

Licensure examination performance and academic achievement of teacher education graduates

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ABSTRACT

Teacher education institutions (TEIs) in the Philippines establish their brand of educational quality through their graduates' performance in the Licensure Examination for Teachers (LET). It is, therefore, necessary for TEIs to align instructional delivery with the competencies in the LET. Thus, this study was undertaken to correlate academic achievement and licensure examination performance of teacher education graduates. Academic achievement is the graduates' grade weighted average in college and pre-board examination results. The respondents were 1,017 graduates of Bachelor of Secondary Education and Bachelor of Elementary Education in a state university in Cagayan Province, Philippines. The study revealed a significant and strong correlation between the graduates' grade weighted average in college and LET performance. This is an indication of the effective evaluation procedure of the university since the teachers' assessment concurs with the graduates' performance in the LET. A significant relationship was also established between the graduates' performance in the pre-board examination and LET albeit with a weak correlation. This study recommends the development of mechanisms in improving the conduct of pre-board examination review programs in the university. Further validation of the assessment tools used in the pre-board examination is likewise suggested.

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1. INTRODUCTION

The Philippine government is investing much in education. It has been a tradition for the education sector to get the biggest portion of the national budget [1]. The government supports various educational reforms and mechanisms implemented both in basic education and higher education institutions to ensure the quality of education offered to Filipino students. Likewise, the Department of Education (DepEd) strictly monitors the adherence to standards set in hiring public school teachers [2, 3] since they are considered as the backbone of education. One of the highlighted standards for teacher education graduates to qualify as professional teachers as stipulated in RA 7836 [4], also known as the “Philippine Teachers Professionalization Act of 1994”, is passing the Licensure Examination for Teachers (LET). Aspiring teachers who finished Bachelor of Secondary Education (BSEd) are tested along three components in the LET, namely General Education, Professional Education, and Field of Specialization with corresponding weights of 20%, 40%, and 40%, respectively. On the other hand, graduates of Bachelor of Elementary Education (BEEEd) are assessed along two components which are General Education and Professional

Education with corresponding weights of 40% and 60%, respectively. The passing rate for the LET is 75%. Passing this standardized test is not only a requirement to practice the teaching profession but also a guarantee that teachers in the basic education sector possess the necessary competence and professional accountability.

Consequently, teacher education institutions (TEIs) in the Philippines establish their brand of educational quality through their graduates' performance in the LET [5]. The LET is also a crucial criterion of the Commission on Higher Education (CHED) in granting Center of Development (COD) and Center of Excellence (COE) status to the curricular programs of TEIs [6]. Furthermore, local and international accrediting agencies consider the institution's licensure examination performance as a key performance indicator for quality assurance.

Given the significance of the LET, TEIs are compelled to make good in the board examination. To this end, TEIs conduct curricular reviews, update course syllabi, and implement stringent admission and retention policies. Extensive pre-board review programs are also conducted by TEIs to prepare teacher education students for the LET. These programs are course audits that try to mimic the actual board examination and which prospective graduates need to pass.

Despite these efforts among TEIs, the Philippine Business for Education (PBEd) [7], a non-government organization that spearheaded research on the LET performance of TEIs across the country since 2009, revealed a dismal result. The mean passing rate of teacher education graduates since 2009 is only 31%. PBEd also found out that at least half of TEIs perform below the mean national passing rate. TEIs which consistently registered poor performance for five years were even recommended to close their teacher education programs. Similarly, Baylan [8] who studied the trend of LET performance from 2008 to 2017 of leading TEIs across different regions in the Philippines revealed that a considerable number of TEIs were struggling to attain a 60% national passing standard. Nool and Ladia [9] also disclosed poor LET performance of 110 TEIs in Central Luzon from 2009 to 2016. With the apparent gap in the quality of education among TEIs, research studies on the factors affecting graduates' LET performance abound.

Recent studies looked into the interplay of LET performance and profile of the school, teachers, and students. Teachers' competence [10-12], school facilities [10], curriculum and instruction, and admission and retention policies [11] were determined as significant predictors of passing the licensure examination by teacher education graduates. Moreover, the profile of the graduates such as gender [13], age [14], high school average [13, 14], and intelligence quotient [10] was also established as a determinant of LET performance. Scores of the graduates in other tests such as admission examination [13], Otis-Lennon School Ability Test (OLSAT), English proficiency test [15], and Culture Fair Intelligence Test [16] were significantly associated to licensure examination performance. Administrative and supervisory aspects such as human relations, linkages, and support services were proven as predictors [12] as well. Devising prediction models for the LET was also attempted [17, 18].

