

## FIVE-YEAR PERFORMANCE TRENDS IN LICENSURE EXAMINATION FOR TEACHERS ACROSS EDUCATION COURSES

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### Abstract

This study looks at how graduates of Mindanao State University at Naawan performed on the 2017–2022 Licensure Examination for Secondary Teachers (LET). In addition to college GPA, it evaluates results in General Education, Professional Education, and major subjects. The graduate education courses were English, Science, Mathematics, and Certified Professional Teachers (CPRT). According to the data, there are notable variations in LET performance among major courses. Graduates in mathematics performed the highest, followed by CPRT and English, while those in science received the lowest scores. LET performance and undergraduate GPA showed a significant moderate positive relationship using the Spearman correlation.

**Keywords:** LET Performance, Science Education, Mathematics Education, English Education, CPRT Non-Education, MSU at Naawan Graduates.

### INTRODUCTION

One of the goals of every higher learning institution is to have the best teachers who can provide quality education to its students. Students who receive quality education are believed to become successful individuals in their chosen fields. Furthermore, the quality of teaching is fundamental to improving student performance (Karsiwan et al., 2021).

As one of the sought-after professions in the Philippines, higher learning institutions offering teacher education programs aim to perform best in the Licensure Examination for Teachers (LET). Licensure Examination for Teachers (LET) examines prospective teachers' overall knowledge and proficiency to provide a reliable structure in which the practice of prospective teachers can be measured and proven, giving access to continuing growth and development. Accordingly, it presents a quality measure to determine the graduates who have the required minimum degree of competence to practice the teaching profession. Most professions conduct licensure examinations to screen qualified graduates into their respective fields. In the case of teacher education, it initially gauges competence in teaching (Acosta & Acosta, 2016).

Further, as cited by Hermosisima et al. (2003), one of the most commonly mentioned indicators of the quality of higher education programs in the country is the performance of the graduates

in the licensure examinations. The licensing process is one of the hurdles that teacher aspirants need to triumph before they become teacher professionals. The board is responsible for ensuring the quality and competence of the succeeding batch of teacher professionals and checks its professional and technical qualifications. This further secures the health, safety, and well-being of the general public by assessing the candidate's professional competence, thus assuring the public that the professional meets the standard skill to practice the profession.

Licensing is required to ensure that only qualified teachers can be hired. This builds anxiety among examinees and, more so far, schools that turn out prospective teachers with different majors. The National Examination for Teachers unconsciously stirs competition since it signifies possible employment, salary or appointment upgrading, ranking consideration, and acceptance to the halls of DECS. Passing the LET is the main requirement used by the Department of Education (DepEd) for all teacher education graduates to earn the title of professional teacher. With these realities, academic institutions developed robust curricula and enhancement programs to ensure compelling performance in the licensure examination for teachers – ultimately producing competent education professionals.

However, despite this effort to raise the standards of education by professionalizing teaching and subsequently conducting a licensure examination, Navarro (2003) expressed a lament that significant difficulties challenging tertiary education in the nation have constantly emerged with the mass graduation of unprepared college graduates who do not exhibit minimum competence to address the country's labor needs. This is manifested in the trends of the contemporary results of the national passing rates in the board examination for teachers.

Aside from the dismal national passing rate results, Cepeda (2017) reported the survey conducted by Philippine Business for Education. It revealed that around 50% of the teacher education institutions or schools that offer teacher education programs in the country performed inadequately in the licensure examinations from 2009 to 2017. The study showed that 497 out of 1,024 teacher education institutions with graduates who took the LET elementary level achieved ratings below the national passing rate.

It must be understood that more than immediate causes, the performance in any licensure examination depends on various factors related to previous student cognitive outcomes. As such, many studies have been conducted over the years to understand how these factors influence success in board examinations across different fields. Bayliss et al. (2017) stated that underlying performance factors in the board examination are essential. There is an array of reasons connected to performance in the licensure examination, one of which is the SAT score of the students.

