

Academic Predictors of Performance in the Board Licensure Examination for Psychometricians



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ABSTRACT. In relation to the adherence of Higher Education Institutions (HEIs) offering undergraduate psychology programs to excellent standards of education as translated in the Board Licensure Examination for Psychometricians (BLEP), this study aimed to analyze the predictors of BLEP performance as inputs to curriculum and instruction quality assurance. This study employed a descriptive-quantitative design and collected data using an online survey and data mining. Results from one private-sectarian HEI show that general academic performance – specifically in Theories of Personality, Abnormal Psychology, Industrial Psychology, and Dynamic Psychology courses – were significant predictors of BLEP performance, suggesting that better undergraduate academic performance leads to better BLEP performance. These results highlight the need for enhancing the curriculum and instruction in response to the demands of various regulatory and quality assurance bodies in ensuring

that the mandate of HEIs to produce high-quality professionals is achieved through a curriculum-based course audit for review classes and intensified instruction.

1.0. Introduction

One of the most significant professional reforms instituted in the Philippines is the enactment of the Psychology Law, which paved the way for the professionalization of the practice of psychometrics (Official Gazette, 2010). As stipulated in the Implementing Rules and Regulations (IRR) of RA No. 10029 prescribed by the Philippine Regulatory Board (PRB) of Psychology under the Professional Regulation Commission (PRC), “all applicants for registration to practice psychology and psychometrics shall be required to pass a licensure examination for psychologists and psychometricians” (PRB of Psychology Board Resolution No. 03, 2012, Rule V, Sec. 11). This makes the practice of psychometrics one of the youngest professions in the Philippines regulated by PRC. Psychometrics is the scientific study of measurements of various psychological constructs (Cohen et al., 2022).

The professionalization of psychometrics practice was made more relevant with the enactment of the Philippine Qualifications Framework (PQF) Act which sets professional

standards and enhances the recognition and value, and comparability of Philippine qualifications which support the mobility of Filipino professionals, including psychology practitioners (Official Gazette, 2017) and the enactment of the Mental Health Law which establishes a national mental health policy and practice by mental health professionals (Arellano Law Foundation, 2019) in response to the United Nation’s International Sustainable Development Goal on Mental Health and Wellbeing which also requires competent mental health professionals in providing mental health services. These aforementioned advancements in psychometrics in the Philippines strongly prompt HEIs as places of innovation and change for professionals-in-the-making to deliver high-quality education by excellently facilitating learning among psychology students. This call for the provision of high-quality education is strongly reinforced by the enactment of the Transnational Higher Education Act, which advocates for the internationalization of standards in higher education in providing quality education relevant to the changing needs of the people and the country (Official Gazette, 2019).

Consequently, the professionalization of psychometrics not only regulates the

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psychometrics profession but also serves as one criterion for evaluating the quality assurance of HEIs who offer undergraduate and graduate Psychology programs. Licensure examination performance of HEIs would be a strong indicator if they could provide and adhere to high-quality education standards (Gabasa & Raqueño, 2021). The existence of the link between quality education provided by the HEI to their students and the performance of their graduates in licensure examinations is predicated on the role of the HEIs to provide educational reforms and eventually confer degrees to their graduates as the minimum requirement in taking licensure examinations.

Since the implementation of the Psychology Law, the PRC annually conducts the Board Licensure Examination for Psychometricians (BLEP) since 2014. Data from the previous BLEP show that the national passing rate has gradually increased across the years from 39.29% in 2014 (Philippine Regulation Commission [PRC], 2014) to 63.73% in 2019 (PRC, 2019a), which led to an average passing rate in the BLEP of 53.27% from 2014 to 2019 producing 23,383 board passers (Cue, 2021). Across the years, data extracted by the researchers from the PRC's official announcements regarding the performance of HEIs in the BLEP show that more than 50% of all HEIs who took part in the BLEP have garnered institutional passing rates that are lower than the national passing rate for every year from 2014 to 2019 (PRC, 2014; PRC, 2015; PRC, 2016; PRC, 2017; PRC, 2018a; PRC, 2019a). These data suggest that many HEIs in the entire country need to improve their institutional passing rates in the BLEP.

