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PREDICTORS OF PERFORMANCE IN THE LICENSURE EXAMINATION FOR BTTE GRADUATES OF ONE STATE COLLEGE IN THE PHILIPPINES

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Abstract

The study was conducted to find out the performance of the Bachelor of Technical Teacher Education (BTTE) graduates of Camarines Sur Polytechnic Colleges and to develop a statistical model that may be adopted by the department in predicting ratings in the teacher's licensure examination. The study used a quantitative-descriptive method in the analysis of the grades of the 85 students gathered from several secondary sources. The correlational method was used to explore the predictors of performance in the licensure examination graduates who took the licensure examination. Pearson's correlation and multiple regression were used to analyze the licensure examination ratings, college admission test, and academic performance of 85 respondents. Findings revealed that most students have lower results in the College Admission Test yet have Good to Very Good results in academic performance. Furthermore, students attained fairly good performance in their LET. Based on the findings of the study, academic performance is a good predictor of the graduate's achievement in the licensure examination. Thus, a regression model was developed and may be adopted by the department in predicting ratings in the teacher's licensure examination.

Keywords*: licensure examination for teachers, predictors, college entrance test, academic performance.*

INTRODUCTION

The Licensure Examination for Teachers (LET) is one of the measures for quality education among colleges or universities offering teacher education. LET performance is a determinant of teachers' competent and safe job performance. In the learning institutions, the teacher's job-ready after passing the LET since effectiveness and efficiency are both the focus of the examination. It is also a way of testing the overall knowledge and proficiency of prospective teachers so that a reliable structure shall be provided. This practice allows the professional to have access to continuing growth and development. (Guinayen, 2014)

Republic Act 7836, otherwise known as Philippine Teachers Professionalization Act, (1994) is an act to Strengthen the Regulation and Supervision of the Practice Teaching in the Philippines and Prescribing Licensure examinations for teachers and other purposes. This includes all the areas in General Education subjects, Professional Education and Major subjects. The Bachelor in Teacher Technical Education (BTTE) in Camarines Sur Polytechnic Colleges produces para-LET for about two years of its implementation of the program. Before the students are admitted to the college, it adopts various strategies that require the preparation for passing the LET. Firstly, it admits enrolling students to pass the entrance examination. Secondly, it adapts monitoring of students' performance in the areas of general education and major subjects. Before the students take the LET examinations, students undergo reviews from various review centers to be prepared for the licensure examination. However, despite the interventions, still some graduates did not pass the examinations.

Visco (2015) analyzed the determinants of LET performance of the graduates of Abra State Institute of Sciences and Technology (ASIST) in Abra from 2007-2011. The predictors considered in the study were student-related and faculty-related factors. Using the PRC LET results, the study employed documentary analysis and correlation research designs. Findings of the study revealed that the Teaching Aptitude Test (TAT), attendance in LET reviews, educational attainment, pieces of training/seminars attended by faculty members, academic rank, and workloads significantly influenced the LET performance of the graduates.

Rabanal (2016)analyzed the performance of the Bachelor of Elementary Education (BEEd) 2013 graduates of the University of Northern Philippines. Results of the study found that academic achievement is significantly related to LET performance. De Leon (2016) conducted a correlation study on academic performance and the Nursing licensure examinations. Results of the study proved that academic achievements in professional nursing subjects are related to nursing licensure performance. With these results, she recommended curriculum enhancement to improve the academic performance which results to improved performance in the nursing licensure examinations.

In addition, the performance of the graduates in the board examination serves as the determining factor in leveling the quality of the institution's curriculum. Hence, according to the Philippine Professional Commission (PRC) as reported in the recent result of the Licensure Examination for Teachers (LET) in CSCP for the past two (2) years (2018-2019) were 53.64% against the national passing rate of 48.03 percent, while, in 2019, 35.71% against the national passing rate of 39.68%. Based on the data, it was found out that the school performance is quite low and below the national passing rate in 2019. It is only in 2018 where the result is above the national passing rate by just only a small percentage. The inconsistency of the result of the examination is the call for reevaluation of what is in the existing curriculum as well as the assessment in place to determine the predictors of the LET results.

