

Correlation Between Independent Learning Strategies, Competency Appraisal Review as Predictors of Performance in the Nursing Licensure Examination

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Abstract

This study examined the effect of independent learning strategies and Competency Appraisal Review (CAR) on nursing graduates' performance in the Philippine Nursing Licensure Examination (PNLE). Anchored on Patricia Benner's From Novice to Expert Theory, the study utilized a quantitative, non-experimental correlational research design to determine the relationships among independent learning strategies, competency appraisal review, and licensure examination performance. The respondents consisted of 150 nursing graduates from a higher education institution in Valenzuela City who took the PNLE between 2022 and 2024 and prepared through self-review. Data were collected using an adapted independent learning strategies questionnaire, the Student Perception Appraisal-Revised-2 (SPA-R2), and a researcher-developed Competency Appraisal Review questionnaire. Descriptive statistics and Pearson correlation coefficient were used for data analysis. The findings revealed that respondents demonstrated favorable independent learning strategies, positive perceptions of academic performance and self-efficacy, and a high perceived impact of Competency Appraisal Review. No significant relationship was found between demographic characteristics and independent learning strategies. However, independent learning strategies showed a significant positive relationship with Competency Appraisal Review and with PNLE performance. Competency Appraisal Review likewise demonstrated a significant positive relationship with licensure examination performance, indicating that structured review and self-directed learning contribute to examination readiness, confidence, and clinical competence. The study concludes that strengthening independent learning strategies and competency appraisal programs can enhance nursing graduates' preparedness for the PNLE. It recommends that nursing students adopt effective self-directed learning practices early, while higher education institutions continue to strengthen competency appraisal and academic support programs. The study supports Sustainable Development Goal (SDG) 3 (Good Health and Well-Being), SDG 4 (Quality Education), and SDG 8 (Decent Work and Economic Growth) by promoting effective educational strategies that prepare competent nursing professionals for safe practice. The findings contribute to educational, institutional, and public health sustainability by providing evidence that may strengthen nursing education, board examination preparation, and workforce readiness.

Keywords: Competency Appraisal Review, Independent Learning Strategies, Nursing Graduates, Philippine Nursing Licensure Examination, Self-Directed Learning

1. Introduction

The Philippine Nursing Licensure Examination (PNLE) is a mandatory requirement for Bachelor of Science in Nursing (BSN) graduates to become registered nurses. To improve board examination readiness, nursing programs integrate Competency Appraisal Review (CAR) and encourage independent learning strategies, which help students strengthen knowledge, identify learning gaps, and develop competencies required for safe nursing practice. Although these approaches are widely implemented, limited studies have examined their combined influence on nursing graduates' performance in the PNLE. This study therefore investigates the effect of independent learning strategies and competency appraisal review on nursing graduates' level of performance in the licensure examination.

1.1 Background of the Study

Passing the PNLE is required for nursing graduates to practice professionally under Republic Act 9173. To prepare students, nursing schools implement Competency Appraisal Review (CAR), which assesses students' knowledge and skills, identifies areas for improvement, and strengthens board examination preparation. CAR complements independent learning strategies that promote self-directed learning, critical thinking, time management, and confidence in applying nursing knowledge (Almarwani, 2022). Competency assessments also provide focused feedback that enhances clinical competence and examination readiness. Studies have emphasized the importance of competency-based assessments in improving nursing graduates' preparedness and professional competence (Kavanagh & Sharpnack, 2021; Mohamed & Fashafsheh, 2019). In the Philippines, universities are responsible for preparing students through assessment and review programs, while board performance is influenced by learning strategies, academic preparation, and institutional factors (Tanzo, 2021; Montegrigo and Oducado, 2022). The PNLE also reflects the quality of nursing education. Although recent PRC reports indicate improving board performance among nursing graduates (Pacis et al., n.d.), limited research has examined how

independent learning strategies and Competency Appraisal Review jointly influence licensure examination performance. This study addresses this gap to provide evidence that may strengthen board examination preparation and nursing education.

