy of “The Seven Principles for Good Practice in Undergraduate Education” by Chickering and Gamson (1991).

For continuous improvement and enhancement of student engagement, faculty was required to attend an on-site advisement workshop. The workshop focused on proper documentation, student success, and student progression and retention. Faculty members were expected to provide instruction
and student advising, as assigned by the department chair. Faculty assisted advisees with course registration and planning to meet program requirements.

The clinical experience is an integral part of learning for nursing students. As such, the faculty was charged with reviewing and revamping the clinical experience. Many discrepancies were discovered during the review process, which resulted in the creation of a **Guideline for the Clinical Experience Manual**. The manual outlined faculty and student responsibilities and addressed holding students accountable for their actions. Every nursing faculty member (including adjunct) and student was required to sign the acknowledgement page in the manual and accompanying Clinical Forms Packet, for maintenance in his or her personal record. A daily evaluation of clinical skills was developed using the QSEN competencies. When possible, faculty made clinical assignments relate to content learned in the theoretical component of the course. Students were required to complete assessments and plan nursing care based on their findings using the nursing process. Clinical documentation forms were available in the clinical courses’ Blackboard site, as well as in print.

Table A provides an overview of potential faculty strategies to improve the school’s first-time NCLEX pass rate.

**Table A: Faculty Strategies**

<table>
<thead>
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<th>Faculty Strategies</th>
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<tr>
<td>• Structured professional development (test development, item writing, analysis, instructional techniques)</td>
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<tr>
<td>• Experienced faculty mentoring new faculty via team teaching</td>
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<td>• Collaboration in choosing teaching materials</td>
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<td>• Development of a Blackboard site for faculty resources</td>
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<td>• Advisement workshop for faculty</td>
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<tr>
<td>• Faculty development on student learning styles</td>
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<td>• Development of a “Guideline for Clinical Experience Manual”</td>
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**Students**

A **student Success Booklet** was developed to offer students strategies for studying more effectively, improving note-taking skills, and reading nursing textbooks efficiently, as well as practice with NCLEX exam-style questions of every type and time management techniques. A Learning Style Inventory (LSI) quiz is at the start of the Success Booklet. Students were highly encouraged to complete the quiz and share results with their course faculty and advisor. This booklet also provided useful information on how to access Blackboard and the selected testing package resources. A list of university resources with contact information could also be found in the Success Booklet.

A **Blackboard informational site** was established to engage students and keep them aware of pertinent information. Learning resource materials (i.e., assessment videos) could also be accessed from the Blackboard site. For example, the Physical Examination and Health Assessment Video Series by Jarvis
(Jarvis, C., 2012) could be accessed from a variety of devices via Blackboard access. To enhance engagement, students could access their courses remotely on their smartphone or iPad. In addition, textbooks were carefully chosen based on the ability to access the text online, in addition to other online features (i.e., media learning aids). Students could also access the school of nursing social media accounts, such as Facebook and Twitter, through Blackboard.

Faculty accessibility was seen as an important factor in student success. Per policy, all nursing faculty were required to set aside no less than ten hours of office time per week for student appointments. Students had direct access and opportunity to consult with faculty for instructions, clarification, and guidance. Weekly schedules were visibly displayed on office doors or students were directed to use Mysignup.com to sign up for appointments electronically.

Students were able to access the School of Nursing Dean in a monthly, open forum entitled “Chat with the Dean,” or schedule a one-on-one meeting. The Dean’s chat sessions are an opportunity for students to offer unique and valuable insights about what is really happening in the school, as well as in the classroom. This forum gave students the opportunity to clarify any concerns they may have had about the program or offer suggestions for improvement. This forum was also used to provide students with updates on issues that influenced school operations and activities. The Dean’s chat sessions were a way to open lines of communication between students and administration, and reduce fear and anxiety. Topics ranged from complaints about faculty and classroom management issues to suggestions for vending machine items. The Dean’s chat was a valuable resource for hearing about issues that would have otherwise not surfaced without such a forum.

