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DETERMINANTS OF SUCCESS IN THE ELECTRICAL ENGINEERING LICENSURE EXAMINATION: A DESCRIPTIVE-CORRELATIONAL STUDY IN THE PHILIPPINES

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ABSTRACT

This quantitative study investigated the determinants of success in the Registered Electrical Engineering Licensure Examination (REELE) in the Philippines. Using a descriptive-correlational survey design, stratified sampling was applied, and Slovin's formula determined a sample of 70 respondents with a 10% margin of error. The study explored the strategies and practices of successful examinees alongside their socio-demographic characteristics. Results revealed that while most passers were male, variations were observed in age, civil status, and academic distinctions. Pass rates steadily improved, with Cebu City and Manila identified as the most common testing venues. Most graduates are employed as electrical or project engineers, often outside their home regions, indicating geographic mobility. Financial assistance significantly influenced exam preparation, with disparities evident among students. Formal review programs emerged as the primary preparation method, whereas self-review was less common. Effective exam practices included problem-solving, note-taking, reading comprehension, and calculator proficiency, with strong emphasis on reviewing past board examination problems. Active learning strategies, such as peer teaching and mental imagery, were also widely adopted, while technology further supported exam readiness. Overall, the study underscores the combined importance of financial support, structured review programs, and active learning strategies in ensuring licensure examination success.



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I. INTRODUCTION

Electrical engineering is one of the leading fields in the engineering industry and plays a vital role in today's modernizing world. As of July 2024, the number of electrical practitioners in the Philippines has reached more than 69,000 [1]. The practice, registration, and licensing of electrical engineers are governed by Republic Act 7920, or the New Electrical Engineering Law [2]. Under this law, applicants must pass the Registered Electrical Engineer (REE) Licensure Examination, which covers Mathematics (25%), Engineering Sciences and Allied Subjects (30%), and Electrical Engineering Professional Subjects (45%) [3]. To qualify, examinees must obtain at least a 70% weighted average with no grade lower than 50% in any subject group. The examination is administered twice a year by the Professional Regulation Commission (PRC) through the Board of Electrical Engineering (BEE) [3].

The University of Eastern Philippines (UEP) is one of the state universities offering the Bachelor of Science in Electrical Engineering (BSEE). For over twenty-two years, the program has produced numerous REE and RME passers, including board placers. Based on PRC records, UEP produced 329 successful REE examinees between 2009 and 2019 [3]. Passing the licensure exam, however, requires rigorous preparation, and given the wide coverage of subjects, graduates must employ effective strategies to succeed. Several studies have emphasized the importance of preparation and strategies in passing professional licensure examinations. For example, a study [4] examined the strategies of Nursing Licensure Examination passers at Letran Calamba, while another [5] identified common

challenges faced by examinees such as difficulty comprehending exam questions, limited study time, review-work conflicts, family pressures, and financial constraints [3]. Most examinees were also found to be between the ages of 20 and 25. Attendance at review sessions has been shown to significantly increase the likelihood of passing, as noted in studies on criminology [6] and language preparation courses [7]. Similarly, [8] highlighted the positive impact of review classes, while [9] underscored the value of pre-board or mock exams and updated review resources. This study is significant for both electrical engineering graduates and the University of Eastern Philippines (UEP), particularly the Electrical Engineering Department.

For graduates, the findings highlight the determinants of success in the Registered Electrical Engineer (REE) Licensure Examination, offering evidence-based strategies to strengthen exam preparation and performance. At the institutional level, the results provide inputs for curriculum enhancement, program review, and the design of academic support initiatives aimed at improving licensure outcomes and sustaining the competitiveness of the BSEE program. Anchored on a descriptive-correlational approach, this study specifically sought to: (1) describe the profile of successful UEP electrical engineers in terms of personal and exam-related; (2) identify the study strategies and practices they employed, such as group study, note-taking, problem-solving, review of past exams, online tutorials, and various memorization techniques; and (3) determine whether there is a significant relationship between their strategies and personal or preparation-related profiles.

