Exploring the predictive influence of licensure examination results for beginning teachers' performance: the case of the Philippines

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Passing the Board Licensure Examination for Professional Teachers (BLEPT) is a major requirement for graduates to be accepted to teach in the Department of Education (DepEd). The holistic preparation of these teachers determines how well they perform in the field. This study investigated the relationship between the beginning teachers' performance in the licensure examination and their results-based performance management system rating. The descriptive-correlational research design was used in this study. The data were systematically obtained from 2,680 teachers representing the 17 regions in the Philippines through a researcher-made survey instrument administered online from May to July 2022. Means and standard deviations described the BLET and RPMS performances. At the same time, hierarchical regression, path, and effect analyses were used to determine the impact of BLET performance, teaching experience, and college preparation on teaching performance. The beginning teachers with BEEd, BSEd, and DPE degrees received satisfactory BLEPT performance and a very satisfactory RPMS performance. Furthermore, the performance in General Education, Professional Education, and Specialization components predicted the RPMS performance of teachers who graduated from the BSEd degree program. College preparation impacted RPMS performance, while teaching experience in private and public schools showed different impacts in their teaching. Finally, the findings of this study show that the BLET performance of teachers impacts the RPMS ratings; hence, licensure exam results can predict teachers' performance in public schools. The quality of teacher preparation influences the preservice teachers' performance in the board licensure examination for professional teachers. Hence, it is recommended that teacher education institutions intensify their measures in preparing preservice teachers to pass the board licensure examination for professional teachers.

KEYWORDS

beginning teachers, licensure examination, results-based performance, teachers, Philippines

1. Introduction

The fourth Sustainable Development Goal emphasizes augmenting the supply of qualified teachers (United Nations Educational, Scientific and Cultural Organization, 2017). With this, teacher education institutions ensure continuous improvement across areas for quality services that result in quality education. However, the credentials or training of teachers, length, content, modality, and entry requirements of teacher education programs differ between nations (Organization of Economic Co-operation and Development, 2023). Data comparisons are challenging since different nations have varied definitions of "qualified teachers" (UIS-Unesco Institute of Statistics, 2017). Further, the Organization of Economic Co-operation and Development (2023) mentioned a possible policy on strengthening the requirements of teachers. Beck et al. (2023) explored the construction difference in studying to become a teacher. They stressed the differing educational pathways, leading to differential outcomes in becoming a teacher. Thus, the licensure examination is a measure to ensure that teachers possess the competencies, skills, and attitudes deemed important in providing quality education.

Learning quality depends on the opportunities provided to the preservice teachers who later take the Board Licensure Examination for Professional Teachers (BLEPT). Higher Education Institutions, specifically Teacher Education Institutions (TEIs), carefully package various areas that support the learning of the preservice teachers, including but not limited to faculty preparation, curriculum and instruction, laboratories, and assessment, which are considered to have a considerable influence on how well they perform in the licensure examination after graduation. Delos Angeles (2020) concluded that passing the licensure examination for teachers is a critical measure of a Teacher Education Program's effectiveness. Prior knowledge, professor qualifications and experience, and high-quality services provided to students all contribute to success. Further, Dagdag et al. (2017) stated that Philippine higher education institutions had placed a premium on preparing graduates to pass the licensure examination to satisfy the current needs of local and international schools and communities.

The primary recipient of the graduates from the Teacher Education Institutions is the Department of Education (DepEd), where the primary requirement upon entry, among others, is passing the BLEPT. Moreover, once they are accepted as part of the department's teaching force, these teachers' overall performance is evaluated to ensure the delivery of accessible, quality, liberating, and relevant education in the country and to enable continuous work improvement and individual growth.

Following Civil Service Commission (2012), DepEd established the Results-Based Performance Management System (RPMS) to ensure quality, timely, and efficient performance among its teachers. There have been studies on performance management systems based on the results of RBPMS. According to Dizon et al. (2018), RBPMS offers specific methods, policies, processes, and criteria for defining performance targets, monitoring, development planning, and assessment for DepEd teachers. Further, Ormilla (2021) pointed out that on the perceived extent of implementation of the RBPMS, it was extensively utilized as an instrument for performance management in public elementary schools in the Ifugao Schools Division all across the highly implemented four phases with significant differences. On the other hand, according to Goldhaber (2019), while teacher preparation

programs have attracted a lot of policy and research interest, very few studies have examined the relationship between these two variables and results for the teaching workforce.

Finally, minimal studies have explored the relationship between beginning teachers' performance in the BLEPT and their results-based performance management system rating. Thus, this study addresses the knowledge gap on the potential influence of BLEPT performance on the rating of beginning teachers in the results-based performance management system.