1.2 Themes and Insights from Related Literature

The literature identifies Competency Appraisal Review as an important strategy for assessing nursing students' strengths, weaknesses, clinical competence, and professional readiness. Competency assessments improve critical thinking, communication, ethical practice, and licensure examination performance (Parao et al., 2020; Purabdollah et al., 2024; Oducado et al., 2019; Alkhelaiwi et al., 2024). The Nursing Licensure Examination evaluates graduates' readiness for professional practice and serves as an indicator of educational quality (Almazan, 2019). Competency appraisal functions as a pre-board assessment that familiarizes students with board-type examinations, although pre-board performance alone has limited influence on PNLE success (Montegrigo et al., 2024; Llego et al., 2020). Studies also emphasize the importance of independent learning strategies, including self-directed learning, time management, self-motivation, critical thinking, and problem-solving, in promoting lifelong learning and preparing nursing students for professional practice (Phuong et al., 2020; Yeung et al., 2024). These competencies enable future nurses to adapt to complex healthcare environments and improve examination readiness.

1.3 Local, National, and Global Context

Globally, nursing education emphasizes competency-based education, simulation, and independent learning to enhance graduates' clinical competence and licensure examination readiness (Almarwani, 2022; Mohamed & Fashafsheh, 2019). Nationally, the Philippines continues to strengthen nursing education through competency- and outcome-based curricula under CHED Memorandum Orders 14 (2009) and 15 (2017) while using the Philippine Nursing Licensure Examination (PNLE) as the standard measure of professional competence (CHED, 2009; CHED, 2017). Locally, higher education institutions implement Competency Appraisal Review and other academic support programs to improve board examination performance. Despite these initiatives and the increasing PNLE passing rates reported by the PRC (Pacis et al., n.d.), limited studies have examined the combined influence of independent learning strategies and Competency Appraisal Review on nursing graduates' licensure examination performance, highlighting the need for this study.

1.4 Theoretical or Conceptual Basis

This study is anchored on Patricia Benner's From Novice to Expert Theory (1982), which explains that nursing competence develops progressively through experience across five stages: novice, advanced beginner, competent, proficient, and expert (Benner, 1982). The theory supports the premise that independent learning strategies and Competency Appraisal Review facilitate the development of knowledge, clinical judgment, and decision-making skills, enabling nursing students to transition from novice learners toward competent practitioners and improve their readiness for the Philippine Nursing Licensure Examination (Hostsetter, 2020).

1.5 Research Gaps and Rationale

Previous studies have independently examined competency appraisal, independent learning strategies, nursing education, and factors influencing licensure examination performance (Parao et al., 2020; Oducado et al., 2019; Phuong et al., 2020; Yeung et al., 2024). However, limited research has investigated the combined effect of independent learning strategies and Competency Appraisal Review on the level of performance of nursing graduates in the Philippine Nursing Licensure Examination, particularly among graduates who prepared through self-review. Addressing this gap may provide evidence to improve board preparation strategies, strengthen nursing curricula, and enhance institutional interventions that support licensure examination success.

1.6 Alignment with Relevant Sustainable Development Goals (SDGs)

This study supports SDG 3: Good Health and Well-Being by promoting strategies that enhance the competence and readiness of nursing graduates to provide safe and quality patient care. It also aligns with SDG 4: Quality Education by emphasizing effective learning strategies, competency appraisal, and evidence-based educational practices that strengthen nursing education and licensure examination preparedness. Furthermore, the study contributes to SDG 8: Decent Work and Economic Growth by improving graduates' readiness for professional nursing practice, thereby supporting workforce development in the healthcare sector.

1.7 Importance of the Study to Multidisciplinary Sustainability

The study contributes to educational sustainability by providing evidence that may improve nursing curricula, competency appraisal programs, and independent learning approaches. It also supports public health sustainability by helping prepare competent nursing professionals capable of delivering safe and quality healthcare services. In addition, the findings contribute to institutional sustainability by informing nursing educators and higher education institutions in strengthening board examination preparation and maintaining quality nursing education that meets professional and healthcare workforce demands.

2. Material and methods

2.1 Research Design

The study utilized a quantitative research design, which gathers numerical data to objectively examine relationships among measurable variables (Taherdoost, 2022). Specifically, it adopted a non-experimental correlational design, which investigates naturally occurring variables without manipulation and determines the degree of relationship between them (Kotronoulas, 2023). Consistent with Thomas and Zubkov (2020), the design focused on identifying the relationship between nursing graduates' independent learning strategies, Competency Appraisal Review, and their performance in the Philippine Nursing Licensure Examination.