II. METHODOLOGY

II.1 PARTICIPANTS

The Bachelor of Science in Electrical Engineering (BSEE) is one of the flagship programs of the University of Eastern Philippines, recognized for producing board placers and numerous licensure examination passers. This study therefore examined the determinants of successful electrical engineers from the University of Eastern Philippines – Main Campus who passed the licensure examination between 2010 and 2019. To ensure representativeness, stratified sampling was employed by dividing the population into subgroups or strata based on the year of passing and then selecting samples from each stratum, consistent with standard sampling methodologies for heterogeneous populations. The sample size for each batch (N) was determined using Slovin's Formula, shown in (1), with a 10% margin of error (e), which has been widely applied in educational and social science research for determining representative sample sizes. This method ensured more accurate and reliable findings.

Slovin's Formula

$$n = \frac{N}{1 + Ne^2} \quad (1)$$

II.2 INSTRUMENTATION

This study employed a qualitative approach utilizing a descriptive-correlational research design, with a survey questionnaire serving as the primary data-gathering tool. Descriptive-correlational designs are widely used in educational and licensure performance research as they allow the analysis of relationships between variables without manipulating them [5], [9]. The questionnaire was developed by the researchers, subjected to content validation by a subject-matter expert from the university to ensure reliability and construct validity, and subsequently administered online through Google Forms, a platform increasingly adopted in academic and professional research for its accessibility and efficiency in data collection [10].

II.3 DATA COLLECTION AND ANALYSIS

This study was approved by the university through the Research, Development, and Extension (RDE) Office. Data collection was conducted using Google Forms, which were distributed to successful electrical engineers through their respective Facebook Messenger accounts. Responses were converted and tabulated in Microsoft Excel, then analyzed using frequency counts and percentages for descriptive statistics. To determine the extent of utilization of strategies and practices, weighted mean scores were computed and interpreted using a 5-point Likert scale, with results ranked from highest to lowest. To examine the relationship between respondents' profiles and their strategies and practices, Pearson's r correlation was employed, consistent with prior studies examining associations between demographic factors and licensure performance [11]. A correlation table generated through multiple regression analysis was used to test the statistical significance of the results, with the null hypothesis stating that no significant relationship exists between respondents' profiles and the strategies and practices they employed. All statistical analysis was performed using IBM SPSS Statistics, a widely recognized tool in educational and behavioral research.

III. RESULT AND DISCUSSION

III.1 PERSONAL PROFILE OF RESPONDENTS

Table 1 presents the sex distribution of the respondents. The data show that the majority of respondents (84.29%) are male, while only 15.71% are female, indicating that the sample population is predominantly male. This finding is consistent with the report of [12], which revealed that males, on average, express significantly more interest in engineering than females. Historically, the field of engineering has also been male-dominated, which further explains this result. The predominance of male respondents may also influence the types of strategies and practices observed in this study, as gender-related factors can shape approaches to exam preparation and academic performance. For instance, prior studies have shown that male and female students often differ in their preferred learning strategies, with males tending to rely more on problem-solving and task-oriented approaches, while females are more likely to use collaborative and reflective study techniques [13], [14].

Table 1: Sex of respondents.

Sex	Frequency	Percentage
Male	59	84.29%
Female	11	15.71%
Total	70	100%

Source: Authors, (2025).

Table 2 presents the age distribution of respondents at the time they passed the licensure examination. Most examinees succeeded at ages 21 (27.14%), 22 (25.71%), and 23 (25.71%), indicating that the majority passed between ages 21 and 23. This distribution aligns with the findings of [5], which reported that most board examinees fall within the age range of 20 to 25. The concentration of successful examinees within this age span may be due to their recent graduation status, which allows them to retain academic knowledge more effectively and remain motivated for career advancement. Younger examinees also typically face fewer personal and professional obligations, enabling them to devote more time and focus to licensure exam preparation. Prior studies further support this observation, showing that performance in professional licensure examinations tends to decline with increasing age [15], [16].

