

A Correlational Analysis of Predictor Test Results and Licensure Examination Board Performance among Education and Criminology Graduates from a Private University

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ABSTRACT

Academic success and poor performance on national licensure examinations negatively correlate with test anxiety. Focusing on a relatively small number of graduate takers of the Licensure Examination for Professional Teachers (LEPT) and Criminology Licensure Examination (CLE) from the three board courses (n= 19), the investigation determines the predictor test scores and licensure examination board performance of graduates of BEED, BSED, and BS in Criminology from a private university in Bacoar, Cavite. Moreover, it examined possible relationships between the graduates' scores in the two standardized assessments. Upon Using frequency, percentage, and Chi-squared correlation tests, the study revealed poor predictor results (32% passing rate), good percentage performance to the graduates to CLE and LEPT (rate is above the national passing percentage), and a strong positive correlation between graduates' performance and their prediction test scores ($\chi^2 (1,19) = 6.31, p=0.01154$). The study discovered that all students who passed the predictor test and a few who failed it also passed the licensure examinations. Results have provided necessary recommendations, such as initiatives and programs to enhance board performance further, increase linkages, reduce test anxiety, enrich curriculum delivery, and achieve the program education goals of the education and criminology departments of the humanities and social sciences cluster.

Keywords: Correlation, Criminology, Education, Licensure Examination, Predictor Test, Bacoar, Cavite, Philippines

Introduction

National Board examinations generally are anxiety-provoking. Extensive scholarly research has consistently demonstrated a negative correlation between examination-related anxiety and academic accomplishment and subsequent unfavourable outcomes in board performance. The presence of anxiety around assessments and academic tasks can significantly influence students' academic performance, particularly in high-stakes examinations. (Jerrim, 2023). Research has suggested that around 15% of students taking examinations experienced "high test anxiety" due to less motivation, poor wellness, pessimistic thoughts, and uncertain feelings. Moreover, a more significant reason pointed out is poor preparation and readiness (Keating, 2019). In the context of inadequate preparation for board examinations, it is common for students to need more awareness of their knowledge gaps or areas of misunderstanding until the days leading up to the examination. Despite the collective endeavours of academic administrators, faculty members, and

student support services to adequately equip graduates for board examinations, specific subtopics that needed to be thoroughly addressed or emphasized emerged throughout the examination. (Flores, 2020).

The College of Education comprises two programs, the Bachelor of Elementary Education (BEED) and Bachelor of Secondary Education (BSED) major in English. In UPHSD-Molino, the Commission on Higher Education (CHED) recognized these programs in November 1999 and July 1999, respectively. The program education objectives for BEED and BSED focus on producing graduates that can (a) teach effectively across the curriculum and in their area of specialization, (b) integrate interdisciplinary instruction to achieve academic excellence, (c) display competence, dynamism, and global competitiveness in education; (d) manifest leadership in teaching, research, and community service; (e) exhibit comprehensive content knowledge, skills and values; and (f) demonstrate proficiency in organizational communication and practical human relation (CMO No. 74 and 75, series of 2017). Meanwhile, the CHED recognized the Bachelor of Science in Criminology in August 2013. Its PEOs highlight the (a) competence in the conduct of criminological research on crimes and crime causation; (b) internalize the concepts of human rights and victim welfare; (c) demonstrate competencies in law enforcement administration, public safety, and criminal justice; (d) utilize forensic science; and (e) apply principles and jurisprudence of criminal law, evidence, and procedure (CMO No. 5, s. 2018). All three programs under the HUMSS Cluster recently received a level III accreditation from the PACUCOA—the higher the accreditation level, the better the program quality (Prado, 2020).

Recently, the Professional Regulation Commission (PRC) announced that only about 32%, 41%, and 47%, respectively, passed the April 2023 and March 2023 Criminology Licensure Examination (CLE) and Licensure Examination for Professional Teachers (LEPT). The national passing rates for CLE and LEPT are below 50%, clearly showing a gap between content knowledge, competencies, examination preparation, and other relevant factors that may hinder good performance ratings. In response, higher education institutions in the Philippines are expected to develop strategies to improve the institution's board performance (Fiscal & Roman, 2022). Varied strategies implemented to increase national board examination results are linked to conducting predictor examinations, training and workshops, home-based review classes, series of pre-licensure examinations, and conduct of research related to formulating best-fitting plans and programs (Briones & Romero, 2020; Amanonce & Maramag, 2020; Albina et al., 2021, and Fiscal & Roman, 2022). However, despite varied initiatives, some institutions have low confidence levels in ensuring well-board performance, while others have below-average results compared to a national passing percentage (NPP) which makes the study more relevant and timelier to conduct. Associations between pre-board and board exam results increases academic institutions certainty in achieving higher ratings compared to the PRC national percentage (Amanonce & Maramag, 2020 and Roman, 2022).