1.1. Quality teaching

The United Nations Educational, Scientific, and Cultural Organization (UNESCO) Sustainable Development Goal Number 4 (2015) focuses on excellent education by significantly increasing the number of competent teachers. According to Fomba et al. (2022), institutional quality benefits student success and completion. The number of skilled teachers, the pupil-teacher ratio, and the quality of their instruction all favor educational success and completion. However, Falmer et al. and Furnes et al. [in Gou et al. (2022)] emphasized that teaching quality directly reflects the effect of educational activities. Therefore, the amount of training teachers receive determines the quality of their teaching. On the other hand, studies in Los Angeles that practice strict licensure rules based on three tests revealed that teacher licensure examination scores are not related to the success of the teacher in the classroom, and student performance is not dependent on the teacher's degree (Buddin and Zamarro, 2008).

Various stakeholders are involved in developing teacher quality standards, including pre-service teachers, administrators, and teacher-preparation faculty. As new standards evolve through research and experimentation, there is a consensus that teacher quality has several components, such as professional practice, student growth, and contributions to the school, profession, and community (Stewart, 2013). This is supported by the study of Swisher and Saenz-Armstrong (2022), who pointed out that it takes multiple sources of information to provide a fair and accurate understanding of a teacher's performance and that evaluations based on multiple measures are more likely to be reliable and predictive. Measuring different facets of effectiveness may lead to meaningful improvements in teacher quality. These measures include student growth, student surveys, and observations by school administrators.

In contrast, the current study would examine a potential connection between the performance of beginning teachers in the licensure examination and their results-based performance management system (RPMS). Gotwals and Cisterna (2022) stressed the link between formative assessment procedures and high-quality teaching. Nevertheless, the present study looked into the potential influence of the licensure examination on the beginning teachers' RPMS, which described the quality of their overall performance in teaching.

1.2. Teacher preparation

The teachers' preparation represents the holistic practice-based approach that consists of skills and habits of mind, the essential

knowledge, and the design for learning to teach with program qualities and epistemic practices (Hollins, 2011). When a teacher's effectiveness is discussed, it is essential to understand the differences between teacher quality and teaching quality. According to Darling-Hammond et al. (2012), teacher quality refers to personal attribution, knowledge, skills, competencies, and understandings an individual takes along to teaching, including his or her behavior toward it, while teaching quality is oriented more on the influence of curriculum or instruction that allows the students to learn. According to Hotaman (2010), teachers who possess personal traits like open-mindedness, patience, optimism, tolerance, adaptiveness and flexibility, caring, considerate and humorous, supportive and encouraging, and self-governing personalities have a more positive impact on learners. Thus, being a teacher does not only require the acquisition of skills but also the embodiment of good character.

In addition, supervised practical training on the job, often called a practicum or internship, is a crucial component of teacher pre-service preparation. This experience (1) enables teacher candidates to put theory into practice; (2) offers a conducive environment for the development of their professional skills; (3) encourages them to experiment with various strategies, engage in self-reflection, and make necessary adjustments based on received feedback; and (4) fosters a positive setting for participants to collaborate professionally and benefit from mutual support (Ralph et al., 2007). Pre-service teacher education comprises a combination of theoretical knowledge about teaching and a field-based practice experience. The quality of training provided through these programs affects teachers' practice, effectiveness, and career commitment (Eren and Tezel, 2010; Liang et al., 2010; Roness, 2010). Therefore, teaching and learning in the classroom depends on and reflects the quality of pre-service teacher education programs (Muzaffar et al., 2011).

1.3. Performance in the board exam

One of the measures of knowing the quality of the teacher is through the board examination. Board examination is meant to test the skills and competencies of the teacher education graduate in all disciplines on how much they have learned during their college studies. A teacher's license is one of the requirements in applying for a job as a teacher in many educational institutions in other countries and the Philippines, including the Department of Education. Additionally, the 21st century, considered a technology-driven generation, has brought many changes and expectations from teachers. Thus, higher education institutions must scrutinize their teacher education programs to evaluate whether changes or modifications are needed to align with how teachers and teaching quality will be assessed in the field and to meet the demands of the 21st century teaching and learning environment (Diamond et al., 2010). Diverse reforms, including the assessment procedures outlined in the Philippine Professional Standards for Teachers (PPST) to assure the quality of instruction, have been implemented in the Philippines' Teacher Education Institutions (TEIs). Moreover, the quality of the general education curriculum was proven to be a substantial and robust predictor of graduates' success on the licensure examination, according to a study by Visco (2015). Also, Amanonce and Maramag (2020) concluded that teacher education graduates' academic success is significantly correlated with performance in the licensure

examination for teachers. Moreover, the professors' evaluation procedures match the graduates' achievement in the BLEPT; this is proof of the university's excellent delivery of instruction and reliable evaluation methods.

