Original Article

Academic Predictors of the Licensure Examination for Teachers' Performance of the Rizal Technological University Teacher Education Graduates

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ABSTRACT
One of the pressing concerns of the College of Education of the Rizal Technological University is the passing percentage of its graduates in the Licensure Examination for Teachers; thus, the researchers made this study to determine if the academic grades of the students are a predictor of their performance in the boar examination.
With this study, findings revealed that when the board performance is correlated with the three components of the academic subjects there is a moderate correlation with the general education, while the correlation between professional education and specialization showed indicate slight correlation, thus, there is a linear relationship between the three academic subjects and the overall rating of LET.
Likewise, it discloses that there is a very weak relationship to the performance of the students in the said exam and their academic grades. It also shows that there is a slight variation of Licensure Examination performance that could be accounted for through the combined linear effects of the predictor variables.However, in spite the very weak relationship, the computed coefficient gives a positive interpretation that in every one unit increase in the predictors there will be an increase in the overall Licensure Examination Performance for Teachers.
Keywords: *Academic Predictor of Teacher's Board Exam*

INTRODUCTION

No less than the President of the Philippines, His Excellency Benigno S. Aquino III underscored the important role that teachers play in nation-building when he said "*I join the nation in saluting all of you for your professionalism. You shape the minds of the youth who will be tomorrow's leaders.* (www.asianjournal.com, 2010)

The role of the teacher is multi-faceted one comprising academic, pedagogical and social roles. Academic role comprise teaching, counseling and supervisory roles. As a facilitator of learning, the teacher is involved in motivating students to learn, maintaining control in the classroom and the school in general, and creating a conducive environment for learning to take place.

Since young men are entrusted to the care of the teaching profession and it is, therefore, the sacred duty of the teacher to impart the right type of education to student in order to make them the right type of citizens.

The strength of an educational system must largely depend upon the quality of its teachers. However enlightened the aims, however efficient the administration, the evaluation of students is determined by the teachers.

The importance of teacher is as clear as the sun, indeed. There is therefore, no more important matter than that of securing sufficient supply of the right kind of people to the profession and providing them with the best possible training.

The academic institutions offering teacher education programs, like the Rizal Technological University, carry a challenging yet transcending responsibility of molding a teacher of appropriate caliber to deliver the "goods", thoroughly competent in the teaching discipline, and ready for the monumental task of extending the frontiers of knowledge in their area of specialization.

Much is expected from the TEIs. The plethora of standards, norms, and decisive factors regarding the success of an institution reflects the people's concern on quality education. In fact, one standard that measures the success of an institution is manifested through the outcomes of graduates who are fully prepared, well trained, and well-equipped with the skills, the knowledge, the habits, and the values essential for their integration to the society in general and to the world of work in particular. Another standard that measures the success of an institution is the performance of the graduates in the licensure examination.

Every teacher education graduate is required to take the Licensure Examination for Teachers (LET) in order to practice his profession. Those who passesed the board examination will not only gain honor and prestige but will also have competitive edge over those who are non-LET passers. To pass the examination, graduates should obtain the passing rate of 75% in the three areas: General Education, Professional Education and their Specialization.

MATERIALS AND METHODS

Figure 1 presents the working paradigm of the study. The diagram shows the relationships between the independent variable, the dependent variable, and the expected outcomes of the study.

The independent variable includes the performance of the graduates in general education, professional education, specialization subjects, and overall ratings indicated by their final grade at the end of each term.

