

# [The nclex rn is the final test nursing essay](https://assignbuster.com/the-nclex-rn-is-the-final-test-nursing-essay/)

When a graduate nurse fails the NCLEX-RN exam, there may be significant adverse effects for stakeholders. Ethical responsibility of graduating student who meets the qualifications and academic rigor of the nursing program but cannot pass the NCLEX-RN exam needs to be addressed by educators. Approximately 15, 000 students failed to pass the NCLEX-RN exam annually. Closure of nursing programs may result if students consistently fail to maintain the national benchmark standards set by the NCSBN. Graduates failing the NCLEX-RN affect three major stakeholders: graduate nurses, health care organizations, and the nursing program (Roa et al., 2010).

Nursing programs have implemented specific strategies for student success on the NCLEX-RN exam. Strategies for success include strict admission requirements, identifying at-risk students, developing and enforcing specific progression policies, developing course-related interventions, endorsing review courses, providing individual and academic support, and requiring interventions for at-risk students (Herrman & Johnson, 2009).

Faculty at a nursing program in the Southeastern region of the United States wanted to determine if the Computer HESI exit exam was equivalent to paper-and-pencil exit exam, the Mosby Assess Paper and Pencil Test (MAT). They administered two exit exams to their students, the Health Education Systems Incorporated (HESI) Exit Exam and the MAT. The HESI exit exam was given first and the MAT was given 4 months later. The MAT was completed for graduation and the HESI for evaluation. The HESI scores was r = 0. 723,

p < . 001. The schools' passing score for the Mosby test was 60%. Of the 60 students, 12 failed to achieve this score and were required to retake the test before graduation. The chi-square analysis showed four of the students who passed the Mosby Test the second time and six students who passed the MAT on the first attempt failed the NCLEX-RN. In addition, students who made a score of 84 or higher on the HESI Exit Exam passed the NCLEX-RN the first time. Faculties voted to adopt the HESI exit exam due to the positive results of the study (Frith, Sewell, & Clark, 2008).

Educators at the University of Delaware developed a residency curriculum including a senior- year involvement. The curricula consisted of two seminars during the final year of school. The first seminar was conducted on key information related to professional clinical development. Culturally component caregiving, complementary and alternative health care practices, legal and ethical issues in practice, and career planning and preparation were also included (Herrman & Johnson 2009). The second seminar, scheduled the semester prior to graduation, consisted of reinforcement study skills and preparation for the NCLEX-RN. This course provides consecutive clinical building of NCLEX-RN specific content through the semester (Herrman & Johnson, 2009).

Faculties at Wichita State University (WSU) were unable to meet their set goal for passing the NCLEX-RN exam. Upon inquiry, they realized that the students did not appear overly anxious about taking the exam and usually waited until after graduation to start preparing for it. Due to their not meeting the national average, the faculty agreed that a program utilizing standardized practice test to increase preparation for NCLEX-RN and give feedback regarding their performance needed to be established. The faculty instituted a program of standardized computer testing. Test scores along with course grades were used to identify at-risk students to give them additional assistance (Jacobs & Koehn, 2006).

Educators reviewed various program and decided on the program established by ATI. Two tests were chosen by the school: the test of Essential Academic Skills (TEAS) and the Comprehensive Predictor test. Faculty tested the students near the end of the semester with students required to make the 60th percentile or remediation is necessary. Students not completing remediation by the end of the semester will receive an incomplete and cannot move forward to the next course until completed. The first class to graduate following the implementation of the ATI standardized computer testing, showed an improvement on NCLEX-RN pass rate. The ATI program validated a solid consumer-oriented program that was helpful to WSU nursing school (Jacobs & Koehn, 2006).