In the case of the University of Perpetual Help System DALTA – Molino campus, despite the above passing percentage compared to NPP in CLE and LEPT in recent national assessment and the level III PACUCOA status of BEED, BSED, and BS in Criminology, there is still a need to increase and conduct innovative efforts to increasing level of confidence of the school in terms of predicting the institution's board performance. Recently, the Humanities and Social Sciences Cluster, composed of the College of Arts and Sciences, the College of Education, and the College of Criminology, has partnered with a well-known review center to give a predictor examination to its students who will be taking CLE and LEPT national examination. The predictor examination is conducted to make sure that graduates are more prepared and will observe precautionary measures and be able to pass the national board examination. The predictor examination is equivalent to pre-board. It is an educational endeavour aimed at expanding learning beyond the confines of the traditional classroom environment and enhancing overall academic achievement. The predictive nature of performance on particular items throughout the test was observed concerning subsequent recollection and overall performance on the examination. (Sense et al., 2021). The concept has something to do with learning analytics that can be used to monitor progress, guide study decisions, and prepare for better board performance among graduates.

The study is anchored to the achievement theory of motivation by McClelland. The theory centers on the imperative for an individual to undergo improvement in response to increasing experiences. Additionally, the theory emphasizes the behavioural effects of an individual's need for accomplishment, success, authority, and affiliation. (Villa & Sebastian, 2021). The motivation of individuals is influenced by these characteristics, regardless of their age, gender, ethnicity, or cultural background. (Siok et al. 2023; and Maharjan, 2018). In context, students who pass or fail the predictor examination may desire to pass the national board examination, which may affect their behavior. The more they fail the predictor test, the higher the possibility of observing actions that would ensure passing performance later. The actions may be relative to preparedness, commitment, initiative to attend reviews, conduct peer reviews, and purchase of review modules.

The 100% passing percentage is the ultimate goal of the Colleges of Criminology and Education. Preparation for board examinations must be given careful attention (Briones & Romero, 2020). The predictor examination also serves as a gauge to quantify the performance of the institutions in the national board assessment (Delos Angeles, 2020). Indeed, there is a need to study if the results of the predictor examination given to graduating students of Criminology and Education have something to do with their board performance. The enhancement and production of sub-initiatives to maximize the full potential of the institution's services and efforts and to produce a 100% passing percentage have driven the researchers to conduct the study. This study also facilitates the assessment of the realization of the program educational objectives of the criminology and education programs of the UPHSD – Molino Campus.

The study is based on the research agenda of the HUMSS cluster, in particular, curriculum enrichment, quality delivery of instruction and assessment, extended learning opportunities, and school culture of quality. The primary purpose of the correlational study is to investigate the association between the predictor test result and the board examination performance of the graduates of Criminology and Education programs. The study was made to a) identify the predictor test performance of the graduating students; b) determine the licensure examination performance of the BEED, BSED, and BS in Criminology graduates; and c) check if an association exists between the predictor test result and board examination performance of BS in Criminology, BEED, and BSED graduates.

Methodology

The quantitative, descriptive correlational research design was used to investigate the association between the performance of the BEED, BSED, and BS in Criminology graduates of UPHSDM in taking predictor tests and the licensure examination by PRC. The three courses were chosen because it's the program offered under the Humanities and Social Sciences Cluster and the courses included in the memorandum of agreement. The design was utilized to interpret and make inferences on the data, particularly the relationship between two variables. The descriptive-correlational design is the most appropriate and valuable when analyzing the relationship between two or more random variables within the same population or between the same variables in two distinct populations. (Sand, 2022).

Predictor examination is a standardized assessment based on the enhanced specifications table crafted for LEPT and CLE takers. It is offered by the partner review center bonded with the memorandum of agreement (MOA). The PRC prescribed the enhanced TOS. The College of Education and Criminology has no right to get a copy for intellectual property consideration. Meanwhile, board performances were provided by the PRC through the university registrar's office. No research instruments were proposed.

Necessary data were collected after the predictor test and the national licensure examinations for professional teachers and criminologists. An orientation was given to the graduating students of Batch 2022, which included the testing rationale, coverage, time limit, test mode, the possible implications of the result to prepare and make students aware of the initiative, and the utilization of the results of their assessments (predictor and national licensure examination). Students were informed of their rights to refuse, anonymity, and withdrawal rights. During the orientation with the CBRC-review partner for the standardized predictor test, consent forms were discussed and collected. However, one of the limitations of the conduct of the predictor test is the monitoring of students' health, physical strength, mental readiness, and conditions at home. Focus group discussions among LEPT and CLE passers were initiated to validate the study conclusions and implications.

The study was conducted at the University of Perpetual Help System DALTA – Molino Campus. The population comprised the Graduates of Batch 2022 who took the CLE (December 2022 = 9 takers) and LEPT (March 2023 = 10 takers). The census sampling technique was used since few graduates took the predictor exam and the national licensure examinations for CLE and LEPT.

