

NLN Assessment Services Division

Nursing Acceleration Challenge Examination: Foundations of Nursing

NACE-FON Version 1.2 2023 Technical Manual

Preface

This technical manual contains information about the Nursing Acceleration Challenge Exam: Foundations of Nursing (NACE-FON), a product of the National League for Nursing (NLN). The NACE-FON was recently updated by the NLN to version 1.2 in consultation with subject matter experts from educational institutions that offer professional nursing programs, faculty and leaders from nursing programs and educational organizations, and a psychometric evaluator.

By reviewing the content provided in this document, the user can determine if the exam meets their needs and how they will use the scores from the exam. The NLN consistently refers to the guidelines set forth by the testing industry as stated by the Standards for Educational and Psychological Testing (AERA, APA, & NCME, 2014), and the Fair Testing Guidelines for Nursing Education (NLN, 2020) to guide test development and revisions processes.

A copy of the NLN's Fair Testing Guidelines for Nursing Education can be requested from the Assessment Services Division.

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1. The National League for Nursing

1.1 NLN Mission

The National League for Nursing (NLN) promotes excellence in nursing education to build a strong and diverse nursing workforce to advance the health of our nation and the global community.

1.2 Overview of the NLN

Dedicated to excellence in nursing, the NLN is the premier organization for nurse faculty and leaders in nursing education. The NLN offers professional development, networking opportunities, testing services, nursing research grants, and public policy initiatives to its 40,000 individual and 1,200 institutional members. NLN members represent nursing education programs across the spectrum of higher education and health care organizations and agencies.

Founded in 1893 as the American Society of Superintendents of Training Schools for Nurses, the NLN was the first nursing organization in the United States. Headquartered in Washington, D.C., the NLN is led by a board of governors elected by membership for three-year terms. The volunteer board chair works with the NLN's president and chief executive officer.

2. Recent Exam Updates

As part of the NLN Assessment Service Division's commitment to continuous improvement and publishing quality exams based on evidence and theory that support the appropriate interpretations of test scores, an extensive review of the Nursing Acceleration Challenge Exam: Foundations of Nursing (NACE-FON) was conducted. Nursing advisory committees and expert nurse educators representing Licensed PN/LVN programs across various states recently engaged in discussions about how their programs use scores from the NACE-FON exam. Three characteristic uses include determining program acceptance, identifying students who might benefit from early student success interventions, and informing curricular updates. A fourth, less common use, includes placement in a program (i.e., advanced placement); however, participating committee members indicated the bridging, or first course at their schools is a required course (unable to test-out); as such a common first course for advanced placement is not as useful at the foundational level as it is in a specific discipline (e.g., geriatrics).

The committee and evaluators recommended that, based on the intended population of

students taking the exam and the most common uses of the scores, the appropriate leveling of items in the exam should represent content within the scope of the Licensed PN/VN. Another area of feedback from the reviewing committee focused on the length of the exam and the time allotment. Committee and nurse educator reviewers desired a shorter test, provided the reliability and validity were comparable to the current version, and recommended 1.5 minutes per question.

A summary of the final decisions and changes to the NACE-FON¹, are outlined in Table 1.

Table 1. Summary of Key Changes to the NACE-FON Exam

Changes	NACE-FON	NACE-FON	Section
	Version 1	Version 1.2	Reference
	1. Administratio	n	
1.1 Time			2.0 Recent
Allotment	240 minutes	150 minutes	Exam
			Updates
	2. Blueprint		
2.1 Number of Items	200 items	100 items	5.2 Reliability
2.2 Content	LPN/VN and	LPN/VN Level Items Only	5.1.1 Content
	RN Level Items	LPIN/ VIN LEVEL ITEMS OTHY	Validity
2.3 Distribution of	Analysis: 15%	Assess: 24%	4.1
Topics	Assess: 15%	Evaluating: 23%	Framework
	Evaluating: 15%	Planning: 24%	4.2 Content
	Planning: 15%	Implementation: 29%	Specifications
	Implementation: 40%	implementation. 25%	
	3. Statistical Specifications		
3.1 Item Level	Average Item Difficulty	Average Item Difficulty	6.2 Item
Statistics	Level: .66	Level: .68	Results
	Average Discrimination	Average Discrimination	
	Index: .18	Index: .21	

The summary of changes and the contents of this manual are intended to provide nursing program faculty and administrators with relevant information, following guidelines set forth in the *Standards for Educational Psychological Testing* (American Educational Research

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¹ The term NACE-FON throughout the remainder of this document refers to the updated version unless comparisons between version 1 and version 1.2 are being made, at which time version identifiers are used.