Having these concerns, the researcher pursued a study that sought to predict the result of the licensure examination for Bachelor of Teacher Teaching Education (BTTE) in Camarines Sur Polytechnic Colleges. With these concepts, this study was conducted to identify the results of the entrance exam results of Bachelor of Teacher Technical Education (BTTE) and their academic performance in general, professional, and major subjects. Also, the study determined their level of performance in the Licensure Examination for Teachers (LET) for Professional, Major, and Overall exam results. Moreover, this study explored the relationship between the College Entrance Test (CAR) and Academic Preparation of the students as well as the relationship between the Academic Preparation and the Licensure Examination for Teachers (LET). Lastly, this study may develop a statistical model that may be adopted by the department in predicting ratings in the teacher's licensure examination.

Terano (2018) conducted a study on the academic predictors of performance in the licensure examination for Electronics Engineering graduates of Camarines Sur Polytechnic Colleges. His study concluded that academic and pre-board performance is considered as predictors of licensure examination among electronics engineering graduates. A proposed regression model was also recommended to predict the performance of students in taking the licensure examination. In his study, he only considered the cognitive predictors and hoped that with his study and recommendations, better performance of ECE examination can be achieved.

The overall goal of this study is to assess the influence of students' college entrance tests and academic performances along with the General Education subjects, Professional subjects, and Major subjects on the performances of BTTE graduates of Camarines Sur Polytechnic Colleges in the licensure examination. 85 respondents were graduates of 2018 and 2019 and these were randomly chosen among the graduates regardless of their results in the entrance examination, academic grades, and the licensure examination ratings were conducted to determine the degree of correlation.

The study is anchored on Vroom's Expectancy Theory that pertains to the result of behavior based on the conscious choices taken from the alternative which aims to maximize pleasure and minimize pain. This further explains that the relationship between people's behavior at work and their goals is not simple but rather based on personality, skills, knowledge, experiences, and abilities. Furthermore, this theory suggests individuals may be motivated when there is a correlation between effort and performance, desirable reward based on favorable performance, reward that satisfies needs, and worthwhile effort due to satisfied need. (Vroom & Deci, 2016) Considering this theory, the researcher was able to derive the concept of predicting the performance of the BTTE graduates based on the measurement of their initial assessment, the process of learning, and the post-assessment to understand what goes well, motivated, and purposeful. Vroom further explained that the learning is important to unleash the potential in learning through the reward system which may be a way of achieving the desired result and expected outcomes.

Tarum (2017) focused on the generation of licensure examination performance prediction models and the development of a Decision Support System. From the models generated, it is established that the general weighted average of the reviewees in their general education subjects, the results of mock board exam, and the instance when the reviewee is conducting a self-review are good predictors of the licensure examination performance. The studies mentioned proved that academic performances and pre-board examination performances are good predictors of the licensure examination in various disciplines. The academic assessments allowed the institution to see how the student might perform in the board examination and these may be the basis of student's passing or failing the examination. Furthermore, the self-efficacy model has the strongest predictive power in the performance of a student in the licensure examination. This is invested in the experience, motivation, and strategy used in the process of learning and this shall create a significant effect in the licensure exam performance. (Carrol & Garavalia, 2004; Klomegah, 2007; Lopez-Garrido, 2020) Capitalizing on these would eventually strengthen the result of the licensure examination because these assessments are all affected by the delivery of the curriculum, thus proper understanding of the predictors may provide an overview on what policies may be done to improve the examination result of CSPC BTTE. Nevertheless, the predictor study should also have a proper validation process so that the result would be useful. A study by Beyene, Atenafu, Hamid, To, & Sung (2009) made use of the bootstrap re-sampling and repeated sampling split technique to develop a strong model and useful tool in validating the predictive model. However, as an initial study conducted in the program of BTTE, evaluating the present data is necessary to have available data. The results of this study shall be the basis for future research related to predicting results of LET after some improvements in the curriculum.

Furthermore, Kirkpatrick's Four Levels of Evaluation expresses the idea that assessment has four (4) levels such as reaction, learning, transfer, and result. Reactions can be taken through the participant's initial overview of the curriculum. Then, learning is where several assessments were

done to help the participants improve. In this way, the transfer of learning and improvement in the behavior happens. Lastly, the result of the overall learning is done through the assessment that has to be done. This will allow the program to be assessed regularly based on the learner's performance. (Winfrey, 1999) Having these, the study focused on BTTE so that the study would benefit the institution in improving the policies and performance of the graduates while in a pre-service stage of teaching, thus, this study excluded other courses so that better decisions may be done to further improve the performance of the specific curriculum.

