



**CORRELATION OF ACADEMIC PERFORMANCE AND LICENSURE EXAMINATION OF UCLM NURSE GRADUATES**

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**ABSTRACT**

The passing rate in the national licensure examination for nurses is considered a key indicator of the quality of the nursing program. Professional licensure or occupational licensing system grants permission to the person possessing the license to practice the profession and ensures that the licensee has some minimal level of competence to perform acts allowed by the license. The graduates' success rate in the Nurse Licensure Examination (NLE) is on the creation of success not only for the student but also for the nursing program. Currently, in UCLM-CN, correlational studies regarding academic performance and board exam results are non-existent. The PNLE serves as an evaluation of the nursing program being offered but there is no way of evaluating it because there are still no findings. Hence, with the cited background this research was created. The present study utilized the descriptive-correlational method. Data were analyzed using statistical methods like weighted mean, standard deviation, inferential statistics (Pearson R), and multiple linear regression. The sample size of this study consisted of 87 takers/graduates from a period of 4 years (2018-2021) who took the Philippine Nurses Licensure Examination (PNLE). The majority of the variables exhibited moderate correlation while only the subjects CHN and NP1 showed a weak correlation. Based on the p-value to test for a significant relationship, most of the results yielded less than the alpha value of 0.05, therefore the null hypothesis is rejected. This would mean that the higher the grades in major subjects, the higher the chances of passing the board exam. The use of students' performance in nursing school may be used as predictors in the PNLE. This may assist nursing schools in the development of admission and retention policies in the nursing program. Because the majority of the board exam scores fall under the low category, there is a need to modify the

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curriculum or a more intense review enhancement program to improve the performance of nursing graduates. This may assist the faculty members and reviewers in identifying concepts to be emphasized. The findings of this study may be obtained to aid in a more holistic approach to understanding PNLE performance. This study, however, would recommend an in-depth analysis of the weaknesses of those students who failed the licensure examination to have a better grasp on the strengths and weaknesses during the board exams.

**KEYWORDS:** *licensure examination; academic performance; predictors; correlation; nursing graduates*

## **INTRODUCTION**

The passing rate in the national licensure examination for nurses is considered a key indicator of the quality of the nursing program. Professional licensure or occupational licensing system grants permission to the person possessing the license to practice the profession and ensures that the licensee has some minimal level of competence to perform acts allowed by the license (Oducado et al., 2019). The primary objective of the professional licensure examination is to obtain valid and reliable information as to whether examinees possess the technical competence required for admission to the profession. Technical competence includes technical knowledge, the ability to apply such knowledge skillfully and with good judgment, and an understanding of professional responsibility (Cabanban, 2017)

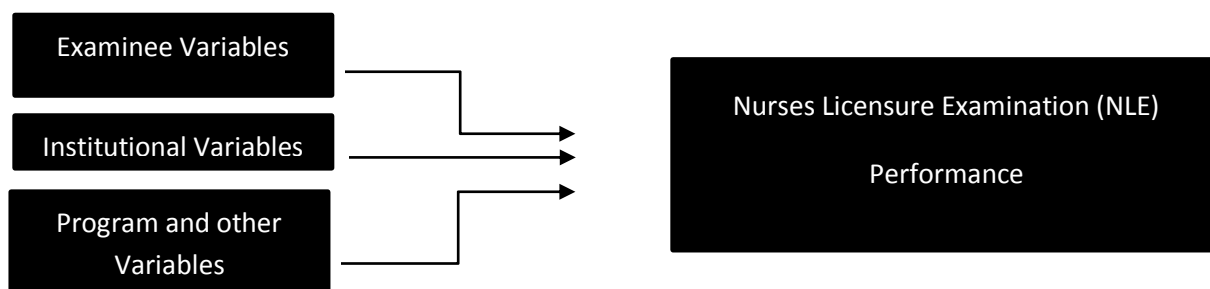
In the Philippines, the PRC Modernization Act of 2000, grants to the Professional Regulatory Board the power to prepare, adopt and issue the syllabi, and tables of specifications of the subjects for examinations, in consultation with the academe; determine and prepare the questions for the licensure examinations which shall be strictly within the scope of the syllabus or tables of specifications of the subjects for examination. Moreover, Section 9 of RA No. 9173, also known as the Philippine Nursing Act of 2002, grants to the Professional Regulatory Board of Nursing the power to conduct the licensure examination for nurses; and to prescribe, adopt, issue, and promulgate guidelines, regulations, measures, and decisions as may be necessary for the improvement of the nursing practice (Professional Regulation Commission, 2017). As elaborated by PRC, the current classifications of the subjects or the PNLE, with each having one hundred (100) items and a percentage weight of twenty percent (20%)(Board of Nursing, 2018; Professional Regulation Commission, 2017):

- Nursing Practice I- Community Health Nursing
- Nursing Practice II- Care of Healthy/At-Risk Mothers and Child
- Nursing Practice III- Care of Clients with Physiologic and Psychosocial Alterations
- (Part A)
- Nursing Practice IV- Care of Clients with Physiologic and Psychosocial Alterations
- (Part B)
- Nursing Practice V- Care of Clients with Physiologic and Psychosocial Alterations (Part C)

## *Correlation of academic performance and licensure...*

The graduates' success rate in the Nurse Licensure Examination (NLE) is on the creation of success not only for the student but also for the nursing program. The present study adapted a modified version of the framework of Rosales et al., (2014) on the determinants of performance in the NLE (Figure 1.)