Hence, during the licensure examination, this study examines the performance of MSUN graduates in English, Science, Mathematics, and Certificate of Professional Teachers Education. Enhancing the passing rate of its graduates in the Licensure Examination for Teachers (LET) remains a crucial priority for the College of Education. Specifically, the study aims to (1) assess the performance of MSU at Naawan graduates in the LET across Science, English, Mathematics, and Non-Education (CPRT) areas, examining general education,

professional education, major field, average LET scores over a five-year period (2017-2022); determine if there is a significant difference in the subject areas on LET performance across major courses and to infer if there is a significant relationship of LET Performance on the undergraduate grade point average (GPA) of the graduates.

## RESEARCH METHODOLOGY

The study examines MSU at Naawan graduates' performance on the Licensure Examination for Teachers (LET) covering five years from 2017 to 2022. Areas in Science, English, Mathematics, and the Certificate for Professional Teachers (CPRT)— including general education, professional education, major field, and average LET scores—were among the several aspects of LET performance examined.

The Professional Regulation Commission (PRC) office of Region X provided the data for this study, which included 713 LET takers in total, divided into four groups: CPRT (68), Science Education (291), Math Education (110), and English Education (244). One Way ANOVA was used to determine if the total population was more than sufficient to assess the power efficiency of type II and type I errors, which equaled 99% with a tiny effect size of less than 0.25 (Cohen, 1988).

The data were further analyzed by examining courses taken by the MSU at Naawan graduates and their performance in the LET and how these variables are connected and interrelated as seen by the arrowhead. Education courses taken by the graduates are English, Science, Mathematics, and CPRT were treated as the independent variable while the dependent variable is the LET performance. The model can be analyzed by the Kruskal - Wallis test and for the pairwise comparison by the Mann-Whitney test. This procedure is elaborated in the diagram below.

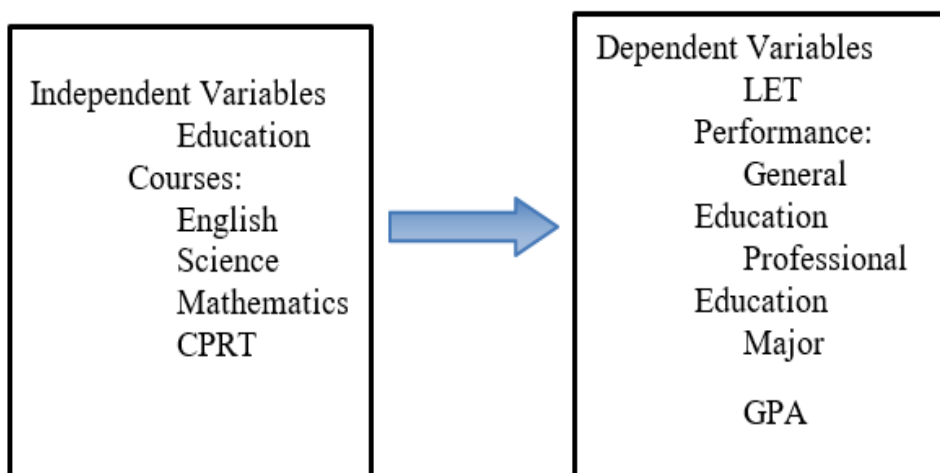


Figure 1: Education courses of the graduates and the LET Performance

## RESULTS AND DISCUSSIONS

The comprehensive statistical analysis of various subject areas in the Licensure Examination for Teachers (LET) across different education courses are presented in the table below. It includes descriptive statistics, including the number of participants, minimum scores, maximum scores, mean percentages, standard deviations, and coefficients of variation. The data cover major subject areas, general education, and professional education for courses in English, Science, Mathematics, and CPRT.

