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Voices in the classroom: development and validation of an alternative scale for faculty evaluation

BALBIN, Samuel A.[1] ABENES-BALBIN, Faith Micah A.[2] SAMARITA, Wendelyn A.[3] DE VERA, Vincent Anthony B.[4] NOCILLADO, Carina G.[5] MANALO, Liberty Gay C.[6]

(1) 0000-0003-3844-1453. ; Rizal Technological University. Mandaluyong City, Metro Manila, Philippines. sabalbin@rtu.edu.ph
(2) 0009-0008-6086-2450. ; Rizal Technological University. Mandaluyong City, Metro Manila, Philippines. fmdmabenes@rtu.edu.ph
(3) 0000-0001-8234-9385. ; Rizal Technological University. Mandaluyong City, Metro Manila, Philippines. wasamarita@rtu.edu.ph
(4) 0009-0004-8634-1662. ; Rizal Technological University. Mandaluyong City, Metro Manila, Philippines. vadevera@rtu.edu.ph
(5) 0009-0005-6135-7374. ; Rizal Technological University. Mandaluyong City, Metro Manila, Philippines. cnocillado@rtu.edu.ph
(6) 0000-0001-8909-838X. ; Rizal Technological University. Mandaluyong City, Metro Manila, Philippines. lgcmanalo@rtu.edu.ph

A B S T R A C T

This study presents a novel approach to evaluating faculty performance in the College of Education at Rizal Technological University through the development and validation of an alternative evaluation scale. As educational landscapes evolve, there is a critical need to adapt evaluation oomethods to align with current pedagogical trends and institutional goals. This research addresses these necessities by employing a mixed-methods approach that integrates qualitative insights from Focus Group Discussions with quantitative data gathered via student surveys. Through rigorous exploratory factor analysis, the study identifies and validates four key dimensions of faculty performance namely, Pedagogical Engagement and Relevance, Supportive Teaching Environment, Active Learning Facilitation, and Classroom Climate and Dynamics. Cronbach's alpha and McDonald's omega coefficients were employed to rigorously evaluate the reliability of each dimension, thereby ensuring consistent measurement. The findings highlight the importance of incorporating student perspectives to comprehensively evaluate teaching effectiveness and classroom dynamics. By capturing diverse aspects of faculty performance, including instructional strategies, student engagement facilitation, and classroom management practices, the developed scale provides a comprehensive tool for enhancing teaching quality and learning outcomes. The study's methodological rigor, anchored in measurement theory principles, enhances the validity and pertinency of the evaluation framework within the milieu of higher education. This research provides valuable insights and practical recommendations for educators, administrators, and policymakers aiming to create supportive and inclusive learning environments that enhance student success and faculty development.

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RESUMO

Este estudo apresenta uma abordagem inovadora para a avaliação do desempenho dos docentes na Faculdade de Educação da Universidade Tecnológica de Rizal, por meio do desenvolvimento e validação de uma escala de avaliação alternativa. À medida que os cenários educacionais evoluem, há uma necessidade crítica de adaptar os métodos de avaliação para se alinhar às tendências pedagógicas atuais e aos objetivos institucionais. Esta pesquisa aborda essas necessidades empregando uma abordagem de métodos mistos que integra percepções qualitativas de Discussões em Grupo Focal com dados quantitativos coletados por meio de pesquisas com estudantes. Por meio de uma análise fatorial exploratória rigorosa, o estudo identifica e valida quatro dimensões-chave do desempenho docente, a saber: Engajamento e Relevância Pedagógica, Ambiente de Ensino de Apoio, Facilitação da Aprendizagem Ativa e Clima e Dinâmica da Sala de Aula. Cada dimensão é meticulosamente avaliada quanto à confiabilidade utilizando os coeficientes alfa de Cronbach e ômega de McDonald, garantindo robustez e consistência na medição. Os resultados destacam a importância de incorporar as perspectivas dos estudantes para avaliar de forma abrangente a eficácia do ensino e a dinâmica da sala de aula. Ao capturar diversos aspectos do desempenho dos docentes, incluindo estratégias instrucionais, facilitação do engajamento dos estudantes e práticas de gerenciamento da sala de aula, a escala desenvolvida fornece uma ferramenta abrangente para melhorar a qualidade do ensino e os resultados de aprendizagem. O rigor metodológico do estudo, ancorado nos princípios da teoria da medição, aprimora a validade e a aplicabilidade do quadro de avaliação no contexto do ensino superior. Em última análise, esta pesquisa contribui com insights valiosos e implicações práticas para educadores, administradores e formuladores de políticas que buscam fomentar um ambiente educacional de apoio e inclusivo, propício ao sucesso acadêmico e ao desenvolvimento dos docentes.

