

# Assessing Pre-Service Teacher Readiness Across Degree Programs: A Comparative Institutional Study

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## ABSTRACT

This descriptive-comparative quantitative study assessed the readiness of graduating pre-service teachers across degree programs using the National Aptitude and Normative Test for Educators (NANTE). The study analyzed cleaned numerical score records from 388 graduating education students of Zamboanga Peninsula Polytechnic State University during School Year 2025-2026. Respondents were grouped into Bachelor of Elementary Education (BEED;  $n = 54$ ), Bachelor of Secondary Education (BSED;  $n = 47$ ), Bachelor of Technology and Livelihood Education (BTLED;  $n = 66$ ), Bachelor of Technical-Vocational Teacher Education (BTVTED;  $n = 97$ ), and Bachelor of Physical Education (BPED;  $n = 124$ ). Means and standard deviations described performance in General Education, Professional Education, and overall

average scores. One-way analysis of variance and Tukey's honestly significant difference test identified program-level differences. BSED obtained the highest overall average score ( $M = 70.17$ ,  $SD = 2.74$ ), whereas BEED obtained the highest Professional Education score ( $M = 70.36$ ,  $SD = 3.07$ ). BPED recorded the lowest overall average ( $M = 68.37$ ,  $SD = 1.88$ ). Average NANTE scores differed significantly across programs,  $F(4, 383) = 7.65$ ,  $p < .001$ . Post-hoc comparisons showed that BSED and BEED students outperformed selected BPED and BTVTED groups. The findings support targeted review interventions, curriculum alignment, and cross-program mentoring to strengthen theoretical preparation for licensure examinations.

**Keywords:** *pre-service teachers, teacher readiness, NANTE, licensure examination, degree programs, comparative assessment*

## INTRODUCTION

Teacher education institutions play a critical role in preparing graduates for the professional requirements of teaching. In the Philippines, candidates seeking a license to practice the profession take the licensure examination for teachers. Colleges may use readiness assessments to identify strengths and gaps before graduates sit for this high-stakes examination. One such assessment is the National Aptitude and Normative Test for Educators (NANTE), an evaluation tool developed by the Carl E. Balita Review Center (CBRC, 2024). The test is aligned with the table of specifications issued by the Professional Regulation Commission (PRC, 2023) and with teacher-education standards established by the Commission on Higher Education (CHED, 2017).

NANTE commonly includes General Education and Professional Education components. Beyond generating test scores, it provides an item-analysis-based indication of readiness and offers candidates a mock-board experience. Its results can guide targeted academic reinforcement by showing areas in which pre-service teachers

require additional preparation. Readiness data are particularly useful in institutions offering multiple teacher-education degree programs because curricular emphases and learning experiences differ across programs.

At Zamboanga Peninsula Polytechnic State University (ZPPSU), graduating teacher-education students come from programs with distinct orientations: Bachelor of Elementary Education (BEED), Bachelor of Secondary Education (BSED), Bachelor of Technology and Livelihood Education (BTLED), Bachelor of Technical-Vocational Teacher Education (BTVTED), and Bachelor of Physical Education (BPED). Some programs emphasize theoretical foundations, whereas others include substantial practical, technical, or performance-based coursework. Examining differences in NANTE scores may therefore help the institution determine whether selected groups require more focused theoretical review support.

This study assessed the NANTE performance of graduating education students of ZPPSU for School Year 2025-2026. Specifically, it compared General Education, Professional Education, and overall average scores across the five-degree programs and identified significant pairwise differences to guide institutional intervention planning.

## Literature Review

### *Readiness Assessment for Teacher Licensure*

Readiness assessments can provide evidence-based feedback before graduates take professional examinations. The NANTE is designed as a preparatory and normative tool that mirrors key content areas covered in the licensure examination, enabling teacher-education institutions to identify academic strengths and priority areas for reinforcement (CBRC, 2024). Its use is consistent with the PRC table of specifications for the Board Licensure Examination for Professional Teachers, which provides the content blueprint for professional assessment (PRC, 2023).