The dependent variable includes the performance of the graduates in general education, professional education, specialization subjects, and overall ratings in the licensure examination for teachers.
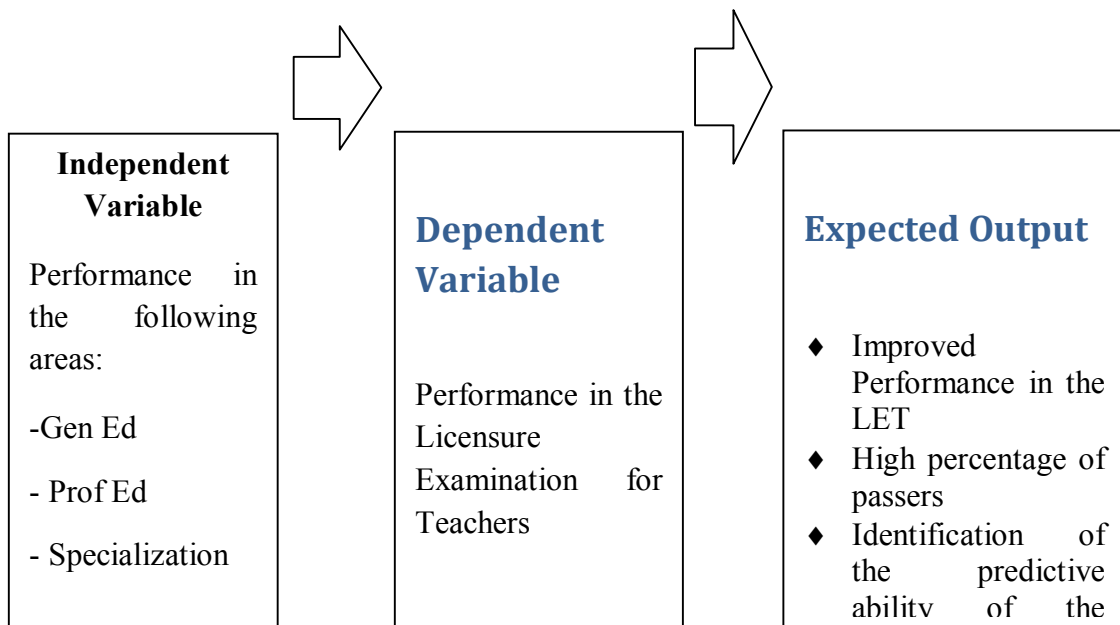
The researchers employed the ex post facto research method or causal comparative method since they analyzed existing documents pertaining to the academic performance and LET rating of the teacher education graduates from 2009 to 2011.

Correlational method was also used in finding the degree of relationship of graduates' performance in general education, professional education, and specialization subjects to their performance in the licensure examination for teachers. The method was treated as the foundational structure for prediction. Predictions through the use of correlational techniques are based on the assumption that at least some of the factors that lead to the behavior to be predicted are present and measurable at the same time the prediction was made.

The population of study included a total of 343 teacher education graduates of RTU who passed the licensure examination for teachers from October 2009 to September 2011, for a period of three years.

For the purpose of having consistent and uniformity in determining the academic performance, only those graduates who were admitted in the main campus of the university from year 2005 and whose grades were complete were the ones included.

Population of the Study

BATCH	No. of Examinees	Percent
2009	87	38
2010	90	40
2011	50	22
TOTAL	**227**	**100**

The table above shows the population of the study who are the teacher education graduates that passed the LET from 2009 to 2011. There are 227 teacher education graduates who passed the LET for the duration covered by the study. Out of 227, 87 03 38 percent passed the LET in 2009, while 90 or 40 percent passed the LET in 2010, and only 50 or 22 percent passed in 2011.

For the purpose of providing qualitative description on the level of performance of the respondents both on the academic and LET, the scale that is being applied in the university was adopted. This is shown in the table below.

RTU Grading System

Percentage Equivalent	RTU Rating System	Descriptive Rating
97 – 100	1.00	Excellent
94 – 96	1.25	Very Good
91 – 93	1.50	Very Good
88 – 90	1.75	Good
85 – 87	2.00	Good
83 – 84	2.25	Fair
80 - 82	2.50	Fair
78 – 79	2.75	Passing
75 – 77	3.00	Passing
Below 75	Below 3.00	Poor

The documentary analysis technique was the main tool in gathering the required data in this study. Data on the academic performance of the graduates were obtained from the database of the Management Information Center (MIC) of RTU.

As regards to the Licensure Examination for Teachers results, the data was acquired from the master list of examinees with their corresponding performance rating Dean's office as certified by the Professional Regulation Commission (PRC).

The following statistical tools were used in the presentation, interpretation and analysis of data.