Association, American Psychological Association & National Council for Measurement in Education, 2014), to make judgments about the validity of the interpretation of exam scores for their intended purpose.

3. Purpose, Objectives and Interpretation and Use of Test Scores

3.1 Purpose of Test

The purpose of the NACE-FON is to facilitate educational mobility and success of the Licensed Practical/Vocational Nurse (PN/VN) by providing educators with a standardized instrument for evaluating foundational nursing knowledge and skills. The NACE-FON is intended for the Licensed PN/VN population seeking admission or already admitted into an accredited professional nursing program. Results from the NACE-FON can be used as one component of the total evaluation of each individual applicant or student.

3.2 General Objectives

The general objectives of the NACE-FON assessment are to:

- Measure Licensed PN/VN foundational nursing knowledge, skills, and abilities of the applicant.
- Measure Licensed PN/VN foundational nursing knowledge, skills, and abilities of the student selected for admission to the program.

3.3 Interpretation and Use of Scores

Individual scores from the NACE-FON provide nursing programs valid, reliable data as one measure within an institution's full application process to:

- Assess the applicant's foundational Licensed PN/VN knowledge, skills, and abilities.
 - Guide admission or placement decisions.
- Assess the student's foundational Licensed PN/VN knowledge, skills, and abilities.
 - Inform early student success interventions.

Scores from the NACE-FON provide nursing programs with valid, reliable data as one measure within an institution's curricular or program evaluation processes to:

- Inform faculties on the development of or revisions to their first-semester professional nursing curriculum.
 - Verify curricular alignment to a national test.
- Establish and validate program acceptance or placement decisions.
 - Determine relationships between NACE-FON scores and early program success metrics.

Faculties and administrators within a nursing program are responsible for determining the appropriateness of the NACE-FON test scores for their specific program. The blueprint, content details, and test score data included herein can be useful in making these determinations. Percentage correct scores and comparative scores (percentile ranks and averages) provided by the NLN afford nursing programs with a national comparative view of student performance on the exam. Each program establishes if program acceptance, placement decisions, or course credit will be given based on a program's internal methods of validating acceptable performance on the NACE-FON exam.

The NLN does not establish a national "passing" or "failing" mark on these tests since inherent variations in programs' populations, acceptance criteria, curricula, and student success metrics, to name a few factors, are ever present. The uniqueness within these factors and attributes underscores the importance of program-specific performance standards and play a vital role in nursing program decisions. The NLN encourages institutions to conduct validation studies for the interpretation and use of scores that are applicable to their nursing programs.

4. Test Specifications

Two types of test specifications are used in developing the NACE-FON exam, content specifications, including a guiding framework, and statistical specifications. The NACE-FON content emphasizes knowledge, skills, and abilities that the Licensed PN/VN should be proficient at based on the scope of practice.

4.1 Nursing Process Framework

Questions in the NACE-FON are written in the framework of the nursing process as defined below, except for Analysis, which was determined to be outside the scope of LPN/LVN activities and therefore not assessed in this exam.

 Assessment – includes collecting physical, emotional, and cultural data; recognizing signs, symptoms and behaviors.

- Analysis includes interpreting data, identifying clients' needs, and making nursing diagnoses.
- Planning includes setting goals, selecting measures for care, and identifying correct techniques for giving care.
- Implementation includes responding appropriately to clients needing information and/or teaching.
- Evaluation includes recognizing intended and unintended effects of measures
 and treatments, determining evidence of the client's compliance with the
 treatment plan, and determining evidence of the client's response to measures and
 treatment.