*Figure 1. Determinants of Performance in the NLE*



Typically, in Higher Education Institutions (HEIs), correlational studies regarding various variables like examinee variables, institutional variables, program variables, etc. is a must. The findings of this research could help improve HEI and key components of accreditations. An institution or program demonstrates that it meets the standards established by the appropriate industry. If it demonstrates through self-study report and peer review that it meets the standards, it is awarded accreditation (Casazza, 2018; University of Iowa, 2017). Research has explored correlational studies on academic performance and licensure examinations and it varies in different HEIs. A study by Leon (2016), found that despite having the satisfactory academic performance of their students, graduates have difficulty passing examinations with Medical, Surgical, and Psychiatric nursing concepts. He proposed a curriculum enhancement to improve the academic and NLE performance of nursing graduates. Similarly in a study by Cabanban, (2017), the academic performance of their graduates and the results of licensure examination revealed a low correlation. On the other hand, research by Ong and cohorts (2012) concluded that students' academic performance in the pre-board examination is significant bases in determining the success and failure of students' licensure examination performance. Research by Amanonce & Maramag, (2020), proves that there is a significant and strong correlation between graduates' grade weighted average in college and LET performance.

Currently, in UCLM-CN, correlational studies regarding academic performance and board exam results are non-existent. The PNLE serves as an evaluation of the nursing program being offered but there is no way of evaluating it because there are still no findings. Hence, with the above-cited background, this research was created. The following research questions guided this study:

1. What are the Academic Performance in Professional Subjects and the PNLE performance of the Graduates/Alumni?
2. Is there a significant relationship between PNLE performance and Academic Performance in Professional Subjects?

Hypothesis:

Ho: There is no significant relationship between Academic Performance in Professional Subjects and PNLE performance

H1: There is a significant relationship between Academic Performance in Professional Subjects and PNLE performance

## **METHODOLOGY**

The present study utilized the descriptive-correlational method. Data were analyzed using statistical methods like weighted mean, standard deviation, inferential statistics (Pearson R), and multiple linear regression. The relationship between the academic performance of graduates of UCLM and their licensure examination results will be established. The degree of relationship will be measured by determining the coefficient of correlation between the given variables. Based on several guidelines (Bosco et al., 2015; Cohen, 1988; Gilchrist et al., 2022; Mathur & VanderWeele, 2018), the strength of association will be interpreted as (A) 0.1-0.29=small/weak; (B)0.3-0.49=Medium/Moderate; and (C) 0.50-1.0=Large/Strong.

The sample size of this study consisted of 87 takers/graduates from a period of 4 years (2018-2021) who took the Philippine Nurses Licensure Examination (PNLE). Presented in table 1 is the # of takers on different examination dates. Since the data involves confidential grades of alumni/graduates, permission was obtained after the approval of different department administrative heads. Firstly, the Dean of the College of Nursing for the conduct of the study, then the University Research Office (URO) Head, and continuing to the Campus Academic Director. The list of graduates/takers, which will be used as secondary data, was taken through the Records section with prior approval. The licensure examination ratings furnished by the PRC and given to UCLM-CN were obtained as well with approval from the dean of nursing.

**Table 1. Distribution of participants (n=87)**

<b>Date of Examination</b>	<b>#of takers</b>
July 2021	37
November 2019	3
June 2019	20
November 2018	6
June 2018	21
Total	n=87

For the academic performance, it was based on the grading system of UCLM which is reflected in Table 2. The table with its' scale grading system and the percentile equivalent was used to describe the academic performance of graduates/takers. The data below will be used to establish a relationship between academic performance and the board exam results. The percentage of the grade equivalent will be used to have uniformity of comparison. The current study only gathered the average of professional subjects in comparison with the board exam results. Since the University

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did not include descriptive values for the grading system, the researcher adopted a description from Amanonce & Maramag (2020). The academic grades were categorized based on the following values: (A) 90% and above=Excellent; (B) 85%-89%= Very Satisfactory; (C)80%-84%=Satisfactory; (D)75%-79%=Fair; (E) 74% and below=Poor.

**Table 2. University grading system**

Grade	%	Grade	%	Grade	%	Grade	%
1	95-100	1.6	89	2.2	83	2.8	77
1.1	94	1.7	88	2.3	82	2.9	76
1.2	93	1.8	87	2.4	81	3.0	75
1.3	92	1.9	86	2.5	80	5.0	Failure
1.4	91	2.0	85	2.6	79		
1.5	90	2.1	84	2.7	78		

Further, the PNLE rating is classified by the researcher in Table 3 to easily categorize the scores of the graduates/alumni.