2.2 Locale of the Study

The study was conducted in one higher education institution in Valenzuela City, Metro Manila. The institution was selected because of its accessibility to the researchers and its ability to provide qualified nursing graduates who met the study's inclusion criteria.

2.3 Respondents of the Study

The respondents consisted of 150 nursing graduates from the selected higher education institution who had taken the Philippine Nursing Licensure Examination between 2022 and 2024. Eligible participants were 22 to 59 years old, male or female, had prepared through self-review without enrolling in any review center, and voluntarily agreed to participate. Nursing graduates outside the specified age range, graduates from other institutions, and those who attended review centers were excluded from the study.

2.4 Sample and Sampling Procedure

The study employed purposive sampling to select respondents who met the established inclusion criteria. A total of 150 nursing graduates were intentionally chosen based on the following qualifications: male or female, 22–59 years old, graduates of the selected higher education institution, did not enroll in any review center, took the Philippine Nursing Licensure Examination (PNLE) between 2022 and 2024, and voluntarily agreed to participate. Purposive sampling was considered appropriate because it enabled the researchers to recruit respondents with characteristics directly relevant to the study (Andrade, 2021).

2.5 Research Instrument

Data were collected using three survey instruments. The first was an adapted questionnaire from Sam, Ros, Keo, & Sophal (2013), which assessed respondents' independent learning strategies across seven domains: learning habits, learning management, self-learning reflection, ways to maximize learning, academic problems, learning styles, and curriculum and instruction. Responses were measured using a four-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (4). The second instrument was the Student Perception Appraisal-Revised-2 (SPA-R2) adapted from Gaud (2019), which evaluated respondents' academic performance and self-efficacy during their review preparation. It consisted of 20 items rated on a four-point Likert scale ranging from Severely Restricted (1) to Greatly Supported (4). The third instrument was a researcher-developed questionnaire entitled Beyond the Books: Assessing the Impact of Competency Appraisal Review, which was based on the 11 Key Areas of Responsibility outlined in CHED Memorandum Order No. 15. It contained 11 items measured using a four-point Likert scale from Strongly Disagree (1) to Strongly Agree (4) to determine the perceived effectiveness of the Competency Appraisal Review in preparing nursing students for the PNLE. The study examined the relationship between respondents' demographic characteristics, independent learning strategies, and Competency Appraisal Review as the independent variables, and the level of performance in the Philippine Nursing Licensure Examination as the dependent variable. The findings were used to determine whether independent learning strategies and competency appraisal review significantly influenced nursing graduates' licensure examination performance.

2.6 Data Gathering Procedure

Prior to data collection, the researchers secured the necessary approvals and permissions from the appropriate university offices. Eligible participants were informed about the purpose, procedures, benefits, and voluntary nature of the study through an informed consent form before participation. The study involved 150 nursing graduates from the selected higher education institution in Valenzuela City who met the inclusion criteria. Data were collected using Google Forms, allowing respondents to complete the questionnaire within approximately 15–20 minutes at their convenience. The researchers remained available to address questions or clarify instructions throughout the data collection process. Respondents were also given the option to decline answering any question they considered too personal or irrelevant. Participation was voluntary, and respondents' anonymity, privacy, and confidentiality were strictly maintained. All information collected was used solely for academic and research purposes. After the completion of data collection, the responses were organized, tabulated, and prepared for statistical analysis. Respondents were also given a token of appreciation for their participation. Recruitment was conducted through social media advertisements, which enabled the researchers to efficiently reach the target population in a cost-effective manner.

2.7 Data Analysis Techniques

The collected data were analyzed using descriptive statistics, including frequency distribution, percentage, and weighted mean, to summarize respondents' demographic characteristics and describe their independent learning strategies, competency appraisal review, and perceptions related to board examination preparation. To determine the relationship between the study variables, the Pearson correlation coefficient was employed, which measures the strength and direction of the linear relationship between two continuous variables (Field, 2018). In addition, responses obtained through the four-point Likert scale were analyzed to evaluate respondents' perceptions regarding independent learning strategies and the impact of Competency Appraisal Review on their preparation for the Philippine Nursing Licensure Examination (Likert, 1932).

