

Correlating Grade Point Average and Student Teaching Grade of Teacher Education Licensure Examination

Philippe John F. Sipacio, Ramon A. Raza, and Susan D. Gopez*

College of Education, Arts and Sciences, National University – Manila, Philippines

**Corresponding author: sdgopez@national-u.edu.ph*

Abstract: The study sought to provide information on whether there is a correlation between the teacher education graduates' GPA, student teaching grade, and their corresponding LET results. The present work followed the students' cohort who graduated from the available teacher education program offerings in 2016–2019 at a private university in the Philippines. Using the Point Biserial Correlation Coefficient, a descriptive correlation study was utilized to measure the relationship between naturally dichotomous and continuous correlation variables. Results showed that all cohorts have a positive correlation between graduates' GPA and corresponding LET results. Two groups showed a weak positive correlation regarding the correlation between the student teaching grade and LET results, while the other one showed a moderate positive correlation. Findings revealed implications for the Teacher Educational Institutions management and theoretical and practical value.

Keywords: teacher education graduates; licensure examination; grade point average; student teaching

1. INTRODUCTION

1.1 Background of the study

With the revolutionary reforms in the Philippine educational system, Teacher Education Institutions (TEIs) continuously improve their curriculum for alignment (Bringula et al., 2019; Quinno & Alonzo, 2019; Gitomer & Bell, 2016), focusing on the mandated courses (professional education, general education, and major courses). This ensures that they produce graduates who can pass the Licensure Examination for Teachers (LET), gain eligibility to teach, seek promotion, and become professionally competent. However, the Senate Higher Education Committee report showed that the "average passing rate stood at about 30 percent over 11 years, and upon closer scrutiny of the recent September 2019 LET, a total of 445 schools had a zero-passing rate" (Senate of the Philippines, 2020, paragraph 5).

Current research on pre-service teachers does not reveal the relationship between their practicum grade, Grade Point Average (GPA), and their link with licensure exam performance. In local studies, there is plentiful evidence on the success predictors of passing the board licensure examination (Amanonce & Maramag, 2020; Bansiong & Balagtey, 2020; Orlanda-Ventayen, 2020; Cahapay, 2020; Bellen et al., 2018; Fontejon-Bonior & de la Rama, 2018; Kalaw, 2017; Rudio, 2016). However, these studies utilized limited samples and only recommended student teaching as another variable in defining licensure examination success. This study will examine the relationship among the teacher

education graduates' LET performance, GPA, and student teaching grade using data from a Philippine university.

Graduates of teacher education degrees who plan to teach in Philippine basic education public schools must take and pass the Licensure Examination for Teachers (LET). The LET is a merit examination administered periodically by the Philippine Regulatory Board (PRC). Graduates with a bachelor's degree in arts and sciences with at least ten units in professional education and other degrees who have earned at least 18 professional education units are also qualified to take the LET (PRC, 2021). The Philippine Teachers Professionalization Act of 1994, or RA 7836, stipulates the supervision and regulation of the professionalization of the practice of the teaching profession and the LET. Section 21 of RA 7836 states that the "teacher who passes this examination shall receive incentives such as merit points for promotion in salary and higher position, the priority list for a government scholarship, among others."

Further, the Department of Education (DepEd), through DepEd Order No. 66 s. 2007 requires a public school teacher to pass the LET to be eligible, appointed, and promoted. In tertiary education, however, LET certification is only required for teacher education program administrators and faculty, as stated in Commission on Higher Education (CHED) Order No. 52, 2007.

The LET eligibility and certification of passing are the primary measures of a quality teacher education graduate in the Philippines. With this notion, the teacher education programs must meet one of their graduate-intended outcomes. That is for their graduates to become licensed teachers. Hence, teacher education institutions (TEIs) continuously improve their curriculum for alignment (Bringula et al., 2019; Quinno & Alonzo, 2019), focusing on the mandated general education, professional education, and major courses to meet this outcome for their graduates.

During the Senate hearing on the proposed Teacher Education Council Act in late December 2020, the Philippine Senate Higher Education Committee pointed out the dismal passing rate in LET. The record showed that an average of 30 and 48 percent of BEED and BSED graduates passed the LET in 2011 (Magsino, 2020). In 2019, only 147,353 out of 386,840 examinees passed (Terrazola, 2020). This means a large majority of TEIs produce a considerable number of graduates who need to be qualified to practice professionally after graduation. In this matter, TEIs should be accountable for this (Cahapay, 2020).