METHODOLOGY

The study is a descriptive-correlation study using secondary data from multiple sources from among the 85 respondents responded from among the One hundred fifty-one (151) targets respondents. The respondents were attributed through on-line using messenger and text messages to forward to the researcher the screen shot of their LET results. The researcher tries to request form the Professional Regulations Commission (PRC) the list of examinees with corresponding grade but unfortunately it was denied because of Secret Privacy Act in the Philippines. Academic grades of students were taken from the college registrar's office. The research established the relationship between the independent variable, the dependent variable, and the outcomes of the study. A correlation was used in finding the degree of correlation between the graduate's College Entrance Test, academic performance, and their LET results.

Percentage technique, General Weighted Average (GWA), Pearson Product-Moment Correlation, and Multiple Regression Correlation were the statistical treatment applied in this research to come up with the predictors and regression model that may adopt the department in predicting the possible result of LET results among the CSPC Teacher Education graduates.

RESULT/FINDINGS/DISCUSSIONS

Entrance Results of the BTTE Graduates

One of the data that were analyzed is the result of the College Entrance Test (CET) among the eighty-five (85) graduates of the BTTE of Camarines Sur Polytechnic Colleges. The data was taken from the college registrar's office.

Table 1 shows the results of the Entrance Examination among the 85 respondents. Data shows that majority of the respondents did not pass the entrance examination conducted by the college, however, because of the enrolment quota of the department, still they were accepted to enroll. This implies that most of the respondents did not pass the entrance examination test and yet were allowed to enroll in the teacher education program. This shows that the College Entrance Test measured the students' cognitive ability of the students but was not used as a basis of acceptance of students since there are few enrollees and the quota was not met. However, Silfverberg & Orbeta (2021) found in their study that the entrance examination is correlated to academic performance. This entrance test is used to measure the cognitive, aptitude, and non-cognitive skills of the students so that their results would match with the appropriate skills needed in the course that they will be entering, and they would be able to have readiness in the course

Table 1. Results of the College Entrance Test

Results	Frequency	Remarks
87	1	GOOD
82	3	FAIR
81	4	FAIR
80	2	FAIR
79	2	PASSING
78	2	PASSING
77	9	PASSING
76	4	PASSING
75	2	PASSING
74 BELOW	56	FAILED

that they are to enter. (Magno & Gonzales, 2011) With this, the head of the BTTE in CSPC should review the policies and standards in the entrance examination so that the increase in academic performance may be ensured.

Academic Performance

Table 2 shows the academic performance of graduates along with the General Education Curriculum. The ratings showed an overall mean score of 1.78 and were interpreted as very good. The results showed that most of the respondents have a very good performance in their general education curriculum subjects. This data shows a relevant rating in their LET general education subjects which also show a remarkable high rating. The usual factors that may have affected the increase of the performance of the students in their academics are the personal, environment, and co-curricular activities. (Jayanthi, Balakrishnan, Ching, Latiff, & Nasiruden, 2014) Also, This further implies that the delivery of the curriculum honed the students in doing well in their classes.

Table 2. General Education Curriculum

Subjects	Average Grades	Remarks	Rank
Pagbasa at Pagsulat	1.52	Very Good	1
Physical Education 1	1.54	Very Good	2
Politics and Governance	1.62	Very Good	3
Chemistry	1.62	Very Good	4
Fundamental of Mathematics	1.63	Very Good	5
Trigonometry	1.65	Very Good	6.5
Philippine History	1.65	Very Good	6.5
Physical Education 4	1.66	Very Good	8
Biological Science	1.67	Very Good	9
Logic	1.68	Very Good	10.5
Technical Writing	1.68	Very Good	10.5
Fundamental of Drawing	1.72	Very Good	12
Life and Works of Rizal	1.73	Very Good	13
Physical Education 3	1.84	Good	14