On the other hand, inconsistencies in the findings of research studies were observed concerning academic achievement as a factor in LET performance. Some research studies concluded that graduates' grade point average (GPA) has a high and positive correlation to LET performance [10, 13, 15]. However, other studies did not arrive at the same result. Antonio, Malvar, Ferrer, and Pambuena [19] who studied the relationship between academic performance and LET result of BSEd major in Math and English graduates of the Polytechnic University of the Philippines, San Pedro Campus revealed a weak correlation between the graduates' GPA in college and LET performance along Professional Education and General Education. Pachejo and Allaga [20] also disclosed a weak relationship between academic grades and LET performance of teacher education graduates of Rizal Technological University in Mandaluyong, Philippines. Moreover, Apare, Arcilla, and Vasquez [21] revealed that the GPA of BSEd graduates of Mountain View College in Bukidnon, Philippines is not significantly related to their LET performance along Field of Specialization. Similarly, Visco's [12] study on determining predictors of LET performance among graduates of TEIs in Abra, Philippines was not able to establish the academic achievement of graduates as a significant predictor of LET performance.

Variations were also observed on the relationship of LET review or pre-board examination score to graduates' board examination performance. Though the conduct of review classes [13] and pre-board examination score [14, 22] were established as determinants of passing the LET, Dagdag, Sarmiento, and Ibale [23] who examined the factors to LET performance revealed a weak correlation between pre-board examination score and LET rating along General Education and Professional Education.

Although TEIs are guided with the curriculum prescribed by CHED, they vary when it comes to implementation. Each TEI has its unique approach and method in delivering instruction and the curriculum. This might explain the incongruities of research findings, particularly on the relationship of graduates' academic achievement, such as GPA and pre-board examination performance, to their LET performance. Thus, the researchers of the present study found it significant to conduct researches among TEIs to determine

the congruity of their instructional delivery and the LET performance of their graduates. Searching for congruity in this study means analyzing the relationship and strength of correlation between the academic achievement and the LET performance of teacher education graduates, particularly those who finished BSEd and BEEd from the seven campuses of a state university in Cagayan Province, Philippines. This will serve as a mechanism for the involved TEI to monitor the implementation of the curriculum and the effectiveness of teachers' instructional methods and assessment and special programs such as pre-board review programs.

Furthermore, the specific objectives of the study are the following: (a) Determine the BSEd and BEEd graduates' academic achievement such as grade weighted average (GWA) in college and pre-board examination (PBE) result, (b) Determine the BSEd and BEEd graduates' performance in the LET along General Education, Professional Education, and Specialization, and (c) Ascertain the relationship between teacher education graduates' academic achievement and licensure examination performance.

2. RESEARCH METHOD

2.1. Research design

Descriptive-correlational research design and documentary analysis were utilized since the study dealt with determining the LET performance of BSEd and BEEd graduates and their academic achievements such as college GWA and PBE results. Most importantly, the study analyzed the relationship and strength of correlation between the graduates' academic achievement and LET performance.

2.2. Research participants

The participants of the study were BSEd and BEEd graduates of the College of Teacher Education located in the seven campuses of a state university in Cagayan Province, Philippines. They are the graduates who took the LET in September 2017. Only the first-time takers were included in the study. Complete enumeration was utilized. There were 1,017 graduates involved in the study, 644 of which are BSEd graduates and 373 are BEEd alumni.

2.3. Data description

The graduates' academic records such as GWA in college and PBE results were secured from their respective Registrars and College Deans. Moreover, the LET performance data of the BSEd and BEEd graduates were acquired from the Professional Regulation Commission (PRC) on May 31, 2018. Specifically, PRC provided the graduates' rating in General Education, Professional Education, and Specialization.

2.4. Research procedures

The approval of the University President on the conduct of the study was primarily sought. When the approval of the University President was secured, request letters asking for the academic records of the graduates such as college GWA and PBE results were forwarded to the Registrars and College Deans of the seven campuses. A request letter securing the names and ratings of board passers and non-board passers of the September 2017 LET and properly endorsed by the University President and Professional Regulation Commission Regional Office 2 (PRC RO2) was forwarded to the Commissioner of the PRC.

2.5. Data analysis

Mean and standard deviation were used to describe the academic achievement and LET performance of the BSEd and BEEd graduates. These were categorized along the following descriptive values: 90% and above: *Excellent*; 85%-89%: *Very Satisfactory*; 80%-84%: *Satisfactory*; 75%-79%: *Fair*; 74% and below: *Poor*. Pearson Product Moment Correlation was utilized to test the relationship between the graduates' academic achievements and LET performance. The strength of correlation was construed based on the guideline utilized by Dagdag, et al. [23] and suggested by Cohen's [24] interpretation, namely: 0.10-0.29: *Small/Weak*, 0.30-0.49: *Medium/Moderate*, 0.50-1.0: *Large/Strong*.