Graduates of Teacher Education Institutions passing the Board Licensure Examination for Professional Teachers indicate quality instruction in the Philippines (Antiojo, 2017). In her study, graduates recorded the highest average ratings in general education, followed by professional and major courses. In 2022, 54.43% of elementary teachers and 50.94% of secondary teachers passed the licensure examination in October 2022 all over the Philippines (Professional Regulation Commission, 2022). The fact that only a little over half of the test takers pass the board examination implies that there is room for improvement in the curriculum, methods, and student support to ensure that aspiring teachers are adequately prepared for their roles in the education system. Delos Angeles (2020) cites variables that correlate significantly to BLEPT performance were age, high school, and college academic performances, and performance in a comprehensive review and that doing well in the different basic, professional, and major subjects and the comprehensive review increases the chances of the graduates in passing the board examination.

A recent Philippine national study by Abao et al. (2023) explored the BLEPT performances of teacher education graduates across different regions in the country. The graduates had satisfactory licensure performances from 2017 to 2019, and these BLEPT performances vary in terms of examination year, degree program, specialization, examination components, locale, and higher education type. These performances were attributed to the graduates' recency in taking the exam, pre-service preparation, and college performance. These results signified that teacher education institutions aligned teacher education degree program offerings to the standards set by the higher education and licensure examinations.

1.4. Relationship between board exam and results-based performance management system

Clotfelter et al. (2006, 2007) and Goldhaber (2007) discovered a relationship between teacher board examination or certification scores and student performance and teacher effectiveness. On the other hand, a National Research Council report stated that most teacher licensure examinations/tests are not crafted to predict or measure the level of teaching success a beginning teacher will demonstrate (Darling-Hammond, 2010). Moreover, Harris and Sass (2006) have found that student performance and teacher effectiveness have no relationship to board examination or certification scores.

In addition, Buddin and Zamarro (2008) revealed that teacher licensure test scores are unrelated to teacher achievement in the classroom. Correspondingly, whether teachers pursue advanced degrees does not affect student success. However, teacher experience is positively related to student performance. Still, the correlation could be stronger and largely mirrors poor outcomes for teachers during their first year or two in the classroom.

To raise the bar of having excellent teachers, a high-quality and well-grounded teacher evaluation system should be collectively crafted by those in the teaching field with the authority to do this. According

to Darling-Hammond et al. (2012), the teacher evaluation system should have the following components: (a) one statewide standard for teaching that is geared toward significant student learning and is shared across the teaching profession, (b) performance evaluation which includes licensure, teacher preparation, and advanced certification, (c) local assessment systems aligned to the expected state standard, for assessing practiced teaching based on various measures of teaching training and student learning, (d) support structures like mentoring, and (e) aligned professional development opportunities that aid in the improvement or development of teaching quality and of the teachers.

Guided by the related literature, this study aimed to explore the possible influence of the beginning teachers' performance in the BLEPT on their rating in the RBPMS.

1.5. Research questions

This study determines the relationship between the teachers' performance in the Board Licensure Examination for Professional Teachers (BLEPT) and their ratings in the Results-based Performance Management System (RPMS). Specifically, it seeks to answer the following questions:

Question 1: What is the BLEPT performance of the teacher graduates?

Question 2: What is the RPMS performance of the teacher graduates?

Question 3: Is there a significant predictive relationship between the BLEPT and RPMS performance of BEEd, BSEd, and DPE graduates?

Question 4: Can the following factors impact the effect of BLEPT performance on the RPMS rating of the teacher graduates?

  d.1 private school experience,
  d.2 public school experience, and
  d.3 college preparation?

The accomplishment of these research questions provided baseline data concerning the influence of licensure examination results on beginning teachers' teaching performance. The results could help the professional regulation system and education sector align their standards from pre-service to in-service teaching to yield a positive and effective teaching force. More importantly, the study can provide policy recommendations that could help the teacher education system in the country, including pre-service preparation and in-service development programs.

2. Methodology

2.1. Research design

The descriptive-correlational research design was used to establish the relationship between the teachers' BLEPT performance and RPMS rating. Specifically, a national research survey method was employed to gather data on the variables and demographic profiles throughout the country. Due to its versatility, efficiency, and generalizability, the survey research design has been

used for educational purposes, including investigating teaching practices (Check and Schutt, 2012).