The BLEP statistics mentioned above are consistent with the case of one private-sectarian HEI in La Union who has conferred Bachelor of Science in Psychology degrees to more than a hundred graduates. The HEI's institutional passing rate in the BLEP conducted by PRB of Psychology from 2014 to 2019 have fluctuated wherein the HEI was able to produce a tenth-placer in 2018 (PRC, 2018b), and a second-placer and a ninth-placer in 2019 (PRC, 2019b) and in the years 2014, 2016, and 2017, the HEI's institutional performance was higher than the national percentage (PRC, 2014; PRC, 2016; PRC, 2017); but in the years 2015, 2018, and 2019, the HEI's institutional performance was below the national passing rate (PRC, 2015; PRC, 2018a; PRC, 2019a). The fluctuation in the HEI's BLEP performance presents the need to further improve and intensify the delivery of

instruction to equip graduates with the necessary knowledge and skills that psychology graduates from the said HEI need to perform better in the BLEP. This improvement would eventually contribute to all Catholic institutions' evangelical mission to provide excellent education (Banusing & Bual, 2021; Jorilla & Bual, 2021). Hence, it is imperative to investigate the relevant factors that significantly account for success in the BLEP in order to guide HEIs in innovating their curricular offerings.

The bulk of existing literature about predictors of licensure examination performance is mostly revolving around professional teachers (Fontejon-Bonior & de la Rama, 2018; Amanonce & Maramag, 2020; Angeles, 2020; Orlanda-Ventayen, 2020; Cahapay, 2021; Ibarrientos, 2022; Somosot et al., 2022), engineers (Dayaday, 2018; Terano, 2018; Maaliw, 2021), and para-medical professions (Alipio, 2020; Llego et al., 2020). In the context of the BLEP, there remains a dearth of literature along this line of research interest (Cuy, 2021). This gap in the literature is attributable to the historical fact that Psychology was taught as a course way back in the seventeenth century up to the early twentieth century (Licuanan, 1985) until it was first offered as a baccalaureate degree in 1948 (Gaerlan, 1983) and is now presently regulated as a staple academic program by the Commission on Higher Education (CHED); hence, psychology and psychometrics profession remains to be one of the youngest regulated professions in the country.

With the premise that BLEP performance is one robust measure of quality assurance in determining whether high-quality education is provided by HEIs offering undergraduate psychology programs, this study aims to find out specific predictors of licensure examination performance in order to know what, where, and how to improve the implementation of the undergraduate psychology curriculum and intensify the delivery of instruction to guide HEIs in their curriculum planning, implementation, and evaluation, especially the HEIs whose performance in the BLEP is fluctuating from an institutional passing rate above national passing rate to having institutional passing rates below national passing rate.

The results would aid the target HEI in evaluating the effectiveness of the implemented undergraduate psychology curriculum and their instructional designs and practices to significantly improve their BLEP performance in the coming years. Moreover, school administrators and quality assurance personnel

would benefit from this study because it would provide concrete insights about the performance of the Psychology Program in the BLEP, which would serve as one of their bases in further improving and innovating the Psychology curricular offering of the school. Likewise, other Academic Programs of HEIs who have board licensure examinations would also benefit from this study because they may use the methods used in this study as well as the obtained results as their bases in conducting similar research endeavors to further improve the performance of their programs in their respective licensure examinations. This study could also contribute significantly to the body of knowledge in the field of Psychology and Behavioral Sciences by providing additional literature in the repository of literature about the utility of complex multivariate statistical analysis, as well as the existing knowledge in Educational Psychology.