Students' academic success plays a crucial role in higher educational institutions (HEIs) because it is one of the criteria for assessing the quality of instruction. In the Philippines, HEIs' student academic success is measured by accrediting agencies such as the Philippine Association of Colleges and Universities Commission on Accreditation (PACUCOA), Philippine Associations of Accredited Schools, Colleges, and Universities (PAASCU), and the Accrediting Agency of Chartered Colleges and Universities in the Philippines, Inc (AACUP).

In licensure examinations, GPA is an important component to predict success, as evident in several studies. In the systematic review of predictors of success in the pharmacist licensure examination by Park et al. (2021), the findings showed that student's GPA and their Pharmacy Curriculum Outcomes Assessment

scores were predictors of success shown consistently in the studies reviewed. The results supported the local correlation studies of Arce et al. (2016). GPA also indicates as a predictor in other discipline merit examinations such as engineering, nursing (Llego et al., 2020; Oducado et al., 2019), and teaching (Amanonce & Maramag, 2020; Bansiong & Balagtey, 2020; Orlanda-Ventayen, 2020; Cahapay, 2020; Bellen et al., 2018; Fontejon-Bonior & dela Rama, 2018).

In the teaching discipline, there are a plethora of recent local studies on the role of GPA in the LET. For example, Amanonce and Maramag (2020) concluded that the GPA of teacher education graduates in one state university correlates to their LET performance. The participants were BEED and BSED graduates, but the data presented and analyzed were only the September 2017 LET takers. In Belen et al. (2018), the academic achievement of both BEEed and BSEd groups also showed a significant relationship to the LET performance of the first-time takers using the descriptive-correlational method. The data were also from another state university. However, they were only limited to graduates of a particular school year and took the LET within the following year.

Teacher education in the Philippines is replete with predictive validity analyses. Cahapay (2020) acknowledged this view through a mixed-method study on probing differences caused by variables in LET performance. In that study, it was underscored that the GPA of the graduates categorized at any level- high, average, and low influences their LET performance. However, the sample data from BEED graduates of a state university was dismal and limited in variables.

Aside from GPA, many scholarly works also presented other predictors for LET. Based on the review conducted, admission policies, entrance examination results, school outcomes, teaching aptitude tests, and review are measures for licensure exam success (Amanonce & Maramag, 2020; Bansiong & Balagtey, 2020; Orlanda-Ventayen, 2020; Cahapay, 2020; Bellen et al., 2018; Fontejon-Bonior & de la Rama, 2018; Kalaw, 2017; Rudio, 2016). However, none of these related studies considered graduates' pre-service teaching performance.

There is a growing literature on the positive impact of practicum experience on personal and professional development (Anjum, 2020; Baert, et al., 2019). But none emphasized the role of practicum in merit examination, particularly what role did the student teaching experience of graduates have in their LET.

The present inquiry updates and adds to the knowledge of predictive validity analyses in teacher education by providing a broader scope, more extensive samples, and another variable. That is the pre-service or student teaching performance of graduates. It also offers prospective validation on the existing convoluted findings between the scholarly works and LET national passing percentage reports. This study sheds light on the TEIs developing a more focused and aligned intervention program for their continuous improvements, especially for the performance trajectory of their future LET takers as a requirement by the accrediting agency and mandated by the CHED.

The following are the research questions of this study:

1. Is there a significant relationship between the GPA and LET results of the following graduates?
 - a. BEED
 - b. BSED English
 - c. BSED Mathematics
2. Is there a significant relationship between the student teaching grade and the LET results of the following graduates?
 - a. BEED
 - b. BSED English
 - c. BSED Mathematics

1.2 Hypotheses

To answer the research questions, the following are the hypotheses:

For research question number 1,

H₀: There is no significant relationship between the GPA and the LET results of BEED, BSED English and BSED Mathematics graduates;

H_a: There is a significant relationship between the GPA and the LET results of BEED, BSED English and BSED Mathematics graduates.

For research question number 2,

H₀: There is no significant relationship between the student teaching grade and the LET results of BEED, BSED English and BSED Mathematics graduates;

H_a: There is a significant relationship between the student teaching grade and the LET results of BEED, BSED English and BSED Mathematics graduates.