Frequency and percentage were utilized to categorize the graduates' predictor and licensure examination performances. Moreover, the research study used the Chi-square test to check if a significant association exists between the predictor test and licensure examination performance. The examination performances are dealt with in categorical form. The categories of the variables are mutually exclusive. Commonly employed in statistical research, the chi-square test is utilized to determine whether or not non-numeric variables are correlated. (Turhan, 2020).

Results and Discussion

Predictor test performance of the graduating students

Table 1. Predictor Test Performance

Performance	Education		Criminology	
	f	%	f	%
Passed	3	30	3	33
Failed	7	70	6	67

Note: f – frequency and % – percentage

It can be gleaned from the table above that graduating students performed poorly in the predictor test. Six (6) out of 19, or 32%, passed, while thirteen (13) or 68% failed. The result shows that graduating students still need to be ready, and interventions are necessary to make graduates capable and prepared to take the national licensure examination. According to Geraci et al. (2023), accurately monitoring one's knowledge in educational environments facilitates a compelling and enlightening learning process and opportunities. Students can utilize this information to reassess and educate themselves regarding their study methods and identify areas of comprehension that require additional attention.

National licensure examination performance of the education and criminology graduates

Table 2. Licensure Examinations Performance

Performance	March 2023 LEPT		December 2022 CLE	
	f	%	f	%
Passed	6	60	5	56
Failed	4	40	4	44

Note: f – frequency and % – percentage

The table provides data on the average performance of graduates from education and criminology programs in their respective licensure examinations. According to the data presented in the table, eleven graduates of education and criminology out of nineteen, accounting for approximately 58%, successfully passed the national examinations. The outcome demonstrated the achievement of the educational goals of the program and the potential for improved readiness in completing their respective license examinations. According to Yusoff et al. (2014), one direct effect of Outcome-Based Education (OBE) is the production of high-quality graduates who demonstrate proficiency in meeting program objectives. Another expression of OBE's effectiveness is seen in these graduates' performance on national board examinations. Furthermore, as Barreda and Barreda (2020) stated, a key determinant of excellent education lies in an institution's ability to cultivate graduates who can effectively pass the PRC board examination.

Correlation of predictor test results and licensure exam performances

Table 3. Result of Chi-Square Test of Correlation

X ² (Chi-Square Value)	Degrees of Freedom	Critical Value	P-value (2-tailed)
6.31	1	3.841	0.01154

Note: The result is significant at $p < 0.05$, $N = 19$

According to the findings presented in Table 3, a statistically significant association was seen between the predictor test scores of the education and criminology graduates and their achievements in their respective licensure examinations ($\chi^2(1,19) = 6.31$, $p = 0.001154$). The outcome directly aligns with the McClelland theory of motivation, which suggests that an individual's drive is intertwined with their pursuit of achievement. Previous studies have indicated that several factors, such as motivating beliefs, learning strategies, and assessment performance, can be influenced by past tests and experiences (Corpuz et al., 2022). Furthermore, the present findings align with the existing literature and the outcomes of previous studies conducted by Fulgado (2020), Albina et al. (2022), Johnson (2020), and Fiscal & Roman (2022). These researchers have reported that pre-board examinations and other preparatory measures significantly correlate with the licensure examination results of their respective cohorts of graduates. The utilization of pre-board assessments significantly contributed to their achievement of successfully passing the national licensure examination.

Conclusion

The findings of the predictor test suggest that graduates need more preparedness to undertake the national licensure examinations successfully. A significant proportion of the graduating students pursuing a Bachelor of Science in Criminology, Bachelor of Elementary Education, and Bachelor of Secondary Education did not achieve satisfactory

results in the pre-board assessment. Nevertheless, criminology and education responders' national licensure board performances in the December 2022 CLE and March 2023 LEPT exhibited favorable outcomes. The graduates' performances in the CLE and LEPT examinations surpass the national passing percentage. The presence of a positive outcome serves as an indication that the program's educational objectives for both education and criminology programs have been successfully achieved.

Reflecting on the theory cited in the study introduction, the study's results, particularly the calculated Chi-Squared test, confirmed and corroborated the achievement theory of motivation. Students who pass the predictor examination also desire to pass the national board examination. Likewise, those who do not pass the predictor test affect their behavior and consider doing more to ensure they can pass the licensure assessment. The more students fail the predictor test, the higher their motivation and the possibility that they will implement necessary actions to help them pass the national licensure examinations.

Furthermore, a robust and statistically significant correlation was seen between the predictor test outcomes and graduates' performance in the national license examination. To enhance the performance of graduates in the national board examination, academic leaders must persist in implementing pre-board efforts and action, fostering links, and engaging in benchmarking activities. These measures aim to better equip graduates for the national licensing examination and ensure a 100% passing percentage, luckily top performing takers. Further studies may focus on assessing the implemented board performance action plan and enriching initiatives to increase board performance among graduates.

Contributions of Authors

The authors confirm the equal contribution in each part of this work. All authors reviewed and approved the final version of this work.

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Conflict of Interests

All authors declare that they have no conflicts of interest

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