# Academic Achievement as Predictor in the Performance of Licensure Examination for Teachers

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**Abstract** –*This study finds the relationship between academic achievement in college and high school with LET performance of education graduates in AY 2011-2012. Research showed that academic achievement is associated with licensure performance. College academic achievement predicted LET performance. Graduates showed better performance on specific test component. In BEED group, college GPA predicted 83% of the LET general average while in BSED group, GPA in specialization predicted 80% of LET performance in the specialization. The current study focused only on academic achievement while learning is an interplay of several factors. Future studies should examine modes of preparation for the licensure such as review process, use of educational technology and materials available that scaffold the learning process.*

**Keywords**: *academic achievement, predictor, LET*

## INTRODUCTION

Licensure Examination for Teachers (LET) is the sole measure and the standard indicator of the readiness to practice the teaching profession. The achievement of the graduates in the LET is presumed that those who pass have acquired the necessary knowledge and skills during the pre-service training [1]. Licensure examination is a major component of the screening for prospective teachers which serves two important functions: 1) sorting and screening candidates and defining the knowledge base for professional practice; and 2) presumes that a single instrument exists not only to contain the essential knowledge required for professional practice, but also accurately identifies those most qualified to teach [2]. It is assumed that high performance in the LET translates to better quality and excellence. Teacher education institutions (TEIs) are mandated to prepare those entering the teaching force (RA 7836 in [3]). However, results in the national licensure reveal an apparent dismal performance [4].

In an attempt to solve the abysmal performance in the licensure examinations, institutional studies were conducted to determine the predictors of LET performance. For example, Hugasan [2] in Cebu Normal University, Marquez et al. [5] in Philippine Normal University, Visco [6] on HEIs in Abra, Figuerres [8] in University of Northern Philippines, Pachejo and Allaga [7] in Rizal Technological University, among others. Results were varied. Hugasan [2] and Visco [6], found student and teacher-related factors on the predictors of LET while Marquez et al. [5] and Figuerres [8] revealed that the LET performance is significantly correlated with specialization. Interventions are tailored to meet the institutional needs.

There are myriad of reasons linked to performance in the LET, for example, academic achievement (e.g. GPA) of the graduates [2]; [9]-[10], college entrance examination [2]; [11], instructional competence [2]. However, in this study academic achievement is closely examined. Can LET performance be attributed to academic achievement (i.e., college and high school GPA)? In this study, attribution theory attempts to systematically describe the explanation for students' successes and failures ([20]; [12]; [13]). With properly knitted curriculum, students are expected to master the educational learning theories [13]. Literature is varied. For example, [9] found that there was a low correlation but a slight positive relationship between academic achievement of Bachelor of Secondary Education (BSED) graduates and licensure examination. On the other hand, Soriano [1] stated that GPA in general education posted the better predictor performance in the LET than the major field GPA particularly in the first two years. While recently, using prediction models, [14] reported that general weighted average predicted licensure performance.

The LET serves as a "gauge of the effectiveness of the delivery of the teacher education curriculum" [15].

The passing percentage defines how the TEIs perform in the LET so that every TEI is determined to increase its performance. Visayas State University (VSU) with its College of Education, is no exception and look forward to achieve excellence in education careers which can be carried through developing and producing competent professional teachers who can undertake instruction, research and extension programs (College of Education Vision and Mission). It aspires to produce competent professional teachers. Records show that the institution's passing percentages were consistently above the national passing percentage. It can be fairly speculated that students were performing well in the licensure examination but still short of the passing percentages required in accreditation bodies such as Commission on Higher Education (CHED) and Accrediting Agency of Chartered Colleges and Universities of the Philippines (AACCUP). An exemplary performance in LET will attract more and better enrolees to the University, which can contribute more to its vision of quality education.

## OBJECTIVES OF THE STUDY

This paper looked into the relationship of academic achievement and LET performance. The question posed was: does academic achievement (high school and college GPA) predict performance in the LET? Specifically, this study aimed to (1) describe the profile of the participants, (2) determine which LET test area participants perform better, and (3) determine the predictor of LET performance.