2.2. Research environment and respondents

A nationwide survey involving 2,680 teachers from 17 different regions throughout the Philippines was conducted. The selection of these teachers followed a systematic sampling process facilitated by using random sampling software. The researchers employed inclusion and exclusion criteria to ensure the sample's validity and representativeness. The included teachers were identified as beginning teachers in the Department of Education who had taken the licensure examination (BLEPT) within the last 5 years and had, at most, 3 years of public teaching experience. Conversely, the study excluded teachers with more than 2 years of private school teaching experience before entering the DepEd system. This set of rigorous criteria was meticulously applied to determine the final sample for inclusion in the study. To achieve the 95% confidence interval, a 60% turnout from this sample was expected. This sample size is reasonable for educational surveys due to its high statistical power (Andrade, 2020).

2.3. Research instrument

A researcher-made online survey instrument was created using Google Forms to gather the data. The instrument is divided into three parts. The first part collects the teachers' demographic information, including sex, age, socio-economic status, and baccalaureate education. The second part requires respondents to provide their licensure examination information, including the year the examination was taken and the specific ratings in general education, professional education, and specialization courses. The last part obtains the teaching performance, including the number of teaching years and RPMS rating. To establish the tool's validity, the researcher-made instrument was subjected to content validity by experts. These experts consisted of former professional regulation officers and current basic and higher education directors, who reviewed it to ensure it could effectively answer the research questions. To ensure reliability, the tool was subjected to test–retest analysis. The tool was pilot-tested on a smaller group of teachers who were not included in the sample, given at two different points in time. The result ($r = 0.92$) showed that the tool yielded high reliability and consistency over time. Hence, the tool was valid and reliable in the study context.

2.4. Data gathering procedure

Before the study, the researchers submitted the paper to the university Research Ethics Committee for ethics review. Once certified by the said committee, permission was secured from the Department of Education Central Office to survey their teacher constituents nationally. When this request was approved, the qualified teacher-respondents were requested to give informed consent for their voluntary participation in the study.

Once research permissions were secured, the national survey questionnaire was administered online through Google Forms. With the

coordination of DepEd, the online forms were sent to the different regions and then to their respective divisions for efficient survey administration. The survey ran for 3 months (May, June, and July 2022) to ensure that the expected turnout would be achieved. After 3 months, the data were extracted from Google Forms and downloaded as an Excel file.

2.5. Data analysis

The gathered data were cleaned and managed in Microsoft Excel and analyzed using the Statistical Package for Social Sciences (SPSS) version 25. The level of BLEPT performance and RPMS results were analyzed using descriptive statistics, specifically the mean and standard deviation. The impact of BLEPT performances of BEEd, BSEd, and DPE teacher graduates on their RPMS performance was analyzed using hierarchical regression analysis. Path and effect analyses were also conducted to determine the influence of private and public school experience and college preparation on the effect of BLEPT performance on RPMS results. All inferential tests were conducted at a 95% confidence level, where value of p less than 0.05 are considered significant.

2.6. Ethical considerations

The paper was submitted to the University Research Ethics Committee for ethics review. Afterward, appropriate permissions from the Department of Education and the teacher respondents were sought. The teachers were informed of their responsibilities and voluntary participation as respondents, the study's purpose, benefits and risks, and their right to withdraw anytime. The data set is secured in an encrypted Excel file, and all data and names are kept confidential and anonymous at all times.

3. Results and discussion

3.1. Board licensure examination for professional teachers performance of beginning teachers

Passing the Board Licensure Examination for Professional Teachers is one of the major requirements for Beginning Teachers to be accepted in DepEd. In this section, the performance of these teachers in the examination is presented, including specific results for the graduates of Bachelor in Elementary Education (BEEd), Bachelor in Secondary Education (BSEd), and Diploma in Professional Education (DPE).

As shown in Table 1, BEEd degree holders have a satisfactory BLEPT performance in general education (μ=78.74, SD = 5.00) and professional education (μ=80.09, SD = 3.57). On the other hand, BSEd graduates have a very satisfactory performance in general education (μ=85.07, SD = 5.44) and a satisfactory performance in professional education (μ=81.00, SD = 4.21) and specialization courses (μ=80.45, SD = 5.61). Finally, DPE graduates have a very satisfactory performance in general education (μ=83.82, SD = 6.59) and satisfactory professional education (μ=80.49, SD = 4.91) and specialization courses (μ=79.10, SD = 5.55).

TABLE 1 Board licensure examination for professional teachers (BLEPT) performance of beginning teachers according to their degree program.

Degree program	BLEPT performance: mean (SD) and description [a]			
	Gen. Ed.	Prof. Ed.	Specialization	Overall
BEEd	78.74 (5.00) Satisfactory	80.09 (3.57) Satisfactory	–	79.49 (3.06) Satisfactory
BSEd	85.07 (5.44) Very Satisfactory	81.00 (4.21) Satisfactory	80.45 (5.61) Satisfactory	81.54 (3.79) Satisfactory
DPE	83.82 (6.59) Very Satisfactory	80.49 (4.91) Satisfactory	79.10 (5.55) Satisfactory	80.75 (3.60) Satisfactory

[a]Legend: 75–83.33 (Satisfactory), 83.33–91.66 (Very Satisfactory), 91.67–100 (Outstanding).