Table 2: Age at the time of passing the exam.

Age	Frequency	Percentage
21	19	27.14%
22	18	25.71%
23	18	25.71%
24	6	8.57%
20	5	7.14%
25	1	1.43%
26	1	1.43%
27	1	1.43%
28	1	1.43%
Total	70	100%

Source: Authors, (2025).

Table 3 presents the civil status of the respondents at the time they took the licensure examination. The results show that all respondents (100.00%) were single, indicating that the entire sample population was unmarried during their examination period. This finding aligns with the observation in [17], where only about 7% of undergraduate students were married. The predominance of single respondents may partly reflect that having fewer familial responsibilities allows examinees to allocate more time and cognitive resources toward preparing for the licensure examination. Supporting empirical evidence shows that marriage and parenting responsibilities can negatively impact academic performance. For example, a study involving Nigerian medical undergraduates found that married students—especially those with children—had significantly more exam retakes than their single counterparts, suggesting that family obligations can impede academic success [18].

Table 3: Civil status when they passed the exam.

Civil Status	Frequency	Percentage
Single	70	100.00%
Married	0	0.00%
Total	70	100%

Source: Authors, (2025).

Table 4 presents the academic distinctions of the respondents at the time of their college graduation. The results show that most of the respondents (64.29%) graduated without honors, awards, or distinctions. This indicates that the majority of successful electrical engineers did not receive any formal academic recognition during their undergraduate studies. This finding contrasts with the study of [19], which identified academic performance as a predictor of licensure examination success. However, this may be explained by the fact that only a relatively small proportion of students in this program historically graduate with honors or distinctions, thereby limiting their representation in the sample. Moreover, this result implies that licensure examination success may rely more heavily on effective preparation strategies and exam-focused practices rather than solely on academic honors. Studies in other professional fields have similarly emphasized that board exam performance is influenced by targeted preparation and review habits, not only by prior academic standing [10].

Table 4: Academic distinctions when they graduated in college.

Distinctions	Frequency	Percentage
Without Honor and Award	45	64.29%
With Honors Only	11	15.71%
With Awards Only	11	15.71%
With Honors and Awards	3	4.29%
Total	70	100%

Source: Authors, (2025).

Table 5 presents the distribution of respondents by year of college graduation. Smaller proportions graduated in 2010, 2011, and 2019 (each 5.71%), while 10.00% graduated in both 2012 and 2014. Graduates from 2013 and 2016 accounted for 7.14% and 4.29%, respectively. Larger proportions were noted for graduates from 2015 (14.29%), 2017 (21.43%), and 2018 (15.71%). These varying figures indicate peaks in graduation in 2017 and 2018, which may reflect rising retention rates or enrollment during those years. This trend mirrors findings from a Philippine study, where only 61% of engineering students who entered the University of the Philippines Diliman via the UPCAT from 2010 to 2014 ultimately graduated, highlighting challenges in persistence and degree completion among engineering undergraduates [11].

Table 5: Year of graduation in college.

Year	Frequency	Percentage
2017	15	21.43%
2018	11	15.71%
2015	10	14.29%
2012	7	10.00%
2014	7	10.00%
2013	5	7.14%
2010	4	5.71%
2011	4	5.71%
2019	4	5.71%
2016	3	4.29%
Total	70	100%

Source: Authors, (2025).

Table 6 presents the distribution of respondents by the year they passed the licensure examination. Smaller proportions passed in 2010 (5.71%) and 2011 (2.86%), while 8.57% succeeded in 2012, 2015, and 2019. A slightly higher rate was observed in 2016 (11.43%), with more substantial increases in 2017 (15.71%) and 2018 (18.57%)—the latter showing the highest percentage of successful examinees. This upward trend from 2016 to 2018 may suggest improvements in exam preparation strategies, review resources, or institutional support during those years. Notably, variability in pass rates over time is common: a study analyzing licensure performance among Philippine State Universities and Colleges (SUCs) found that institutional factors such as faculty Ph.D. ratios, government budget allocations, and program accreditation statuses significantly influenced licensure passing rates, explaining nearly 46% of the year-to-year variability [20].