Palavras-chave:
Análise Fatorial Exploratória, Avaliação de Desempenho dos Docentes Abordagem de Métodos Mistos, Pesquisas com Estudantes, Eficácia do Ensino

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Introduction

With the evolving educational landscape, it is imperative that the methods for evaluating teachers also adapt (Wilson & Kelley, 2022). As new trends in education emerge, it is crucial to ensure that teaching quality is not compromised. Teachers must transform their instructional processes to engage students more effectively, resulting in improved learning outcomes. This transformation requires dynamic evaluation systems that reflect current educational trends and support teachers in adopting innovative practices to accommodate the varied learning requirements of their students (Schmidt & Tang, 2020).

There are several reasons for modifying evaluation tools, including alignment with institutional goals, as institutions evolve, their mission, vision, and strategic plans may change. Evaluation tools must be aligned with these shifts to ensure faculty performance is measured against relevant criteria (Lee et al., 2017). Reflecting changes in higher education, pedagogical approaches, student demographics, and technological integration are continually evolving. Evaluation tools should adapt to these changes to accurately assess faculty performance (Radianti et al., 2020). Enhancing validity and reliability, over time, evaluation tools may exhibit decreased validity and reliability. Modifications can improve the accuracy and consistency of performance assessments (Murphy, 2020). Promoting faculty development, effective evaluation tools should not only assess performance but also inform faculty development.

Modifications can ensure the evaluation process supports growth and improvement (Skivington et al., 2021). Addressing equity and inclusivity, evaluation tools must be free from bias and ensure equitable assessment of faculty members from diverse backgrounds. Modifications can enhance the fairness and inclusivity of the evaluation process (Ragupathi & Lee, 2020).

This study aimed at developing and validating a robust and reliable alternative scale for evaluating faculty performance. This scale aims to capture diverse dimensions of teaching effectiveness, incorporating student perspectives to provide a comprehensive assessment tool. By systematically collecting, analyzing, and integrating student feedback, the study seeks to create a measurement instrument that not only reflects the multifaceted nature of faculty performance but also promotes enhanced teaching practices and improved student learning outcomes.

This research is also anchored in the Measurement theory which is integral in addressing objective of this study on faculty performance evaluation. Initially, it facilitates identifying key performance dimensions by structuring the definition and operationalization of constructs like teaching effectiveness, research productivity, and service contributions through literature review and expert consensus. In scale development, measurement theory ensures rigorous practices such as item selection, scaling techniques, and pilot testing to refine

clarity, relevance, and comprehensiveness. Techniques like factor analysis validate the scale's underlying structure, confirming its effectiveness in measuring faculty performance.

Validity assessments are guided by measurement theory principles, ensuring content validity by comprehensively covering all performance dimensions. Construct validity is established empirically, affirming the scale's ability to measure intended constructs accurately. Reliability analyses, following measurement theory, assess the scale's consistency and stability across time and contexts, ensuring reliable and replicable results.

Research Questions

This study aimed at developing and validating a robust and reliable alternative scale for evaluating faculty performance which specifically answered the following questions:

1. What key dimensions of faculty performance can be reliably identified?
2. How valid and reliable is the newly developed scale in capturing the multifaceted aspects of faculty performance?

