

# Performance in the Licensure Examination for Teachers (LET) for Bachelor of Technical-Vocational Teacher Education (BTVTEd): A Proposed LEPT Strategic Review and Coaching Program

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Publication history: Received: April 25, 2026; Revised: May 5, 2026; Accepted: May 15, 2026

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## Abstract

This study examined the predictors of Licensure Examination for Teachers (LET) performance among Bachelor of Technical-Vocational Teacher Education (BTVTEd) graduates of Isabela State University as basis for a proposed LEPT Strategic Review and Coaching Program. Anchored on an Independent Variable–Dependent Variable framework, the study considered demographic attributes, educational background, and academic and support services as predictor variables, while LET performance in General Education, Professional Education, Field of Specialization, and Overall Rating served as outcome variables. The study employed a descriptive-correlational design with quantitative and qualitative components. Using purposive sampling, 150 BTVTEd graduates from ISU Angadanan, ISU Ilagan, and ISU San Mateo were surveyed through a structured questionnaire, with qualitative insights gathered from open-ended responses. Findings showed that graduates generally had good academic performance and rated the university's curriculum, instruction, faculty performance, library, laboratory, and guidance services as excellent. However, LET performance was only fair in General Education and below fair in Professional Education, Field of Specialization, and Overall Rating. Significant differences were observed in selected demographic and educational variables, while most predictor variables were not significantly related to overall LET performance. Regression results identified academic experience as a predictor of Professional Education performance, parents' monthly income as a predictor of Field of Specialization performance, and campus attended as a predictor of Overall LET Rating. Top-performing graduates attributed their success to review center enrollment, self-directed study, online resources, and institutional review sessions, while broad specialization coverage, time pressure, and anxiety emerged as major challenges. The study recommends a structured, competency-based, and equity-oriented LEPT Strategic Review and Coaching Program. The study supports SDG 4, SDG 8, SDG 10, and SDG 17 by promoting quality teacher education, employability, equitable academic support, and institutional collaboration. Its sustainability impact lies in strengthening educational quality, institutional accountability, and technical-vocational teacher preparation.

**Keywords:** Academic Support Services, BTVTEd Graduates, Field of Specialization, LEPT Strategic Review and Coaching Program, LET Performance, Predictors of Performance, Technical-Vocational Teacher Education, Teacher Licensure

## 1. Introduction

The Licensure Examination for Teachers (LET) is a major benchmark of readiness for professional teaching practice in the Philippines. For Bachelor of Technical-Vocational Teacher Education (BTVTEd) graduates, LET performance reflects not only pedagogical preparation but also mastery of technical-vocational specialization areas. At Isabela State University (ISU), the BTVTEd program was developed to prepare competent teachers for technical-vocational education yet LET results across campuses have shown fluctuating outcomes. This study therefore examines demographic, educational, and institutional predictors of LET performance among BTVTEd graduates and uses the findings as basis for a proposed LEPT Strategic Review and Coaching Program.

The Bachelor of Technical Teacher Education (BTTE) program at Isabela State University underwent a change of nomenclature to Bachelor of Technical-Vocational Teacher Education (BTVTEd) through Board Resolution No. 58 s. 2018. The program is intended to equip future technical-vocational teachers with pedagogical competence and specialized technical knowledge needed in technical-vocational education settings. It supports the university's role in providing quality teacher education in the Cagayan Valley region and aligns with Sustainable Development Goal 4, which emphasizes inclusive, equitable, and quality education. The BTVTEd program was first established at ISU Ilagan Campus in 2009 to prepare educators for the technical-vocational sector. Its establishment was consistent with the Philippine government's thrust to strengthen technical-vocational education as a pathway for employability and national development (Republic Act

No. 7796, 1994). The program initially focused on areas such as Industrial Arts, Home Economics, and Agricultural Technology, and later expanded to specializations such as Food and Service Management, Automotive Technology, Electrical Technology, Electronics Technology, Garments, Fashion and Design, and Beauty Care and Wellness. The program's relevance was further strengthened by CHED Memorandum Order (CMO) No. 79, s. 2017, which prescribed the Policies, Standards, and Guidelines for BTVTEd. This policy required an outcomes-based and competency-driven curriculum anchored on the K to 12 Basic Education Program, the Philippine Qualifications Framework, and the Philippine Professional Standards for Teachers. These standards connect curricular outcomes with professional competencies and licensure readiness, making LET performance both an individual professional milestone and an institutional indicator of program effectiveness. Despite these curricular reforms, LET performance among teacher education graduates has remained inconsistent. At ISU Angadanan, passing rates from 2016 to 2024 showed substantial variation, with some cohorts exceeding national averages and others falling below them. The first BTTE batch in September 2016 posted a 50% passing rate, while the 2017 result declined to 30%. The program later recovered in several examination cycles, including 72.22% in October 2022, 87.5% in March 2023, and 77.77% in March 2024. Similar inconsistencies across ISU campuses suggest that LET performance is influenced by broader academic, institutional, and student-related factors rather than by campus-specific conditions alone.