## MATERIALS AND METHODS

*Research design, respondents, and environment*

This study employed descriptive-correlational research method using the academic achievement and LET rating of the education graduates. The respondents of this study were BEED and BSED graduates of VSU, Baybay City, Leyte, who graduated in AY 2011-2012 and took the LET during the same academic year. Interestingly, academic year 2011-2012 was significant because this year marked the highest institutional passing for first takers with 88.37% and 90.91% for BSED and BEED, respectively. For the purpose of consistency and uniformity in determining the academic achievement, only those graduates who were admitted in the main campus of the university from AY 2008-2009and first time takers were included.

*Research instrument and data gathering procedure*

Secondary data were utilized in this study. These refer in particular to the following: (1) the official print-out of the LET results from PRC for AY 2011-2012 was utilized; (2) the transcript of records of the students in the general education (GE), professional education (PE), Majors (BSED only) and high school GPA in the Office of the University Registrar. A written permission was obtained from the Office of the President, to secure approval to utilize the data from the Office of the Registrar. The researchers gathered data from the Students' Records Section of the Office of the University Registrar. The ratings of the examinees in the licensure examinations were obtained from Professional Regulatory Commission (PRC). The data gathered were collated and computed using appropriate statistical tools and were analysed according to the use in the study as described in the next section.

## Statistical Treatment of Data

The following methods of analysis were employed: descriptive statistics such as frequency distribution, mode, and mean; z-test was used to determine the LET performance relative to PRC standard; t-test was used to compare the means in the LET to determine which area students are prepared; the coefficient of correlation using Pearson product moment correlation to determine the relationship of the variables.

## RESULTS AND DISCUSSION

Table 1. The profile of BSED and BEED according to college and high school GPA.

| Groups | N | College GPA | | | | High School GPA | | | |
| | | Mean GE | Mean PE | Mean Major | Gen. Ave. | Min | Max | Mean | sd |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BEED | 33 | 1.89 | 1.79 | -- | 1.83 | 78.70 | 93.74 | 88.56 | 3.08 |
| BSED | 30 | 1.96 | 1.89 | 1.89 | 1.92 | 81.60 | 93.75 | 88.65 | 3.05 |

Mastery of the educational theories such as content and pedagogical knowledge is assumed to be reflected in the grades obtained in their college coursework [13]. Shown in table 1 is the profile of BEED and BSED groups. Both BEED and BSED groups have a range of 1.96 to 1.89 in the GE; 1.89 to 1.79 in the PE; 1.89 in major subjects (BSED only); and 1.92 to 1.83 in the general average. These suggest that both groups have an average to above average academic achievement. BEED group have higher mean in PE. One plausible explanation is that BEED students tend to spend more time (60%) of their coursework in professional education. When college GPA was group according to subtest, it was evident that most of the graduates have an average academic achievement. This showed that they possess a fair knowledge of the teaching profession.

*High School GPA*

Basic education served as a foundation of students' preparation for higher learning. In this study, GPA during their high school years was correlated against their LET performance. Most of the takers have high performance during their high school days. BEED group has 88.56 mean with minimum grade of 78.70 and maximum grade of 93.74. On the other hand, BSED group has 88.65 mean with minimum grade of 81.60 and maximum grade of 93.75. The minimum GPA indicates that the admission policy on grade point requirement of 85 was lifted during this period. In the absence of standardized qualifying test as admission requirement, the policy on grade requirement in which should have a GPA of 85 could have screened potential teachers.