Methodology

This study employs a mixed-method approach to comprehensively explore faculty performance evaluation. By combining qualitative and quantitative data, this study aims to develop a comprehensive understanding of the complex factors influencing faculty performance (Al Maktoum, 2024). This multifaceted approach enhances the credibility and depth of the findings, enabling a more nuanced exploration of complex research questions. Ultimately, the study aims to provide actionable insights for improving educational policies and practices (Kumar et al., 2021).

This study employed an exploratory sequential mixed-methods design, combining qualitative and quantitative research approaches in a sequential manner (Fetters & Tajima, 2024). This methodological framework starts with an initial qualitative phase, where researchers explore a phenomenon in-depth through methods like interviews, focus groups, or observations. The insights gained from this qualitative phase inform the subsequent quantitative phase, which involves gathering numerical data through surveys, measurements, or statistical analyses to quantify relationships or patterns identified qualitatively (Draucker, 2021).

Moreover, the design integrates findings from both phases to provide a comprehensive understanding of complex research problems, offering insights that neither approach could achieve alone. This iterative process allows researchers to leverage the strengths of qualitative exploration and quantitative rigor, enhancing the validity and depth of their research findings (Dawadi et al., 2021).

In the context of the current study focusing on the College of Education faculty performance, qualitative data collection commenced with Focus Group Discussion (FGD)

involving department heads and faculty club officers. FGDs are particularly valuable for exploring complex viewpoints, experiences, and opinions related to teaching effectiveness, research contributions, service activities, and overall faculty impact within the educational context (Kumar & Jana, 2022). By engaging department heads and faculty club officers, this qualitative approach aimed to capture a comprehensive understanding of faculty performance dynamics and inform subsequent quantitative analyses, contributing to a holistic assessment of educational practices within the College of Education.

Regarding the quantitative component of the study, data were collected through a structured survey method. This phase involved participation from 200 students enrolled in the College of Education, selected through a simple random sampling technique to ensure unbiased and representative data collection (Noor et al., 2022). The survey instrument was disseminated using an online platform, Google Forms (Simanjuntak & Limbong, 2018). The instrument used in the survey consists of items generated based on the data acquired from the Focus Group Discussions. This approach ensured that the survey items were relevant and reflective of the themes and insights discussed by department heads and faculty club officers.

Respondents

For the Focus Group Discussion, the respondents comprised department heads and faculty club officers. They were chosen due to their comprehensive understanding of faculty performance and their established leadership within the faculty, grounded in their extensive experience as educators. Additionally, these individuals are the primary recipients of diverse feedback from the faculty regarding evaluation processes. Their positions allow them to thoroughly understand faculty concerns, providing an informed perspective on the dynamics and challenges experienced by faculty members. This firsthand insight enables them to observe and address the practical issues faced by the faculty, thus offering valuable and ethically sound perspectives on the realities within the institution.

While for the survey, only students from the College of Education who had been enrolled at the university for at least one year were considered. This ensured that participants had sufficient experience and familiarity with the college and its faculty. Their participation was facilitated through the dissemination of survey links by the faculty members who were currently teaching them. Proper protocols were strictly followed, including obtaining necessary approvals for conducting the survey. This adherence to protocols ensured that the study maintained its integrity and complied with institutional guidelines and ethical standards.

Data Analysis

Thematic analysis was employed to identify and extract key themes from the focus group data, which informed item development. This method involves systematically identifying, analyzing, and interpreting patterns within qualitative data to uncover underlying meanings. This method allows researchers to explore complex data by organizing and describing it in detail, facilitating the extraction of significant themes that reflect the research objectives and questions (Kiger & Varpio, 2020). Subsequently, 35 items were developed. These items were initially compiled without reference to specific constructs, through the use of exploratory factor analysis to systematically categorize and assign them to the relevant constructs.