Computer subject	1.87	Good	16.5
Basic Economics	1.87	Good	16.5
Earth Science	1.92	Good	18
NSTP	1.96	Good	19
Sining ng Pakikipagtalstasan	1.97	Good	20
Study and Thinking Skills	2.02	Good	21
Oral Communication	2.12	Good	22
General Psychology	2.16	Good	23
Overall	**1.78**	**Very Good**	

Table 3, shows the academic grades of the respondents in the professional subjects. The data revealed an overall mean score of 1.85 which is interpreted as Good. Results **show** that graduates have an average performance in Professional Education subjects which is 40% of the LET examination. This implies that professional education subjects must be given priority attention by the department and may be handled by faculty who are equipped with the necessary experience and skills in teaching professional education subjects. New strategies should also be explored to make the students more engaged and not just grasp cognitively the important learning in teaching Professional Education subjects. One of the things that have been explored was Team-Based Learning which significantly cultivated the student's competencies in confronting challenges in the practical applications of the professional subjects. (Sibley & Parmelee, 2008) Thus, keeping the performance of the students in their Professional Education high would also impact the students' employability because being more learned in the educational concepts will make the students more learned which is needed by the educational institutions so that proper pedagogy skills may be implemented in their classes. (Subudi & Biswas, 2015)

Table 3. Professional Education Subjects

Subjects	Average Grades	Remarks	Rank
Social Dimension (Educ. 312)	1.3	Excellent	1
Strategies in Teaching (Educ. 412)	1.6	Very Good	2.5
Career Guidance and Counselling (Educ. 416)	1.6	Very Good	2.5
Assessment of Learning II (Educ. 415)	1.7	Very Good	4
Education Technology 1 (Educ. 315)	1.75	Very Good	6
Assessment of Learning 1 (Educ. 316)	1.75	Very Good	6
Curriculum Development (Educ. 414)	1.75	Very Good	6
Field Study 4-6 (Educ. 417)	1.8	Good	8
Facilitating Learning 1 (Educ.313)	1.9	Good	10
Education Technology 2 (Educ.	1.9	Good	10

413)			
Special Research Topic (Educ. 418)	1.9	Good	10
The Teaching Profession (Educ. 411)	2.0	Good	12
Adolescent Psychology (Educ. 311)	2.1	Good	13.5
Practice Teaching (Educ. 421)	2.1	Good	13.5
Field Study 1-3 (Educ. 317)	2.2	Good	15
Principles of Teaching (Educ. 314)	2.4	Good	16
General Average	**1.85**	**Good**	

Table 4 shows the academic rating of the 85 respondents along with their major subjects such in Food Service management. Data revealed an overall mean score of 1.55 which is interpreted as Very Good. Industry Immersion shows a remarkable overall rating of excellent. This data implies that the graduates are well equipped with the necessary skills in the application of their learnings to their assigned industry. Also, the study of Islam (Islam, 2014) stated that several factors significantly affect the success in the learnings of the students which includes: "pre-admission qualification, level of attendance, probation status, time spend in study, father's education, parental support and involvement, major subjects of study, and gender of the students." When other factors are understood then proper amelioration may be a suggestion for further improvement of the students' performance in their classes.

Table 4. Major Subjects (Food Service Management)

Subjects	Average Grades	Remarks	Rank
Industry Immersion (IMM1)	1.3	EXCELLENT	1.5
Industry Immersion (IMM2)	1.3	EXCELLENT	1.5
Food Service Practicum	1.4	Very Good	5
Cafeteria and Catering Management (FSM 221)	1.4	Very Good	5
Quality Cookery	1.4	Very Good	5
Bar Tending and Bar Set-uP (FSM 223)	1.4	Very Good	5
Banquet and Menu Planning (FSM 311)	1.4	Very Good	5
Food Selection and Preparation (FSM 112)	1.5	Very Good	8.5
Advanced Baking (FSM 211)	1.5	Very Good	8.5
International Cuisine (FSM 212)	1.6	Very Good	11.5
Hot and Cold Kitchen Cook (FSM 312)	1.6	Very Good	11.5
Food Beverage Control System (FSM 313)	1.6	Very Good	11.5
Food Processing, Packaging, and Labeling (FSM 121)	1.6	Very Good	11.5