4.2 Content Specifications

The NACE-FON includes content related to the basic physiological and psychosocial needs of individuals; safe and effective care environments; and the promotion, maintenance, and restoration of health. The test items constitute a representative sample of health problems and conditions commonly encountered in foundational nursing practices. They emphasize normal findings, as well as deviations from normal, treatment modalities, including drugs and nutrition, and nursing interventions. Items are aligned with the nursing process framework as the architecture of the blueprint, with item distributions as outlined in Table 2.

Table 2. NLN NACE-Foundations of Nursing Test Blueprint

Nursing Process	Number of Items	% Distribution
Assessment	24	24%
Evaluation	23	23%
Implementation	29	29%
Planning	24	24%
Total	100	100%

Each NACE exam administration is comprised of items randomly selected from the related item banks based on the proportions shown in Table 2. Items sampled from the following areas contextualized in a real-world nursing setting, which often indicates more than one area is considered (e.g., comfort intersecting with IV therapy):

- Basic Health Needs
- Physiologic Needs
- Hygiene

- Body Alignment Exercise and ambulation
- Comfort
- Safety

- Communication, verbal and nonverbal
- Documentation
- Elimination
- Fluids and electrolyte balance
- General Principles of Medication and Administration
- Growth and development
- Hospice and palliative care
- IV Therapy

- Loss and death
- Moral/Ethical/Legal Issues
- Nutrition
- Psychosocial
- Respiration and circulation
- Rest and sleep
- Security
- Self-esteem
- Spiritual and cultural
- Vital signs

The exam samples from items about clients with one or more of the following conditions:

- Addiction
- Chronic illness
- Death and dying
- Elimination problems
- Fluid and electrolyte imbalance
- Mental Health
- Incontinence
- Infectious disease

- Loss of consciousness
- Pain
- Postoperative care
- Preoperative care
- Sensory changes or loss
- Stress
- Wounds

4.3 Statistical Specifications

A range of item difficulties is required to differentiate among examinees at different levels of abilities. Monitoring and addressing statistical specifications contribute to maintaining the psychometric quality of the exam.

4.3.1 Statistical Terms

Item difficulty (p) is the relative frequency with which examinees choose the correct response (Thorndike et al., 1991). Item difficulty ranges between 0.0 and 1.0 and can be described as the percentage of examinees who answer an item correctly.

Item discrimination or point-biserial correlation (r_{pb}) is used to differentiate performance between high- and low-performing examinees. Item discrimination ranges between -1.0 and 1.0 and measures the strength and direction of the total score of examinees with their performance (correct or incorrect) on a particular item (Yoo & Hambelton, 2019).

4.3.1 Item-level Statistical Specifications

Based on research and the evaluation of items, the following item-level statistical specifications are set forth: (a) the acceptable item difficulty level ranges of 0.10-0.95, inclusive of the most desirable item difficulties levels (0.30-0.70) for norm-referenced tests (Oerman & Gaberson, 2021) and (b) a desired minimum item discrimination threshold, or point-biserial correlation, of $r_{\rm ph}$ = 0.20 (Ebel & Frisbie, 1986; Oermann & Gaberson, 2021). The item difficulty range is extended to allow for content deemed necessary and appropriate by subject matter experts to ascertain foundational Licensed PN/VN knowledge, skills, and abilities.

In addition to content reviews of the version 1 NACE-FON exam, operational data and item-level analysis informed the selection of items for this exam version. NACE-FON items that met the item-statistic boundaries were prioritized, provided the content requirements were met. Section 6.0 reports statistics on the performance of the exam and items.

5. Psychometric Quality

In the educational measurement field, two primary criteria are used to define high-quality information that support the use and interpretation of a set of test scores: validity and reliability (Messick, 1989). According to the most recent edition of the *Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 2014), it states:

Validity refers to the degree to which evidence and theory support the interpretations of test scores for proposed uses of tests. Validity is, therefore, the most fundamental consideration in developing tests and evaluating tests (p. 11).

Validity's counterpart, reliability, refers to the consistency of scores under different measurement conditions. In his chapter on reliability in the fourth edition of *Educational Measurement*, Haertel, (2006) contrasts validity and reliability as follows:

...whereas validity is centrally concerned with the nature of the attributes tests measure, reliability is concerned solely with how the scores resulting from a measurement procedure would be expected to vary across replications of that procedure (p.65).