After gathering quantitative data, the items then were subjected to suitability test for Exploratory Factor Analysis. To assess data suitability for factor analysis, Bartlett's test of sphericity and the Kaiser-Meyer-Olkin (KMO) measure were employed. The presence of interrelationships among variables, essential for Exploratory Factor Analysis (EFA), was examined using Bartlett's Test of Sphericity, which assesses the deviation of the correlation matrix from an identity matrix. Essentially, it tests the hypothesis that variables in the dataset are correlated, which is fundamental for conducting EFA. A statistically significant result (typically $p < 0.05$) indicates adequate correlation among variables, supporting the extraction of meaningful factors (Di Leo, 2020).

In addition to that, the Kaiser-Meyer-Olkin (KMO) Measure evaluates the overall sampling adequacy for factor analysis by assessing how well variables correlate with each other. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy, ranging from 0 to 1, evaluates the suitability of data for factor analysis. A KMO value exceeding 0.6 generally indicates sufficient intercorrelation among variables, supporting the application of factor analysis (Acar et al., 2016). These tests are critical in ensuring the validity and reliability of factors identified through EFA in studies examining complex relationships among variables, such as in the assessment of faculty performance dimensions. The variables in the dataset are uncorrelated (Sürücü et al., 2022).

The internal consistency and reliability of the constructed factors were examined using Cronbach's alpha and McDonald's omega. A Cronbach's alpha above 0.7 is commonly accepted as indicative of strong reliability (Ursachi et al., 2015). McDonald's omega, which provides a less biased estimate particularly suitable for scales with non-normal data, was also calculated to confirm the reliability of the factors (Xiao & Hau, 2023). Together, these reliability analyses validate that the scale developed in this study effectively and accurately captures and evaluates the dimensions of faculty performance, ensuring both high validity and reliability. The rigorous assessment of reliability through various coefficients provides confidence in the consistency and robustness of the measurement tool. This comprehensive approach strengthens the reliability and overall trustworthiness of the research findings.

Results and Discussion

Table 1.

Kaiser-Meyer-Olkin Measure and Bartlett's Test of Sphericity

Measure	Value
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.973
Bartlett's Test of Sphericity (Approximate χ2)	8608
Degrees of Freedom (df)	595
Significance (p-value)	< .001

The table above shows the results of the factor analysis indicating highly favorable conditions for exploring the underlying structure of the data of the foregoing study. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was found to be 0.973, indicating a high degree of correlation among the variables and suggesting the data is highly suitable for factor extraction. This high KMO value indicates strong inter-variable relationships, essential for identifying meaningful factors. The Kaiser-Meyer-Olkin (KMO) measure assesses the appropriateness of data for factor analysis by evaluating the correlation patterns among variables, independent of sample size. This statistic evaluates whether the correlations between variables within a dataset are sufficiently strong and distinct to warrant extracting meaningful factors or dimensions (Shrestha, 2021).

A high KMO value, approaching 1, signifies that the variables included in the analysis exhibit strong correlations, indicating a clear and cohesive structure that supports factor extraction (Lamm et al., 2021). This measure is crucial for this study where the construction and validation of evaluation scales require vigorous assessments of how well individual items or variables relate to each other. By verifying the interrelationships among variables, the KMO measure establishes the suitability of the data for factor analysis. This process facilitates the identification and validation of underlying constructs, thereby enhancing the reliability and validity of evaluation tools in educational and research contexts (Saeed et al., 2022).

To assess the suitability of the data for factor analysis, Bartlett's Test of Sphericity was employed to examine the presence of significant correlations among the variables (Sürücü et al., 2022). In this study, the test yielded a chi-square statistic (χ2) of 8608 with 595 degrees of freedom (df), and a highly significant p-value of less than 0.001. The χ2 value of 8608 indicates the extent to which the observed correlations among the variables deviate from what would be expected if the variables were completely uncorrelated. This large χ2 value suggests a substantial departure from the null hypothesis that the correlation matrix is an identity matrix indicating no correlations (McIntosh, 2021). Thus, it provides strong evidence that the variables in this study's dataset exhibit meaningful interrelations, making them suitable entrants for further exploration through factor analysis.