2.8 Ethical Considerations

The study adhered to established research ethics by ensuring respondents' voluntary participation, confidentiality, anonymity, and privacy throughout the research process (Elkoumy, G., et al., 2021). In accordance with the Nuremberg Code, informed consent was obtained before participation, respondents were informed of their right to withdraw at any time without consequences, and every effort was made to protect participants from harm while safeguarding all collected information. Ethical approval was secured from the Institutional Ethics Review Committee (IERC) before the conduct of the study. Digital data were securely stored using password-protected and encrypted platforms accessible only to authorized researchers. Upon completion of the study, paper records were shredded and digital files were permanently deleted following secure data disposal procedures to maintain respondents' confidentiality.

3. Results and Discussion

3.1 Respondents' Profile and Learning Characteristics

3.1.1 Demographic Profile of the Respondents

The study involved 150 nursing graduates, the majority of whom were 22–29 years old (99.3%), female (80%), graduated in 2024 (54.7%), and took the November 2024 PNLE (51.3%). These findings indicate that the respondents were predominantly recent nursing graduates who prepared for the licensure examination through self-review. The predominance of young female nursing graduates reflects the global composition of the nursing workforce. According to the World Health Organization (2020), women comprise approximately 90% of nurses worldwide. Although gender differences may influence learning behaviors, Averia et al. (2022) reported no significant difference in nursing board examination performance between male and female students. Likewise, the increasing number of recent graduates may reflect greater engagement in independent learning and structured review activities, which are important predictors of examination readiness (Lai et al. (2023)).

3.1.2 Independent Learning Strategies of Nursing Graduates

The respondents demonstrated an overall favorable use of independent learning strategies. Among the learning domains, self-learning reflection obtained the highest rating, followed by curriculum and instruction and dealing with academic problems, while learning styles received the lowest rating. Overall, the findings indicate that respondents regularly practiced self-reflection, effective study habits, and learning management in preparing for the PNLE. These findings suggest that self-directed learning plays an important role in board examination preparation. Good study habits and effective learning strategies enhance students' ability to understand and retain nursing concepts, although they do not guarantee licensure examination success (Baligod et al. (2021); Wardani & Yulia (2020), as cited in Kuhutan et al. (2024)). Moreover, independent study, time devoted to learning, and learner autonomy improve examination performance and self-directed learning competence (Almarwani (2022); Malcolm Knowles' theory of andragogy). The results also support previous studies emphasizing that motivation, goal setting, resilience, and technology-enhanced instruction strengthen learning outcomes (Estrada et al. (2015), as cited in Montegricon & Oducado (2022); Aina and Wijayati (2019); Costa et al. (2020); Johnson (2024); Yeung et al. (2023)).

3.1.3 Student Perception Appraisal and Competency Appraisal Review

The respondents reported positive perceptions regarding both academic performance and self-efficacy, resulting in a favorable overall Student Perception Appraisal score. Likewise, the Impact of Competency Appraisal Review received a high rating, indicating that respondents perceived competency appraisal as an effective component of their preparation for the PNLE. The findings indicate that academic support, positive learning experiences, and confidence contribute to successful board examination preparation. Positive peer relationships, instructional quality, and financial support have been shown to improve academic achievement (Mulaudzi (2023); de Sivatte and Gabaldón (2023)). Similarly, structured study habits, motivation, and institutional support strengthen students' self-efficacy and examination readiness (Aljaffer et al. (2024); Yan, Lim, and Wong (2023); Seden et al. (2023)). These results reinforce the value of competency appraisal review in enhancing students' confidence and preparedness for professional licensure.