3. RESULTS AND DISCUSSION

3.1. Academic achievement of the teacher education graduates

From the data shown in Table 1, graduates of both BSEd ($M = 87.05$, $SD = 2.55$) and BEEd ($M = 85.94$, $SD = 2.30$) programs showed "very satisfactory" GWA in college. However, they performed poorly in the PBE based on the computed means (BSEd: $M = 72.06$, $SD = 14.10$ and BEEd: $M = 69.58$, $SD = 14.53$). In general, the teacher education graduates have "very satisfactory" performance in terms of GWA ($M = 86.64$, $SD = 2.52$) and "poor" PBE results ($M = 71.20$, $SD = 14.29$).

Table 1. Academic achievement of the teacher education graduates

Program	Academic Achievement	Mean	Standard Deviation	Descriptive Value
Bachelor of Secondary Education (BSEd)	Grade Weighted Average	87.05	2.55	Very Satisfactory
	Pre-board Examination	72.06	14.10	Poor
Bachelor of Elementary Education (BEEd)	Grade Weighted Average	85.94	2.30	Very Satisfactory
	Pre-board Examination	69.58	14.53	Poor
As a Whole	Grade Weighted Average	86.64	2.52	Very Satisfactory
	Pre-board Examination	71.20	14.29	Poor

3.2. Licensure examination performance of the teacher education graduates

Table 2 indicates that the BSEd graduates' performance in the LET is generally "fair" as reflected in the overall rating mean (76.81). The data imply that they are just within the minimum passing rate of 75%. In terms of the three LET components, they performed fairly in Professional Education and registered a dismal result in Specialization with a mean of 73.60, interpreted as "poor". On a lighter note, the BSEd graduates' performance in General Education is quite impressive with a mean of 83.05, categorized as "satisfactory". This can be attributed to the effective delivery of instruction in General Education. The result is consistent with Antiojo [25] who found out that the highest recorded average rating is General Education and the lowest is Specialization among the graduates of a public university in Cavite, Philippines.

In contrast, the BEEd graduates displayed an alarming result since they performed poorly both in General Education and Professional Education. In general, they have a "poor" LET performance as shown in the overall rating mean of 71.75. As a whole, the teacher education graduates have "poor" LET performance. The findings connote that, collectively, the graduates of the TEI involved in this study did not even meet the minimum passing rate of 75%. The "poor" performance of the graduates in the LET may signify a decline in the quality of instruction provided to students.

Table 2. Licensure examination performance of the teacher education graduates

Program	Component	Mean	Standard Deviation	Descriptive Value
Bachelor of Secondary Education (BSEd)	General Education	83.05	6.78	Satisfactory
	Professional Education	76.91	6.94	Fair
	Specialization	73.60	9.67	Poor
	Overall Rating	76.81	7.23	Fair
Bachelor of Elementary Education (BEEd)	General Education	70.15	9.07	Poor
	Professional Education	72.82	9.05	Poor
As a Whole	Overall Rating	71.75	8.44	Poor
		74.95	8.07	Poor

3.3. Correlation between the teacher education graduates' academic achievement and licensure examination performance

Table 3 shows the correlation analysis of teacher education graduates' academic achievement and LET performance. Between the graduates' GWA and LET performance, a significant relationship exists as a whole and for both BSEd and BEEd programs. For the BSEd program, strong correlations were revealed on graduates' GWA and LET performance along General Education ($r = 0.534, p < .05$), Professional Education ($r = 0.554, p < .05$), and Overall Rating ($r = 0.576, p < .05$) while a moderate correlation was bared along Specialization ($r = 0.491, p < .05$). For the BEEd program, graduates' GWA has a moderate correlation with their LET performance along General Education ($r = 0.444, p < .05$), Professional Education ($r = 0.392, p < .05$), and Overall Rating ($r = 0.443, p < .05$). As a whole, a positive and strong correlation was established between the graduates' GWA and LET performance along General Education ($r = 0.505, p < .05$), Professional Education ($r = 0.508, p < .05$), and Overall Rating ($r = 0.550, p < .05$).

The findings imply that students who had good grades in college tend to pass and attain a higher rating in the LET while those who performed poorly in college more likely fail or obtain a lower rating in the LET. It is likewise interesting to note that teachers are properly assessing their students since the graduates' grades concur with their LET ratings. This finding resonates with the claims of various studies [10, 13, 15, 26-28] that college grade point average (GPA) is a significant predictor of passing the LET. The findings may also suggest that performance in licensure examination or other academic-related standardized tests hinges on curriculum, instruction, and teachers. As Faltado [11] pointed out, the effective delivery of curriculum and instruction is a significant predictor of passing the LET. Moreover, Kalaw [29] emphasized the importance of enhancing faculty competence to provide students with appropriate training and quality education.