5.1 Evidence of Validity

Arguments for the validity of an intended inference made from a test may contain logical, empirical, and theoretical components. Collecting validity evidence and conducting studies is an ongoing endeavor and is needed for each intended use of a test, whether those

uses are determined by the test publisher or the end-user.

Decisions about the types of evidence needed to support a validation argument depend on the claims made for how test scores may be interpreted, this can be facilitated by developing propositions (AERA, APA, & NCME 2014). As such, NACE-FON articulates three propositions to guide the current and future collection of validity evidence. Proposition 1 supports collecting evidence for construct validity while Propositions 2 and 3 support criterion-related, or predictive validity studies. The three propositions are:

- 1. Test content is consistent with the fundamental knowledge, abilities, and skills² defined within the Licensed PN/VN scope of practice.
- 2. Success in a professional nursing program can be assessed and the relationship between student success and NACE-FON Exam scores can be evaluated.
- 3. Success of early student interventions in a professional nursing program can be assessed and the relationship between student success interventions and NACE-FON Exam scores can be evaluated.

5.1.1 Construct Validity: Test Content

Expert nurse educators representing Licensed PN/LVN programs across various states were led through a series of item-by-item reviews to ensure each item in the NACE-FON assessed knowledge, skills, or abilities within the scope of the Licensed PN/VN. This review was conducted after decisions about the purpose and use of exam scores, and intended population was revisited (Refer to Section 2.0). Items with approved content underwent a psychometric evaluation. The two-prong item-by-item evaluation resulted in the removal of 89 items while retaining 134 items reflective of the knowledge, abilities, and skills within the LPN/VN scope of practice.

These actions and processes, coupled with the blueprint and content specifications, support the appropriateness of test content for the intended population as recommended in the *Standards* (AERA, APA, & NCME 2014)³. A list of contributors participating in the review process is available in Appendix A).

5.1.2 Criterion-related Validity: Student Success Predictors

Each professional nursing program identifies student success metrics applicable to their program goals. Often GPA, course grade, persistence across semesters, clinical performance, and graduation are indicators of success. With the ability to define success, criterion-related

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² Hands-on skills are not assessed in this exam. Those should be separately assessed during clinicals or simulations.

³ Standard 1.11

validity studies can be conducted to evaluate the relationship that students scoring high on the test, (indicative of a higher degree of knowledge, skills, and abilities) will be more successful in a professional nursing program than students scoring low on the test. Programs that desire to establish benchmark scores can use their student populations to ensure the use of scores are relevant and valid for their institutions.

Similarly, each professional nursing program identifies early student interventions and the success metrics applicable to the goals of those interventions. With the ability to define success, criterion-related validity studies can be conducted. As a newly revised version of an exam, at least one semester of student metrics are required before studies can begin.

Programs are encouraged to identify their success metrics and plan for such studies, individually or collaboratively with other institutions or the NLN, to contribute to the collection of evidence supporting Propositions 2 and 3.

5.1.3 Validation Study In-Process

As mentioned, newly developed or revised tests rely on the ongoing effort by the test publisher and end-user to increase the volume of evidence for validity. One study currently underway by the NLN is exploring the relationship between students' NACE-FON scores and potential predictor variables collected on the pre-exam survey, such as years of LPN/VN experience, setting of LPN/VN experience, and graduating GPA.

5.2 Evidence of Reliability

Reliability estimates are obtained from an examinee population and can be interpreted as the expected correlation between replications of a measurement (Haertel, 2006). A reliability coefficient ranges from zero -1, with greater numbers indicating a higher correlation between repeatedly similar measurements. Reliability estimates often decrease when test length decreases; as such, comparing previous NACE-FON reliability estimates to the revised NACE-FON informs any changes to the consistency of exam scores. Table 3 compares reliability coefficients across the original and revised NACE-FON.

Table 3. Reliability Estimates for NACE-FON Versions

	NACE-FON ¹	NACE-FON ²
	Version 1	Version
		1.2
Number of Students	2826	150
Number of Items	200	100
Reliability (Cronbach's Alpha)	0.839	0.828

Results indicate the reliability estimates of the exam remain high, the nominal decrease (0.016) may be attributed to the smaller sample size.