Frequency was used in the counting of data gathered

Percentage was used to determine the relative distribution of the categorical responses.

General Weighted Average (GWA). The GWA was used as a numerical index denoting the level of academic performance of the graduates in general education, professional education, and specialization subjects.

Pearson Product-Moment Correlation. The Pearson r was used to determine the strength or magnitude of relationship between two variables such as: a) Academic average grades in the three areas and the ratings in the subtests of the Licensure Examination for Teachers, b) Academic average grades in the three areas and the overall rating in the Licensure Examination for Teachers, and c) Overall average in the academic subjects and the overall rating in the Licensure Examination for Teachers.

The range of values for the correlation coefficient shown below was used to interpret the degree of strength of linear relationship (Best & Kahn, 1998)

CORRELATION COEFFICIENT	INTERPRETATION
±0.00 – ±0.20	Slight correlation,Almost negligible relationship
±0.21 – ±0.40	Slightly high correlation, definite but small relationship
±0.41 – ±0.60	Moderate correlation, substantial relationship
±0.61 – ±0.80	High correlation, marked relationship
±0.81 – ±1.00	Very high correlation, very dependable relationship

Multiple Regression Correlation is used to make predictions of the performance of the graduates in the LET, the researcher considered their academic performance as the predictor.(Walpole, 1982)

RESULTS AND DISCUSSION

Problem No.1 What is the level of academic performance of the education graduates along the following areas:

1.1 General Education

**Academic Performance of Education Graduates in the
General Education Subjects**

GENERAL EDUCATION SUBJECTS	MEAN	VERBAL INTERPRETATION
SOCIAL SCIENCES	1.93	Good
MATHEMATICS	2.4	Fair
SCIENCE	2.05	Good
FILIPINO	2.06	Good
ENGLISH	2.16	Good
OVERALL	**2.12**	**Good**

These ratings gave a 2.12 overall mean score and interpreted as good. The result only proves that mostly of students entering Teacher Education courses are average students.

1.2 Professional Education

Academic Performance of CED Students in Professional Education Subjects

GENERAL EDUCATION SUBJECTS	MEAN	VERBAL INTERPRETATION
EDUC1: Socio./Psycho./Anthro. Found of Education	1.73	Good
EDUC2: Hist., Philo. & Legal Foundations of Education	2.43	Fair
EDUC3: Human Growth & Development	2.22	Fair
EDUC4: Guidance and Counseling	2.17	Good
EDUC5: Introduction to Curriculum Development	2.06	Good
EDUC6: Qualitative Approaches to Research	2.3	Fair
EDUC7: Quantitative Approaches to Research	2.56	Fair
EDUC8: Educ'l& Preparation of Audio Visual Materials	2.06	Good
EDUC9: Tests, Measurement & Evaluation	2.36	Fair
EDUC10: Principles & Methods of Teaching	2.04	Good
EDUC11: Professional Ethics &Personality Dev't.	1.9	Good
EDUC12: Student Teaching In-Campus	1.9	Good
EDUC13: Student Teaching Off-Campus	1.62	Good
SEMINAR: Seminar in Education	2.43	Fair
OVERALL	**2.13**	**Good**

The table above reveals that education graduates are good in the subjects that requires application skills; the graduates got a highest mean score of 1.62 in Student Teaching Off-Campus, followed by mean score of 1.73 in Sociological, Psychological and Anthropological Foundations of Education, next are the mean score by both Student Teaching In-Campus and Professional Ethics and Personality Development which is of 1.90, Introduction to Curriculum and Guidance Counseling have a mean scores of 2.06 and 2.17 respectively, which are also interpreted as good.

On the other hand, the remaining education subjects that require memorization, logic, computation and analysis the education students showed just a fair performance. The students got a mean score of 2.56 in Quantitative Approaches in Education and 2.43 in both Seminar in Education and Hist., Philo. & Legal Foundations of Education subjects. Test and Measurement, Qualitative Approaches to Research and Human Growth and Development got mean scores of 2.36, 2.30, and 2.22 respectively.

This re-affirms the result above that mostly of education students is not good in computation. This also implies that the graduates of education are noticeably good in expressing or showing their abilities.