Moreover, the degrees of freedom (df = 595) reflect the complexity and richness of the correlation structure being evaluated. This high number of degrees of freedom highlights the strength of the statistical analysis, indicating that the relationships among the variables are being thoroughly examined across a diverse set of comparisons (Cheung et al., 2024). The p-value ($p < .001$) associated with Bartlett's Test is crucial as it calculates the likelihood of observing the obtained results of χ2 value under the assumption that the variables are

uncorrelated (Resende & Alves, 2022). The p-value of less than 0.001 provides compelling statistical evidence against the null hypothesis, strongly supporting the claim that the observed correlations among the study variables are genuine and not due to chance. This statistical significance supports the validity of applying factor analysis techniques to uncover latent factors or dimensions within the dataset.

Table 2.

Rotated Factor Matrix on the Dimensions of Evaluating Faculty Performance

Items	Factors			
	1	2	3	4
30. Encourages students to think critically and expand their knowledge.	0.631			
33. Clear communication exists between instructor and students, keeping everyone informed and on the same page.	0.612			
32. Encourages students to broaden their knowledge and understanding of the subject.	0.611			
31. Connects course content to current developments in the field	0.611			
11. Presents course content that is relevant to the subject matter and current developments.	0.600			
12. Integrates current research findings into their teaching.	0.550			
10. Demonstrates proficiency in using technology to enhance learning.	0.530			
35. Promotes opportunities for ongoing reflection and improvement to ensure continuous development of curriculum, instruction, and assessment practices.	0.517			
23. Makes themself readily available to address student concerns		0.693		
20. Feedback is specific, actionable, and timely to help students understand their strengths and weaknesses and how to improve.		0.645		
24. Manages class time effectively to cover all material.		0.644		
25. Prepares well for classes and uses effective instructional materials.		0.591		
26. Is available for consultation beyond classroom sessions.		0.535		
21. Assessment data is used to improve curriculum and instruction to better meet student needs.		0.530		
4. Encourages participation from all students in class discussions.			0.678	
2. Motivates students to actively participate in class activities.			0.676	

3. Employs a diverse range of teaching methodologies to accommodate various learning preferences.	0.632	
5. Provides opportunities for student collaboration to encourage teamwork and communication skills.	0.573	
1. Incorporates creative activities to make the subject matter engaging.	0.571	
27. Creates a classroom environment that is respectful and inclusive.		0.670
28. Effectively manages classroom dynamics to maintain a positive learning environment.		0.601
29. Shows passion and enthusiasm for the subject matter.		0.563

The table above provides report on the factor loadings, a comprehensive analysis reveals distinct dimensions of evaluating faculty performance. Factor analysis has identified four underlying factors that capture various aspects of teaching practices and instructor behaviors as perceived in this study.

Factor 1, where here is referred to as "Pedagogical Engagement and Relevance," encompasses items related to stimulating critical thinking, fostering clear communication, connecting course content with current developments, and integrating technology effectively. This factor highlights the importance of engaging teaching methods that enhance student understanding and relevance of learning materials. In support of that, the study by Pedler et al. (2020) examines student engagement in education, emphasizing its crucial role in academic achievement. Cognitive and emotional engagement are highlighted as particularly influential, correlating strongly with academic success. The research identifies six types of engagement, illustrating the diverse ways students interact with their learning. Recognizing and addressing the needs of all students, including those with high abilities, can enhance overall engagement levels and promote a supportive learning environment that caters to diverse learning styles and preferences, thereby fostering academic success.

Factor 2, termed here as "Supportive Teaching Environment," consolidates items focused on instructor availability, timely and actionable feedback, efficient class time management, and preparation with effective instructional materials. This factor underscores the importance of establishing a supportive learning environment characterized by accessible support and well-structured instruction to optimize student success. This resonates to a study titled "Creating a Supportive Classroom Environment Through Effective Feedback: Effects on Students' School Identification and Behavioral Engagement" which explored how teachers' effective feedback impacts students' engagement and school identification. It found that classrooms with better feedback practices saw higher levels of school identification and behavioral engagement among students, consistently across different perceptions. This highlights feedback's role in fostering a supportive, inclusive school environment that

enhances both academic engagement and students' sense of belonging. These insights are critical for educators aiming to cultivate positive classroom climates that benefit student well-being and academic achievement (Monteiro et al., 2021).