### *Teacher-Education Standards and Program Differences*

CHED policies and standards establish the curricular foundations of teacher-education programs (CHED, 2017). Although these programs share common expectations for future educators, they differ in specialization, instructional emphasis, and the balance between theoretical and applied learning experiences. Such differences may influence performance in standardized examinations that assess broad General Education and Professional Education competencies.

### *Standardized Testing and Skills-Based Programs*

Standardized assessment offers a consistent basis for comparing performance, but the results must be interpreted in relation to program context. Brookhart and Nitko (2019) emphasized that assessment methods should align with the intended learning outcomes. Students in technical-vocational and physical education tracks may demonstrate substantial practical competence while requiring additional support in translating hands-on mastery into theoretical, multiple-choice examination performance. This consideration provides a basis for examining whether readiness patterns differ among ZPPSU degree programs.

## METHODS

### **Research Design**

The study employed a descriptive-comparative quantitative design. It described NANTE performance and compared overall scores across five teacher-education degree programs. Research Locale, Participants, and Sampling Technique

The study was conducted at Zamboanga Peninsula Polytechnic State University. The dataset included 388 graduating teacher-education students for School Year 2025-2026. The participants were grouped according to

degree program: BEED (n = 54), BSED (n = 47), BTLED (n = 66), BTVTED (n = 97), and BPED (n = 124). The available institutional NANTE score records of the identified graduating students were included in the analysis.

**Research Instrument**

The primary assessment tool was the National Aptitude and Normative Test for Educators. The assessment contained General Education and Professional Education components and generated scores that were used to compute each student’s overall average readiness score.

**Data Gathering Procedure and Ethical Consideration**

The institutional NANTE score records were organized by degree program. Data cleaning was conducted before statistical treatment to retain numerical values appropriate for analysis. The article reports only aggregated results by program and does not present individual names or personally identifiable score records.

**Data Analysis**

Means and standard deviations were used to summarize General Education, Professional Education, and average NANTE scores. A one-way analysis of variance (ANOVA) tested whether the overall mean scores differed significantly among the five programs. When the ANOVA result was significant, Tukey’s honestly significant difference (HSD) post-hoc test was used to identify specific pairwise differences. Statistical significance was evaluated at the .05 level.

**RESULTS AND DISCUSSION**

**Descriptive Statistics of NANTE Scores**

Table 1 presents the performance of graduating students across the five teacher-education programs. BSED obtained the highest overall average NANTE score (M = 70.17, SD = 2.74) and the highest General Education score (M = 70.20, SD = 2.71). BEED obtained the highest Professional Education score (M = 70.36, SD = 3.07). BPED recorded the lowest General Education score (M = 67.94, SD = 2.34) and overall average score (M = 68.37, SD = 1.88). The differences are modest in absolute terms, but they identify program-level patterns that may guide targeted readiness interventions.

*Table 1. Descriptive Statistics of NANTE Scores by Degree Program*

Program	n	Gen Ed M	Gen Ed SD	Prof Ed M	Prof Ed SD	Average M	Average SD
BEED	54	69.01	3.05	70.36	3.07	69.68	2.65
BSED	47	70.20	2.71	70.15	3.19	70.17	2.74
BTLED	66	69.17	2.40	69.18	3.01	69.17	2.15
BTVTED	97	68.90	2.71	68.23	2.68	68.56	2.34
BPED	124	67.94	2.34	68.81	2.39	68.37	1.88
Overall	388	68.81	2.68	69.10	2.86	68.96	2.35

*Note. Gen Ed = General Education; Prof Ed = Professional Education; M = mean; SD = standard deviation.*

The pattern suggests that BSED and BEED students were comparatively well-positioned in the assessment domains measured by NANTE. BSED students performed strongly in General Education, whereas BEED students showed a slight advantage in Professional Education. These strengths may reflect the alignment of the programs’ academic structures with the theoretical competencies emphasized in the readiness assessment. Meanwhile, the lower BPED and BTVTED averages point to the value of supplementary review strategies that bridge applied learning and standardized theoretical testing.