The literature indicates that LET performance is shaped by demographic, socio-economic, educational, and institutional variables. Demographic characteristics such as age, gender, ethnicity, and socio-economic status influence academic engagement, access to resources, and persistence (Asio and Jimenez, 2018; Lee et al., 2019). Younger candidates and those with stronger economic support tend to have better access to review materials, mentoring, and preparatory programs (Salcedo, 2016), while socio-economic challenges may limit preparation time and negatively affect licensure outcomes (Batalla et al., 2020). Socio-economic status, including parental education, income, and occupation, is strongly associated with academic achievement and professional examination performance (Sirin, 2005; Smith and Johnson, 2020). Academic performance is repeatedly identified as a major predictor of licensure success. Prior academic achievement, including GWA, entrance examination scores, high school performance, and college academic records, provides a foundation for later licensure performance (Richardson et al., 2012; Martinez and Delfin, 2019; Almonte et al., 2017). Solis-Foronda (2017) found that early college achievement mediates the effect of college entrance scores on LET performance, supporting the use of entrance scores and early GWA as admission and retention indicators. Similar studies emphasize the predictive value of scholastic ratings, entrance scores, GPA, practicum performance, internship proficiency, and teaching demonstrations (Balinario et al., 2023; Balinario et al., 2023; Amanonce & Maramag, 2020; Navida & Cocal, 2022; Dionio et al., 2025; Repayo et al., 2023; Ozamiz, 2024). Student attributes and preparation strategies also influence LET performance. Motivation, study habits, socio-economic background, and access to learning support contribute to readiness for licensure examinations (Gitomer & Zisk, 2015; Johnson and Johnson, 2019; Tan and Ramos, 2018). Studies also show that admission test scores and academic performance are associated with LET outcomes (Somosot et al., 2022), while low academic performance and limited course audit units may contribute to poor licensure results (Dagdag et al., 2017). Tracer and predictive studies further emphasize the need to monitor graduates' progress and identify program-level factors affecting licensure success (Espuerta, 2023; Esmeralda & Perez-Espinosa, 2015; Cahapay, 2020; Kalaw, 2017; Acosta & Acosta, 2016; Ibarrientos, 2022).

Institutional quality is another important determinant of licensure performance. Academic and social integration can help reduce disadvantages associated with lower socio-economic status (Tinto, 1993), while characteristics of higher education institutions influence LET performance (Generelao et al., 2022). Curriculum quality, faculty credentials, curriculum alignment with LET standards, and updated pedagogical approaches contribute to graduates' readiness for licensure (Serrano and Capuno, 2020; Solomon et al., 2018; Darling-Hammond et al., 2002; Zeichner and Conklin, 2005). Regression-based studies also show the value of identifying key predictors of teacher success and retention (Borman and Dowling, 2008), while qualitative insights from graduates provide deeper understanding of successful preparation strategies (Seidman, 2006). Curriculum and instruction are central to LET readiness. Teacher education programs must integrate theoretical knowledge and practical skills to produce graduates capable of meeting licensure requirements (Darling-Hammond, 2006; Gitomer and Zisk, 2015). In the technical-vocational context, programs must balance general pedagogical competencies with specialized technical skills (Reyes and De Leon, 2021). Delos Angeles (2020) identified professors' subject mastery and the quality of general education content as strong predictors of LET success. Meanwhile, the Philippine Institute for Development Studies (PIDS) reported that gaps in TVET responsiveness and access to training affect LET preparedness, while Sinsay-Villanueva et al. (2025) noted that uneven quality assurance implementation among higher education institutions contributes to disparities in LET performance. Pedagogical strategies and faculty influence also affect student learning and licensure outcomes. Active, learner-centered, problem-based, and hands-on instructional approaches strengthen practical knowledge, critical thinking, and content mastery (Lucas, 2020; Manlangit, 2021; Freeman et al., 2014). Faculty professional development and updated teaching practices also support student success (Garcia et al., 2019). Technology-enhanced learning and differentiated instruction may help BTVTEd students acquire technical skills and prepare for LET requirements (Means et al., 2009; Tomlinson, 2001). Faculty members with industry connections and strong instructional competence are better able to prepare students for both workplace and licensure demands (Smith and

Younie, 2017; Garcia & Marquez, 2018; Pascarella and Terenzini, 2005). Academic and support services further contribute to licensure readiness. Access to updated library resources, laboratory equipment, review materials, study spaces, and guidance services supports effective preparation (de la Cruz and Rivera, 2020; Hernandez & Santos, 2019; Brown and Green, 2017). Limited access to learning materials and technology is associated with lower academic success, particularly in developing regions (Nguyen et al., 2019). These findings indicate that LET performance depends not only on individual ability but also on the institutional environment that supports learning and preparation.

Locally, the study focuses on BTVTEd graduates from ISU Angadanan, ISU Ilagan, and ISU San Mateo. These campuses represent major ISU sites offering the BTVTEd program and provide an institutional context for examining how campus attended, academic preparation, specialization, and support services may affect LET outcomes. The observed fluctuations in LET performance across ISU campuses suggest the need for evidence-based interventions, particularly in areas where graduates perform below expectations. Nationally, LET remains a major indicator of teacher education quality in the Philippines. Studies show that LET performance often varies across programs, specializations, cohorts, and institutions. Abao et al. (2023) found generally satisfactory LET performance among teacher education graduates but reported significant differences across degree programs, specializations, and institutional types. The Philippine Institute for Development Studies (2025) reported persistent concerns about low national LET passing rates and institutional disparities, with passing rates often ranging from approximately 19% to 37%. These results suggest continuing challenges in teacher preparation and curriculum alignment. The BTVTEd context presents additional challenges because graduates must demonstrate both pedagogical competence and technical specialization mastery. Balingbing et.al (2024) noted that LET performance is used as a benchmark for curriculum effectiveness in BTVTEd programs, but high performance remains complex because of the breadth of technical-vocational competencies assessed. Graduates often perform better in General Education than in Professional Education or Field of Specialization, partly because specialization components may cover a wider range of technical areas than a graduate's specific major field. Globally, the study connects with broader concerns on teacher quality, workforce preparation, and sustainable development. Strong teacher education systems contribute to quality learning, employability, and institutional accountability. By identifying predictors of LET performance, the study contributes to global discussions on improving teacher preparation and aligning higher education outcomes with professional standards and development goals.