**Table 1: Descriptive statistics of subject areas in the LET across courses**

LET subject areas	Education Courses	N=713	Min	Max	Mean (%)	Sd	CV (100%)
Major	English	244	36	83	69.2541	8.94249	12.91
	Science	291	38	87	66.1718	10.70053	16.17
	Mathematics	110	41	92	75.3273	10.75679	14.28
	CPRT	68	44	87	72.8382	8.59297	11.8
	Overall		36	92	69.2749	10.4594	15.1
LET General Average	English	244	50.4	86.8	74.7869	6.43761	8.61
	Science	291	50.2	89	73.1292	6.72655	9.2
	Mathematics	110	52.2	87.8	76.6164	7.64684	9.98
	CPRT	68	58.6	87	76.5676	6.71906	8.78
	Overall		50.2	89	74.5624	6.90404	9.26
General Education	English	244	48	95	80.5943	7.06141	8.76
	Science	291	57	94	80.3505	5.87462	7.31
	Mathematics	110	48	94	79.6182	8.63743	10.85
	CPRT	68	53	95	80.4118	7.48378	9.31
	Overall		48	95	80.3268	6.91876	8.61
Professional Education	English	244	47	91	77.5123	6.75039	8.71
	Science	291	44	92	76.3265	7.32544	9.6
	Mathematics	110	54	91	76.4273	7.99823	10.47
	CPRT	68	42	93	78.4118	7.61231	9.71
	Overall		42	93	76.9467	7.29167	9.48

A 75% passing percentage is the standard for passing the licensing exam. A detailed examination of the findings (Table 1) shows that only the Mathematics Education course (75.3273%) exceeded this standard, with a coefficient of variation of 14.28% and a range of 41% to 92%. All other courses in the major area, on the other hand, failed to meet the 75% passing level. The four courses' combined mean score was 69.2749%, which is significantly below the 75% cutoff. Similarly, the Mathematics course (76.6164%) and CPRT course (76.5676%) surpassed the 75% threshold when assessing the LET general average, which corresponds to the mean of all means, whereas Science Education (73.1292%) and English Education (74.7869%) trailed behind. The average score for all courses, however, was 74.5624%, just 0.4376% higher than the 75% threshold. Additionally, in the general education domain, all courses obtained average scores surpassing the minimum passing threshold of 75%. Mathematics was the least performer among the courses, with a deviation from the others being minimal. Furthermore, within the realm of professional education, CPRT demonstrated

exceptional performance at 78.4118%, with English closely followed at 77.5123% and Mathematics at 76.4273%. Science slightly lagged at 76.3265%. The overall average score for this area was 76.9467%, exceeding the 75% standard in every case. Although the overall performance is mostly positive, the discrepancies in scores across different courses underscore potential areas that could be enhanced.

English Education and Science Education courses may gain from specific interventions or curriculum improvements to raise their average scores nearer to the passing threshold. Dagdag et al. (2017) showed that low LET performance is influenced by low performances in academics and admission tests, and limited course audit units taken. Therefore, to enhance LET performance, the program should look into benchmarking from LET-performing institutions, selecting the appropriate faculty to lead a course, ensuring the validity and reliability of instructional materials and assessment tools aligned with LET competencies, rigorously enforcing the admission and retention policy, and regularly evaluating the effectiveness of course audit across all domains.

In Table 2A, the focus is on the noteworthy variations in performance across different subjects in the Licensure Examination for Teachers (LET) among various courses. The test results feature the Kruskal-Wallis values, degrees of freedom, and p-values for each subject area. These subject areas encompass major subjects, general education, and professional education. This information is crucial for pinpointing areas where performance variations hold significance and statistical relevance.

**Table 2 A: Kruskal-Wallis Statistics of subject areas in the LET across courses**

LET subject areas	Education Courses	Kruskal-Wallis, df=3	p-value
Major	English	74.866	0.000*
	Science		
	Mathematics		
	CPRT		
LET General Average	English	33.285	0.000*
	Science		
	Mathematics		
	CPRT		
General Education	English	1.513	0.679
	Science		
	Mathematics		
	CPRT		
Professional Education	English	4.986	0.173
	Science		
	Mathematics		
	CPRT		