6. Results from Operational Exam Administration

After a brief pilot-test conducted at one school in the Southeast Region of the United States during early 2023, results from the exam were as desired, including a slight increase in the mean score and confirmation that reliability estimates were not reduced. Average item difficulty and discrimination indices were stable. A minor issue to the test delivery for one topic was discovered during pilot testing and was subsequently corrected.

6.1 Operational Test Results

A sufficiently sized operational group for reporting purposes was created during the administration period from September 15, 2023 to October 31, 2023. Future results will be updated and trended on an annual basis with larger operational groups. Table 4 compares classic statistical results across the original and revised NACE-FON.

Table 4. Test Statistics for NACE-FON Versions

	NACE-FON ¹	NACE-FON ²
	Version 1	Version 1.2
Number of Students	2826	150
Number of Items	200	100
Mean Score	132.48	68.42
Mean Percent Score	66.24%	68.42%
Reliability (Cronbach's Alpha)	0.839	0.828
Standard Deviation	15.57	11.76
Standard Error of Mean	0.29	0.95
SE of Measurement	6.24	4.88

¹Administration Dates between Jan 1, 2021 to December 31, 2021

¹Administration Dates between Jan 1, 2021 to December 31, 2021

²Administration Dates between September 15, 2023 to October 31, 2023

²Administration Dates between September 15, 2023 to October 31, 2023

6.2 Item Results

The average item difficulty and item discrimination levels are reported in Table 5 for each of the nursing processes and for the overall test across the original and revised NACE-FON.

Table 5. Item-statistics for NACE-FON Versions

	NACE-FON¹		NAC	E-FON ²
	v	ersion 1	Vers	sion 1.2
Nursing Process ³	Avg Item	Avg Item	Avg Item	Avg Item
	Difficulty (p)	Discrimination (r_{pb})	Difficulty (p)	Discrimination (r_{pb})
Analysis	0.52	0.18	N/A	N/A
Assessment	0.66	0.19	0.66	0.23
Evaluation	0.72	0.17	0.68	0.20
Implementation	0.68	0.17	0.71	0.21
Planning	0.72	0.19	0.67	0.19
Total Test	0.66	0.18	0.68	0.21

¹Administration Dates between Jan 1, 2021 to December 31, 2021

The percentage of items that fell outside the desired item-level boundaries are reported in Table 6 with a comparison between the original and updated exam versions.

Table 6. Percentage of items falling outside desired Item-level boundaries

	NACE-FON¹ Version 1	NACE-FON ² Version 1.2
Items outside desired difficulty (p) values	4.0%	5.0%
Items below desired discrimination index (r_{pb})	59%	27%

¹Administration Dates between Jan 1, 2021 to December 31, 2021, N=2826

The operational group results indicate version 1.2 contains a lower percentage of items outside the discrimination index boundary. This improvement may be attributed to the selection of items based on psychometric properties and constraining the scope of the items to reflect Licensed PN/VN skills and abilities, decreasing construct irrelevance. A slight increase in the percentage of items outside the difficulty level boundaries was detected, with two items exceeding the lower (more difficult) boundary and three items exceeding the higher (easier)

²Administration Dates between September 15, 2023 to October 31, 2023

³Total number of items per topic varies across versions

²Administration Dates between September 15, 2023 to October 31, 2023, N= 150

boundary. Underperforming items are submitted for review by the NLN nursing committees and experts for proposed revisions as part of ongoing continuous quality improvement efforts.

6.4 Operational Percentile Ranks

As a newly revised test for which nursing programs may not have established and validated acceptable levels of performance to meet their unique factors, comparisons of student scores to scores of a reference group may be helpful. To this end, scores from an operational group (N=150) comprised of all examinees who took the exam between September 15, 2023 to October 31, 2023 are provided. Raw percentage scores are converted to percentile ranks to assist in the interpretation of an examinee's achievement by comparing a student's score to that of the reference group. Appendix B provides the percentile ranks based on test performance of the operational group. A score of 68% is in the 50th percentile (i.e., 50% of the scores fall below 68%, which is interpreted as a student with a score of 68% performed better than 50% of other students in the operational group). A score of 74% is in the 75th percentile (i.e., a student with a score of 74% performed better than 75% of other students in the operational group). Institutions can use the table to compare a student's percentile rank performance against the operational group, or to better understand an overall applicant pool or cohort in relation to the operational group.