This study is anchored on an Independent Variable–Dependent Variable framework. The independent variables are grouped into demographic attributes, educational background, and academic and support services. Demographic attributes include age, sex, religious affiliation, parents' highest educational attainment, parents' occupation, and parents' monthly income. Educational background includes campus attended, year of graduation, field of specialization, GWA in General Education, GWA in Professional Education, GWA in Field of Specialization, and overall GWA. Academic and support services include curriculum and instruction, faculty teaching performance, library facilities and services, laboratory facilities, and guidance services. The dependent variable is LET performance, measured through General Education, Professional Education, Field of Specialization, and Overall LET Rating. The framework assumes that demographic, academic, and institutional factors may directly influence LET outcomes. Differences in LET performance are examined using t-test and ANOVA, relationships are analyzed using correlation, and predictors are identified through regression analysis. The study's output is a proposed LEPT Strategic Review and Coaching Program designed to address identified performance gaps and strengthen licensure preparation among BTVTEd graduates.

Although many studies have examined LET performance among elementary and secondary teacher education graduates, limited empirical attention has been given to BTVTEd graduates. Existing research generally confirms that academic performance, institutional support, curriculum alignment, practicum experience, and socio-economic variables affect licensure outcomes, but the specific predictors of LET performance among technical-vocational teacher education graduates remain insufficiently explored. The gap is especially important because BTVTEd graduates face the dual demand of pedagogical preparation and technical specialization. The specialized nature of the BTVTEd curriculum may strengthen industry-specific preparation, but it may also limit exposure to the broad content coverage of the LET. Although curriculum adjustments, LET review classes, and faculty initiatives have been implemented at ISU, there has been no comprehensive evidence-based analysis of which demographic, educational, and institutional factors significantly predict LET performance among BTVTEd graduates. Recent studies indicate that academic preparedness, quality of instruction, institutional support, socio-economic status, and heterogeneous academic backgrounds influence LET readiness and performance (Daquiaoag & Ubina, 2024; Olvido et al., 2024; Dimas, 2024; Camaño et al., 2024; Ferrer, 2024). However, the direct connection between CHED and PPST policy alignment and LET outcomes remains underexplored (IEAIS, 2021; ERIC, 2021). Emerging research also suggests that motivation, test anxiety, and self-regulated learning may affect licensure success, but these remain underexamined in the BTVTEd context. Therefore, this study addresses a critical research gap by analyzing LET performance predictors among ISU BTVTEd graduates and translating the findings into a strategic review and coaching program.

This study is primarily aligned with SDG 4 – Quality Education because it focuses on improving teacher preparation, licensure readiness, and the quality of technical-vocational teacher education. By identifying predictors of LET

performance and proposing a LEPT Strategic Review and Coaching Program, the study supports the development of competent, licensed, and professionally prepared teachers. The study also relates to SDG 8 – Decent Work and Economic Growth because technical-vocational teacher education contributes to employability, workforce development, and preparation of educators who can train learners for technical and livelihood-oriented fields. Its connection to technical-vocational education supports the national goal of improving skills development and productive employment (Republic Act No. 7796, 1994). The study further supports SDG 10 – Reduced Inequalities by recognizing that graduates come from diverse demographic, socio-economic, and educational backgrounds. By examining variables such as parents' education, occupation, income, campus attended, and access to institutional support services, the study provides evidence that may help institutions design fairer and more targeted interventions for learners with varied academic and socio-economic conditions. SDG 17 – Partnerships for the Goals is also relevant because the study's implications extend to CHED, DepEd, PRC, Isabela State University, program administrators, faculty, graduates, and the technical-vocational education sector. The findings may support coordinated institutional and policy actions to strengthen teacher education quality and licensure outcomes.

The study contributes to educational sustainability by supporting continuous improvement in teacher education, curriculum alignment, instructional delivery, faculty development, and licensure preparation. Stronger LET performance among BTVTEd graduates can help sustain the supply of qualified technical-vocational teachers and improve the quality of instruction in specialized fields. It also contributes to socio-economic sustainability because technical-vocational education is linked to employability, workforce readiness, and national development. By improving the preparation of BTVTEd graduates, the study indirectly supports learners who will later receive technical-vocational instruction from licensed and competent teachers. The study has institutional sustainability value because it provides evidence that ISU may use for program enhancement, academic support improvement, review program development, and quality assurance. It also supports policy and governance sustainability by generating data that may inform CHED, PRC, DepEd, and educational planners in strengthening standards, review systems, and institutional accountability in teacher education. Overall, the study links teacher licensure performance with educational quality, workforce development, institutional improvement, and equitable support for graduates. Its proposed LEPT Strategic Review and Coaching Program translates empirical findings into practical intervention, making the research useful not only for academic inquiry but also for sustainable educational management and technical-vocational teacher development.

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## **2. Material and methods**

### **2.1 Research Design**

The study employed a descriptive-correlational research design to examine the factors associated with and predictive of LET performance among BTVTEd graduates. The design allowed the researcher to describe the respondents' demographic and educational characteristics, assess their perceptions of university academic and support services, determine their LET performance levels, and analyze significant differences, relationships, and predictors. Qualitative responses were also incorporated to provide contextual insights from the experiences of top-performing graduates.

### **2.2 Locale of the Study**

The study was conducted at Isabela State University, specifically in the campuses offering the BTVTEd program: ISU Angadanan, ISU San Mateo, and ISU Ilagan. The locale was selected because these campuses produced BTVTEd graduates who completed the program from academic years 2021–2025 and took the Licensure Examination for Teachers. The study was confined to these campuses and did not include graduates from other institutions.