*Profile of the BEED and BSED graduates in the LET performance*

The percentage distribution of BSED and BEED when grouped according to LET performance is shown in Figure 1. It is evident that the LET performance in BEED and BSED group is largely average. The finding suggests that most scores are enough to comply with the passing standard.
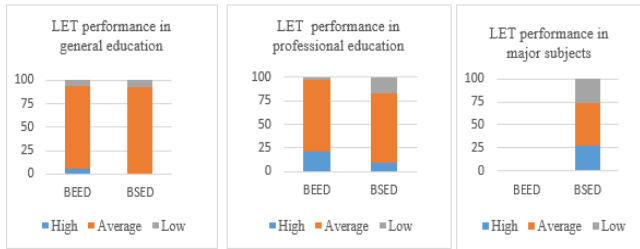


Figure1. Percentage distribution of BSED and BEED group according to their LET performance.
Note: Very high (95 and up), High (85-94), Average (75-84), Low (74 and below)

In order to determine the LET performance profile of the BEED and BSED students, the z-test at 0.05 level of significance was used with 75% criterion based from the PRC standard. In BSED group, there was a significant difference between actual mean and hypothetical mean in all areas tested. At 0.05 level of significance, the z-value of 6.74 in GE, 7.05 in PE, and 7.48 in major are higher at 1.96. This means that the students are found to be above average in General Education, Professional Education and their Major. In BEED group, there is a significant difference between the actual mean and hypothetical mean of GE and PE which is greater than 1.96 at 0.05 level. The students are found to be above average in General Education and Professional Education. The result indicates that takers

scored above the required PRC passing percentage. It appears that the takers are well-prepared and equipped with the desired competencies in general, professional education and major field. The finding is consistent with mastery learning theory which states that students achieve better if they had mastered the lessons taught. Additionally, students with high regard to positive attitudes about learning and ability to learn can achieve more and remember the lesson they have learned in pre-service teaching (Sadker & Sadker) [18].

Table 2. The LET performance of BSED and BEED according to test area.

| Groups | BSED | BEED |
|---|---|---|
| N | 30 | 33 |
| General Education | | |
| Mean | 77.81 | 80.3 |
| sd | 2.53 | 2.71 |
| z-test | 6.74* | 11.40* |
| Professional Education | | |
| Mean | 78.92 | 82 |
| sd | 2.45 | 2.93 |
| z-test | 7.48 | 13.17 |
| Major | | |
| Mean | 80.56 | -- |
| sd | 2.25 | -- |
| z-test | 8.77 | -- |

*Legend: * significant at 0.05 level*

In total, both groups exhibited significant difference with z-value of 8.77 and 13.36 for BSED and BEED, respectively. The students are found to be above average relative to 75% criterion of PRC. This finding differs from Soriano [1] who found out that "BEED and BSED respondents did not perform significantly higher than the General Education respondents, Professional Education, and LET Overall rating in terms of passing percentage". On the positive note, BEED and BSED groups exhibited higher performance relative to the PRC standard. However, the finding suggests that there is still room for improvement to capture the elusive 100% passing mark [5].

In order to determine which test area the takers perform better, the t-test of correlated means was utilized (see Table 3). In this post hoc test, it was found out that there is a significant difference of the BEED performance between GE and PE. The test showed that the BEED group performed better in PE than in GE. In BSED, there is a significant difference GE and Major. The test showed that the BSED group performed better in the Majors than in GE and PE. This finding implied that BEED group are better prepared in professional

education than on the other subtest, while BSED group is better prepared in the field of specialization than on the other subtest. The result suggests that rather than concentrate on all areas, the respondents tend to bend on a specific subject area. Students should strike balance on all test components. Moreover, there is a need to strengthen on the content subject areas to match with teaching pedagogies [2].

Table 3. The t-test of the means between test components of the LET performance.

| GE vs PE | p-value | GE vs Major | p-value | PE vs Major | p-value |
|---|---|---|---|---|---|
| -1.32 | 0.20 | -2.11 | 0.049* | -1.22 | 0.24 |
| -3.62 | 0.001* | -- | -- | -- | -- |

*Relationship between High School GPA and LET Performance*

Basic education like high school is students' formative years. Some studies (e.g. [15]; [16]; [6]) have tried to correlate basic education to future success. Though the studies found no relationship, however, findings were inconclusive given few studies done. In this study, the observations in both in BEED and BSED groups were not significant. Thus, the null hypothesis is accepted. The result suggests that high school preparation is not a predictor in the LET. This supports the studies of [6] and [16] which found no relationship between high school GPA and LET performance. Basic education is intended to develop basic skills while the degree program is intended to specialize on teaching skills.