Table 6: Year of passing the exam.

Year	Frequency	Percentage
2018	13	18.57%
2017	11	15.71%
2016	8	11.43%
2013	7	10.00%
2014	7	10.00%
2012	6	8.57%
2015	6	8.57%
2019	6	8.57%
2010	4	5.71%
2011	2	2.86%
Total	70	100%

Source: Authors, (2025).

Table 7 presents the distribution of respondents by their chosen examination venue. While the Professional Regulation Commission (PRC) conducts the electrical engineering licensure examination at various testing centers nationwide—including NCR, Baguio, Butuan, Cagayan de Oro, Calapan, Cebu, Davao, Iloilo, Koronadal, Legazpi, Lucena, Pagadian, Palawan, Pampanga, Rosales, Tacloban, Tuguegarao, and Zamboanga—respondents in this study reported taking the exam in only four locations: Cebu City, Manila, Legazpi City, and Tacloban City. The survey indicates that the majority preferred Cebu City (61.43%), followed by Manila (32.86%), with smaller proportions in Legazpi and Tacloban City. This suggests that successful examinees tended to select examination venues in Cebu City and Manila, possibly due to convenience, availability of resources, or perceived advantages in these locations. Research has shown that factors such as test anxiety, pressure, overconfidence, insufficient educational foundation, financial burdens, personal responsibilities, and difficulties in managing time can hinder success in licensure examinations. Addressing these issues through targeted interventions may enhance performance outcomes [21].

Table 7: Place of examination.

Place	Frequency	Percentage
Cebu City	43	61.43%
Manila	23	32.86%
Legaspi City	3	4.29%
Tacloban City	1	1.43%
Total	70	100%

Source: Authors, (2025).

Table 8 shows that a significant majority (91.43%) of respondents passed the electrical engineering licensure examination on their first attempt. A smaller proportion attempted the exam twice (5.71%), while only 2.86% took it three times. The high first-attempt success rate suggests that effective preparation strategies and a strong educational foundation are crucial for licensure exam success. Conversely, the relatively small number of repeat examinees underscores the importance of providing support systems—such as review centers, mentorship programs, or counseling services—to assist candidates who may require additional guidance. Research indicates that factors such as age, academic performance, and clinical internship hours can significantly influence first-attempt success rates in licensure examinations [22].

Table 8: Number of exam attempts.

Number of attempts	Frequency	Percentage
Once	64	91.43%
Twice	4	5.71%
Thrice	2	2.86%
Total	70	100%

Source: Authors, (2025).

Table 9 presents the respondents' length of study in college. The majority of respondents (75.71%) completed the program within the regular five-year period, while 20.00% graduated in six years and 4.29% in seven years. This indicates that most successful electrical engineers completed the program on schedule. This finding aligns with the study in [19], which identified academic performance, including timely program completion, as a predictor of licensure examination success.

Table 9: Length of study in college.

No. of years	Frequency	Percentage
5	53	75.71%
6	14	20.00%
7	3	4.29%
Total	70	100%

Source: Authors, (2025).

Table 10 presents the current occupations of the respondents, showing the frequency and percentage distribution across various fields. The most common roles are "Electrical Engineer" (17.14%) and "Project Engineer" (14.29%), followed by "Power System Engineer" (12.86%). The respondents also represent a wide range of engineering disciplines, including design, academe, fire protection, control systems, marine, telecommunication, and systems engineering. Non-engineering fields, such as business and military, are also represented, though in smaller proportions. While the top three roles account for higher percentages, the relatively balanced distribution across other fields suggests a diverse group of respondents in terms of career paths. Research indicates that career diversity among engineers can enhance problem-solving capabilities and innovation by integrating varied perspectives and expertise. This diversity may also reflect the adaptability and broad applicability of engineering education in the licensure examination context [23].

Table 10: Present work.