2.0. Framework of the Study

Performance in state licensure examinations is considered a very important measure of success among HEIs (Gabasa & Raqueño, 2021). With this premise, the study posits that nearthing the predictors of the board licensure examination is a commitment to upholding the integrity of the field. Likewise, it is recalibrating and reshaping the quality of education offered to the students. College instructors are catalysts of future professionals that eventually impact the social sphere. Consequently, the realm of academe becomes pivotal movers of the multifarious facets of the larger social structure.

A vast number of literature has established specific factors that significantly predict licensure examination performance, such as review mode, type of examinee, and undergraduate academic performance. The review mode in preparation for taking the exam (self-review or enrolling in review centers) is found to significantly predict licensure examination results, such that enrolling at a review center significantly increases the probability of examinees passing licensure examinations (Fiscal & Roman, 2022). Examinee type (first taker or retaker) also significantly influences licensure examination performance (Cahapay & Toquero, 2022). Undergraduate academic performance has also been widely studied in various licensure examination contexts, especially the performance in professional courses, have been found to be a significant predictor of licensure examination performance in various professions (Dayaday, 2018; Alipio,

2020; Amanonce & Maramag, 2020; Cahapay, 2021; Gabasa & Raqueño, 2021; Ibarrientos, 2022; Salcedo et al., 2021; Somosot et al., 2022).

With the aforementioned situations, the study intends to develop a model that will aid in determining if review mode, type of examinee, and undergraduate academic performance in professional courses are key determinants of success in the BLEP.

3.0. Methodology

Research design. This study employed a descriptive-quantitative research design. The design paved the way for analyzing and understanding review mode, examinee type, and undergraduate academic performance as predictors of BLEP performance. This information is an important input in improving curriculum and instruction for undergraduate psychology programs.

Respondents. The respondents consisted of 128 BS Psychology graduates from a private-sectarian HEI in La Union who took the BLEP since it began in 2014. These 128 respondents constitute 100% of the HEI's psychology graduates who took the BLEP from 2014 to 2019.

Instrumentation. A demographic questionnaire was administered to collect demographic data such as the year they took the BLEP; the review mode in preparation for taking the exam (self-review or enrolling in a review center); the examinee type (first taker or retaker); and the BLEP result (passed or failed). To measure academic performance, academic records were accessed thru manual data mining via the HEI's Academic and Information Management System (AIMS) Portal. The context of undergraduate academic performance in this study is measured along three clusters of psychology courses, namely: basic and required psychology courses (eight courses), psychology board courses (four courses), and psychology electives (four courses).

Data collection procedure. The predictor data gathered in this study were review mode (self-review or enrolling in a review center), examinee type (first taker or retaker), and academic performance records (grades in professional courses in psychology). Meanwhile, the criterion variable in this study was BLEP performance (passed or failed). For the first stage of data gathering, the researchers administered the demographic questionnaire and consent form through Google Forms. The link for the demographic questionnaire and consent form was sent to the target respondents thru Facebook Messenger and email. In the

case of the retakers, the data from most recent year when they took the examination were collected and recorded. For the second stage of data gathering which covers the data mining of academic records thru the AIMS portal, the researchers sought the consent of the participants to access their academic records through the online consent form. Only those who gave their consent to access their academic records were the ones included in the study.

Data analysis procedure. To analyze the predictive contribution of review mode, examinee type, and undergraduate academic performance on the BLEP performance, binomial logistic regression analyses were conducted. Binomial logistic regression predicts the probability that an observation falls into one of two categories of a dichotomous criterion variable as predicted by one or more predictor variables that can be either parametric or non-parametric (Osborne, 2016). Binomial logistic regression analysis is an appropriate tool for analyzing the data in this study because the criterion variable (BLEP performance) is treated as a dichotomous categorical variable (pass or fail), and the predictor variables are a combination of categorical (review mode and examinee type) and continuous data (undergraduate academic performance).