1.3   Specialization
The tablebelow shows the academic performance of the CED graduates in their area of specialization.

Academic Performance of CED Students in the Specialization Subjects

Specialization Subjects	Mean	Verbal Interpretation
Computer Education	2.02	Good
English	2.1	Good
Filipino	2.01	Good
Mathematics	1.9	Good
Science	2.05	Good
Social Studies	1.99	Good
Overall	**2.01**	**Good**

All of which are verbally interpreted as good. This affirms the study made by Aragon (2012) that education graduates achieved grades comparable to an above average performance and opposes the claim in the article of Manila Bulletin (2000) that the subject specialization in preparation of teachers is weak. Nevertheless, the researchers are not slashing out the fact that there are professors that are lenient in giving grades that may affirm the claim of US Department of Education (2007), which is not be possible to fully remove subjectivity on the part of the professors for it is part of traditional teaching methods (Aragon, 2012).

Grade Point Average in College
The tablebelow shows the overall academic performance of the education graduates through their obtained general weighted averages.

Overall Academic Performance of the Education Graduates

Academic Year	General Education	Professional Education	Specialization	General Weighted Average	Verbal Interpretation
SY 2005 - 2006 to 2008 - 2009	2.14	2.12	2.03	2.09	Good
SY 2006 - 2007 to 2009 - 2010	2.12	2.27	2.02	2.14	Good
SY 2007 - 2008 to 2010 - 2011	2.09	2.01	1.99	2.03	Good

This is an indication that all the graduates achieved grades comparable to an above average level of performance. This is also implies that apparently the respondents were able to balance their school work because they obtained same level of academic rating in the 3 subject areas.

Problem No. 2: What is the level of Performance in the Licensure Examination of Education Graduates along the following area?

2.1 General Education
The table on the performance of the education graduates with regards to their performance of Licensure Examination for Teachers under the component of General Education.

Education Graduates Performance in General Education Component of the Licensure Examination for Teachers

Rating	Level	Frequency	Percentage
1.00	Excellent		
1.25	Very Good		
1.50	Very Good		
1.75	Good		
2.00	Good		
2.25	Fair	12	5.29
2.50	Fair	35	15.42
2.75	Passing	54	23.79
3.00	Passing	94	41.41
Less than 3.00	Failed	32	14.1
TOTAL		**227**	**100**
Mean		**3.1**	**Failed**

The failed result of this can be attributed to the fact that the contents of this LET components was taken by the students during their first two years in the university.

2.2 Professional Education
Education Graduates Performance in Professional Education of the
Licensure Examination for Teachers

Rating	Level	Frequency	Percentage
1.00	Excellent		
1.25	Very Good		
1.50	Very Good		
1.75	Good		
2.00	Good	10	4.41
2.25	Fair	17	7.49
2.50	Fair	70	30.84
2.75	Passing	60	26.43
3.00	Passing	60	26.43
Less than 3.00	Failed	10	4.41
TOTAL		**227**	**100.00**
Mean		**2.77**	**Fair**

This result can be attributed to the fact that the theory that the students learned on their professional education subjects are being put into practice in their subjects In-campus and Off-campus teaching subjects. This likewise confirms the philosophy of Progressivism by John Dewey, which states there is no better way to understand a thing than interacting with it.

2.3 Specialization
Table below, shows the extreme of distribution of scores resulted in a pull down of mean scores of CED graduates on this component which resulted in a failed interpretation.
Education Graduates Performance in Specialization Component of the
Licensure Examination for Teachers

Rating	Level	Frequency	Percentage
1.00	Excellent		
1.25	Very Good		
1.50	Very Good		
1.75	Good	1	0.44
2.00	Good	5	2.2
2.25	Fair	14	6.17
2.50	Fair	43	18.94
2.75	Passing	61	26.87
3.00	Passing	71	31.28
Less than 3.00	Failed	32	14.1
TOTAL		**227**	**100**
Mean		**3.05**	**Failed**

This result implies can be attributed to the mismatch of the learning content prescribed by CHED for the specialization of the teacher education curriculum and the table of specification of the Board Exam for Teachers released by the Professional Regulation Commission (PRC).