Work	Frequency	Percentage
Electrical engineer	12	17.14%
Project engineer	10	14.29%
Power system engineer	9	12.86%
Design engineer	6	8.57%
Academician	6	8.57%
Fire protection engineer	6	8.57%
Controls engineer	5	7.14%
Marine related	5	7.14%
Telecommunication engineer	2	2.86%
Electrician	2	2.86%
Business related	2	2.86%
Test engineer	2	2.86%
System related	2	2.86%
Military related field	1	1.43%
Total	70	100%

Source: Authors, (2025).

Table 11 presents the respondents' workplace locations. The majority of respondents reported working "outside the region but within the Philippines," while the smallest proportion indicated employment "outside the country." This suggests that more professional opportunities are available within other regions of the Philippines compared to international placements. The distribution also reflects regional mobility among electrical engineering graduates, indicating that many professionals seek career advancement beyond their home region while remaining in the country. Research indicates that regional mobility among Filipino engineering professionals is influenced by factors such as career advancement opportunities, access to specialized industries, and the availability of professional development programs [24]. Another research indicates that Filipino professionals, including engineers, are well-positioned to compete in the

Association of Southeast Asian Nations (ASEAN) labor market [25]. These factors contribute to the concentration of engineering professionals in certain regions, highlighting the importance of regional development policies in addressing disparities in employment opportunities across the country.

Table 11: Workplace location.

Location	Frequency	Percentage
Outside the Region but in the Philippines	36	51.43%
Inside the Province	22	31.43%
Outside the Province but in the Region	7	10.00%
Outside the country	5	7.14%
Total	70	100%

Source: Authors, (2025).

III.2 EXAM-RELATED PROFILE

Table 12 presents the breakdown of the nature and location of review activities. Formal reviews emerged as the dominant method, accounting for 95.72% of all review types, whereas self-reviews comprised only 4.29%. Among the formal reviews, Cebu City stood out as the most common venue, with 43 respondents (61.43%) conducting their preparatory sessions there. Self-reviews, in contrast, were less frequent and occurred in diverse locations grouped as "Various." This distribution suggests that successful examinees predominantly rely on structured, institution-based review programs—especially those offered in Cebu City—while self-directed preparation is considerably less common. Supporting this, a study found that students who attended structured review classes significantly improved their qualifying exam scores compared to their pretest performance, demonstrating the efficacy of formal review programs in boosting exam readiness [26].

Table 12: Nature and location of review.

Review type	Location	Frequency	Percentage
Formal Review	Cebu City	43	61.43%
Formal Review	Manila	24	34.29%
Self-Review	Various	3	4.29%
Total		70	100%

Source: Authors, (2025).

Table 13 presents the distribution of financial assistance received by respondents during their board exam preparation. A large portion (42.86%) reported receiving ₱15,001 to ₱35,000 in support, while 37.14% received more than ₱35,000, indicating that many benefitted from substantial financial aid. In contrast, 20% reported receiving limited assistance, ranging from less than ₱5,000 to ₱15,000. These results underscore the critical role of financial support in enabling adequate preparation for the licensure exam. Disparities in financial resources may directly affect examinees' access to review programs, study materials, and other support systems essential for exam success. Prior studies also emphasize that socioeconomic status and financial capacity significantly influence academic and professional examination performance, as students from lower-income households often face disadvantages in securing sufficient preparation opportunities [15].

Table 13: Total financial assistance.

Amount	Frequency	Percentage
P45,001 – P55,000	15	21.43%
P15,001 – P25,000	15	21.43%
P25,001 – P35,000	14	20.00%
P45,001 – P55,000	13	18.57%
Above P55,000	9	12.86%
P35,001 – P45,000	8	11.43%
Below P5,000	5	7.14%
Total	70	100%

Source: Authors, (2025).

Table 14 presents the employment status of respondents during their board review. The results indicate that a majority (94.29%) of the examinees were not employed while preparing for the exam, whereas only 5.71% reported being employed during this period. These findings suggest that most respondents prioritized devoting their full time and attention to review activities, often postponing employment until after obtaining licensure. Prior research supports this, highlighting that full-time review without work-related distractions enhances preparedness and increases the likelihood of success in licensure examinations [27].