4.0. Results

First Binomial Logistic Regression Analysis Model

A binomial logistic analysis was conducted to test the statistical model, and the results are presented in Table 1. As depicted in Table 1, there is a significant result for the omnibus tests of model coefficients $\chi^2 (3) = 36.001, p < .000$ leading to the acceptance of the hypothesis, which states that adding review mode, examinee type, and general academic performance as predictors in the predictive analysis significantly increase the prediction of BLEP performance is accepted. This is evidenced by the results showing a significant increase in the overall correct prediction rate of 73.4% when the predictors were included in the analysis compared to the overall correct prediction rate of 64.8% for the model with intercept only. This means that including the predictor variables improved the prediction power in the predictive analysis model. Results further reveal an insignificant Hosmer-Lemeshow goodness-of-fit test, $\chi^2 (8) = 3.893, p = .867$, also leading to the acceptance of the hypothesis, which states that the predictions made in the predictive analysis model fit with the observed group memberships/categorization for BLEP performance.

Table 1

Binomial Logistic Regression Model with Review Mode, Examinee Type, and Academic Performance as Predictors of BLEP Performance

Predictor Variables	β	S.E.	sig	e^β
X ₁ = Review Mode (1)	-1.176	.630	.062	.308
X ₂ = Examinee Type (1)	.422	.771	.584	1.525
X ₃ = General Academic Performance	.375	.075	.000	1.454
Constant	-31.652	6.470	.000	.000
Nagelkerke R ² =	.337, p < 0.001			
Omnibus Tests of Model Coefficients	$\chi^2 (3) = 36.001, p < .000$			
Hosmer - Lemeshow Goodness of Fit Test	$\chi^2 (8) = 3.893, p = .867$			

Before conducting the predictive analyses, univariate normality analyses and diagnostic tests for goodness of fit were done using IBM SPSS Statistics (Version 20) predictive analytics software. For the predictive statistical model, the categorical data were coded accordingly: BLEP performance (categorical parametric coding: 1 = passed; 0 = failed) using review mode (categorical parametric coding: 1 = self-review; 0 = review center), examinee type (categorical parametric coding: 1 = retake; 0 = first take), and their general academic performance (average grade in all identified undergraduate psychology courses) as predictors.

Further analysis of the predictive model, as reflected in Table 1, shows that the obtained logistic regression coefficient, R² = .337, p < 0.001, reveals that only 33.7% of the total variance in the BLEP performance is accounted for by the three predictors in the analysis. This suggests that less than half of the variance in the outcome is accounted for by the predictor variables. There is a need to explore other variables that may account for the remaining variance unaccounted for in this analysis.

Delving deeper into the results, only the general academic performance ($\beta = 0.375, S.E. = 0.075, p < .000$) is found to positively

and significantly predict BLEP performance. To understand this better, odds-ratio (e^{β}) was examined as it provides the most important and meaningful information, for it depicts the odds that a specific event might occur and that when the odds ratio is greater than or equal to one, it means higher likelihood for an event to occur and when the odds-ratio is lesser than one, the odds for an event to occur drops (Wuensch, 2014). As indicated by the odds ratio ($e^{\beta} = 1.454$) for general academic performance, for every one-unit increase in general academic performance in psychology courses, the odds of passing the licensure examination change by a factor of 1.454. This means that the odds of passing the BLEP would increase as the general academic performance in all psychology courses increases. This result indicates that, indeed, undergraduate psychology courses are very crucial in taking the BLEP. For this reason, the psychology courses provide the key and foundational theories, concepts, knowledge, and skills in psychology that are to be contextualized and applied in answering the test questions in the BLEP.

Review mode ($\beta = -1.176$, S.E. = 0.630, $p = .062$) is a negative but insignificant predictor of BLEP performance, suggesting that the likelihood of passing the BLEP is not suggestively dependent on the review mode. In like manner, the type of examinee ($\beta = .422$, S.E. = 0.771, $p = .584$) is a positive but insignificant predictor of passing the BLEP, which suggests the likelihood of passing the BLEP is not necessarily dependent on the examinee type. The results suggest that the respondents passed the BLEP regardless of their review mode and examinee type and that demographic variables are not directly linked with the contents and coverage of the BLEP.