2. METHODOLOGY

The descriptive correlation study was conducted in the College of Education, Arts and Sciences of a private university in Manila, Philippines, where it follows a trimestral system. Specifically, the study context is the BEED, BSEd English, and BSEd Mathematics programs of the said college that grant a degree for prospective elementary and secondary school teachers. These programs are all Level 3 accredited by a reputable accrediting agency for colleges and universities in the Philippines.

The present work followed the cohort of students who graduated from a private university's available teacher education program offerings. These programs are BEEd, BSEd major in English, and BSEd major in Mathematics. The samples were from the academic years 2016 to 2019, from First Term to Third Term.

There are considerations in selecting the participants. First, they must have graduated within 2016–2019 of any term. Second, they must have taken the LET after graduation within the given years in any batch or schedule (i.e., March or September). The population sample for the study consists of 82 BEEd participants, 79 BSEd English participants, and 14 BSEd Mathematics participants. The total number of participants is 175.

2.1 Data Sources

Graduates' GPA and student teaching grades were available and retrieved through the university's portal from 2016–2019. The PRC issued the data on the LET results, which is available through its website. A table was created that shows the list of the graduates, each labeled as Participant 1, with their corresponding GPA, student internship grade, and LET results (marked as P for passer and NL as a non-LET passer). Only those graduates who took the LET from 2016–2019 were considered. The names of the graduates were kept private.

2.2 Data Analysis

The study employed Pearson correlation. Specifically, a Point Biserial Correlation Coefficient was used to examine the correlation between naturally dichotomous and continuous variables. In this study, the dichotomous variable is the licensure examination performance (LET passers and non-LET passers), while the constant variable is the GPA and student teaching or practicum grade.

Descriptively, the mean and standard deviation were utilized. To determine the correlations, the mean was subjected to Pearson correlation. The correlation coefficients between 0.70 to 1.00 can be defined as having a strong correlation, while those between 0.30 to 0.70 as having a moderate correlation, and the coefficients between 0.00 to 0.30 are defined as having a weak correlation relation (Rumsey, 2016).

The LET performance is defined in this study as non-passers and passers, which were assigned with a "0" and a "1" respectively. The study determined the correlation between the graduates' GPA and the variable group using "0" for non-LET passers and "1" for LET passers as well as the correlation between the graduates' practicum grade and the variable group using "0" for non-LET passers and "1" for LET passers. Hence, the Point Biserial Correlation Coefficient was appropriate because of this binary value.

3. RESULTS AND DISCUSSION

The study aimed to determine the correlation of the graduates' GPA to LET results and student teaching grades to the LET results of BEED, BSED English, and BSED Mathematics programs. Findings revealed that there is a moderate positive correlation between the BEED graduates' GPA and the LET results with 0.42 (significant at 0.01 level). For BSED English graduates, there is a moderate positive correlation of 0.43 (significant at 0.01 level). Further, there is a moderate positive correlation of 0.59 (significant at 0.05 level) for BSED Mathematics graduates as shown in table 1. The results show that there is a similarity on the correlation between graduates' CGPA and LET results of the three groups. This implies that the graduates' GPA is associated with the LET results, as the result supports the local studies (Ibarrientos, 2022; Igcasama et al. 2021; Kalaw, 2017).

Table 1. Correlation between CGPA and corresponding variable group of each Program (LET passers and Non-LET passers).

Program	Mean	Standard Deviation	Pearson (r)	P-value
BEED (n = 82)	3.17	0.35	0.42**	0.00
BSED English (n = 79)	3.28	0.35	0.43**	0.00
BSED Math (n = 14)	3.23	0.38	0.59*	0.03

* Correlation is significant at the 0.05 level

** Correlation is significant at the 0.01 level

Moreover, the GPA findings in this study are consistent with the findings of the existing local studies (Park et al., 2021; Amanonce & Maramag, 2020; Bansiong & Balagtey, 2020; Orlanda-Ventayen, 2020; Cahapay, 2020; Bellen et al., 2018; Fontejon-Bonior & de la Rama, 2018; Tarun, 2017) where GPA is a predictor for a passed LET performance. This implies that when a teacher education graduate has a high GPA, it is mainly that the graduate can pass the LET. But, in this study, it can be noted that the correlation coefficient interpretation in all groups is generally moderate correlation based on Rumsey (2016). This can be viewed as while GPA can predict LET success, it is not a major one and cannot be used to define a graduate's performance in LET and other forms of licensure examinations.