Factor 3, which is designated as "Active Learning Facilitation," includes items related to encouraging student participation, motivating active engagement in class activities, employing diverse teaching methods catering to different learning styles, and promoting student collaboration. This factor emphasizes the role of instructors in facilitating active learning environments that encourage student interaction, engagement, and varied approaches to learning. The systematic literature review titled "Instructor Strategies to Aid Implementation of Active Learning" shows as it investigates effective approaches for integrating active learning into undergraduate STEM courses.

Researchers analyzed 29 articles and conference papers focused on active learning, examining its impact on student responses and recommending key implementation strategies. Findings revealed that active learning, often involving in-class problem-solving within traditional lecture formats, positively influenced students' emotional and behavioral engagement, as well as their overall satisfaction with courses. The study proposes eight strategies to support active learning implementation, including clear explanations, collaborative facilitation during activities, and thoughtful planning outside of class. These insights are crucial for educators seeking to enhance student engagement, learning outcomes, and satisfaction through effective active learning practices in STEM education (Nguyen et al., 2021).

Factor 4, termed as "Classroom Climate and Dynamics," encompasses items focusing on creating a respectful and inclusive classroom environment, effectively managing classroom dynamics to maintain positivity, and demonstrating passion for the subject matter. This factor highlights the importance of fostering a positive and inclusive classroom climate that supports student learning and engagement. A systematic and comprehensive literature review, titled "Classroom Climate and Children's Academic and Psychological Wellbeing," synthesized existing research to examine the relationship between classroom environment and student development from kindergarten to high school. Results indicate a small to moderate positive relationship between overall classroom climate and social competence, motivation, engagement, and academic achievement. Conversely, a small negative relationship was found between classroom climate and socioemotional distress as well as externalizing behaviors. Notably, socioemotional support emerged as the most influential dimension of classroom climate affecting these outcomes. The study also highlighted those variations in measurement approaches and study designs significantly influenced the strength of these associations. These insights underscore the importance of cultivating supportive classroom environments to promote both academic success and psychological well-being among students across various developmental stages (Wang et al., 2020).

Table 3.

Reliability tests of the constructed factors

Factors	Cronbach's α	McDonald's ω
Factor 1. Pedagogical Engagement and Relevance	0.959	0.960
Factor 2. Supportive Teaching Environment	0.954	0.955
Factor 3. Active Learning Facilitation	0.922	0.923
Factor 4. Classroom Climate and Dynamics	0.934	0.934

The table provides a comprehensive assessment of four key factors related to teaching practices and classroom dynamics, each evaluated through measures of internal consistency reliability using Cronbach's α and McDonald's ω coefficients. By employing McDonald's ω alongside Cronbach's α, the study enhances the rigor of reliability assessment, ensuring that the measures used are appropriate and reliable across different types of data and scale structures. This methodological choice not only strengthens the reliability of the study's findings but also aligns with current best practices in scale development and psychometric assessment (Hayes and Coutts, 2020).

Factor 1, Pedagogical Engagement and Relevance, exhibited exceptional reliability with Cronbach's α of 0.959 and McDonald's ω of 0.960, demonstrating robust consistency among items measuring strategies that engage students and contextualize learning. Factor 2, which centers on creating a Supportive Teaching Environment, also shows strong internal consistency with α of 0.954 and ω of 0.955, reflecting the reliability of items assessing teacher support and classroom management conducive to positive learning environments. Factor 3, Active Learning Facilitation, maintains solid reliability with α at 0.922 and ω at 0.923, highlighting effective measurement of instructional methods promoting student engagement and collaborative learning. Factor 4, examining Classroom Climate and Dynamics, achieves a reliability of $\alpha = 0.934$ and $\omega = 0.934$, indicating consistent measurement of factors influencing the emotional and social atmosphere in classrooms.