6.5 Operational Group Demographics

Operational group characteristics are an important component of interpreting student scores when making comparisons against a reference group. The NACE-FON exam contains a self-report survey at the beginning of the test to collect key demographics and foster opportunities for validation studies as well as the ability to report characteristics of the operational group. Institutions can refer to this information to determine if the operational group is similar enough to their applicant population to be meaningful.

6.5.1 General Demographics for Operational Group

Sample characteristics⁴ of the operational group based on a self-report survey are reported in tables, graphs, or text.

⁴ Examinees can skip survey questions, therefore, total sample sizes may not always add up to equal the 150 total examinees in the operational group. For computed percentages, the denominator is based on the total number of examinees responding to the question.

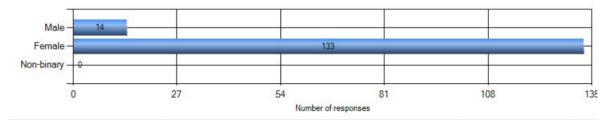


Figure 1. Distribution of the Operational Group's Self-Reported Sex.

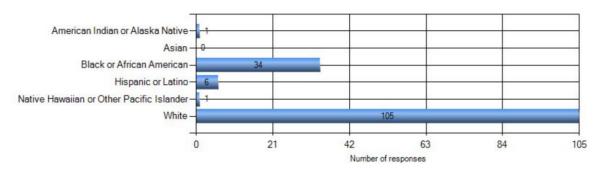


Figure 2. Distribution of the Operational Group's Self-Reported Race/Ethnicity.

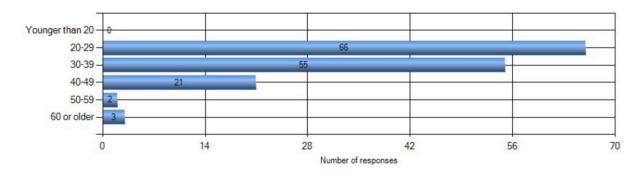


Figure 3. Distribution of the Operational Group's Self-Reported Age.

6.5.2 Educational Demographics for Operational Group

- Licensed PN/VN Status
 - 135 (92.8%) reported they graduated from a Licensed PN/VN program.
 - 11 (8.2%) reported they are completing the last 25% of their Licensed PN/VN program.

Of the 135 examinees in the operational group who reported they graduated from a Licensed PN/VN program, additional survey questions were presented to collect information about their education. Table 7 depicts the number of years since graduation, Table 8 depicts

the state in which their degree was earned, and Figure 4 provides a graphical distribution of their reported cumulative GPA .

Table 7. Operational Group's Self-Reported Years Since Graduating from a Licensed PN/VN program

Years Since Graduation	Number of Examinees	Percentage of Examinees
0	28	20.7%
1	21	15.6%
2	19	14.1%
3	11	8.1%
4	11	8.1%
5	5	3.7%
6	7	5.2%
7	5	3.7%
8	4	3.0%
9	3	2.2%
10	3	2.2%
11-19	9	9.6%
20-29	3	2.2%
30-39	2	1.5%

Table 8. Operational Group's Self-Reported State in which Licensed PN/VN Program was Completed

State	Number of Examinees	Percentage of Examinees
AR	67	50%
KY	15	11%
TN	12	9%
MO	7	5%
FL	5	4%
MA	5	4%
NH	4	3%
SC	4	3%
ME	3	2%
IL	2	1%
KS	2	1%
NC	2	1%
NY	2	1%
TX	2	1%
CO	1	1%
MN	1	1%

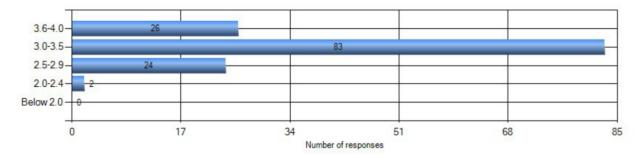


Figure 4. Distribution of the Operational Group's Self-Reported GPA upon Graduation.