3.2 Relationships Among the Study Variables

3.2.1 Relationship Between Independent Learning Strategies, Demographic Profile, and Competency Appraisal Review

The analysis showed no significant relationship between independent learning strategies and respondents' age, sex, year graduated, and PNLE schedule, indicating that these demographic variables did not influence how respondents applied independent learning strategies. In contrast, a moderate positive and statistically significant relationship was found between independent learning strategies and the Impact of Competency Appraisal Review, suggesting that respondents who demonstrated stronger independent learning strategies also perceived greater benefits from competency appraisal review. These findings support the rejection of demographic influence on independent learning, indicating that self-directed learning is not dependent on age, gender, graduation year, or examination schedule. Similar findings were reported by Oducado (2021), Sadeghi et al. (2024), Egalla et al. (2024), Visiers-Jiménez et al. (2022), and Coros & Madrigal et al. (2021), who emphasized that institutional support, learning environment, and learner motivation contribute more to self-directed learning than demographic characteristics. The significant relationship between independent learning strategies and competency appraisal review also supports the view of Brandt (2020) and Song et al. (2021) that self-directed learning enhances problem-solving, critical thinking, and learning autonomy, making competency appraisal review more effective in preparing nursing students for the licensure examination.

3.2.2 Relationship Between Independent Learning Strategies and Philippine Nursing Licensure Examination Performance

The findings revealed a significant positive relationship between independent learning strategies and performance in the Philippine Nursing Licensure Examination, indicating that respondents who consistently practiced effective study habits, self-reflection, learning management, and other independent learning behaviors tended to demonstrate better board examination performance. The results suggest that independent learning strategies contribute to examination readiness by promoting self-regulation, critical thinking, and effective learning behaviors. These findings are consistent with previous studies showing that autonomous learning, goal setting, and active engagement improve academic achievement and professional examination outcomes (Yeung et al. (2023); Almarwani (2022); Baligod et al. (2021)). The results further emphasize that cultivating independent learning skills enhances graduates' preparedness for professional nursing practice.

3.2.3 Relationship Between Competency Appraisal Review and Philippine Nursing Licensure Examination Performance

The study also demonstrated a significant positive relationship between Competency Appraisal Review and performance in the Philippine Nursing Licensure Examination. Respondents who perceived greater benefits from competency appraisal review generally reported better board examination performance, indicating that structured institutional review contributes positively to examination readiness. The findings reinforce the importance of competency appraisal review as a preparatory strategy for licensure examinations. Consistent with Parao et al. (2020) and Oducado et al. (2019), competency-based assessments help identify learning gaps, strengthen clinical competence, and improve examination preparedness. The results further suggest that integrating competency appraisal with independent learning strategies can enhance nursing graduates' confidence and overall readiness for professional practice.

4. Conclusion & Recommendations

This study concludes that independent learning strategies and Competency Appraisal Review positively contribute to nursing graduates' preparation for the Philippine Nursing Licensure Examination (PNLE). While age, sex, year of graduation, and PNLE schedule were not significantly associated with board examination performance, competency appraisal review and independent learning strategies showed a positive relationship. The findings further indicate that self-learning reflection and self-efficacy were among the most beneficial factors in board examination preparation, whereas academic problems remained a challenge that should be addressed. Overall, structured academic interventions combined with independent learning enhance students' examination readiness, confidence, and clinical competence.

Nursing students should begin preparing early for the PNLE by adopting effective study techniques, maintaining a structured study routine, practicing regular self-assessment, and developing a positive mindset toward learning and challenges. Nursing educators and higher education institutions should strengthen guidance, competency appraisal programs, and academic support to enhance students' board examination readiness. Future researchers are encouraged to investigate additional environmental and demographic factors affecting PNLE performance and include broader respondent groups to improve the generalizability of the findings.

The study was limited to 150 nursing graduates from a single higher education institution in Valenzuela City who prepared for the PNLE through self-review and took the examination between 2022 and 2024. The findings therefore reflect the experiences of this specific group and may not be generalizable to nursing graduates from other institutions, review center participants, or different demographic populations. Expanding the respondent profile and study setting may provide broader

perspectives on the relationship between independent learning strategies, competency appraisal review, and licensure examination performance.

Compliance with ethical standards

The author declares no conflict of interest. This study received no external funding and was conducted with the cooperation of the selected higher education institution in Valenzuela City and the participating nursing graduates. Participation was voluntary, and informed consent was obtained from all respondents prior to data collection through non-invasive survey methods. All responses were treated with strict confidentiality, and no identifying information was collected or disclosed to protect the privacy of the participants.

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