These findings emphasize the reliability and validity of the study's factors, offering educators and researchers robust tools for evaluating and improving teaching practices and classroom environments for faculty performance. By ensuring the accuracy and consistency of the measurement instrument, the study provides actionable insights that can enhance student engagement and learning outcomes. The validated factors contribute to a more nuanced understanding of effective teaching strategies and classroom dynamics. This, in turn, supports targeted interventions and continuous improvements in educational practices.

Conclusion

This study aimed to establish comprehensive measures for evaluating the performance of faculty members within the College of Education at Rizal Technological University. These

measures represent an alternative scale designed to assess various facets of faculty performance effectively. The Kaiser-Meyer-Olkin measure and Bartlett's Test of Sphericity were utilized as preliminary analyses to determine the appropriateness of the data for factor analysis. Subsequently, through rigorous exploratory factor analysis (EFA), four distinct components or factors emerged namely, Pedagogical Engagement and Relevance, Supportive Teaching Environment, Active Learning Facilitation, and Classroom Climate and Dynamics. Cronbach's alpha and McDonald's omega were computed to assess the internal consistency and construct reliability of the factors and their corresponding items. Therefore, these identified factors collectively define and operationalize faculty performance within the specific context of this study, providing a vigorous framework for evaluating and improving teaching practices and classroom dynamics in the College of Education.

Recommendations

Based on this study, several recommendations can enhance faculty evaluation and support within Rizal Technological University's College of Education. Implementing the newly developed evaluation scale should be accompanied by comprehensive training for faculty and administrators to interpret results effectively for continuous improvement in teaching practices. Establishing a system for ongoing monitoring and feedback using the scale ensures its relevance over time. Using evaluation results to inform targeted faculty development programs can address specific improvement areas.

Continuous review and refinement of evaluation tools uphold fairness and inclusivity, involving diverse stakeholders to enhance transparency. Integrating the scale with institutional goals ensures alignment with the university's mission of fostering student success and academic excellence. Sharing study outcomes through research and conferences enhances understanding of effective evaluation practices and boosts the university's research reputation. Lastly, conducting a longitudinal study will validate the scale's impact on teaching practices and student outcomes, guiding further enhancements. These steps aim to strengthen teaching quality and create a supportive educational environment at Rizal Technological University.

Limitations

Despite the rigorous research methodology employed, it is important to acknowledge certain limitations of this study. Firstly, the study focused exclusively on faculty members within the College of Education at Rizal Technological University, potentially restricting the generalizability of results to different disciplines or institutional settings. Secondly, the reliance on self-reported data from faculty and student surveys may be subject to response biases and social desirability effects, potentially compromising the accuracy of the evaluation results. Thirdly, while efforts were made to ensure the reliability and validity of the newly developed evaluation scale through factor analysis and reliability tests, ongoing validation and

refinement may be necessary as teaching practices and institutional contexts evolve over time. The cross-sectional nature of this study precludes definitive conclusions about causal relationships between faculty evaluation outcomes and subsequent teaching improvements. Addressing these limitations through future research can significantly improve the robustness and applicability of faculty performance evaluation systems in higher education.

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Disclosure of Conflict of Interest

The authors declare no conflicts of interest related to this research. All authors confirm that they have no financial or personal relationships that could have influenced the outcome of this study.

Ethics Statement

Data collection for this study was conducted through an internet-based platform. Participation was entirely voluntary. Respondents provided explicit informed consent by taking a specific action on the platform, such as clicking a link to access an online survey. This action served as their acknowledgement of the study's purpose and their agreement to participate. Respondents were informed of their right to withdraw from the study at any time without penalty and were assured of voluntary participation. To ensure anonymity, the consent form explicitly stated that the researcher would take all necessary steps to protect their identities. This included not including any personally identifiable information in the final analysis or reporting of the research findings. The study was designed to be ethically sound and avoid any potential harm to individuals or organizations. Respondents did not receive any financial compensation for their participation. Upon completion of the study, all responses were handled with care, securely stored, and then disposed of according to ethical guidelines.

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