Bondmass, Moonie, and Kowalski (2008) conducted a study concerning a change in the

NCLEX-RN success rates following the addition of standardized exams throughout the program curriculum. They also compared the exam scores between graduates who passed the NCLEX-RN, and those who did not. The 187 students consisting of four classes were enrolled in the study. Twenty-three students (12. 3%) did not graduate from the program. One-hundred and sixty-one students completed the program and graduated. The retention rate for the students was 87. 7%. Of the 161 students, data was available for 147 students. One hundred and twenty-nine (87. 8%) students passed the NCLEX-RN exam on the first attempt and 18 (12. 2%) graduates did not pass.

Results showed a 8. 5% change (p < 0. 000) in the NCLEX-RN pass rate from their previous 5-year mean pass rate, and significant differences in standardized test scores for those who passed the NCLEX-RN compared to those who did not pass (p <0. 0). Researchers concluded that the selected standardized exam scores significantly identified graduates likely to pass the NCLEX-RN exam (Bondmass et al., 2008)

## National Council of State Boards of Nursing

Founded in 1978, the (NCSBN) is a not-for-profit organization created in order to guard the safety of the public. NCSBN protects the public by ensuring that licensed nurses provide safe and competent nursing care. NCSBN establishes regulatory excellence for public health to ensure that nurses entering the workforce have the necessary knowledge and skills to practice. To accomplish their goals, the NCSBN develops a licensure examination that is consistent with current nursing practice. NCLEX-RN test questions are based on Blooms' taxonomy for the cognitive domain (NCSBN, 2012; Anderson & Krathwohl, 2001).

NCSBN is the collective voice of nursing regulation in the U. S. and its territories with work that involves:

Developing the NCLEX-RN, NCLEX-PN, NNAAP and MACE examinations.

Monitoring trends in public policy, nursing practice and education.

Promoting uniformity in relationship to the regulation of nursing practice.

Disseminating data related to the licensure of nurses.

Conducting research on nursing practice issues.

Serving as a forum for information exchange for members.

Providing opportunities for collaboration among its members and other nursing and health care organizations.

Maintaining the Nurses' database, by coordinating national publicly available

nurse licensure information (NCSBN, 2012).

Computerized NCLEX-RN test includes multiple choices, exhibit items, fill-in-the- blank calculations, drag and drop, charts and graphs, and hot spot items. The NCSBN developed a position statement in July 2009 regarding the impending nursing shortage.

NCSBN posits that standards should be based on the highest degree

of available evidence for nursing practice, education, and regulation, and

that these standards should be upheld in order to secure, safe care and

quality education for students (NCSBNC, 2009).

This statement was developed based on chronological events that occurred in reaction to previous shortage employing deregulation of educational standards including decreased qualified faculty. The NCSBN reviews the NCLEX-RN exam every 3 years for possible increase in intensity of questions to reflect the complications of patient care encountered by health care organizations. The NCLEX- RN exam was updated in April 2010 because of the national practice analysis survey on current practice of entry-level nurses and because of employers demanding higher levels of competence from new graduate nurses (Roa, et al., 2010).

## Assessment Technology Institute

According to Davenport (2008), various strategies associated with passing the NCLEX-RN exam. One such strategy, the Assessment Technology Institute (ATI) offers programs that are influential in improving faculty, student and program outcomes such as the predictor test. The ATI RN Comprehensive Predictor test provides students and faculties with a numeric report of the probability of passing the NCLEX-RN at the student present level of preparedness. Secondly, the predictor is a guide for remediation based on the content missed. Students are given a list of topics missed in the individual and group score report. An all-encompassing validation process involving statistical comparison of student performance on the RN Comprehensive Predictor and the concrete NCLEX-RN first attempt pass/fail status.

Students are required to purchase the ATI comprehensive package that gives them access to all required test throughout the program. Included in the program are computerized critical thinking entrances and exit exams, a learning style inventory, content-specific exams, and comprehensive predictor test, which are based on the NCLEX-RN test blueprint. Students complete nonproctored and proctored exams during each semester. The ATI comprehensive package assists educators in augmenting curriculum, upgrading courses, and faculty development (Davenport, 2008).