A formal faculty-student mentoring program, designed around “Responsible Mentoring” was started for senior nursing students. “Responsible Mentoring” was most attractive as it focuses on encouraging one to be their absolute best and fosters a caring and supportive relationship (DuBois, D., Holloway, B.E., Valentine, J.C., 2002; Washington, D., Erickson, J.I., Ditomassi, M., 2004). Initially led by the School of Nursing (SON) Dean, resources and parameters for a quality-mentoring program were established and implemented. Subsequently, the Undergraduate Department Chair, who was also the lead faculty for the senior Professional Development Seminar Course, managed the program, including orientation, training, and mentor/mentee training, to ensure policies and procedures of the program were followed. A mentoring handbook was created to highlight the comprehensive system for managing program information. The handbook was available in both print and electronic format. With this handbook, participants clearly understood what was expected of them and what they could expect from the program in terms of support. It also contained tips on passing the NCLEX-RN® exam on first attempt, setting goals, identifying barriers to success, career planning, and professional development.

To measure the mentoring program success, an evaluation tool for students and faculty was developed and launched using SurveyMonkey®. At the relationship closure, the evaluation included students rating their mentor, and vice versa, as well as assessing the overall impact and outcome of the program.
An NCLEX/Retention Coach was hired to assist students in developing the skills and behaviors needed to be successful on the NCLEX exam and related course work. The NCLEX/Retention Coach was a Registered Nurse with extensive classroom/clinical teaching experience. As a former medical-surgical faculty of the program, she was fully aware of the students’ needs. She was hired to identify the learning needs of individual students and offer assistance in meeting those needs. Having access to an adopted testing package, the Retention Coach was able to provide prescriptive advice based on students’ standardized testing results. The NCLEX/Retention Coach worked closely with the undergraduate chair and faculty to report student progress and potential problems. In an effort to track student needs, a log of student contact was maintained. A review of this log demonstrated problems with math as a recurring theme. As a result, the Dean charged the testing committee with developing sample, take-home, drug calculation quizzes. A lunch-and-learn medication calculation practice session was planned for interested students starting fall 2013. Students were also being referred to the Evolve online drug calculation resource (a part of the teaching and learning resources).

Table B: Student Strategies

- Student Success booklet
- Blackboard informational site
- “Chat with the Dean” sessions
- Faculty office hours
- Faculty-student mentoring program
- NCLEX/retention course

Curriculum

The curriculum can influence whether test-takers pass the NCLEX-RN® exam on the first attempt. Faculty was highly engaged in identifying opportunities for change and revamping the curriculum, in an attempt to see immediate, positive student and program outcomes. Educational consultants were instrumental in engaging, educating, and empowering the faculty to identify and make needed changes. Specifically, the curricular changes that yielded immediate improvement in the pass rate for first-time test-takers involved content mapping, auditing all course syllabi to include revising course outlines, and adapting a new testing package.

Faculty used the NCLEX detailed test plan to map individual courses and the curriculum. This process was carried out using a team approach. Teams provided individual reports, which identified changes, deletions, etc., for the entire faculty organization. Using the NCLEX-RN® detailed test plan ensured that the content and behaviors tested would be addressed and that changes made were informed. Ultimately, course content was aligned with the specific components of the NCLEX-RN® for improved pass rates. The faculty further examined the curriculum components based on the American Association of Colleges of Nursing (AACN) Baccalaureate Essentials and QSEN competencies.
An internal and external audit of all nursing course syllabi was conducted. The external audit was carried out by one of the hired curriculum consultants, and the internal audit was conducted by the nursing faculty organization. The audit consisted of making sure the syllabus demonstrated the inclusion of curricular requirements by course objectives, organization of course content, course readings, assignments, and inclusion of teaching and learning resources from the adopted testing package. The overarching purpose of the audit was to give faculty, students, and administration confidence that the nursing courses were designed to meet the needs of the students for NCLEX-RN® success and improve the program’s pass rate. This audit also included an in-depth assessment of what, when, where, and how resources would be used based on relevancy to course learning outcomes. The inventory of where and how resources were being used in the nursing curriculum was compiled in spreadsheet files for ease of access by faculty.