Furthermore, a significantly positive relationship between PBE results and licensure examination performance was determined for both BSEd and BEEd programs and when taken as a whole. For the BSEd program, weak correlations were shown between the graduates' performance in PBE and LET along General Education ($r = 0.093$, $p < .05$) and Professional Education ($r = 0.209$, $p < .05$); however, a moderate correlation was established along Specialization ($r = 0.383$, $p < .05$). These findings connote that review programs conducted along Specialization were more effective compared to those conducted along General Education and Professional Education. This is parallel to the results of Dagdag, et al. [21] which established a moderate correlation between pre-board examination scores and licensure examination ratings along Specialization and weak correlations along General Education and Professional Education. As A whole and for the BEEd program, weak correlations were ascertained between the two variables along General Education (BEEd: $r = 0.141$, $p < .05$ and as A Whole: $r = 0.140$, $p < .05$), Professional Education (BEEd: $r = 0.213$, $p < .05$ and as A Whole: $r = 0.222$, $p < .05$), and Overall Rating (BEEd: $r = 0.198$, $p < .05$ and as A Whole: $r = 0.273$, $p < .05$).

The findings of the current study refute the claims of Visco [12], Ferrer, Buted, and Ferrer [13], and Tan [30] who found out that conducting review sessions has a high correlation with the success of teacher education graduates in the licensure examination. The different modes of instructional delivery used during review sessions and the varying assessment tools utilized in pre-board examinations can be associated with the inconsistencies of the research findings. This may suggest that mechanisms in improving the conduct of LET review programs in the university be adopted to better prepare students for the licensure examination. Moreover, the assessment tools used in pre-board examinations may be considered for further review and validation to improve the strength of correlation and, ultimately, to establish their predictive validity.

Table 3. Correlation between the teacher education graduates' academic achievement and licensure examination performance

Program	Licensure Examination Performance	Academic Achievement					
		Grade Weighted Average			Pre-Board Examination Performance		
		p-value	R value	Interpretation	p-value	R value	Interpretation
Bachelor of Secondary Education (BSEd)	General Education	0.000**	0.534	Strong	0.023*	0.093	Weak
	Professional Education	0.000**	0.554	Strong	0.000**	0.209	Weak
	Specialization	0.000**	0.491	Moderate	0.000**	0.383	Moderate
	Overall Rating	0.000**	0.576	Strong	0.000**	0.302	Moderate
Bachelor of Elementary Education (BEEd)	General Education	0.000**	0.444	Moderate	0.012*	0.141	Weak
	Professional Education	0.000**	0.392	Moderate	0.000**	0.213	Weak
	Overall Rating	0.000**	0.443	Moderate	0.000**	0.198	Weak
As a Whole	General Education	0.000**	0.505	Strong	0.000**	0.140	Weak
	Professional Education	0.000**	0.508	Strong	0.000**	0.222	Weak
	Overall Rating	0.000**	0.550	Strong	0.000**	0.273	Weak

** Correlation is significant at the 0.01 level (2-tailed); * Correlation is significant at the 0.05 level (2-tailed)

4. CONCLUSION

The academic achievement of teacher education graduates is significantly correlated to their performance in the LET. As a whole, a positive and strong correlation was proven between the graduates' grade weighted average in college and their licensure examination performance. This is evidence of the effective delivery of instruction and sound evaluation procedures in the university since the teachers' assessment coincides with the graduates' performance in the LET. Nevertheless, a weak correlation was established between the graduates' pre-board examination results and licensure examination performance. This calls for a thorough appraisal of the approaches, methods, practices, and assessment tools utilized in the conduct of LET review in the university.

On a practical note, this study yields essential findings which shall guide and enlighten the involved TEI in tracking the licensure examination performance of its graduates. The result of this study might as well serve as a conceptual basis in framing retention policies and pre-board review mechanisms that the University and the College of Teacher Education will implement to improve the performance of the graduates in the LET.

However, the study has some limitations. Foremost, the respondents are only limited to the September 2017 LET takers. Thus, it is recommended for future researchers to consider three to five testing periods to comprehensively assess the trends and impact of students' academic achievement to licensure examination. Secondly, other possible correlates, such as students' personal, economic, and emotional factors, may also be explored by future researchers. Finally, future researchers may also examine the distinctiveness of the licensure examination performance of the graduates of the different fields of specialization of the Bachelor of Secondary Education program.

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