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Dunham (2011) conducted a study on standardized testing to predict first-time success from two prelicensing programs. The sample size (N= 589) students, completed the nursing program between 2003 and 2009. Demographic data, GPA, and ATI RN scores were analyzed. The results of the study showed that the ATI RN Comprehensive predictor was associated with first-time pass success. Students at-risk of failing the NCLEX-RN exam could be identified prior to testing and remediated to increase their probability of passing.

## Health Education Systems Incorporated

HESI is a standardized exam used by schools of nursing in evaluating student's competency achievement of curricular outcomes. HESI provides various exams including the HESI Admission Assessment (entrance exam), specialty exams that can assess detailed clinical content, custom exam which assess faculty-specific content; and the HESI Exit Exam, a comprehensive exit assessment evaluate students' knowledge base and their ability to apply nursing concepts. For this research purpose, the HESI Exit Exam will be reviewed (Morrison, Adamson, Nibert, & Hsia, 2008).

The HESI Exist Exam is a comprehensive 150-item test administered prior to completion of the nursing for evaluation of students' readiness for the NCLEX-RN. Identification of students' weaknesses, strengths, and the need for remediation prior to taking the exam is determined. Test items are based on a critical-thinking model that necessitates applying clinical reasoning to select the correct answers (Nibert, Young, & Adamson 2008).

The HESI Predictability Model, a proprietary mathematical model, calculates scores of this exam. The reliability of the exam is determined by conducting an item analysis on each exam for a composite report of the combined data. Validity is determined by an evaluation of content validity, construct validity, and criterion-related validity (Morrison, et al., 2008).

## Critical Thinking

Critical thinking is an integral part of accountability and quality care within the nursing profession. Critical thinking continues to be an essential part of nursing and must be a central factor of course content. Shirrell (2008) conducted a study to determine if critical thinking is a predictor of NCLEX success. Results showed that critical thinking alone is not a good predictor of NCLEX-RN success. Including critical thinking, in the curriculum is essential for enhancement of the students' higher level of thinking. Critical thinking skills are an expectation of all nurses for accurate interpretation of patient issues and appropriate management of their care. Patients' lives depend on nurses making quick decisions and taking appropriate action.

Brookfield (2010) describes critical thinking as developing an awareness of the assumption that an individual and others think and act. Critical thinking is what students see and how they will take care of problems to make the patient healthier. It essential for students to know CT is the distinction between keeping patients' safe and putting them in harm's way.

Alfaro-LeFevre (2009) created a 4 circle critical thinking (CT) model that

Educators' can use in helping students to understand critical thinking.

CTA-JPEG

Figure 1

Alfaro-LeFevre, R. (2009). Critical Thinking and Clinical Judgment: A Practical Approach to

Outcome-Focused Thinking (4th ed). St Louis, Missouri. Beginning at the top and continuing clockwise, this model helps students understand the need for a commitment to developing critical thinking characteristics such as persistence and fair-mindedness. Second, students should be responsible for their learning by seeking out learning experiences that will get them academic and pragmatic knowledge needed to critically think. Third, students need to develop interpersonal skills for example, conflict management, teamwork, and being an advocate for their patients. Fourth, students should practicing related technical skills for example using computers, starting intravenous therapy, completing sterile procedures (Alfaro-LeFevre, 2009). Educators using the nursing process can help their students improving their critical thinking skills, pass the NCLEX-RN exam and be safe, effective nurses.

## NCLEX-RN Test Plan

The licensing authorities within the state, commonwealth and territorial boards of nursing regulate entry into the practice of nursing. Development of the NCLEX-RN Test Plan is accomplished by collecting data on the current practices of entry-level nurses for the purpose of by conducting a practice analysis. Licensed RNs were asked about the occurrence and significance of performing 155 activities concerning current nursing practice. An analysis of the activities is completed in relation to the frequency of performance, impact on maintaining client safety and client care settings where the activities are performed. Result of the analysis serves as a guide for improvement of standards for entry-level nursing practice. The succeeding stage involves development of the NCLEX-RN Test Plan, which guides the selection of content and performances to be tested (2010 NCLEX-RN Detailed Test Plan, NCSBN, 2010).