Overall, the beginning teachers with BEEd degree (μ=79.49, SD = 3.06), BSEd degree (μ=81.54, SD = 3.79), and DPE (μ=80.75, SD = 3.60) obtained a satisfactory performance in the licensure examination. Although the BSEd graduates have the highest mean scores among the three groups in the general education, professional education, and specialization courses, the difference is insignificant, and their overall performances are the same.

Further, the BSEd and BEEd takers in this present study outperformed those in the study of Fiscal and Roman (2022), where the BSEd overall performance was 74.88, and the BEEd overall performance was 72.96. Another comparative study conducted by Maramag et al. (2020) revealed that BEEd graduates received a poor rating because their BLEPT mean performance in General Education and Professional Education fell below the passing mark. On the other hand, BSEd graduates have passed General Education and Professional Education, except for major courses. Further, a linear link was found between the total BLEPT rating and the overall academic average, shown by their relatively high correlation. The study shows that the achievement of BSEd graduates in college academic courses correlates with their overall BLEPT rating, with general education academic performance as a predictor of BLEPT performance rating (Alunday et al., 2019). However, this is not the case according to the findings of Somosot et al. (2022), who found that graduates' BLEPT performance is unaffected by their academic standing. Meanwhile, this study looks into whether there is a relationship between the BLEPT performance of education graduates and their performance in the field through their RPMS rating.

3.2. Results-based performance management system performance of the beginning teachers

To ensure quality teacher performance, the Results-Based Performance Management System assessment tools are used in DepEd to evaluate whether the Key Result Areas' duties, responsibilities and specific objectives are attained. The table below presents the RPMS

performance of the beginning teachers who graduated from the BEEd, BSEd, and DPE programs.

Table 2 shows that all beginning teachers have a very satisfactory RPMS performance regardless of the degree program they graduated from. It can also be noted that the beginning teachers with DPE have the highest performance ratings in the RPMS compared to the BEEd and BSEd graduates. This result implies that the beginning teachers in the department perform their duties and responsibilities very satisfactorily and can attain the set objectives. This finding coincides with Mamauag and Antonio (2022) conclusion that if the school is highly compliant and adheres to the guiding principles of RPMS implementation, teachers would have a good knowledge of the job required. Moreover, Ormilla (2021) emphasized that the very satisfactory performance of beginning teachers can be attributed to the school's excellent implementation of RPMS.

3.3. Impact of teachers' board licensure examination for professional teachers performance on their results-based performance management system performance

The impact of the BLEPT performance on the RPMS performance of beginning teachers is explored through hierarchical regression, where the examination components constitute the first level, and the overall BLEPT performance, in addition to the components mentioned above, composes the second level. Hierarchical regression analysis was conducted in each degree program, namely, BEEd, BEEd, and DPE, and the results are presented in the respective sections below.

3.3.1. Board licensure examination for professional teachers and results-based performance management system performance of bachelor in elementary education graduates

The results of the hierarchical regression analysis of the BLEPT and RPMS scores of the beginning teachers with BEEd degrees are reflected in Table 3.

The hierarchical regression results in Table 3 indicate that the examination components (Model A) and the overall BLEPT performance (Model B) do not show a significant effect on the RPMS scores as evident in their low fit ($R^2 = 0.005$, 0.006, respectively) and insignificant models ($p = 0.129$, 0.235, respectively). The individual and overall BLEPT performances do not also add statistically to either model ($p > 0.05$). This means that

there is no predictive relationship between BLEPT performance and RPMS performance, indicating that these two performances are not associated with one another among teachers with a BEEd baccalaureate degree. This result is consistent with Darling-Hammond (2010) findings that current evaluation measures are only sometimes linked to their teaching ability.

3.3.2. Board licensure examination for professional teachers and results-based performance management system performance of bachelor in secondary education graduates

The results of the hierarchical regression analysis of the BLEPT and RPMS scores of the beginning teachers with BSEd degrees are presented in Table 4.