### **2.3 Respondents of the Study**

The respondents were recent BTVTEd graduates of Isabela State University from ISU Angadanan, ISU San Mateo, and ISU Ilagan. They represented different specializations within the program and provided data on their academic experiences, institutional support received, and LET performance. The study focused on graduates who completed the program from academic years 2021–2025.

### **2.4 Sample and Sampling Procedure**

The study used purposive sampling to select 150 BTVTEd graduates as respondents, with 50 graduates taken from each of the three campuses. This distribution ensured representation from ISU Angadanan, ISU San Mateo, and ISU Ilagan. The sample size was considered appropriate because it represented the available population of BTVTEd graduates from the three campuses within the specified period and allowed both quantitative analysis and qualitative data saturation.

### **2.5 Research Instrument**

Data were gathered using a structured questionnaire composed of quantitative and qualitative components. The quantitative part covered the respondents' demographic attributes, including age, sex, religious affiliation, parents' educational attainment, parents' occupation, and family income. It also included educational background variables such as campus

attended, year of graduation, field of specialization, GWA in General Education, GWA in Professional Education, GWA in Field of Specialization, and overall GWA. Another section used a Likert scale to assess graduates' perceptions of curriculum and instruction, faculty teaching performance, library facilities, laboratory facilities, and guidance services. The qualitative part included open-ended questions intended to gather insights from selected top-performing graduates regarding their LET preparation strategies, institutional support, and personal challenges. The instrument underwent pilot testing, and the reliability test yielded a Cronbach's Alpha coefficient of 0.990, with 0.991 for standardized items, indicating excellent internal consistency.

## **2.6 Data Gathering Procedure**

The researcher first developed the structured questionnaire based on the objectives and research questions of the study. The instrument was pilot-tested to determine clarity, reliability, and suitability, after which minor revisions were made. After securing the necessary permissions, the questionnaire was administered to the selected BTVTED graduates primarily through Google Forms, while printed copies were provided when needed for respondents with limited internet access. Respondents were given sufficient time to answer, and follow-up reminders were made to improve the response rate. Quantitative responses were encoded and stored securely, while qualitative responses were compiled and organized according to emerging themes. The researcher reviewed the data entries regularly to ensure accuracy and completeness, and clarification from participants was sought when necessary.

## **2.7 Data Analysis Techniques**

The quantitative data were analyzed using descriptive and inferential statistics. Frequency and percentage were used for categorical variables such as age group, sex, religious affiliation, parents' educational attainment, parents' occupation, monthly family income, campus attended, year of graduation, and field of specialization. Mean and standard deviation were computed for continuous variables such as GWA and LET ratings, while minimum and maximum values were reported to show the spread of scores. Graduates' perceptions of academic and support services were analyzed using item and composite means, and Cronbach's alpha was used to determine internal consistency. To determine differences in LET performance based on demographic and educational backgrounds, an independent-samples t-test was used for two-group variables, while one-way ANOVA was used for variables with three or more groups. Levene's test was applied to assess homogeneity of variance, and Welch ANOVA was used when the assumption was violated. Post hoc pairwise comparisons were conducted when needed. Correlation analysis was used to examine relationships between LET performance and predictor variables. Pearson's product-moment correlation was used for continuous variables, Spearman's rank-order correlation for ordinal variables, and point-biserial correlation for sex as a dichotomous variable. Nominal variables with more than two categories were excluded from correlation analysis. Regression analysis was conducted in two stages. Simple regression was first used to test each predictor separately against LET performance areas, including General Education, Professional Education, Field of Specialization, and Overall LET Rating. Multiple regression was then used to determine which predictors remained significant when entered together in one model. The analysis reported R, R<sup>2</sup>, adjusted R<sup>2</sup>, F statistic, unstandardized coefficient, standard error, t value, and p value. For qualitative responses, thematic analysis was used by coding responses, grouping related ideas, and organizing them into themes and subthemes, with frequency counts noted to show recurring patterns.

## **2.8 Ethical Considerations**

The study followed ethical standards in research involving human participants and was guided by respect, beneficence, and justice. Approval was obtained from the Isabela State University Institutional Review Board before data collection. Participants were informed about the purpose, procedures, possible risks and benefits, and their rights before giving consent. Participation was voluntary, and respondents were allowed to withdraw at any time without penalty. Confidentiality was maintained by using codes or pseudonyms instead of real names, and all data were securely stored and handled with care. The findings were reported honestly and accurately, contributors were properly acknowledged, and the results were presented in a manner that protected participants' identities and preserved research integrity. Artificial Intelligence tools were used only as support in preparing the manuscript, specifically for improving grammar, sentence structure, clarity, and readability. They were not used to generate data, conduct analysis, or produce research findings. The researcher independently developed the ideas, analysis, interpretations, and conclusions, reviewed all AI-assisted outputs, and retained full responsibility for the content, accuracy, and integrity of the study.

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## **3. Results and Discussion**

### **3.1 Demographic and Educational Background of the Graduates**

#### **3.1.1 Demographic Attributes**

The respondents were mostly young adult graduates, with the largest group belonging to the 21–24 age bracket at 44.67%, followed by those aged 25–28 at 36.67%, and those aged 29 and above at 18.67%. Males comprised 56.67% of the respondents, while females accounted for 43.33%. In terms of religion, most were Roman Catholic at 55.33%, followed by Born Again at 24.00%, Church of Christ at 12.00%, and Iglesia ni Cristo at 8.67%. Parents' educational attainment was

generally concentrated at the basic education level, with most fathers and mothers having reached secondary or high school level. Farming was the most common occupation for both fathers and mothers at 50.67%, while most families belonged to low-to-middle income groups, particularly the PHP 10,001–PHP 20,000 monthly income bracket at 30.67%. These findings indicate that the BTVTEd graduates came from generally modest family and socioeconomic backgrounds. The dominance of farming as parental occupation and the concentration of families in lower income brackets suggest that many graduates may have experienced limited access to educational resources, although their completion of the program reflects persistence and academic resilience. This background provides an important context for understanding licensure examination preparation, especially because socioeconomic conditions may influence access to review materials, study support, and learning opportunities.