Table 2. Correlation between Graduates' Student Teaching Grade and corresponding variable group of each program (LET passers and Non-LET passers).

Program	Mean	Standard Deviation	Pearson (r)	P-value
BEED (n = 82)	3.66	0.38	0.13	0.24
BSED English (n = 79)	3.72	0.54	0.28*	0.01
BSED Math (n = 14)	3.14	0.53	0.42	0.12

* Correlation is significant at the 0.05 level

Regarding the correlation between the student teaching grade and LET performance of the BEED graduates, the findings showed a weak positive correlation of 0.13. For BSED English graduates, there is a weak positive correlation of 0.28 (significant at 0.05 level), while there is a moderate positive correlation of 0.42 for BSED Mathematics graduates, as shown in Table 2. This shows a difference in the correlation between graduates' student teaching grade and LET results among the three teacher education programs. The results can be

attributed to the fact that the student teaching grades of BSED English graduates were remarkably high grades.

This study also offers student teaching grades as a predictor for LET performance. The findings showed that for BEED and BSED English cohorts, there is a weak correlation between the graduates' student teaching grade and their LET performance. Interestingly, the results seem different from the BSED Mathematics cohort as it shows a moderate positive correlation. The findings imply that while students performed excellently during their practicum and earned a high performance rating, this cannot predict how well they can perform in the LET. Hence, teacher education graduates need to be given more opportunities to master knowledge contents of the topics covered in the LET. While practicum experience is crucial in professional practice, as noted in prior research studies (Anjum, 2020; Baert, et al., 2019) and can be a factor in linking theoretical knowledge on pedagogy into practice, there is still a need for the graduates to be provided with a learning experience that can lead them to succeed in a merit examination such as the LET.

There is a theoretical and practical value as to the findings of correlating the teacher education graduates' GPA, student teaching grade, and their LET performance. Theoretically, the findings allow the higher education institutions to understand the ecosystem that underpins a teacher education program; that is, the GPA and student teaching performance equally play an important part in the graduates' success and the program's effectiveness. Practically, these findings lend support for initiating a plan to address the dismal passing rate in LET and for TEIs to produce a considerable number of qualified graduates to practice professionally after graduation.

4. CONCLUSIONS

The present study aimed to determine the correlation between the BEED, BSED English, and BSED Mathematics graduates' GPA, student teaching grade, and LET performance. Using the data from a Philippine university, the findings revealed that there is a significant moderate positive correlation between the graduates' GPA and their LET performance across all groups and a weak positive correlation between the student teaching grade and LET performance for BEED and BSED English (significant at 0.05 level) groups, while moderate positive correlation BSED Mathematics cohort. These findings conclude that there is a significant relationship between the GPA and the LET results of the three teacher education programs. Further, there is a significant relationship between the student teaching grade and the LET results of BSED English program. These are consistent with the previous local studies' and provide student teaching grade as an added predictor of merit examination success, which was neglected in other studies (Ibarrientos, 2022; Igcasama et al. 2021; Kalaw, 2017; Tarun, 2017).

While interesting insights are provided in this study, it has some limitations. For example, this study was conducted in one TEI of a private university with limited specialization, that is, English and Mathematics only. Hence, the findings may not be generalizable to other TEIs. Having said this, there

is a need for a more cautious interpretation. Another is a limited sample of graduates despite the data being sourced from 2016–2019 in a three-term system of a private university. Therefore, a study replication can be conducted on a much larger scale: another private university or state university or both with an increased number of participants and specialization for more conclusive and meaningful findings.

Despite these limitations, the findings of this study have implications for the more effective management of TEIs. First, the results call for a collaborative and inclusive process in developing standards of graduates to meet the institutional outcomes of the CHED, DepEd, and PRC. There is a need for the TEIs to look at these standards not as restrictive. Still, enabling so they can provide relevant opportunities to implement them appropriately for the benefit of their graduates and their program. Next is for the TEIs to utilize these findings as baseline data for continuous curricular improvements like course audit, battery tests, and LET review sessions.

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