Table 4 shows the teachers' BLEPT performance in Model A, and that Model B can significantly predict their RPMS scores as seen in their good fit ($R^2 = 0.895$, 0.895, respectively) and significant models ($p = 0.000$, 0.000, respectively). Of these models, Model B has greater significance ($F = 3.91E3$); hence, this model can best explain the relationship between BLEPT and RPMS performances. In this model, the examination component performances added significantly to the prediction ($p < 0.05$). Still, the overall performance did not contribute significantly ($p > 0.05$). Therefore, the performances in general education, professional education, and specialization components predicted the RPMS performance of teachers who graduated from the BSEd degree program. This finding is why a license is considered one of the requirements for beginning teachers in applying for a teaching position in the Department of Education. According to Acosta and Acosta (2016), teacher licensure is a significant factor in implementing basic education reform in the Philippine education system and is a good predictor of teachers' performance. They added that teacher licensing justifies the current education reform agenda tailored to achieving teacher quality and excellence.

TABLE 2 Results-based performance management system (RPMS) performance of the beginning teachers.

Degree program	RPMS performance: mean (SD)	Description[a]
BEEd	4.08 (0.60)	Very Satisfactory
BSEd	4.19 (0.60)	Very Satisfactory
DPE	4.25 (0.41)	Very Satisfactory
Overall	4.16 (0.59)	Very Satisfactory

[a]Adjectival ratings: Outstanding (4.50–5.00), Very Satisfactory (3.50–4.49), Satisfactory (2.50–3.49), Unsatisfactory (1.50–2.49), Poor (below 1.49).

TABLE 3 Hierarchical regression analysis on the impact of BLEPT scores to RPMS scores of BEEd graduates.

Predictor	Model A			Model B		
	B	SE B	β	B	SE B	β
Gen. Ed. performance	−0.001	0.005	−0.012			
Prof. Ed. performance	0.013	0.007	0.077			
Gen. Ed. performance				−0.004	0.007	−0.031
Prof. Ed. performance				0.011	0.009	0.064
Overall BLEPT performance				0.006	0.015	0.031
R^2	0.005			0.006		
Adjusted R^2	0.003			0.002		
F-value	2.053			1.422		
Value of p	0.129			0.235		

*Significant at $\alpha = 0.05$.

TABLE 4 Hierarchical regression analysis on the impact of BLEPT scores to RPMS scores of BSEd graduates.

Predictor	Model A			Model B		
	B	SE B	β	B	SE B	β
Gen. Ed. performance	0.188	0.08	0.270*			
Prof. Ed. performance	0.336	0.011	0.373*			
Specialization performance	0.361	0.007	0.533*			
Gen. Ed. performance				0.188	0.008	0.270*
Prof. Ed. performance				0.337	0.011	0.374*
Specialization performance				0.361	0.007	0.533*
Overall BLEPT performance				−0.038	0.060	−0.006
R^2	0.895			0.895		
Adjusted R^2	0.895			0.895		
F-value	3.43E3			3.91E3		
Value of p	0.000			0.000		

*Significant at α = 0.05.

TABLE 5 Hierarchical regression analysis on the impact of BLEPT scores to RPMS scores of DPE graduates.

Predictor	Model 1			Model 2		
	B	SE B	β	B	SE B	β
Gen. Ed. performance	0.000	0.008	−0.008			
Prof. Ed. performance	0.000	0.010	−0.005			
Specialization performance	0.000	0.008	0.111			
Gen. Ed. performance				0.001	0.008	0.016
Prof. Ed. performance				−0.009	0.011	−0.103
Specialization performance				−0.002	0.009	−0.025
Overall BLEPT performance				0.029	0.014	0.249
R^2	0.011			0.035		
Adjusted R^2	−0.007			0.012		
F-value	0.604			1.511		
Value of p	0.613			0.201		

*Significant at α = 0.05.

3.3.3. Board licensure examination for professional teachers and results-based performance management system performance of diploma in professional education graduates

The results of the hierarchical regression analysis of the BLEPT and RPMS scores of the beginning teachers from the DPE program are reflected in Table 5.

Analysis of the BLEPT and RPMS performances of DPE graduates shows that both Models A and B are not predictive of the relationship between the two performances based on their low fit ($R^2 = 0.011$, 0.012, respectively) and insignificant models ($p = 0.613$, 0.201, respectively). A look into the individual BLEPT components and overall BLEPT performance indicates that these performances did not add significantly to the predictability of either model. This result signifies that the BLEPT performance of teachers from the DPE program did not predict their RPMS performance in their respective teaching fields. According to Crowe (2010), in many cases, these tests (such as board examinations) evaluate teachers' knowledge before they enter or complete their education, making this an insufficient tool for teacher education accountability and performance.

3.4. Impact of factors on the effect of board licensure examination for professional teachers performance on results-based performance management system performance

Two analyses were done to determine the impact of factors on the effect of BLEPT performance on the RPMS performance of the

beginning teachers. These analyses include path and effect analysis; their results are presented below.