### **3.1.2 Educational Background and Academic Performance**

The respondents were equally distributed across ISU-Angadanan, ISU-Ilagan, and ISU-San Mateo, with each campus contributing 33.33% of the sample. The largest group graduated in 2022 at 25.33%, followed by 2023 at 21.33%, while the 2021 and 2024 batches each represented 18.00%, and the 2025 batch represented 17.33%. In terms of specialization, more than half were from Food and Service Management at 52.00%, followed by Automotive Technology at 25.33%, Electrical Technology at 19.33%, and Electronics Technology at 3.33%. Their academic performance was consistently interpreted as good, with General Education GWA at 1.85, Professional Education GWA at 1.84, Field of Specialization GWA at 1.90, and Overall GWA at 1.86. The consistently good academic performance across GWA components suggests that the graduates maintained balanced academic preparation in general, professional, and specialization courses. This implies that the program was able to develop academically competent pre-service teachers across major areas of preparation. This finding is consistent with Beatriz and Clemente (2025), who found that pre-service teachers demonstrated “Very Good” academic performance and high competence across 21st-century skill dimensions, reinforcing the view that teacher education programs can sustain commendable academic preparation among future educators.

## **3.2 Graduates’ Perceptions of Academic and Support Services**

### **3.2.1 Curriculum and Instruction**

Graduates rated the curriculum as excellent, with an overall mean of 4.42. The highest-rated curriculum indicator was the integration of theory and practice in professional and simulated experiences with a mean of 4.62, followed by consistency of subjects with prescribed course descriptions and program standards with a mean of 4.58. The lowest-rated curriculum indicator was alignment with LET competencies and professional success, with a mean of 4.06, interpreted as very good. Instruction was also rated excellent, with an overall mean of 4.47. The strongest instructional indicators were the presence of updated syllabi approved by the dean or chairperson at 4.61 and the reflection of appropriate course content in syllabi at 4.59, while the lowest item was the use of recent textbooks at 4.26. These results show that graduates perceived the curriculum and instruction as well-organized, relevant, and generally supportive of professional preparation. However, the relatively lower rating on LET competency alignment points to a specific area for improvement, particularly because licensure readiness requires direct alignment between instruction and examination competencies. This finding is consistent with Abao et al. (2023), who found that LET performance is associated with pre-service preparation and institutional alignment with higher education and licensure standards. It is also affirmed by Aquino (2024), whose analysis showed that aligned learning objectives, teaching-learning activities, and assessments contribute to satisfactory academic performance.

### **3.2.2 Faculty Teaching Performance**

Faculty teaching performance received an overall mean of 4.53, interpreted as excellent. Among its dimensions, knowledge of subject matter obtained the highest mean of 4.57, followed by commitment at 4.53, teaching for independent learning at 4.52, and management of learning at 4.50. At the item level, the highest ratings were given to faculty members coming to class on time, well-groomed, and well-prepared, with a mean of 4.66, and demonstrating updated knowledge of current trends and issues, with a mean of 4.65. The lowest item, creating opportunities for extensive student contribution in class activities, still received an excellent rating of 4.35. These findings suggest that BTVTEd graduates perceived their faculty as competent, prepared, supportive, and professionally updated. Strong faculty performance is important for LET readiness because subject matter mastery and effective pedagogy are central to licensure preparation, especially in Professional Education and Field of Specialization. This is consistent with Canuto et al. (2024), who emphasized that effective teachers demonstrate pedagogically appropriate practices grounded in strong subject-matter knowledge, which supports students’ acquisition of knowledge and skills.

### **3.2.3 Library Facilities and Services**

Library facilities and services were rated excellent, with an overall mean of 4.36. The highest-rated indicators were the availability of librarian services during library hours at 4.64 and the library being quiet, attractive, well-maintained, and conducive to learning at 4.61. Most indicators were rated excellent, although the availability of relevant and updated book selection tools received the lowest mean of 4.10, interpreted as very good. The favorable ratings suggest that the library environment supported students’ academic preparation by providing accessible services, conducive study spaces, and relevant learning resources. The slightly lower rating for updated book selection tools indicates a specific area where

resource updating may further improve academic and LET preparation. This is consistent with Lasig and Collantes (2022), who found that library satisfaction among teacher education students had a moderate positive correlation with academic performance and served as a positive predictor of academic outcomes.

### **3.2.4 Laboratory Facilities and Services**

Laboratory facilities and services were also rated excellent, with an overall mean of 4.38. The highest-rated indicator was the provision of adequate safety measures and properly posted precautions, with a mean of 4.59, followed by the availability of books and manuals in laboratories, with a mean of 4.46. The lowest-rated items were the adequacy of supplies and equipment for classroom demonstration and instructional needs, both with a mean of 4.26, though still interpreted as excellent. These findings indicate that graduates viewed the laboratory environment as safe, functional, and supportive of technical-vocational instruction. For BTVTEd students, laboratory exposure is important because practical competence forms part of their preparation as technical-vocational teachers. This finding is affirmed by Osaiywu (2025), who found significant positive correlations between laboratory facility adequacy and academic performance among students in a technical teacher education institution.