Table 2B analyzes the differences in performance between various education courses in the LET using Scheffe's test. It shows how Mathematics, English, Science, and CPRT compare against each other and stresses significant differences. These differences show how students in these courses perform across different subject areas and overall averages. Table 2B. Pairwise comparison LET major area and LET general average LET as dependent variables across

courses using Scheffe’s test

Education Courses	Mean Difference	P-value
<b>A. Major Field</b>		
Mathematics and English	6.07317	0.000*
English and Science	3.08228	0.006*
Mathematics and Science	9.15545	0.000*
CPRT and Science	6.66641	0.000*
<b>B. LET General Average</b>		
Mathematics and Science	3.48715	0.000*
CPRT and Science	3.43844	0.003*
English and Science	1.65768*	0.048*

The major area displayed remarkable variation according to the Kruskal-Wallis test, as outlined in Table 2A, with values of 74.866 and a p-value of 0.000, which is less than 0.05, observed across various courses. This finding is further supported by Scheffe’s pairwise comparison (Table 2B). Significant discrepancies were observed in the course pairings of Mathematics and English, English and Science, and Mathematics and Science. Mathematics showed a mean difference of more than 6.07317 compared to English, with mean differences of 3.08228 for English and Science, and 9.15545 for Mathematics and Science. Furthermore, the overall average of the LET showcased notable variations among courses, as highlighted by the Kruskal-Wallis statistic of 33.285. Mathematics education excelled Science education by a considerable margin of 3.48715 in the LET general average, a substantial difference considered significant. Comparably, CPRT education outperformed Science education by 3.43844 and English education slightly exceeded Science education by 1.65768, showing a statistically noticeable difference. The variation in performance among different education courses, as shown by the outcomes, can be traced back to a blend of factors. While the specific reasons may not be fully elucidated without further investigation, potential contributing factors could include variations in curriculum quality, teaching methodologies, and the inherent difficulty or nature of the subjects within each course. Table 3 shows the link between the LET General Average and undergraduate GPA from 2017 to 2022. It includes the correlation coefficient and p-value, showing the undergraduate GPAs are related to LET General Averages.

**Table 3: Spearman rho Correlation on LET General Average and Undergraduate GPA, 2017-2022.**

Variables	Spearman rho correlation	p-value	Interpretation at 0.05 level of significance
LET General Average and GPA	0.408	0.000*	Significant

The bivariate Spearman's rho correlation coefficient of the LET general average showed a positive and moderate relationship with the graduates' undergraduate GPA. This relationship was also statistically significant. This outcome aligns with the discovery of Pachejo and Allaga (2013), researchers from Rizal Technological University, Metro Manila, Philippines with a correlation value of 0.481, and the relationship is significant. This moderate strength implies that, although undergraduate GPA has a connection to licensure exam performance, it is not the

only or most powerful predictor. Other factors, in particular, were mentioned by Quimbao et.al (2015) their study, students' IQ, library facilities, and teachers' length of service were the predictors using the regression analysis. GPA, however, was found not to be a determining factor. However, the research carried out by Bellen et al (2018), the result contradicts this finding. As per reports, the college GPA of BSED respondents does not correlate with the LET General average. It is suggested that college training should be a top priority, aiming to improve the performance of teacher education graduates in the licensure examination.

## CONCLUSION

The findings of this study demonstrated the varying levels of performance of MSU at Naawan graduates in the Licensure Examination for Secondary Teacher (LET). Science Education is the weakest performing area compared to Mathematics, CPRT, and English Education. Improvements are needed in the Science curriculum and teaching method to enhance student performance in the field. Additionally, the results demonstrate that Mathematics, CPRT, and English Education courses have relatively stronger outcomes that their best practices could help improve Science Education. Based on the analysis of the LET results over five years, it is significant to review and enhance the performance of MSU at Naawan graduates. There should be a review and improvement of the curriculum, teaching methods, and resources available for major subjects, particularly for the CPRT, English, and Science courses. Development of the targeted support programs, such as tutoring, review sessions, and workshops, for students in courses that are underperforming should be realized. Further, regular assessments and feedback mechanisms to monitor students' progress throughout their course of study should be implemented. This will help identify areas of weakness early and allow for timely interventions. Additionally, successful strategies and practices that can be adapted and implemented in other subjects should be identified. Thus, consistent preparation and regular evaluation will ensure ongoing improvement and relevance in education programs at MSU at Naawan.

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