### Differences in Average NANTE Scores Across Programs

The one-way ANOVA result showed a statistically significant difference in average NANTE scores among the five-degree programs,  $F(4, 383) = 7.65, p < .001$ . Thus, the null hypothesis of equal mean performance across programs was rejected. Degree program was associated with variation in readiness-assessment performance.

Table 2. *One-Way ANOVA of Average NANTE Scores by Program*

Source of Variation	SS	df	MS	F	p
Between Groups	157.71	4	39.43	7.65	< .001
Within Groups	1974.85	383	5.16		
Total	2132.56	387			

Note. Statistical significance was evaluated at the .05 level

### Post-Hoc Comparisons

Tukey's HSD analysis identified the specific program pairs that differed significantly. BSED students scored significantly higher than BPED students ( $p < .001$ ) and BTVTED students ( $p = .001$ ). BEED students also scored significantly higher than BPED students ( $p = .004$ ) and BTVTED students ( $p = .032$ ). No statistically significant differences were found among BSED, BEED, and BTLED. These findings reinforce the need for program-sensitive interventions rather than a uniform review strategy.

Table 3. *Tukey HSD Post-Hoc Comparisons for Average NANTE Scores*

Comparison (Program A vs. Program B)	Mean Difference (A – B)	p-value	Significant?
BEED vs. BPED	1.31	.004	Yes
BEED vs. BSED	-0.49	.819	No
BEED vs. BTLED	0.51	.735	No
BEED vs. BTVTED	1.12	.032	Yes
BPED vs. BSED	-1.80	< .001	Yes
BPED vs. BTLED	-0.80	.146	No
BPED vs. BTVTED	-0.19	.972	No
BSED vs. BTLED	1.00	.086	No
BSED vs. BTVTED	1.61	.001	Yes
BTLED vs. BTVTED	0.61	.355	No

Note. Statistical significance was evaluated at the .05 level

The post-hoc pattern is consistent with the view that assessment performance should be interpreted alongside curriculum design. Technical-vocational and physical education programs include intensive practical and performance-based learning experiences. Standardized readiness assessments, however, primarily require the retrieval and application of theoretical knowledge through selected-response formats. As Brookhart and Nitko (2019) noted, the alignment between assessment methods and learning outcomes is essential. The findings therefore support focused theoretical reinforcement for programs in which practical competence may not be fully reflected by standardized examination scores.

### CONCLUSION

NANTE performance differed significantly across ZPPSU teacher-education degree programs. BSED students obtained the highest overall average and General Education scores, while BEED students achieved the highest Professional Education score. BPED recorded the lowest overall average, and the post-hoc analysis showed that selected BPED and BTVTED comparisons were significantly lower than BSED and BEED. The findings do not diminish the practical strengths of skills-oriented programs; rather, they identify a need to reinforce the

theoretical competencies required by standardized licensure-readiness assessments. Program-sensitive review initiatives can help graduating pre-service teachers enter the licensure examination with stronger preparation.

### **Recommendations**

ZPPSU administrators, the College of Physical Education and Sports Sciences, and the College of Teacher Education should develop specialized review classes for BPED and BTVTED students, with emphasis on theoretical General Education and Professional Education content. The curriculum review unit should examine the alignment of course coverage with licensure-examination test blueprints without compromising the practical requirements of each program. Program chairs may also establish cross-program mentoring activities in which BSED and BEED students share review strategies with peers in technical-vocational and physical education programs. Future researchers should compare succeeding NANTE cohorts to determine whether the proposed interventions improve readiness-assessment performance.

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