### **3.2.5 Guidance Services**

Guidance services received an excellent overall mean of 4.46. The highest-rated indicator was the safeguarding of student record confidentiality at 4.53, followed by the approachability and friendliness of guidance staff at 4.52 and the promotion of academic and personal counseling at 4.51. The lowest-rated indicators, the presence of a friendly atmosphere and adequacy of facilities for counseling work, both received a mean of 4.38, still interpreted as excellent. These findings suggest that graduates perceived the guidance office as accessible, trustworthy, responsive, and supportive of students' academic and personal needs. Although guidance services may not directly measure licensure readiness, they contribute to student well-being and academic persistence. This aligns with Macario et al. (2023), who found a positive correlation between the delivery of guidance services and student well-being, emphasizing that effective counseling programs support holistic development and academic engagement.

## **3.3 Performance Level of Graduates in the LET**

### **3.3.1 LET Performance Across Examination Areas**

The graduates obtained the highest mean score in General Education at 82.51, interpreted as fair. However, Professional Education had a mean of 80.95, Field of Specialization had a mean of 78.24, and Overall LET Rating had a mean of 80.57, all interpreted as below fair. These results show that graduates performed relatively better in General Education but had weaker performance in Professional Education and Field of Specialization. The findings suggest that although graduates had adequate general academic preparation, their readiness in pedagogical and specialization-related competencies remained limited. This is important because Professional Education and Field of Specialization carry substantial weight in the LET. The results therefore point to the need for stronger review interventions and better alignment of the BTVTEd curriculum with the competencies assessed in these components. Abao et al. (2023) similarly found that LET performance significantly varies across examination year, degree program, specialization, and examination components, indicating that component-level performance gaps are a persistent concern in teacher education.

## **3.4 Significant Differences in LET Performance Based on Demographic Profile**

### **3.4.1 Age and Sex**

Age did not produce significant differences in LET performance across General Education, Professional Education, Field of Specialization, and Overall Rating. In contrast, sex produced a significant difference only in the Field of Specialization component, where male graduates obtained a higher mean score than female graduates. No significant differences were found in General Education, Professional Education, and Overall LET Rating when grouped according to sex. These results indicate that age was not a determining factor in LET performance among the respondents, while sex had limited influence only in specialization-related areas. The difference in Field of Specialization may be linked to variations in technical exposure, confidence, or specialization-related learning experiences. However, since the effect was limited to one component, sex cannot be treated as a broad determinant of licensure performance.

### **3.4.2 Religion and Parental Educational Attainment**

Religion showed a significant difference only in General Education, while Professional Education, Field of Specialization, and Overall Rating showed no significant differences. Father's highest educational attainment also showed a significant difference only in General Education, while mother's highest educational attainment produced a significant difference in General Education as well. The other LET components were not significantly affected by parental educational attainment. These findings suggest that sociocultural and family educational backgrounds may influence foundational academic competencies, especially in General Education. Religion itself does not determine academic ability, but its associated learning environment, discipline, and value formation may indirectly shape study habits and academic outcomes. This supports Cadosales et al. (2023), who emphasized that sociocultural background variables significantly relate to LET component performance, particularly in General Education. The influence of parental education also aligns with Gabasa and Raqueño (2021), who noted that family educational background helps shape academic competencies related to

licensure performance, and with Capilitan et al. (2022), who reported that parental educational background significantly relates to LET components involving foundational knowledge.

### **3.4.3 Parents' Occupation and Monthly Family Income**

Father's occupation showed significant differences in General Education and Professional Education, while Field of Specialization and Overall Rating showed no significant differences. Mother's occupation showed a significant difference only in General Education. Monthly family income showed significant differences in General Education and Professional Education but not in Field of Specialization and Overall Rating. These results indicate that family occupational and income conditions may influence preparation in general and professional academic areas, likely through access to resources, study support, and stable learning environments. Father's occupation may reflect socioeconomic capacity and resource availability, while mother's occupation may shape the home learning environment through supervision and support. This is consistent with Dimas (2024), who found that socioeconomic and family-related factors significantly affect LET performance, particularly in Professional Education; Timbang (2024), who emphasized the role of family context and parental involvement in shaping LET outcomes; and Ramos et al. (2025), who noted that economic resources strongly influence licensure examination preparation and performance.

## **3.5 Significant Differences in LET Performance Based on Educational Background**

### **3.5.1 Campus Attended**

Campus attended produced a significant difference only in Professional Education, while General Education, Field of Specialization, and Overall LET Rating showed no significant differences. This indicates that graduates' Professional Education performance varied across campuses, even though the other LET components remained statistically comparable. The finding implies that campus-level differences may exist in the delivery, emphasis, or support systems for Professional Education. Although the university follows common institutional standards, variation in faculty deployment, instructional practices, review activities, and academic culture may affect Professional Education outcomes. This is consistent with Abao et al. (2023), who found that LET performance varies by institutional context and locale, particularly in Professional Education components.

### **3.5.2 Year Graduated and Field of Specialization**

Year graduated did not produce significant differences in General Education, Professional Education, Field of Specialization, and Overall LET Rating. Field of specialization also did not produce significant differences across LET components. These findings show that LET performance was statistically consistent across batches and specializations. The absence of significant differences by year graduated suggests that institutional preparation remained relatively stable across cohorts. Similarly, the absence of significant differences by specialization suggests that the BTVTEd curriculum provided comparable preparation across major fields. This may indicate internal consistency in curriculum delivery and assessment practices, although the generally below fair performance in several LET components still shows the need for stronger examination-focused preparation.

## **3.6 Relationship Between LET Performance and Predictor Variables**

### **3.6.1 Demographic Attributes and Educational Background**

Correlation analysis showed no significant relationship between Overall LET Rating and age, sex, religious affiliation, parents' educational attainment, parents' occupation, and approximate monthly family income. In terms of educational background, only campus attended showed a significant but very weak negative relationship with Overall LET Rating, while year of graduation and field of specialization were not significantly related to Overall LET Rating. These results suggest that demographic and family background variables did not have a direct measurable relationship with overall LET performance. The significant but weak relationship involving campus attended indicates that campus-specific factors may subtly influence licensure outcomes. This supports Abao et al. (2023), who found that institutional context and locale contribute to variations in LET performance even under a uniform national licensure framework.