Basic Baking (FSM 122)	1.75	Very Good	14.5
Food Service Bartending and Waitering (FSM 123)	1.75	Very Good	14.5
Meat Management (FSM 113)	1.9	Good	16
Occupational Health and Safety (FSM 111)	2.0	Good	17
General Average	**1.55**	**Very Good**	

Table 5 shows the academic performance of the BTTE graduates along their major field of specialization in Electronics. Data shows an overall mean score of 2.01 interpreted as Good. The result showed that students have an average academic performance in their electronics major. This implies that students are good in electronics subjects. Similarly, the study of Arsad, et. al. (2012) analyzed that students with a strong ability in engineering fundamentals contributed strongly in influencing the overall academic performance in Engineering. Also, based on the outcomes of his study, the strategic interventions of the lecturers should be implemented during their study period to improve their final performance. In hindsight of this, the students with a good foundation and support have an advantage of learning the major subjects and this helps predict the rating of the students in their future board examination.

Table 5. Major Subjects (Electronics)

Subjects	Average Grades	Remarks	Rank
Industry Immersion 2 (IIM 2)	1.5	Very Good	1
Industry Immersion 1 (IMM 1)	1.6	Very Good	2
Instrumentation and Process Control (ELX 222)	1.7	Very Good	3
Instrumentation Trouble Shooting (ELX 311)	1.75	Very Good	4
Industrial Automation and Control (ELX 312)	1.8	Good	5
Antenna Fundamental (ELX 121)	2.0	Good	6
Electronics Laws and Ethics (ELX 223)	2.1	Good	7
Occupational Health and Safety (ELX 111)	2.2	Good	8.5
Digital Electronics (ELX 113)	2.2	Good	8.5
Cellular Phone repair and Maintenance (ELX 212)	2.2	Good	10
Audio System Repair and Maintenance (ELX 211)	2.24	Good	11
Basic Electronics (ELX 112)	2.3	Good	13
Basic Tools and Test Equipment (ELX 114)	2.3	Good	13
Video System Repair and	2.3		

Maintenance (ELX 221)		Good	13
General Average	**2.01**	**Good**	

Level of Performance in the Licensure Examination for Teachers.

Table 6 shows the results of 85 respondents along with the General Education Curriculum. This subject comprises 20% of the overall rating of the Licensure Examination for Teachers. With this, it is can be seen from the result that 21 out of 85 or 24.7 percent of the respondents obtained 88-90 with very good remarks as scores in the licensure examination while 20 or 23.54 percent got 85-87 with good remarks; 15 or 17.65 percent of them obtained 91-93 with very good remarks and 82-84 with good remarks while 6 or 7.06 percent got 94-96 with excellent remarks in the licensure examination; 5 or 5.88 percent got 76-78 with fair remarks while only 3 obtained 79-81 scores with fair remarks in the licensure examination.

The respondents' performances in the licensure examination concerning General Education courses are very good and this implies a good foundation for the subject in classroom teaching. A curriculum with a good general education foundation develops students to have a good perception of the surroundings and to have developed their critical thinking approach that is significant in their future careers. (Vander Schee, 2011) This has been exemplified in the students because they can perform well in their General Education subjects.

Table 6. LET Results in General Education Curriculum

Scores	Frequency	Percentage	Remarks
94-96	6	7.06	Excellent
91-93	15	17.65	Very Good
88-90	21	24.7	Very Good
85-87	20	23.54	Good
82-84	15	17.64	Good
79-81	3	3.53	Fair
76-78	5	5.88	Fair

Table 7 shows the results of the graduates along with their LET rating in professional education subjects. It can be seen from the table that 30 out of 85 or 35.29 percent of the respondents obtained 76-78 with fair remarks as scores in the licensure examination while 19 or 22.35 percent got 79-81 with fair remarks; 12 or 14.11 percent obtained 82-84 with good remarks as scores in the licensure examination while 9 got 70-72 with passing remarks; 8 or 9.41 percent got 69 and below with failing remarks while 6 or 7.06 percent got 73-75 with passing remarks as scores; only 1 or 1.18 percent of them obtained 85-87 with good remarks as score in the licensure examination.