6.5.2 Employment Demographics for Operational Group

Of the 135 examinees in the operational group who reported they graduated from a Licensed PN/VN program, additional survey questions were presented to collect information about their employment history as an Licensed PN/VN.

- 99% (134) of graduates have been employed as a Licensed PN/VN.
 - o 97% (131) are currently employed as a Licensed PN/VN.
 - o 90% (122) are employed full-time as a Licensed PN/VN.
 - o 7% (9) are employed part-time as a Licensed PN/VN.

Figure 5 depicts the number of years of experience as a Licensed PN/VN (N=133 respondents to the question).

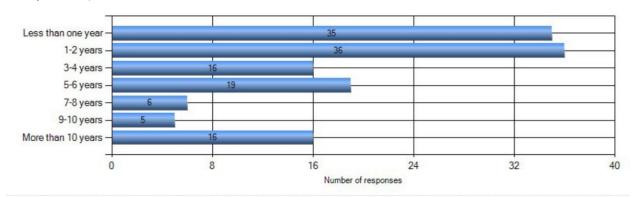


Figure 5. Distribution of the Operational Group's Self-Reported Years of LPN/VN Experience.

Figure 6 depicts the types of health care settings the operational group has been employed in. Examinees could select multiple types of settings representing their full employment history.

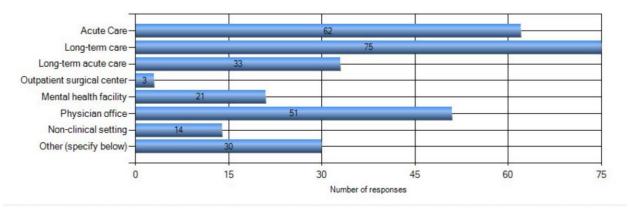


Figure 6. Distribution of the Operational Group's Self-Reported Health Care Setting as Licensed PN/VN.

7. Assessment Reports and Scoring

Assessment reports will be electronically available in the school and student accounts within 24 hours of testing, unless otherwise stated. There are two primary reports for the NACE-FON assessment results. The Coaching Report and the Scorelist Report.

7.1 Coaching Report

The Coaching Report provides an individual student's percentage correct scores for the total NACE-FON exam followed by the percentage correct for each of four subscores (i.e., the four steps of the nursing process). Faculty can use the information to view the applicant or student's official scores, coach students admitted to a nursing program as they prepare to begin their program, or for applicants who opt to retake the exam to achieve a higher score.

The Coaching Report computes the average percentage correct for all test takers to date. The average percentage correct scores will vary over time, stabilizing as the sample size increases, and do not in any way constitute recommendations for placement standards or benchmark scores. The average percentage correct is not the 50th percentile, however, it should approximate it. To view percentile ranks against the operational group, refer to Appendix B and Sections 6.4 and 6.5. Percentile ranks are updated annually, whereas percentage correct scores are updated daily.

Figure 7 is a view of the NACE-FON Coaching Report. The total number of participants whose scores are used to compute the average percentage correct scores is continuously updated with each exam and appears under the header labeled "Description". Under the header labeled "Disclosure" are non-scored items related to test integrity and ethics that students agree to at the beginning of the test, these will always appear with a dash or as 0% as they are not included in the total score. The subscore results for each of the nursing processes

are presented first, followed by the total test score. The Participant Score (green triangles) and Average Score (blue triangles) display the percentage correct in two formats, text (left column) and graph (to the right).

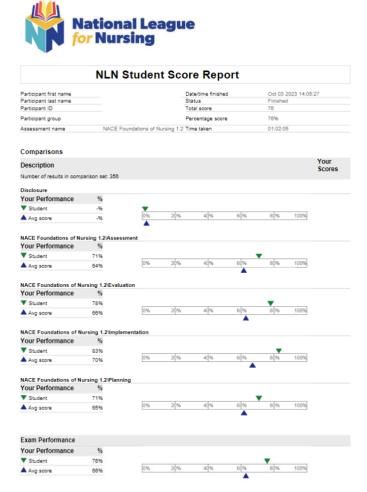


Figure 7. NACE-FON Coaching Report Sample

7.2 Scorelist Report

An institution's approved faculty or administrator(s) can generate a copy of the Scorelist Report from the Analytic Reports. This report provides a list of NACE-FON results for multiple participants exclusively from their institution. Reported results include total exam score, subscores for the nursing process topics, and item correct scores, either in aggregate or as a list of individuals.