**Table 3. PNLE rating classification**

PNLE Rating	Description
85% and above	High
80-84.9%	Average
79.9%-75	Low
74.9% and below	Failed

## **RESULTS AND DISCUSSION**

Table 4 reflects the academic performance of the graduates/alumni. In general, grades show that they performed fairly in their major subjects (CHN, NCM 101 and NCM 102, NCM 103, and NCM 104). For NCM 105, many of the graduates exhibited a satisfactory performance (M=81.19; SD 3.24)

**Table 4. Academic Performance in Professional Subjects**

Major subject	Mean (M)	Standard deviation (SD)	Description
CHN	79.8	1.91	Fair
NCM 101 and 102	79.95	2.29	Fair
NCM 103	79	1.45	Fair
NCM 104	79.8	2.04	Fair
NCM 105	81.19	3.24	Satisfactory

Table 5 indicates the PNLE rating classification and performance of graduates which shows that it falls generally in the low category. NP1 (M=81.56; SD=5.2) falls under the category average.

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Despite having a topnotcher in the recent 2021 board exam (top 10 overall), the data imply that UCLM graduates are just within the minimum passing rate of 75% in the 5 PNLE components. Moreover, it must be given particular attention that 8% of the graduates (n=87) failed the board exam in the span of 4 years.

**Table 5. PNLE rating classification and Performance**

<b>PNLE Rating</b>	<b>Description</b>	<b>Frequency</b>	<b>%</b>
85% and above	High	1	1.1
80-84.9%	Average	33	37.9
79.9%-75	Low	46	52.9
74.9% and below	Failed	7	8
<b>Total</b>			<b>100</b>

<b>Major subject</b>	<b>Mean (M)</b>	<b>Standard deviation (SD)</b>	<b>Description</b>
NP1	81.56	5.2	Average
NP2	77.48	5.77	Low
NP3	76.75	6.15	Low
NP4	78.82	5.5	Low
NP5	79.45	5.47	Low

As previously mentioned the r-value is interpreted as follows= (A) 0.1-0.29=small/weak; (B)0.3-0.49=Medium/Moderate; and (C) 0.50-1.0=Large/Strong. The p-value is interpreted based on a 0.05 level of significance. Table 6 presents the correlation analysis between the academic performance of the graduates in major subjects vis-à-vis licensure examination performance. As a whole, a significant relationship exists between CHN and NP1 ( $r=.269$ ;  $p= 0.011207$ ), NCM 101 and 102 and NP2 ( $r=.33$ ;  $p= 0.00201$ ), NCM 103 and NP3( $r=.37$ ;  $p= 0.000405$ ), NCM 104 and NP4 ( $r=.19$ ;  $p= 0.0007$ ), and NCM 105 and NP5 ( $r=.375$ ;  $p= 0.000306$ ). The majority of the variables exhibited moderate correlation while only the subjects CHN and NP1 showed a weak correlation. Based on the p-value to test for a significant relationship, most of the results yielded less than the alpha value of 0.05, therefore the null hypothesis is rejected. This would mean that the higher the grades in major subjects, the higher the chances of passing the board exam. The findings of the study accorded to the study of (Amanonce & Maramag, 2020; Fiscal & Roman, 2022; Oducado et al., 2019; Ong et al., 2012) that academic performance in baccalaureate programs is one of the predictors of success in licensure examination performance.



**Table 6. Correlation between the academic performance of the graduates in major subjects vis-à-vis licensure examination performance.**

Major Subject	PNLE Performance	r-value	p-value	Interpretation		Decision
				r-value	p-value	
CHN	NP1	.269	0.011207	weak	significant	Reject Ho
NCM 101 and 102	NP2	.33	0.00201	moderate	significant	Reject Ho
NCM 103	NP3	.37	0.000405	moderate	significant	Reject Ho
NCM 104	NP4	.19	0.0007	moderate	significant	Reject Ho
NCM 105	NP5	.375	0.000336	moderate	significant	Reject Ho

## CONCLUSION

The use of students' performance in nursing school may be used as predictors in the PNLE. This may assist nursing schools in the development of admission and retention policies in the nursing program. Aside from the known components that may affect PNLE performance, nursing schools may develop and conduct their very own standardized competency assessment to aid in assessing students' likelihood of success in the PNLE. Because the majority of the board exam scores fall under the low category, there is a need to modify the curriculum or a more intense review enhancement program to improve the performance of nursing graduates. This may assist the faculty members and reviewers in identifying concepts to be emphasized. The findings of this study may be obtained to aid in a more holistic approach to understanding PNLE performance. This study, however, would recommend an in-depth analysis of the weaknesses of those students who failed the licensure examination to have a better grasp on the strengths and weaknesses during the board exams.

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