The result shows that there is a greater majority of the respondents performed fairly in the licensure examination concerning Professional Education courses. This implies the level of students' comprehension of the Professional Education subjects needs evaluation to check on the factors that might have affected their performance in this subject. Furthermore, the need for policy improvements quality check on the delivery has to be observed to increase the level of students' performance in this aspect. The Professional Education subjects are designed to equip

the students in their pedagogic skills as well as their curriculum understanding. (Darling-Hammond, Hyler, & Gardner, 2017) Having said this, fair performance of the students the Professional Education should be addressed.

Table 7. LET Results in Professional Education

Scores	Frequency	Percentage	Remarks
85-87	1	1.19	Good
82-84	12	14.11	Good
79-81	19	22.35	Fair
76-78	30	35.29	Fair
73-75	6	7.06	Passing
70-72	9	10.59	Passing
69 BELOW	8	9.41	Failed

Table 8 shows the LET ratings among the respondents as to their major subjects. It can be observed that 22 out of 85 or 25.88 percent obtained 76-78 with fair remarks and 69 below with failing remarks as scores in the licensure examination while 19 or 22.34 percent of them got 73-75 with passing remarks as scores; 16 or 18.83 percent obtained 70-72 with passing remarks while 5 or 5.88 percent got 79-81 with fair remarks as scores; only 1 or 1.18 percent obtained 82-84 with good remarks in the licensure examination.

The results showed that the greater majority of the respondents garnered passing to failing **remarks** in the licensure examination concerning major courses. The result may also imply the need for the BTEE curriculum to be re-assessed and re-evaluated to further improve the performance of the students in the board examination. Since the students are mostly at the borderline of the passing grade, a need for restructuring should be done from the classes, delivery, environment, and policies because the performance of the students in their academic, pre-board, and assessments can be a significant indicator in predicting the outcome of their examination. Nevertheless, the environment that should be set to the students should be improved since it also affects their learning and further empathy of students should be done to know the issues and concerns from the grassroots to the top. (Junio-Pachejo & Allaga, 2013; Ong, 2012; Terano, 2018; Quiambao, Baking, Buenviaje, Nuqui, & Cruz, 2015; Guzman, 2020) These should be done so that the institution would produce students with better performance in the future licensure examination. The predictor's study should also conduct a further study that allows re-discovery of the models that would be more significant in the institutional development.

Table 8. LET Result in Major subjects

Scores	Frequency	Percentage	Remarks
82-84	1	1.19	Good
79-81	5	5.88	Fair
76-78	22	25.88	Fair
73-75	19	22.34	Passing
70-72	16	18.83	Passing

69 BELOW	22	25.88	Failed

Table 9 shows the overall rating of the respondents. It can be gleaned from the table that 26 out of 85 or 30.51 percent of the respondents obtained overall LET results of 76-78 with fair remarks while 24 or 28.23 percent of them got 79-81 with fair remarks; 15 or 17.8 percent of them got 70-72 with failing remarks as LET scores while 10 or 11.7 percent got 75 with passing remarks; 5 or 5.88 percent obtained 82-84 with good remarks and 69 and below with failing remarks.

The respondents performed fairly in the licensure examination in general. This implies that the institution should conduct pieces of training for teachers and academic activities for the students to ensure a higher result in the future LET performance. There are also studies that the institution with board examination courses should be strict in ensuring the academic performance of the students in all their subjects because these have a significant correlation to the student's performance in the board examination. Highness and lowness of the students' performance in their general, major, and professional subjects may indicate an impact on the students' LET scores. This allows the understanding of the overall result of the BTTE students in CSPC. This further reveals that the academic heads should create programs and policies that will support and enhance the service for the students' preparedness in the board examination. (Hena, Ballado, Dalucapas, Ubane, & Basierto, 2014; Rabanal, 2016; De Leon, 2016)

Table 9. LET Over All Results

Scores	Frequency	Percentage	Remarks
82-84	5	5.88	Good
79-81	24	28.23	Fair
76-78	26	30.51	Fair
75	10	11.70	Passing
70-72	15	17.80	Failed
69 BELOW	5	5.88	Failed

Relationship between College Admission Result and Academic Performance.

This discussion is the result of the statistical treatment on the relationship between the Admission Result to the academic performance of BTTE graduates.