Table 14: Employment status during review.

Status	Frequency	Percentage
No Work/Job	66	94.29%
With Work/Job	4	5.71%
Total	70	100%

Source: Authors, (2025).

III.3 UTILIZATION OF STUDY TECHNIQUES AND PRACTICES

Table 15 provides insight into the frequency and utilization of various study techniques as reported by successful electrical engineers. The techniques are categorized based on the average mean of the respondents' frequency and intensity of practice, and then ranked from highest to lowest. "Problem-Solving" emerged as the most effective technique, suggesting that actively applying knowledge is crucial for learning and retention. This finding is consistent with previous studies showing that problem-solving strategies significantly increase student achievement and knowledge acquisition [28], [29], [30], and remain essential in shaping future engineers and technologies [28], [31], [27], [32], [33]. Both "note-taking and reading" were perceived as equally effective, ranking second. This highlights the importance of integrating passive and active learning strategies. Prior studies support this result, indicating that note-taking enhances reading comprehension [34], [35], while pre-reading strategies improve exam performance [36], [37].

"Calculator techniques" ranked third, demonstrating the importance of familiarity with calculator operations for exam success, particularly in computation-heavy subjects. This aligns with findings that calculator use improves students' mathematical performance [38]. "Familiarizing with past board exam problems" ranked fourth, underscoring the value of practicing with real-world examples. "Group studies" were ranked fifth, suggesting that while collaboration can be beneficial, many examinees prefer individual study methods. This is consistent with previous research [4], which found that group studies were often perceived as less effective compared to books and other references. "Watching online video tutorials" was rated the least effective technique, possibly due to its more passive learning nature. In addition, Table 15 presents the ranking of various memory and learning techniques based on perceived effectiveness, rated on a scale where higher scores indicated greater usefulness. "Focus to Remember" ranked first, suggesting that actively concentrating on material enhances retention. "Keyword Method and Mental Imagery" followed, demonstrating the effectiveness of associating new information with existing knowledge or creating vivid mental pictures.

This is supported by prior research showing that the keyword technique enhances students' ability to store and retrieve information [39]. "Teaching Others" ranked fourth, underscoring the benefits of explaining concepts to others as a way to reinforce understanding and retention. Prior research confirms that teaching is a powerful strategy for deep learning and long-term knowledge retention [40]. "Mnemonics" and "Chunking" (breaking information into smaller, more manageable units) followed in fifth and sixth place, respectively, highlighting their effectiveness in simplifying complex material [41], [42]. "Memorable Visual Images" and "Utilizing Technology" ranked seventh and eighth, demonstrating the value of visual aids and digital tools in enhancing memory [43], [44]. The "Memory Palace Technique" was ranked ninth, suggesting its usefulness for organizing and recalling large amounts of information [45]. Lastly, "Connecting to Emotions" and "Songs and Jingles" were placed tenth and eleventh, respectively, emphasizing that emotional and musical associations, while less frequently used, can still contribute to improved memory retention [46], [47].

Table 15: Utilization of Study Techniques.

Study Techniques	Mean	Rank
Problem Solving	4.76	1
Note Taking	4.49	2
Reading	4.49	2
Calculator Techniques	4.41	3
Familiarization of past board exam problems	4.36	4
Group Studies	3.64	5
Watching Online Video Tutorials	3.0	6
Memorization techniques		
Focus to Remember	4.34	1
Keyword Method	4.24	2
Mental Imagery	4.09	3
Teaching others	4.04	4
Mnemonics	3.89	5
Chunking Words and Activities	3.87	6
Memorable Visual Images	3.79	7
Utilizing Technology	3.67	8
Memory Palace Technique	3.57	9
Connecting to Emotions	3.4	10
Songs and Jingles	3.03	11

Source: Authors, (2025).