The NCLEX-RN Test Plan serves as a template for development of the examination. The NCLEX® examination assesses the knowledge, skills and abilities that are essential for the nurse. The organization of the NCLEX-RN examination is based on nursing actions and competencies crucial for meeting the needs of patients. The test plan is reviewed and approved by the NCLEX Examination Committee. Resources used in this process include the recent practice analysis of RNs, expert opinions of the NCLEX-RN Examination Committee, and NCSBN's member boards to certify that the test plan is reliable with state nurse practice acts. Upon approval of the NCLEX-RN Examination Committee, the test plan is presented to the Delegate Assembly for review and approval (2010 NCLEX-RN Detailed Test Plan, NCSBN, 2010).

In December 2009, the NCSBN Board of Directors made a decision to raise the NCLEX-RN from -0. 21 to -0. 16 logits. In combination with the 2010 NCLEX-RN Test Plan, the new standards was applied April 1, 2010. The Computerized Adaptive Testing (CAT) is used to administer the examination. CAT is a technique for administering exams that combines computer technology with contemporary measurement concept to increase the competence of the exam process (2010 NCLEX-RN Detailed Test Plan, NCSBN, 2010).

Test Plan Structure The framework of the test plan is based on client needs, defining nursing actions and competencies which focus on clients in all situations. The structure of the NCLEX-RN Test Plan has four major client needs categories with two of the four categories divided into subcategories. The four categories of the 2010 NCLEX-RN Test Plan and subcategories are:

Safe and Effective Care Environment

Management of Care

Safety and Infection Control

Health Promotion and Maintenance

Psychosocial Integrity

Physiological Integrity

Basic Care and Comfort

Pharmacological and Parenteral Therapies

Reduction of Risk Potential

Physiological Adaptation (2010 NCLEX-RN Detailed Test Plan, NCSBN, 2007).

Integrated Processes The following processes are fundamental to the practice of nursing and are integrated throughout the Client Needs categories and subcategories:

Nursing Process - a scientific, clinical reasoning approach to client care that includes assessment, analysis, planning, implementation and evaluation.

Caring - interaction of the nurse and client in an atmosphere of mutual respect and trust. In this collaborative environment, the nurse provides encouragement, hope, support and compassion to help achieve desired outcomes.

Communication and Documentation - verbal and nonverbal interactions between the nurse and the client, the client's significant others and the other members of the health care team. Events and activities associated with client care are validated in written and/or electronic records that reflect standards of practice and accountability in the provision of care.

Teaching/Learning - facilitation of the acquisition of knowledge, skills and attitudes promoting a change in behavior (2010 NCLEX-RN Detailed Test Plan, NCSBN, 2007).

Distribution of Content Based on the results of the Report of Findings from the 2008 RN Practice Analysis: Linking the NCLEX-RN® Examination to Practice, Percentage of test questions allocated to each client needs category and subcategory of the NCLEX-RN Test Plan (NCSBN, 2009). Percentage of Items from Each Client Needs Category/Subcategory are:

Safe and Effective Care Environment

Management of Care 16-22%

Safety and Infection Control 8-14% Heath Promotion and Maintenance 6-12% Psychosocial Integrity 6-12% Physiological Integrity

Basic Care and Comfort 6-12%

Pharmacological and Parenteral Therapies 13-19%

Reduction of Risk Potential 10-16%

Physiological Adaptation 11-17% (2010 NCLEX-RN Detailed Test Plan, NCSBN, 2010).