3.4.1. Path analysis

The study looked into four variables that may impact the relationship between teachers' BLEPT and RPMS performances. Two variables, teachers' teaching experience in private and public schools, may mediate their RPMS performance with their BLEPT performance. Another set of variables, the teachers' college preparation and grades, may also affect the RPMS performance, serving as covariates in the analysis.

The results of the path analysis of the identified variables are shown in Figure 1. BLEPT performance has a significant inverse relationship with teaching in private schools ($\beta = -0.153$, $p < 0.05$). This means that a teacher with a high BLEPT rating tends to have shorter experience in private schools before they transfer to the public school system. However, this experience does not show a significant relationship with the teacher's performance based on RPMS results ($\beta = -0.008$, $p > 0.05$). This shows that length of previous employment in private educational institutions does not predict teachers' performances in the field.

In the case of public schools, BLEPT performance also has a significant inverse relationship with teaching experience in public schools ($\beta = -0.056$, $p < 0.05$). This indicates that a teacher with high BLEPT performance tends to have shorter experience in public school before they can adapt to the public school system. Furthermore, the public school experience significantly affects the teacher's performance ($\beta = 0.095$, $p < 0.05$). This signifies that the length of public school service could predict teachers' performance in their respective schools.

College preparation also has a significant relationship with RPMS performance ($\beta = 0.043$, $p < 0.05$), indicating that if the teacher is
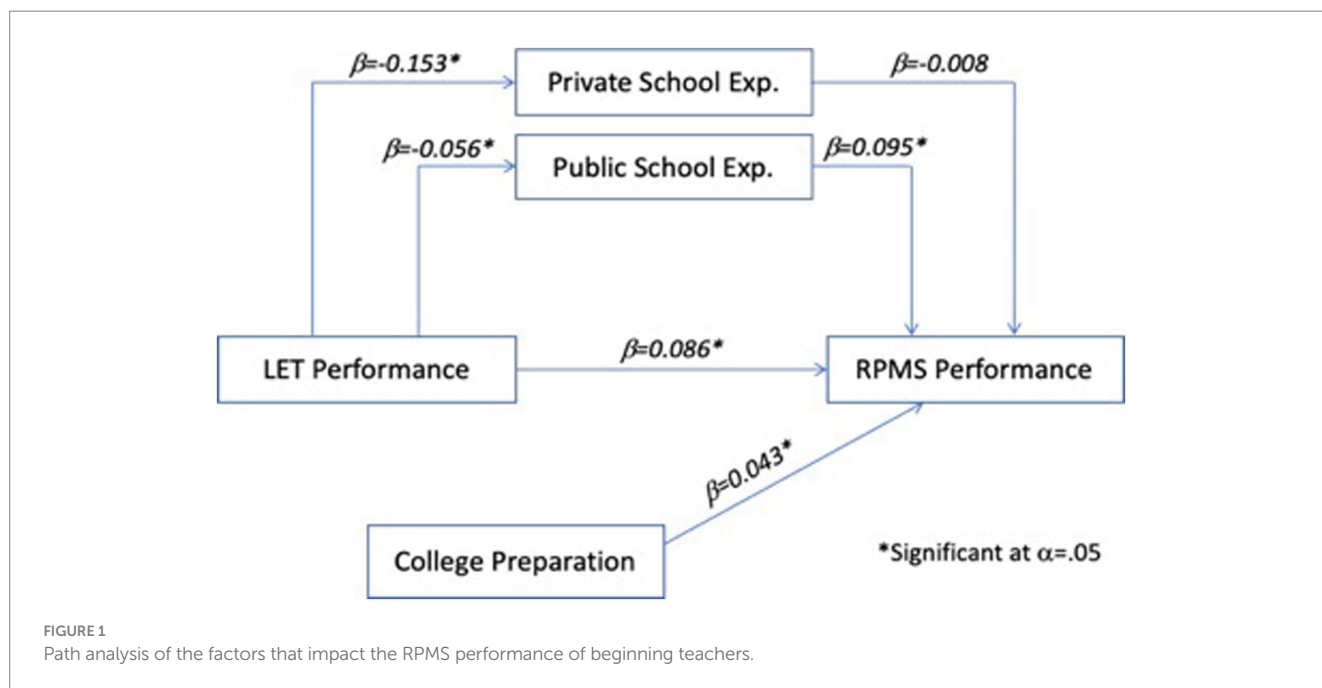
FIGURE 1
Path analysis of the factors that impact the RPMS performance of beginning teachers.

TABLE 6 Effect analysis via multiple regression.