*The relationship between college GPA and LET performance*

Prior researches have linked academic preparations ultimately led to successful licensure examinations (e.g. [2]; [10]-[11; [15]-[16]). This study revealed that in BEED group, the overall GPA in college predicted LET performance. This means that the college GPA (a combination of general and professional education courses) for BEED has significant bearing to LET performance. The findings have supported prior studies conducted.

In BSED group, college GPA in their specialization (CGPA_Major) that predicted their LET performance in the specialization test area. The findings suggest that their coursework prepared them in the specialization. A plausible explanation is that courses for specialization were taught at the content department. For example, Biological Sciences majors are taught with experts at the Department of Biological Sciences. The finding is consistent with the studies of Hugasan [2], Marquez et al. [5], Figuerres [8], Lozarita et al. [10], Pascua & Navalta [11], Gerundio & Balagtas [15], Hena et al. [16], and Quiambao et al. [17].

Table 4. Relationship between LET and College GPA of the BSED and BEED students

| Group | Component | Mean | SD | r |
|---|---|---|---|---|
| BEED | CGPA_GE | 87.50 | 2.58 | 0.22 |
|  | LET_GE | 80.30 | 2.71 |  |
|  | CGPA_PE | 89.09 | 2.71 | 0.31 |
|  | LET_PE | 82.00 | 2.93 |  |
|  | CGPA_GenAv | 88.12 | 2.61 | 0.47* |
|  | LET_GenAv | 82.80 | 2.65 |  |
| BSED | CGPA_GE | 87.04 | 3.05 | 0.13 |
|  | LET_GE | 77.81 | 2.53 |  |
|  | CGPA_PE | 87.50 | 2.58 | 0.23 |
|  | LET_PE | 78.92 | 2.45 |  |
|  | CGPA_Major | 87.27 | 7.42 | 0.43* |
|  | LET_Major | 80.56 | 2.68 |  |
|  | CGPA_GenAv | 86.92 | 2.51 | 0.21 |
|  | LET_GenAv | 79.53 | 2.25 |  |

*significant at 0.05 level

Note: CGPA_GE – college GPA in general education; LET_GE – LET result in general education; CGPA_PE – college GPA in professional education; LET_PE - LET result in professional education; CGPA_GenAv – general average of college GPA; LET_GenAv - LET result general average; CGPA_Major – college GPA in major; LET_Major – LET result in specialization

In order to determine the percentage of prediction of correlated variables in table 4, linear regression [21], considering all other factors constant, in BEED group College GPA predicted LET general average at 83%, while in BSED specialization in college predicted 80% LET performance in the major field. Performance in the licensure examination is attributed to factors like academic achievement in college and extent of training in specialization [19].

The findings implied for closer attention as training in college days should be geared towards success of graduates in the LET. For example, the BSED group tend to perform higher in their specialization which suggests that teachers handling the subjects are highly qualified and therefore experts of their respective fields. Content and methods courses should be constantly monitored and evaluated for quality assurance.

Academic achievement is only a portion of teacher education; other aspects may have influence in part or in conjunction with LET performance which is yet to be included in future studies. For example, admission

requirements and plethora of possibilities can predict later success should be examined.

## CONCLUSION AND RECOMMENDATION

This study examined the relationship of academic achievement and LET performance. It demonstrates that for this group of graduates, college academic achievement does establish the link to the performance in the licensure examination for teachers. The academic achievement of BEED predicts licensure performance while specialization predicts BSED group's licensure performance. Some limitations should be noted here. The current study focused only on academic achievement while learning is an interplay of several factors. Future studies should examine modes of preparation for the licensure such as review process, use of educational technology and materials available that scaffold the learning process.

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