Table 10. Relationship between College Admission Result and Academic Performance

College Admission Results versus Academic Achievement	Correlation Coefficients	Interpretation
General Education	0.101546	A week uphill (positive) linear relationship
Professional Education	-0.00097	A week downhill (negative) linear relationship

Major	0.138385	A week uphill (positive) linear relationship

It can be gleaned from the table that there is a very little positive linear relationship between College Admission test scores and their academic achievement in General Education and Major courses. This implies that an increase or decrease in college admission test scores corresponds to an increase or decrease in the academic achievement of the respondents. Meanwhile, the researcher found out that college admission test scores and academic achievement in Professional Education courses registered a very little negative linear relationship indicating an inverse proportion between the variables related. Furthermore, since there exists a very little positive and negative linear relationship between variables, multicollinearity does not exist.

Relationship between Academic Performance and LET Performance

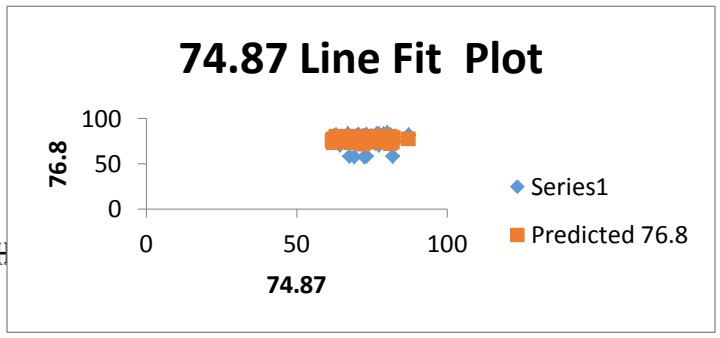
This data discussed the result of the statistical treatment on the relationship between academic performance and LET Performance.

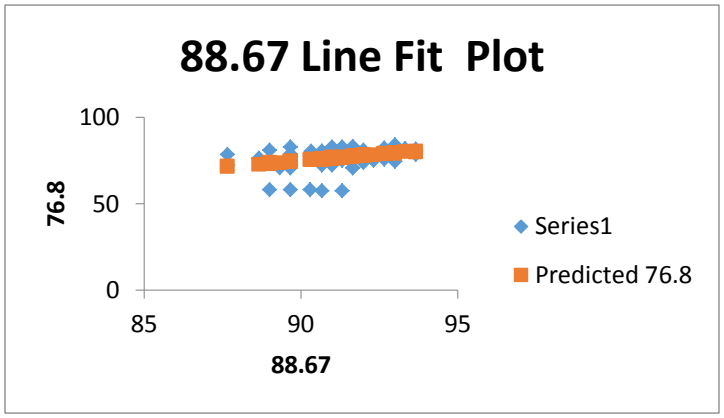
Table 11. Relationship between Academic Achievement and LET Performance

Academic Achievement versus LET Performance	Correlation Coefficients	Interpretation
General Education	0.083115	A week uphill (positive) linear relationship
Professional Education	-0.00441	A week downhill (negative) linear relationship
Major	0.242165	A week uphill (positive) linear relationship

It can be noted from the table that there is a very little positive linear relationship between Academic Achievement and Licensure Performances in General Education and Major courses. This implies that an increase or decrease in college admission test scores corresponds to an increase or decrease in the academic achievement of the respondents. Meanwhile, the researcher found out that Academic Achievement and Licensure Performances in Professional Education courses registered a very little negative linear relationship indicating an inverse proportion between the variables related.

Furthermore, since there exists a very little positive and negative linear relationship between variables, multicollinearity does not exist. Results and data interpretation in Table 10 and Table 11 can be best explained by the Line Fit Plot below:





The scatterplot diagrams both show that the line of best fit is a straight line representing the best approximation of a scatter plot of data points. Hence, multicollinearity does not exist between the variables related.

Proposed Regression Model

The standard Linear Regression Model was utilized in this study. The dependent variable is the licensure examination performance. The independent variables were the college entrance result and the academic performance in the areas of general education subjects, professional education, and the major subjects. Table 12 presents show the output of the regression analysis using the software Minitab.