The detailed test plan serves as a guide for students and faculty to assist in preparation for the examination. Additionally, the test plan directs item writers in the improvement of test questions and simplifies the classification of examination items. NCSBN creates two versions of the detailed test plan; 1) Item Writer/Item Reviewer/Nurse Educator version and 2) Applicant version. The Item Writer/Item Reviewer/Nurse Educator version has a more exhaustive and wide-ranging listing of content for each client needs category and subcategory. Following each category are sample questions, which are explicit to the client needs category reviewed in that section. The educator version of the test plan has an item writing guide with sample scenarios for hands-on experience in writing NCLEX style test questions. The student version of the detailed test plan does not have an item-writing guide (NCLEX-RN Detailed Test Plan, NCSBN, 2010).

## Implications

Results of this study may have implications for nursing programs and show a need for further research. Academic variables might prove useful in the early identification of students at risk for failing the NCLEX exam. Results from this study may also influence nursing programs by assisting nursing faculty in identifying at-risk students who may need remediation to increase their chances of being successful in the nursing program. In addition, results from this study may be important because predictor variables may point to factors that may lead to a successful first attempt at the NCLEX-RN. The majority of the nursing graduates who take the NCLEX-RN examination are associate's degree graduates, and success on the exam influences the number of

nurses entering the field each year (NCSBN, 2009).

## Summary

Nursing programs need to identify causes for attrition and implement strategies to retain students and improve recruitment of students with increased probability of successfully finishing nursing school (NLNAC, 2008). The American Association of Colleges of Nursing (AACN, 2005) is in agreement with the recommendations from the NLNAC. Causes of the nursing shortage are multi-faceted. Literature review shows there is a downward trend in the number of nursing graduates who are successful with the NCLEX-RN exam for first time test takers. There is a critical need for registered nurses who can function as competent professionals. Nursing programs need to develop strategies that will help decrease their attrition rate in order for nursing graduates to be successful with the NCLEX-RN exam on the first attempt.

The scope of the national nursing shortage goes well beyond the healthcare agencies. Nursing programs are conscientiously working to increase the number of qualified graduate nurses to address the nursing shortage. Increase in graduates is only one consideration to increasing enrollment. Along with increasing enrollment, nursing programs must maintain quality programs. Nursing educators need to improve students' likelihood of passing the NCLEX-RN through nursing programs' structure curriculum, developing assessment testing, and utilizing program predictors to identify students at risk for failure on NCLEX-RN. The quality of a good nursing program is dependent on their graduates being successful with the NCLEX- RN exam on the first attempt.

Section 2: The Methodology

## Introduction

With the growing shortage of nurses and increased number of students failing the NCLEX-RN, critical evaluation of predictors of success for first time test takers is essential for improvement of NCLEX-RN scores. Determining predictors of success will assist nursing programs in determining at-risk students for remediation to give them the greatest probability for NCLEX-RN success. The purpose of this quantitative study is to determine if there is a positive correlation between predictor test and NCLEX-RN success for first-time test takers. This study will examine predictors of success of an Associate Degree of Nursing program from 2010 to 2011. The research will address the following questions: Is there a correlation between GPA pre-nursing GPA, final GPA, and NCLEX-RN success? Is there a correlation between age, gender, and NCLEX-RN success? Is there a correlation between ATI scores and NCLEX-RN success?

To answer these questions, predictors of NCLEX-RN will identify four cohorts of students graduating in Spring 2010, Summer 2010, Spring 2011, and Summer 2011. NCLEX-RN results and ATI predictor results will be obtained from archival student data with permission of the college. The population will be students who completed a five-semester ADN nursing program. Data will be reviewed to determine:

Students who passed the NCLEX-RN on the first attempt and made the required score on the ATI test.

Students who passed the NCLEX-RN on the first attempt and did not make the required score on the ATI test.

Students who failed the NCLEX-RN and did not make the required score on the ATI test.

Students' GPA before beginning the nursing program.

Students' GPA at completion of the nursing program.

The dependent variable is the passing NCLEX-RN. The independent variables include students' GPA pre-nursing and GPA at completion of the nursing program, age, gender, and the ATI predictor scores given at the end of the nursing program. These academic and nonacademic variables have been used in previous studies and are associated with a positive and significant predictor of NCLEX success (Gilmore, 2008; Frith et al, 2008; Truman, 2012; Wolkowitz, 2009).