In a nutshell, general academic performance is the single best predictor of BLEP performance, while demographic variables are not crucial predictors of BLEP performance in the analysis. These imply that providing robust and high-quality education and learning experiences to undergraduate psychology students is imperative, as undergraduate academic performance plays the most crucial role in ensuring excellent BLEP performance. These results contribute to the dearth of studies involving the BLEP, which found that academic performance significantly accounts for successful results in the BLEP (Cuy, 2021).

In a broader context of licensure examination, these results conform with past findings from a vast number of literature that undergraduate academic performance in

professional courses are a significant predictor of licensure examination results for teachers (Fontejon-Bonior & de la Rama, 2018; Callena et al., 2019; Amanonce & Maramag, 2020; Angeles, 2020; Orlanda-Ventayan, 2020; Cahapay, 2021; Ibarrientos, 2022; Somosot et al., 2022), engineers (Dayaday, 2018; Terano, 2018; Maaliw, 2021), accountants (Salcedo et al., 2021), agriculturists (Dagdag, 2018), radiologic technologists (Alipio, 2020), and nurses (Llego et al., 2020). In a different context of the test result, the findings on GPA negate a more recent exploration of psychological test results (Aure & Casinillo, 2020). Moreover, these results support the findings that enrolling in a review center and review modality are insignificant predictors of passing licensure examinations (Fuente, 2021). Furthermore, the results in this study negate the findings of previous studies, which found that enrolling in a review center significantly increases the probability of an examinee passing the licensure exam (Bansiong, 2019; Fiscal & Roman, 2022). In addition, the findings in this study also negate the findings from another study which found that the type of examinee impacts the licensure examination results (Cahapay & Toquero, 2022).

Second Binomial Logistic Regression Analysis using Basic and Required Psychology Courses as Predictors

As established in the earlier results of this study, general academic performance in professional psychology courses is the only significant predictor of BLEP performance. To have a clearer picture of what specific undergraduate psychology course contributes significantly to BLEP performance, another binomial logistic predictive analysis was conducted using the basic and required psychology courses cluster as predictors of BLEP. As depicted in Table 2, the prediction power and model fit tests for the second predictive analysis were consistent with the first predictive analysis, which showed that the inclusion of basic and required psychology courses improved the prediction power in the predictive analysis model and that the predictions made in the analysis are a perfect model fit.

Further analysis of the predictive model, as presented in Table 2, shows the regression coefficient for logistic regression, $R^2 = .470$, $p < .001$, which entails that 47.0% of the total variance in the BLEP performance is accounted for by the eight predictors in the analysis. This means that less than half of the variance in the outcome is accounted for by the predictor variables. There

Table 2
Regression Model with All Basic and Required Psychology Courses as Predictors of BLEP Performance

Predictor Variables	β	S.E.	sig	e^β
X _{3,1} = General Psychology	.030	.073	.677	1.031
X _{3,2} = Fundamentals of Statistics	-.023	.069	.739	.977
X _{3,3} = Psychological Statistics	-.105	.065	.103	.900
X _{3,4} = Developmental Psychology	.113	.079	.151	1.120
X _{3,5} = Experimental Psychology	.139	.094	.142	1.149
X _{3,6} = Social Psychology	.193	.114	.091	1.213
X _{3,7} = Research in Psychology I	.115	.092	.210	1.122
X _{3,8} = Research in Psychology II	.108	.068	.114	1.114
Constant	-50.064	9.942	.000	.000
Nagelkerke R ² = .470, p < .001				
Omnibus Tests of Model Coefficients χ^2 (8) = 53.541, p < .000				
Hosmer - Lemeshow Goodness of Fit χ^2 (8) = 6.080, p = .638				
Test				

is a need to explore other variables that may account for the remaining variance unaccounted for in this analysis.