### **3.6.2 Curriculum, Instruction, and Faculty Teaching Performance**

Graduates' perceptions of curriculum and instruction were not significantly related to LET performance across General Education, Professional Education, Field of Specialization, and Overall Rating. Curriculum-related correlations and instruction-related correlations were weak and non-significant. Faculty teaching performance indicators, including commitment, knowledge of subject matter, teaching for independent learning, and management of learning, also showed no significant relationship with any LET component. These findings indicate that positive perceptions of curriculum, instruction, and faculty performance do not automatically translate into higher LET performance. Although these factors are important for quality learning, licensure outcomes may depend more on individual academic readiness, review participation, test-taking skills, and examination-specific preparation. This is consistent with Abao et al. (2023), who reported that licensure outcomes are more directly associated with targeted academic preparation than with general curriculum perceptions.

### 3.6.3 Library, Laboratory, and Guidance Services

Most library indicators were not significantly related to LET performance. However, the provision of space for special services such as photocopying, exhibits, and displays showed a significant positive relationship with Professional Education scores and Overall LET Rating. Laboratory resources and facilities showed no significant relationship with any LET component, and guidance office environment and services were likewise not significantly related to LET performance. These findings suggest that support services may contribute to student development but do not necessarily produce direct measurable effects on LET outcomes. The significant relationship involving library special service spaces indicates that accessible academic support resources may help students prepare for Professional Education and overall licensure performance. This is consistent with Cadosales et al. (2023), who emphasized that institutional academic support resources, including libraries and learning spaces, strengthen preservice teachers' preparation and licensure examination performance. However, the non-significant results for laboratory and guidance services suggest that LET performance may rely more on theoretical mastery, independent study, and review-oriented preparation than on general support service perceptions alone.

## 3.7 Predictors of LET Performance

### 3.7.1 Predictors of General Education LET Performance

Simple regression results showed that none of the individual predictors significantly explained variation in General Education LET scores. All predictors produced non-significant results, with very small coefficients of determination. Even variables with relatively higher values, such as mother's educational attainment and mother's occupation, did not reach statistical significance. This finding indicates that General Education LET performance among BTVTEd graduates cannot be explained by a single demographic, academic, or institutional variable. The small explanatory values suggest that General Education performance is multidimensional and likely shaped by a combination of preparation, instruction, and independent study. This is consistent with Bautista et al. (2022), who found that academic-related variables, particularly college academic performance, were stronger determinants of LET performance than sociodemographic factors.

### 3.7.2 Predictors of Professional Education LET Performance

For Professional Education LET performance, academic experience emerged as the only significant individual predictor, with  $R^2 = .030$ , adjusted  $R^2 = .023$ ,  $F = 4.521$ , and  $p = .035$ . This means that academic experience explained about 3.0% of the variance in Professional Education scores. Curriculum preparation for LET approached significance but did not reach the required level. This finding suggests that academic exposure and scholastic experience matter in Professional Education performance, although their effect remains modest. Since no single factor strongly predicted the outcome, Professional Education performance appears to depend on several interacting academic and institutional conditions. This result is affirmed by Delos Angeles (2020), who found that curriculum and instruction variables such as course objective attainment, relevance of requirements, and subject matter mastery were significantly related to LET performance, supporting the need to strengthen academic experience alongside LET-aligned curriculum delivery.

### 3.7.3 Predictors of Field of Specialization LET Performance

For Field of Specialization LET performance, parents' monthly income was the only significant individual predictor, with  $R^2 = .073$ , adjusted  $R^2 = .041$ ,  $F = 2.278$ , and  $p = .050$ . This indicates that family income explained 7.3% of the variance in specialization scores. All other variables, including age, sex, campus, year of graduation, college GWA, and perceptions of academic and support services, were not significant predictors.

This result shows that family economic capacity has a measurable influence on specialization performance. Graduates from financially better-supported households may have greater access to review materials, technology, formal review programs, and a more stable study environment. This aligns with Pesado et al. (2024), who found a significant positive relationship between socioeconomic status and academic performance and reinforces the need for targeted support for BTVTEd students from low-income households.

### 3.7.4 Predictors of Overall LET Rating

For Overall LET Rating, campus attended was the only significant individual predictor, with  $R^2 = .044$ , adjusted  $R^2 = .031$ ,  $F = 3.410$ , and  $p = .036$ . This means that campus attended accounted for 4.4% of the variance in overall LET scores. Other predictors, including demographic variables, parental background, college academic performance, curriculum, instruction, faculty performance, library services, laboratory services, guidance services, academic experience, and curriculum preparation for LET, were not significant. The finding implies that campus-level factors may shape overall LET readiness more than individual characteristics or general perceptions of services. Institutional differences in instruction, review culture, faculty expertise, and academic support may influence licensure outcomes even within one university system. This result is affirmed by Abao et al. (2023), who found that LET performance varies by examination year, degree program, specialization, examination component, locale, and type of higher education institution.