Quantitative research (Lodico, Spaulding, & Voegtle, 2010) is conducted to determine the relationships between variables. There are two types of correlational designs, explanatory and prediction. An explanatory design, which will be used for this study, is a correlational design that examines whether changes in one variable will effect changes in one or more variables (Creswell, 2012). The following characteristics need to be present to use an explanatory design: correlation of two or more variables by the researcher, data are collected at one point in time, all participants are analyzed as a single group, obtains at least two scores for each individual in the group, employs correlational statistical testing in data analysis, and infers a conclusions from the statistical data. All characteristics apply to this study (Creswell, 2012).

## Sample and Data Collection

The sample will consist of students who completed the program and sat for the NCLEX-RN exam spring 2010 (N = 54), summer 2010 (N = 44), spring 2011 (N = 49), summer 2011(N= 41). Descriptive statistics will be used to describe and summarize the sample and examine relationships between each variable. Descriptive statistics will also be used to assess differences in the graduates who did not pass the NCLEX-RN exam and those who successfully passed the exam.

This study will be conducted in a technical college, located in the southeastern area of South Carolina. Students' NCLEX pass rates, ATI predictor scores, academic and nonacademic predictors will be collected from archival student data. Data will be entered via Statistical Package for the Social Sciences (SPSS) version 18. 0. Academic and nonacademic predictors will be correlated with the numbers of students who were successful on their first attempt with NCLEX-RN exam. Additionally, a correlation of the ATI predictor exam scores used by the college as subsequent NCLEX-RN success will be completed.

## Data Analysis

The use of descriptive statistics to summarize the findings is essential aspect of research for clarity (Lodico et al, 2010). Descriptive statistics (mean, mode and standard deviation) will also be used to identify the continuous sample. The level of significance will be set at p <. 05. Pearson Product Moment Correlation Coefficients (Green & Salkind, 2011) will determine a relationship between the independent and dependent variables. The Pearson product-moment correlation coefficient measures the strength of association that exists between two variables measured on at least an interval scale designated by the symbol r. The value of the correlation coefficient varies between +1 and -1. There is a near flawless degree of association between two variables if the value of the correlation coefficient is near ± 1. Pearson product-moment correlation coefficient has two assumptions. The first assumption is that the variables are approximately normally distributed. The second (Green & Salkind, 2011) assumption is the cases represent a random sample from the population and the scores on variables for one case are independent of scores on the variables for other data. Pearson product-moment correlation coefficient can be used in a inferential test. Assumptions for conducting an inferential test of correlation depend on the theory of a provisional distribution. The second number (Green & Salkind, 2011) in each cell of the matrix is the level of statistical significance (p-value) associated with the inferential test of the correlation value.

Pearson's r is very vulnerable to outliers in the data so you need to test for outliers. Outliers can be detected by plotting the two variables against each other on a graph and visually inspecting the graph for errors. The outlier can be removed or manipulated as long as it can justified why it was done. If there is no justification for removing the outlier, a Spearman's Rank Order Correlation can be done (Green & Salkind, 2011).

## Ethical Considerations

Informed consent is not needed from students. The research will be limited to existing academic records maintained by the college of nursing program. No names will be used in this study. Data will be coded into the SPSS to protect students' records. Students' grades and ATI results are stored the nursing department and permission to view these records will need to be granted by the dean of nursing and the vice president of academic affairs. The researcher will also need approval from Institutional Research Board (IRB) before assessing any student records for the purpose of the study

## Conclusion

Data from this project study will provide information that will assist in improving student success with NCLEX-RN on their first attempt. This quantitative study will assist the college in developing plans for early intervention and counseling for students who are at risk of failing the NCLEX-RN. Students will also benefit from consistent counseling by faculty and remediation for low scores on standardized test. Schools of nursing will also benefit from students improving