In the second regression analysis, Fundamentals of Statistics and Psychological Statistics are found to be negative but insignificant predictors. At the same time, the rest are positive but insignificant predictors of passing the BLEP. These results suggest that statistically, the eight basic and required psychology undergraduate courses do not contribute much to the likelihood of examinees passing the BLEP. The result may also be explained by the coverage of these courses which are not explicitly covered in the subject areas identified in the IRR of RA No. 10029. On the other hand, these courses are still important as these courses are foundational courses that contain foundational concepts and theories needed to understand and apply the core competencies that are measured in the four areas of the BLEP. Additionally, these courses are necessary to complete the requirements for conferring a baccalaureate degree in psychology – a basic requirement for taking the BLEP. Hence, these results imply that HEIs have to offer undergraduate psychology programs, especially the professors handling these courses, to further enhance their instruction in the identified courses so that these courses can further help the graduates prepare for the BLEP.

In a nutshell, the basic and required psychology undergraduate courses do not significantly account for the probability of an examinee passing the BLEP. These new findings will contribute to the limited literature about the predictive ability of undergraduate courses in psychology as predictors of success in the psychometric licensure examination. In the context of licensure examination in general, these results negate previous findings

which found that undergraduate academic performance in professional/major courses is a significant predictor of licensure examination results (Fontejon-Bonior & de la Rama, 2018; Callena et al., 2019; Amanonce & Maramag, 2020; Angeles, 2020; Orlanda-Ventayen, 2020; Cahapay, 2021; Cuy, 2021; Ibarrientos, 2022; Somosot et al., 2022).

Third Binomial Logistic Regression Analysis using Psychology Board Courses as Predictors

Another cluster of undergraduate psychology courses – psychology board courses – was examined in this study. The four psychology board courses predict BLEP performance in a third binomial logistic analysis. Similar to the first two predictive analyses conducted in this study, Table 3 reveals that including the four psychology board courses improved the prediction power in the predictive analysis model and that the predictions made in the analysis are a perfect model fit.

Further analysis of the predictive model, as depicted in Table 3, shows the logistic regression coefficient, R² = .413, p < .001, which suggests that 41.3% of the total variance in the BLEP performance is accounted for by the four predictors in the analysis. This means that less than half of the variance in the outcome is accounted for by the predictor variables. There is a need to explore other variables that may account for the remaining variance unaccounted for in this analysis.

Looking deeper into the results, it is evident that Theories of Personality ($\beta = 0.185$, S.E. = 0.090, p = .039) is a positive and significant predictor of BLEP performance. As indicated by the odds ratio (e^β), for every one-unit increase in the grades for Theories of Personality, the odds of passing the licensure examination

Table 3

Regression Model with All Psychology Board Courses as Predictors of BLEP Performance

Predictor Variables	β	S.E.	sig	e^{β}
X _{3.9} = Theories of Personality	.185	.090	.039	1.203
X _{3.10} = Psychological Assessment	.097	.081	.234	1.102
X _{3.11} = Abnormal Psychology	.301	.113	.008	1.352
X _{3.12} = Industrial Psychology	-.217	.108	.045	.805
Constant	-30.898	6.538	.000	.000
Nagelkerke R ² = .413, p < .001				
Omnibus Tests of Model Coefficients χ^2 (4) = 45.736, p < .000				
Hosmer - Lemeshow Goodness of Fit Test χ^2 (8) = 5.380, p = .716				

change by a factor of 1.203. This means that the odds of passing the BLEP would increase as the performance in the Theories of Personality course would also increase. A similar trend is found in Abnormal Psychology ($\beta = 0.301$, S.E. = 0.113, $p = .008$), where it was also found to predict BLEP performance positively and significantly and that for every one unit increase in the grades for Abnormal Psychology, the odds for passing the BLEP change by a factor of 1.352. This means that the odds of passing the BLEP would increase as the performance in the Abnormal Psychology course also increase. These results are expected and make sense because the coverage of these courses are explicitly stated as part of the coverage in the BLEP as indicated in the IRR of RA No. 10029.