### 3.7.5 Multiple Regression Models

The multiple regression model for Professional Education LET was significant, with  $R = .377$ ,  $R^2 = .142$ , adjusted  $R^2 = .074$ ,  $F = 2.075$ , and  $p = .026$ . Mother's educational attainment at the primary or elementary level and tertiary or college

level were significant negative predictors relative to the postgraduate reference category, while being from ISU-San Mateo Campus was a significant positive predictor compared with ISU-Angadanan Campus. The model for Field of Specialization LET was marginally significant, with parents' monthly income explaining 7.3% of the variance; graduates from families earning PHP 20,001–PHP 30,000 and more than PHP 40,000 had significantly higher scores than those in the PHP 10,001–PHP 20,000 reference group. The model for Overall LET Rating was significant, with campus attended explaining 4.4% of the variance, and ISU-San Mateo Campus emerging as a significant positive predictor compared with ISU-Angadanan Campus. These findings show that LET performance is domain-specific and influenced by different factors depending on the examination area. Mother's educational attainment and campus attended mattered in Professional Education, income mattered in Field of Specialization, and campus attended mattered in Overall LET Rating. This aligns with Balinario et al. (2023), who found that mother's educational attainment was a significant predictor of LET performance, alongside GPA and entrance examination scores. The income-related finding is supported by Budiongan et al. (2024), who found that students from higher socioeconomic backgrounds generally had access to better educational resources and stronger academic performance. The campus-related finding is corroborated by Maramag, Temporal, and Amanonce (2020), who found that teacher education institutions with higher accreditation status and more doctorate-qualified faculty produced better LET outcomes.

### **3.8 Qualitative Insights from Top-Performing Graduates**

#### **3.8.1 Preparation Strategies, Institutional Support, and Personal Challenges**

Top-performing graduates used multiple preparation strategies. The most frequently cited preparation strategy was enrollment in review centers, followed by self-directed review and the use of online resources. In terms of institutional support, in-house review sessions received the highest frequency, followed by the provision of review materials. The main personal challenge was the broad coverage of the specialization component, followed by time pressure and anxiety. Suggested improvements focused on stronger LET alignment and broader preparation across TLE specialization areas. These findings show that LET success among top-performing BTVTEd graduates resulted from the combined effect of personal discipline, external review support, institutional review sessions, and access to online materials. The major challenge of broad specialization coverage reveals a curriculum-examination mismatch, particularly because the LET specialization component extends beyond graduates' specific major fields. This aligns with Bersabal and Cañete (2024), who found that LET preparedness is shaped by both personal coping strategies and structured review support, confirming that self-directed preparation and institutional scaffolding are both necessary for licensure success.

### **3.9 Proposed Strategic Program to Enhance LET Performance**

#### **3.9.1 Integrated LET Enhancement and Equity Program**

Based on the findings, the study proposed the Integrated LET Enhancement and Equity Program for BTVTEd graduates of the Isabela State University system. The program responds to the below fair performance in Professional Education, Field of Specialization, and Overall LET Rating, despite graduates' good academic standing and excellent perceptions of academic and support services. It focuses on strengthening academic experience, addressing socioeconomic disparities, reducing inter-campus variation, supporting students with limited home-based academic capital, and integrating LET competencies across General Education, Professional Education, and Field of Specialization. The proposed program reflects the finding that LET performance is multidimensional and context-dependent rather than determined by a single factor. Its five major areas address the significant predictors identified in the study: academic experience for Professional Education, family income for Field of Specialization, campus attended for Overall LET Rating, and mother's educational attainment in the Professional Education model. The program therefore emphasizes LET-embedded curriculum integration, regular mock examinations, mentoring, subsidized review support, digital learning access, cross-campus benchmarking, standardized LET-aligned syllabi, academic coaching, study circles, competency mapping, and remedial or enrichment classes. Overall, the proposed intervention translates the study's empirical findings into a competency-based and equity-oriented strategy for improving BTVTEd graduates' LET performance.

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## **4. Conclusion & Recommendations**

The study concludes that the BTVTEd program of Isabela State University has a strong academic and support system, as shown by graduates' positive evaluation of the curriculum, instruction, faculty performance, and student services, as well as their generally balanced academic preparation across program areas. However, LET performance remained below the expected level in most areas, particularly in Professional Education and Field of Specialization, indicating a gap between academic preparation and licensure examination readiness. The results further show that demographic, socioeconomic, and most institutional support variables did not directly influence LET performance, while academic experience, family income, and campus attended showed only limited influence; hence, LET performance is shaped by multiple and context-specific factors rather than a single determinant.

Based on the findings, the study recommends strengthening the alignment of the BTVTEd curriculum with LET competencies, especially in Professional Education and Field of Specialization, through a structured and sustained LET

review and coaching program with regular pre-board examinations, in-semester interventions, mastery-based remediation, enrichment activities, competency-focused modules, LET-type assessments, mock examinations, and simulation activities. It also recommends standardizing LET preparation across ISU campuses, strengthening faculty development in LET-aligned teaching and assessment, providing targeted academic and review support for students from disadvantaged socioeconomic backgrounds, and endorsing the proposed LEPT Strategic Review and Coaching Program to the College of Teacher Education deans, campus administrators, and the Isabela State University System Academic Council for institutional approval, adoption, and implementation.

The study was limited to BTVTEd graduates of Isabela State University from academic years 2021–2025, specifically from ISU Angadanan, ISU Ilagan, and ISU San Mateo, and therefore the findings may not be fully generalizable to graduates from other institutions or programs. The study also relied on self-reported data from graduates, which may involve recall or perception-related bias, and while it examined demographic, educational, academic, and institutional variables, it did not extensively explore external influences such as economic conditions or personal life changes that may have affected LET performance.

### Compliance with ethical standards

This study complied with the ethical standards of Isabela State University and secured approval from the Institutional Review Board before data collection. Participation was voluntary, informed consent was obtained, and respondents were assured of confidentiality through the use of codes or pseudonyms instead of real names. All data were handled securely and reported honestly, with proper acknowledgement of contributors. The researcher declares no conflict of interest and assumes full responsibility for the accuracy, integrity, and copyright ownership of the study.

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