Types of effect	Effect	SE	Value of p
Total effect BLEPT *on RPMS*	0.013*	0.003	0.000
Direct effect LET *on RPMS*	0.014*	0.004	0.000
Indirect effects *Private School Exp on RPMS* *Public School Exp on RPMS*	2.00E-4 −9.00E-4*	6.00E4 4.00E4	0.701 0.025

*Significant at $\alpha = 0.05$.

well-prepared by their college, they can obtain a high rating in the RPMS. Similarly, three crucial characteristics were identified by Lindstrom et al. (2022) in their study on career preparedness with educators and marginalized populations. Student and educator participants agreed that readiness meant having the precise career information and abilities necessary to create specific post-secondary goals. Both groups saw the lack of job preparation opportunities as a barrier. Educators gave instances of difficult personal situations that prevent young people from reaching their full academic and professional potential. Finally, educators and students noted that offering a wide range of learning activities linked to careers, along with the presence of dependable adults who function as mentors and advisors, can enable young people to widen their career alternatives.

Moreover, the impact of high school students' self-efficacy, motivation, sense of belonging, and engagement with academic goals on academic achievement in college was examined by Han et al. (2022). The basic model, which only included academic preparation, and the improved model, which considered academic preparation and noncognitive elements, were contrasted. According to the findings, the improved model that considered noncognitive elements offered a more compelling justification for college students' performance.

Engagement with the academic purpose was more strongly correlated with performance. According to Corcoran and O'Flaherty (2022), evidence-based teacher preparation programs are required to foster prospective teachers' intellectual, social, and emotional growth.

Lastly, BLEPT performance significantly affects the RPMS performance of teachers in general ($\beta = 0.086$, $p < 0.05$). This signifies that a teacher with high BLEPT performance can have high RPMS performance in their schools.

3.4.2. Effect analysis

Considering all variables included in the model, BLEPT scores significantly affect the RPMS ratings of teachers (0.013), as seen in Table 6. In terms of direct effect, BLEPT scores also have a significant effect on the RPMS ratings of teachers (0.014). These results mean that the teachers' BLEPT performance affects their RPMS performance; hence, licensure exam results can predict teachers' performance in public schools later.

For the indirect effects, the private school experience does not have a significant indirect effect on the RPMS of teachers (2.00E-4). This finding suggests that the experience of the teachers in private schools cannot determine how well they perform based on RPMS. This result could also mean that there may be differences in how the two types of schools manage and evaluate their teachers' performances.

On a positive note, the public school experience has a significant indirect effect on the RPMS performance of teachers (−9.00E-4). When a teacher gets a high BLEPT rating, this teacher needs a shorter period to obtain a high rating in RPMS. Conversely, a teacher with a lower BLEPT rating may need more time to get a high rating in RPMS.

4. Conclusion

The quality of teacher preparation influences the preservice teachers' performance in the licensure examination for teachers. There is depth in learning among preservice teachers when the contents are

well-packaged and anchored on the expected outcomes measured in the licensure examination. The beginning teachers with a strong foundation during college preparation manifest a better grasp of their roles and responsibilities in the actual teaching field and, thus, have a greater chance of having higher ratings in the RPMS.

The following policy recommendations are formulated for the Philippine teacher education system:

1. The results-based performance management system as an assessment tool to evaluate the teachers will be integrated into the curriculum among private teacher education institutions in the Philippines.
2. The teacher education institutions intensify their measures in preparing the preservice teachers to pass the licensure examination for teachers.
3. Contextualized teacher induction and in-service development programs may be designed to support beginning teacher quality improvements and initiatives.

4.1. Implications of the study

This study informs the Philippine education policymakers about the efficacy of the teacher licensure examination system, teacher preparation programs, professional development, equity in education, and quality of education. The licensure examination may efficiently choose qualified educators if there is a strong association between licensure exam results and educators' performance. In contrast, a weak association may point to the need for changes to the licensing examination procedure, such as upgrading the examination format and content to reflect better the abilities and knowledge required for effective teaching.

4.2. Limitations of the study and future directions

The analysis might also highlight areas requiring more investigation. For instance, if the study discovers a moderate association between the outcomes of the license exam and teacher effectiveness, it might encourage researchers to look into additional elements that affect good teaching. Researchers, policymakers, and educators should carefully analyze the findings and take the right action to improve the teacher training standard and the educational system.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Ethics statement

The studies involving humans were approved by Cebu Normal University Research Ethics Committee. The studies were conducted in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study.

Author contributions

MNC, JS, MC, JM, and WA contributed to the conception and design of the study. JS organized the data and facilitated the initial analysis. MNC, JS, and MC wrote the first draft of the manuscript. All authors wrote sections of the manuscript and contributed to the manuscript revision. MC ran the final plagiarism test and grammar check before submission. All authors contributed to the article and approved the submitted version.

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Conflict of interest

The authors declare that the research was conducted without any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's note

Supplementary material

The Supplementary material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/feduc.2023.1252368/full#supplementary-material

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