On a different trend, Industrial Psychology ($\beta = -0.217$, S.E. = 0.108, $p = .045$) is found to be a negative but significant predictor of BLEP performance. As indicated by the odds-ratio (e^{β}), for every one-unit increase in the grades for Industrial Psychology, the odds of passing the BLEP change by 0.805. This means that the odds of passing the BLEP would decrease as the performance in the Industrial Psychology course would increase. This result conflicts with what is expected of a course explicitly identified to be part of the coverage of a licensure examination. This result may be because, in the old CHED Memorandum for delivering Undergraduate Programs for Psychology, the Industrial Psychology course is explicitly classified as a Psychology Elective (Commission on Higher Education [CHED], 2010). However, the Industrial Psychology course is classified as a board course in the BLEP. This instance where Industrial Psychology was classified as an elective course entailed that the course content covered in the course Industrial Psychology may have differed from the actual coverage of the subject in the licensure examination. This, in turn, necessitates the broadening of the course content of the said course and the intensification

of its instruction. The good thing is that in the new CHED Memorandum for delivering the Psychology Undergraduate Program, Industrial Psychology is no longer classified as an elective. However, it is already classified as a required course (CHED, 2017).

Psychological Assessment ($\beta = 0.097$, S.E. = 0.081, $p = .234$) is found to be a positive but nonsignificant predictor of passing the BLEP. This indicates that the trend where the odds of passing the BLEP would increase as the performance in the Psychological Assessment course would increase is negligible. This result is ironic for the reason that in the IRR of R.A. No. 10029, Psychological Assessment bears the highest coverage and weight of 40% in the overall rating in the licensure exam (PRB of Psychology Board Resolution No. 03, 2012, Rule V, Sec. 15). Based on the contention in the IRR, this result implies that the Psychology faculty must pay close attention to this specific subject.

Generally, specific courses significantly predict board examination results, which is in consonance with the contention and conclusion of Aure and Casinillo (2020) regarding specific subjects and their association with test results. Additionally, the results in this study support the findings of Cuy (2021), which indicated that performance in undergraduate Abnormal Psychology courses significantly predicts success in the BLEP, while the other professional and board courses in psychology were insignificant predictors of BLEP performance. Additionally, the results in this particular analysis conform with previous findings that not all courses taken at the undergraduate level, which also happened to be part of the content coverage of licensure examinations, significantly predict success in passing a licensure examination as some courses do not significantly predict a result in an examination when subjected to predictive analysis (Callena et al., 2019; Cuy, 2021; Ibarrientos, 2022; Somosot et al., 2022).

Fourth Binomial Logistic Regression Analysis using Psychology Elective Courses as Predictors

The last cluster of undergraduate psychology courses – elective psychology courses – was looked into in this study. The four psychology elective courses predict BLEP performance in a fourth binomial logistic analysis. Consistent with the previous predictive analyses conducted in this study, Table 4 elucidates that the inclusion of psychology elective courses improved the prediction power in the predictive analysis model and that the predictions made in the analysis are a perfect model fit.

Further analysis of the predictive model,

implies that the mainstream theoretical and conceptual foundations of this course shall still be integrated into other psychology courses as the Dynamic Psychology course has been found to significantly help the examinees in passing the BLEP.