III.4 SIGNIFICANT RELATIONSHIP BETWEEN THE PROFILE AND THEIR STRATEGIES AND PRACTICES

Table 16 shows the correlation summary of the significant relationships between the utilization of study techniques and the profile of the respondents. Findings revealed that sex, academic distinctions, and number of exam attempts have a significant relationship with the study techniques of successful electrical engineers of the University of Eastern Philippines, as indicated by their respective p-values of 0.046, 0.038, 0.022, and 0.049, all of which are below the 0.05 level of significance. This implies that these variables were significant factors influencing the strategies and practices of the respondents during their preparation.

Consequently, the null hypothesis—that the profile of the respondents has no significant relationship to their study techniques—was rejected. A significant positive correlation was observed between sex and the utilization of study techniques, suggesting possible gender differences in preferred learning approaches, consistent with studies showing that men and women may adopt different strategies in engineering and professional contexts [12], [13], [14]. Conversely, age exhibited a non-significant correlation with study techniques, implying that age does not strongly influence study method selection [11]. Academic distinctions, however, showed a significant positive

relationship with the use of study strategies, indicating that students with strong academic achievements tend to employ more effective methods, a finding aligned with prior research linking academic performance to learning approaches [20], [21]. Other variables—such as year of graduation, year of passing the exam, place of examination, length of study in college, present work, workplace location, nature of review and location, total financial assistance, and employment status during review—demonstrated non-significant correlations. These results suggest that such factors exert little to no influence on examinees' choice of study techniques, echoing prior findings that success in licensure examinations is less dependent on external circumstances and more on effective strategies and preparation [26] [30].

Table 16: Summary result of the correlation between respondent's profile and utilization of study techniques.

Profile	Pearson correlation	p-value (2-tailed)	Interpretation
Sex	0.090	0.046	Significant
Age	-0.060	0.051	Not Significant
Academic distinctions	0.034	0.038	Significant
Year of graduation	0.106	0.382	Not Significant
Year of passing the exam	0.078	0.052	Not Significant
Place of examination	-0.145	0.231	Not Significant
Number of exam attempts	-0.147	0.022	Significant
Length of study in college	0.165	0.172	Not Significant
Present work	-0.161	0.183	Not Significant
Workplace location	0.110	0.364	Not Significant
Nature of review and location	-0.075	0.536	Not Significant
Total financial assistance	-.006	0.961	Not Significant
Employment status during review	0.126	0.296	Not Significant

Source: Authors, (2025).

IV. CONCLUSIONS

This descriptive-correlational study concludes that the determinants of success in the Electrical Engineering Licensure Examination among graduates of the University of Eastern Philippines – Main Campus extend beyond demographic and academic characteristics. While most passers were male, aged 21–23, and single at the time of examination, their achievement underscores that consistent preparation, structured review, and effective study practices are more critical than honors or distinctions. Passing the exam on the first attempt was strongly linked to participation in formal review programs, particularly those offered in Cebu City and Manila, which serve as major hubs of licensure preparation. Board examination review was treated as a dedicated stage in professional advancement, with many examinees prioritizing preparation over employment. Core practices such as problem-solving, note-taking, reading comprehension, calculator proficiency, and repeated exposure to past exam problems proved highly effective. Active learning strategies—including peer teaching, mental imagery, and keyword techniques—further enhanced retention, while digital resources supported modern study approaches. Overall, the findings affirm that licensure success is not determined by demographics alone but by a combination of financial support, structured review opportunities, and adaptive learning strategies. These determinants provide valuable insights for aspiring electrical engineers and for institutions seeking to improve licensure performance and graduate competitiveness.

V. AUTHOR'S CONTRIBUTION

Conceptualization: Bless Ampuan.

Methodology: Bless Ampuan.

Investigation: Bless Ampuan and Lonel Morado.

Discussion of results: Bless Ampuan, Mechille Fabiala, Lonel Morado and Kenneth Bryan Abaigar.

Writing – Original Draft: Bless Ampuan.

Writing – Review and Editing: Bless Ampuan and Lonel Morado.

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Approval of the final text: All authors.

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