2.4 Overall Average
Table below presents the overall performance of the CED graduates in the Licensure Examination for Teachers.

**Education Graduates Performance in
Licensure Examination for Teachers Performance**

Rating	Level	Frequency	Percentage
1.00	Excellent		
1.25	Very Good		
1.5	Very Good		
1.75	Good		
2.00	Good	5	2.20
2.25	Fair	6	2.64
2.50	Fair	47	20.70
2.75	Passing	65	28.63
3.00	Passing	104	45.81
Less than 3.00	Failed	0	0.00
TOTAL		**227**	**100**
Mean		**2.78**	**Passing**

The result implies that in spite of the very good passing percentage of the College against the National Passing Percentage still the scores of students in the said examination are still in the boundary of passing as shown in its mean of 2.78.

This is in contradictory of the study of Peckley (2000) as mentioned in the study of Aragon (2012), as it was found a fair level of performance in the Criminology board examination in the different subjects but an average over-all performance of the criminology graduates of University.

Problem No. 3 What is the degree of relationship between the academic grades (X) and the ratings in the subtests of the LET (Y)

The results of the licensure examination reflect the foundation and internal efficiency of the educational system that provided training prior to the board examination.

3.1.a. General Education   (Y$_1$)

Table below shows the correlation between the academic grades and the rating in the LET subtest, general education.

Correlation of Academic Grades in the Three Areas and the Ratings in the Subtests of LET, General Education

Academic Performance	Pearson r	Verbal Interpretation	p-value	Interpretation
General Education	0.172	Slight correlation	0.0047	With linear relationship
Professional Education	0.172	Slight correlation	0.0047	With linear relationship
Specialization	0.078	Slight correlation	0.121	No linear relationship

All computed correlations, r = 0.172 for general education and general education, r = 0.172 for professional education and general education, and r = 0.078 for specialization and general education indicate slight correlations. The general education and professional education registered a p-value of 0.0047 which is lower than 0.05, hence, it is indicative that there is a linear relationship with the general education subtest of LET.

No linear relationship was established between the specialization and general education, since the obtained p-value = 0.121 is greater than 0.05.

3.1.b.Professional Education (Y$_2$)

The table below reveals the correlation between the academic grades of the respondents and the rating in the LET subtest, professional education.

Correlation of Academic Grades in the Three Areas and the Ratings in the Subtests of LET, Professional Education

Academic Performance (X)	Pearson r	Verbal Interpretation	p-value	Interpretation
General Education	0.244	Slight high correlation	0.0001	With linear relationship
Professional Education	0.122	Slight correlation	0.033	With linear relationship
Specialization	0	No correlation	0.5	No linear relationship

It can be seen from the table that there is a slight high correlation between the general education and the professional education as indicated by r = 0.244 and p value of 0.0001 which is less than 0.05, hence, indication of positive relationship.

However, in terms of the specialization, no correlation exist with the professional education, r = 0, and no linear relationship with p-value of 0.5.

3.1.c. Specialization (Y_3)

The relationship between the academic grades of the respondents and their rating in the LET is shown in Table below.

As can be gleaned from the table, there is a slight correlation between the general education and the specialization, with r = 0.086 and a p-value of 0.0098 which is less than 0.05. This indicated that there is a linear relationship between the general education and the specialization.

Correlation of Academic Grades in the Three Areas and the
Ratings in the Subtests of LET, Specialization

Academic Performance (X)	Pearson r	Verbal Interpretation	P-value	Interpretation
General Education	0.086	Slight correlation	0.0098	With linear relationship
Professional Education	0	No correlation	0.5	No linear relationship
Specialization	-0.141	Slight correlation	0.0169	With linear relationship

3.2 Academic average grades in the three areas and the overall rating in the Licensure Examination for Teachers

Correlation of Academic Average Grades in the Three Areas and the
Overall Rating in LET

Academic Performance(X)	Pearson r	Verbal Interpretation	p-value	Interpretation
General Education	0.417	Moderate correlation	2.89×10^{-11}	With linear relationship
Professional Education	0.208	Slight high correlation	0.000813	With linear relationship
Specialization	0.189	Slight correlation	0.00213	With linear relationship

The table above shows the correlation between the overall rating in LET and General Education with r = 0.417, which indicates moderate correlation, while the correlation between PE and Overall, and Specialization and overall with r = 0.208 and r = -0.189 which indicate slight correlation. There is a linear relationship between the three academic subjects and the overall rating of LET.