Meanwhile, the rest of the elective psychology courses are deemed insignificant predictors of BLEP results. These indicate that the three courses do not contribute much to the likelihood of examinees passing the BLEP. This result may be again due to the non-inclusion of the coverages of these courses in the subject areas identified in the IRR of R.A. No. 10029. On the other hand, completing these courses is

Table 4

Regression Model with All Psychology Elective Courses as Predictors of BLEP Performance

Predictor Variables	β	S.E.	sig	e^{β}
X _{3.13} = Dynamic Psychology	.164	.066	.013	1.178
X _{3.14} = Counseling Psychology	.110	.065	.092	1.116
X _{3.15} = Practicum in Psychology I	.035	.052	.504	1.035
X _{3.16} = Practicum in Psychology II	-.051	.042	.231	.950
Constant	-20.468	5.719	.000	.000
Nagelkerke R ² = .332, p < .001				
Omnibus Tests of Model Coefficients $\chi^2(4) = 35.359, p < .000$				
Hosmer - Lemeshow Goodness of Fit Test $\chi^2(8) = 8.806, p = .359$				

as reflected in Table 4, shows the logistic regression coefficient, $R^2 = .332, p < .001$, which reveals that 33.2% of the total variance in BLEP performance is accounted for by elective psychology courses. This means that less than half of the variance in the BLEP performance is accounted for by the predictor variables and that there is a need to explore other variables that may provide significant predictions that may identify the remaining variance unaccounted for in this analysis.

A closer look at the results shows that only one of the four psychology elective courses was found to be a statistically significant predictor in the analysis. Only the Dynamic Psychology course ($\beta = 0.164, S.E. = 0.066, p = .013$) was found to be a positive and significant predictor. This suggests that the odds of passing the BLEP would increase as the performance in the Dynamic Psychology course would also increase, as indicated by the odds ratio (e^{β}). For every one-unit increase in the grades for Dynamic Psychology, the odds of passing the BLEP change by a factor of 1.178. On the other hand, Dynamic Psychology is no longer mandated and listed as an undergraduate psychology course in the newest Psychology curriculum in the Philippines (CHED, 2017). This

still required to confer a baccalaureate degree in psychology – a basic requirement in taking the BLEP. The results in this particular analysis support the findings of previous studies, which found that a number of professional/major courses taken at the undergraduate level can significantly predict the likelihood of passing the BLEP, but there are still a number of courses which do not significantly predict the outcome as well when subjected to predictive analysis (Dayaday, 2018; Terano, 2018; Alipio, 2020; Llego et al., 2020; Maaliw, 2021; Salcedo et al., 2021).

These results imply that there is still a necessity for HEIs offering undergraduate psychology programs to enhance further their instruction in the identified courses so that these courses can further equip the graduates to pass the BLEP. This call to improve and intensify the curricular offerings for psychology programs is in consonance with the findings and recommendations of Obias (2018) that HEIs in the Philippines should continuously improve their psychology curricular offerings to improve their outcomes in the BLEP. One way of intensifying the curricular offerings of the school is the offering of institutionally-based course audit courses, as these activities were found to be very effective in further ensuring that graduates will

perform better in state licensure examinations (Bansiong, 2019; Oducado et al., 2019; Gabasa & Raqueño, 2021).

5.0 Conclusion

An excellent psychometrician is needed in the wide and diverse practice of Psychology. To prepare and train to-be-psychometricians, HEIs, as the epitome of excellence, play a significant role in this endeavor. Based on the findings, excellent undergraduate academic performance predicts excellent BLEP performance. This general result highlights the need to enhance the curriculum and instruction continuously and rigorously in undergraduate psychology programs in response to the demands of various statutory, regulatory, and quality assurance/accreditation bodies in ensuring that the mandate of HEIs to produce high-quality and life-long graduates is achieved.

With the salient findings, the review, adoption, and implementation of a Curriculum-Based Course Audit for Review Classes in the Psychology Program are suggested. If implemented, frequent follow-up and evaluation must be conducted to further enhance the effectiveness and efficiency of the Curriculum-Based Course Audit for Review Classes in the Psychology Program.

Lastly, further studies to explore other potential predictors of passing the BLEP, such as teacher factors (efficiency, strategies, and others), are highly recommended and encouraged.

6.0. Declaration of Conflict of Interest

The authors reported no potential conflict of interest.

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