8. Other Information Regarding NLN Test Administration

8.1 Test Security

The NLN Test Policy was developed to ensure the security of our tests and to protect their integrity. All NLN Tests are copyright-protected. No portion of any test may be reproduced without the permission of the NLN.

8.2 Test Administration

The NACE-FON is administered by faculty at individual schools of nursing. Any official representative of the school or program may be designated as an administrator or proctor and authorized to administer the tests following the administration guidelines to ensure standardization. Additionally, NLN authorizes the administration of the NACE exam via our contracted vendor for remote, one-on-one proctoring. Contact the NLN Assessment Services Division for additional information.

8.3 Retake Policy

The NLN recommends that students not be allowed to re-test for a period of thirty days or longer. However, institutions may set other testing periods. The NLN will report ALL scores attained by an examinee.

8.4 Test Score Retention

Test scores are the property of the NLN and are retained on file in electronic form for a period of three years after the date of examination. Duplicate copies of score reports are available upon written request by submitting the appropriate request form.

8.5 Fair Testing and Ethics Statement

We believe most examinees manage themselves with integrity and are disturbed when they observe others cheating. Examinees are expected to maintain the highest standards of conduct. Using or attempting to use unauthorized assistance, material, or study aids during an examination, will result in a disqualification of the exam and future NLN exams. Acts of misconduct include but not limited to:

• Copying from others.

- Providing or receiving information about all or part of an exam, including answers (e.g., telling someone or publishing what was on your exam or being told this information).
- Having or using a "cheat sheet" (i.e., a piece of paper with answers, formulas, information, or notes) that is not specifically authorized.
- Having or using a communication device such as a cellphone, tablet or alike to send or obtain unauthorized information.
- Taking an exam for another student or permitting someone else to take a test for you.
- Asking another individual to give you improper assistance, including offering money or other benefits.
- Asking for or accepting money or any other benefit in return for giving another individual improper assistance.
- Altering an assessment report and resubmitting it.
- Gaining or providing unauthorized access to examination materials.

Note: Simply having possession during an exam of any prohibited or unauthorized information or device, whether or not it is used, is an act of dishonesty and will be dealt with as such.

8.6 Special Accommodations

In accordance with the Americans with Disabilities Act of 1990, the NLN has established a Testing Accommodations Policy to eliminate discrimination against individuals with disabilities and to adhere to the standards and protections established on behalf of those individuals. The policy is applicable to all persons requesting special testing accommodations from the NLN. Requests for special testing accommodations must be made through each college's office for students with disabilities. An application for special testing accommodations containing instructions and related pertinent information must be submitted for review with a minimum of five business days before testing.

8.7 Limitations of Exams

Like any exam, the NACE-FON is not a perfect measurement of achievement. Even comprehensive tests can only sample the breadth or depth of knowledge in each field. Because of this, questions on a specific test may be more favorable to some examinees than to others. Errors in measurement may also be introduced by examinees. Individuals who are ill or extremely tired or nervous may not perform to the best of their ability. These limitations should not be forgotten by those reviewing students' performance whether for challenge or for other purposes.

Appendix A

NLN Staff

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Appendix B

Table 9. Percentile Ranks for the NACE 1.2 Operational Group¹

Percent Correct	Percentile Rank
Below 45	1
45	2
47	3
49	3
52	5
53	7
55	9
56	9
57	12
58	13
59	17
60	19
61	23
62	27
63	32
64	36
65	41
66	44
67	48
68	51
69	53
70	58
71	64
72	69
73	74
74	75
75	76
76	82
77	84
78	88
79	90
80	93
83	95
84	96
86	97
88	98
89	99
91 or above	99

¹Administration Dates between September 15, 2023 to October 31, 2023, N= 150

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