3.3 Overall average in the academic subjects and the overall rating in the Licensure Examination for Teachers.

Table below presents the relationship between the overall academic average and the overall rating in the LET.

Correlation of the Overall Average in the Academic Subjects and the
Overall Rating in LET

Academic Performance (X)	Pearson r	Verbal Interpretation	p-value	Interpretation
GWA	0.481	Moderate correlation	7.582×10^{-15}	With linear relationship

The overall academic average correlates moderately to the LET overall rating indicating a direct substantial relationship. This means that the better the performance of the graduates in the college academic subjects, the better are their performance in the overall rating of LET.

The computed value of r = 0.481 establish a linear relationship such that a significant number of high general average in the academic subjects corresponds to a significant number of high overall ratings in the LET.

The present findings that the academic average correlates positively with the ratings of LET coincides with the findings of Menecio (2002) that the academic performance of accounting graduates of St. Louis University had a positive relationship in the CPA board examination.

Balmeo (2003) referred to grade as concrete measure that quantifies student's level of learning. It also presents a clear picture on how far student's performance and achievement have reached a required standard. In the study of Valencia (2000), it was concluded that the higher the grades of the students the better their performance in mathematics and science.

Problem No.4: What can best predict the education graduate's performance in the Licensure Examination for Teachers?

The table below shows the predictors that may affect the performance of the education graduates in the Licensure Examination for Teachers.

The Multiple Regression Analysis on the Predictors of Education Graduates Performance in the Licensure Examination for Teachers

VARIABLES	BETA	T-VALUE	SIGNIFICANCE
General Education Grades	.098	.071	.943
Professional Education Grades	.169	.114	.909
Specialization Grades	.077	.052	.958
General Weighted Average	-.267	-.073	.942

R = .05 R^2 = .002   F Ratio = .346   Constant = 2.716

It can be gleaned from the table that the set of predictors for the performance in the Licensure Examination for Teachers have a very weak relationship to the performance of the students in the said exam, as the computed R value is only .05. On the other hand, when squaring the R value, it enables the researchers to determine the amount of variation of the dependent variable from the set of predictors wherein the computed R^2 is only .002, thus, it shows that there is only .2% of the variation of Licensure Examination performance that could be accounted for through the combined linear effects of the predictor variables.

Based from the value of R Square which is .002, the variables when taken together, account only for .2 percent of the variance in the performance of the graduates in LET. The remaining percentage can be attributed by other factors that are not used as predictors in this study such as the programs on the review of the College, students' physical, emotional and mental conditions, the financial capability of the students' family and family background.

However, inspite the very weak relationship, the computed coefficient gives a positive interpretation, it can be gleaned from the data below the table that the beta score for the overall academic performance is -.267, which means that in every one unit increase in this predictor (overall academic performance) there will be a 2.67 increase in the overall Licensure Examination Performance for Teachers. This might be confusing because of the negative computed score that usually entails a decrease effects, which is not applicable with the scoring of this research where its uses the usual grading system used in Tertiary where the lower the grade the higher it is.

And taking consideration the significance value of the stated predictors, since all these predictors are more than the .05 level of significance therefore this implies that the following predictors are cannot be considered as a predictor in passing the Licensure Examination for Teachers.

These findings do not support the study by Rubio (1992), when she stated that academic performance significantly relate with the Nursing Licensure Examination performance. Likewise, the results of the study that conform with the findings of Martinez, et.al. (1980), in the existence of a correlation between academic achievement and their performance in the Licensure Examination.

On the other hand, the findings revealed on this study were supported by the study of Aragon (2012), which indicates that a very good performance in the academic subjects does not guarantee a passing performance in the teachers' board exam.

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