Adapting a new testing package involved discontinuing use of the existing standardized testing package. The initial phase involved only administering the standardized Exit Exams developed by Health Education Systems, Inc. (HESI) to senior nursing students. In the process of adopting HESI, the program piloted HESI in the Pediatric/Maternity and Mental Health courses during summer semester. Based on the outcomes, an immediate improvement in NCLEX-RN® pass rates, and student and faculty feedback, the program adopted HESI and began using standardized tests throughout the curriculum and incorporated the testing as part of course grades.

The current Professional Development Seminar course required of graduating seniors was revamped to include standardized testing using HESI as the platform. This course was a semester-long course that guided formal NCLEX-RN® preparation. The NCLEX predictor examination score was only a portion of the final grade and was not the determining factor of graduation (completing the program). The course did, however, include aggressive remediation measures to improve NCLEX-RN® success on first attempt. The seminar content was heavily focused on HESI testing and was easily adapted into the nursing curriculum.

Going forward, we used a variety of HESI exams. These included the HESI Admission Assessment, which is an entrance exam; Specialty Exams used to evaluate specific clinical content; Custom Exams (specialty exams designed to evaluate faculty-specified nursing content); and the HESI Exit Exam, a comprehensive exit exam. We also used the HESI Exit Exam as an outcome measure for RNs pursuing a bachelor’s degree in nursing; and a critical-thinking exam, as well as custom exams for practice settings. The HESI Specialty Exams were developed to assess students’ knowledge and their ability to apply nursing concepts within specific content areas and were a substitute for teacher-made final exams. HESI Summary Reports provided content area scores that were used to evaluate curricular strengths and weaknesses. Typically, Specialty Exams consist of 50 test items. The benchmark for HESI Custom and Exit Exams was set at 850. When a score was lower than 850, faculty revisited the content of our curriculum.

Effective technology, software, and teaching tools were infused into the core nursing curriculum. Technology integrated into courses included unfolding Case Studies, SimChart (Simulated Electronic Health Record), Practice Tests, and fully web-based videos. SimChart was integrated
throughout the entire nursing program, from fundamentals through graduation. Resources were also available to assist faculty with course delivery. To track utilization of teaching and learning materials shared among the faculty or used by individual faculty, an inventory of available teaching and learning materials and their use (HESI/Resource Assignment Tracking Tool) was maintained. The HESI/Resource Assignment Tool tracked how, when, where, and how frequently (i.e. Case Studies) each resource was used.

Selection of teaching and learning materials was an integral part of curriculum planning and delivery. As such, faculty were required to report their selection of teaching and learning materials in the courses for which they were responsible, using the tracking tool. The department chairs and course leaders were responsible for ensuring that the process for selecting and providing access to teaching and learning materials was carried out. This process, developed by the Dean, provided routine procedures for choosing and using the testing package and associated tools for the resolution of lack of use or no use. The chair also ensured that the teaching and learning tools (i.e. Case Studies) were being used and identified on the faculty course syllabi. It was imperative that selection and use processes facilitate, rather than impaired, student achievement of curriculum outcomes.

Table C: Curriculum Strategies

- Use of an Educational Consultant
- Content mapping
- Audit of course outlines against NCLEX Blueprint, AACN Essentials, and QSEN
- Revision of standardized protocol
- Process for infusing technology, software, and teaching tools

Conclusion

The implementation of the processes described in this white paper resulted in a 29% increase in the first-time NCLEX-RN pass rate over a two-year period. While the strategies proved very helpful in improving pass rates, it is also likely that the approach described in this White Paper might be just as appropriate for programs seeking proactively to ensure their continued strength and viability.
References