Table 12. Regression Analysis

Term	Coefficient	Standard Error	t-value	p-value
Constant /Intercept	-58.59157806	41.80706894	-1.401475385	0.164892073
College Admission (CA)	0.039046711	0.108277253	0.360617854	0.719323881
Academic Achievement (AA)	1.449139106	0.459810546	3.151600411	0.002276439

The regression model

Licensure Exam = -58.59157806 + 0.039046711 CA + 1.449139106 AA where CA is the College Admission Results and AA is the Academic Achievement. It can be gleaned that the p-value of 0.719323881 is greater than the 0.05 level of significance. Hence, the researcher failed to reject the null hypothesis. This means that the College Admission results are not a significant predictor of licensure examination performance. Meanwhile, the p-value of 0.002276439 is less than 0.05 level of significance. Therefore, the researcher rejected the null hypothesis which means that Academic Performance is a significant predictor of success in the licensure examination.

Meanwhile, the intercept or the constant term of -58.59157806 indicates the direction of the relationship between the independent variables (College Admission Test Scores and Academic Achievement) and the response or the dependent variable (LET Performance. The negative value of the constant terms implies that as the College Admission Test Scores and Academic Achievement increase, the mean value of the response variable, LET Performance, decreases.

Table 13. Summary Output of Regression Statistics

Regression Statistics	
Multiple R	0.338090598
R Square	0.114305253
Adjusted R Square	0.092436247
Standard Error	5.502022219
Observations	84

It can be noted from the table that the Multiple R-value refers to the multiple correlations between the predictor variables taken simultaneously and the licensure examination performance. While R^2 is the coefficient of determination that is the proportion of the variance in the dependent variable that is predictable from the independent variables. This indicates how much is being contributed by the predictor variables to the dependent variable. The adjusted R^2 value is still referred to as the coefficient of determination and is primarily used when a small sample is involved.

The multiple R-value of 0.338090598 indicates a significant large positive multiple correlations between the predictor variables taken simultaneously and the licensure examination performance. Meanwhile, the R^2 value of 0.114305253 indicates the 11.4305253 percent of the variation in the response variable, LET Performance is explained by College Admission and Academic Achievement in the Licensure Examination Performance holding the other variable constant. The greater the variation explained by the model, the closer the data points fall to the fitted regression line.

Table 14. One-Way Analysis of Variance Summary Table

	df	*SS*	*MS*	*F*	*Significance F*

Regression	2	316.4548951	158.2274476	5.226815165	0.007328326
Residual	81	2452.052129	30.2722485		
Total	83	2768.507024			

It can be gleaned from the table that the p-value of 0.007328326 is less than the 0.05 level of significance. The result suggests that there is a significant linear relationship between the regression model and the residuals of the data points used in regression analysis. This provides that the value predicted by the model and the difference between the actual observed value of the dependent variable and its predicted value by the regression model for each data point are significantly related at a 0.05 level of significance.

CONCLUSIONS

The study made use of a correlation method to determine the influence of the college entrance test and the academic performance of BTTE graduates in their Licensure Examination for Teachers (LET). Results revealed that the academic performance of the graduates serves as the predictor of licensure examination performance for teachers. This further implies that the institution should re-evaluate and re-assess the curriculum in BTTE to further understand the salient factors that affected the students' performance and the concerns that need to be addressed to improve the performance of the students in the licensure examination. Furthermore, formative assessments and curriculum delivery should be improved and be emphasized because it is the determining factor of the students' board examination results.

The proposed Linear Regression Model can be used by the department to predict the performance of graduates in taking the licensure examination for teachers. A review of the curriculum must also be conducted since the college is only offering two (2) major subjects wherein the scope of the examination for TLE major covers eight (8) areas in as much as the graduate in the college falls on TLE major in the examination. The department should develop a pre-board review and examination to ensure that graduates are also prepared in their LET. Continuous review of the curriculum is also recommended, conducting faculty enhancement through pieces of training and further studies should also be encouraged, and upgrading the pedagogical needs of the lecturers especially in the areas of professional and major subjects should be considered.

A follow-up study on pre-board examination can be taken into consideration as predictors in predicting the rating of the examination for teachers in CSPC if the college may consider conducting a pre-board review and examination. With the findings, conclusions, and recommendations of this study, the researcher believes that better performance in the LET examination can be achieved in the college.

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