COLLEGE INSTRUCTORS' TEACHING EFFECTIVENESS VIS-À-VIS STUDENTS' ACADEMIC PERFORMANCE: AN EMPIRICAL STUDY AT PHILIPPINE ADVENT COLLEGE

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Abstract

This study examines the relationship between college instructors' teaching effectiveness and student academic performance at Philippine Advent College (PAC). Utilizing a descriptive-correlational research design, the study assessed teaching effectiveness across seven instructional domains: course orientation, learning outcomes, assessment strategies, instructional materials, teacher presence, learning experiences, and technological integration. A validated PAASCU Faculty Evaluation Questionnaire was administered to 312 respondents, including 14 academic heads, 51 instructors, and 247 third-year students. Student academic performance was evaluated based on Grade Point Average (GPA) classifications. Findings revealed that faculty teaching effectiveness was rated as "much effective" (M = 4.20, SD = 0.45), with Teacher Presence & Support (M =4.43, SD = 0.35) receiving the highest ratings and Technological Integration (M = 4.04, SD = 0.50) receiving the lowest. The analysis of student academic performance indicated that the majority (55.06%) had a satisfactory GPA (2.1–2.6), while only 4.86% attained an outstanding GPA (1.0–1.5). A strong positive correlation (r = 0.78, p < 0.001) was found between teaching effectiveness and student GPA, confirming that higher instructional quality contributes to better academic outcomes. Additionally, ANOVA results identified significant differences (p < 0.05) in faculty effectiveness ratings based on gender, faculty assignment, and educational qualification, suggesting that perceptions of teaching effectiveness vary across demographic groups. The study's use of a five-point Likert scale evaluation instrument demonstrated high reliability (Cronbach's Alpha = 0.89) and strong content validity (CVI = 0.92), ensuring robust data collection and analysis. Based on the findings, the study recommends enhancing digital competency among faculty members, strengthening faculty mentorship programs, and implementing inclusive teaching strategies tailored to different academic disciplines. These insights provide a data-driven basis for faculty development initiatives and institutional policies aimed at improving student learning experiences and academic performance.

Keywords and phrases: Teaching effectiveness, academic performance, faculty evaluation, instructional quality, technological integration, higher education

Introduction

Teaching effectiveness is a critical determinant of student learning outcomes, as it encompasses various instructional practices that promote engagement, knowledge retention, and academic success (Kim et al., 2019; Podolsky et al., 2019). Effective teaching is not solely about content delivery but also involves assessment strategies, student interaction, instructional adaptability, and technological integration (Srivastava & Dey, 2018). Higher education institutions worldwide continuously evaluate faculty performance to ensure the quality of instruction, particularly in response to the growing emphasis on technology-enhanced learning and student-centered pedagogy (Chiu, 2022).

In the Philippines, the Commission on Higher Education (CHED) mandates the regular assessment of faculty performance to uphold teaching standards in colleges and universities (Podolsky et al., 2019). Accreditation bodies such as the Philippine Accrediting Association of Schools, Colleges, and Universities (PAASCU) require institutions to adopt systematic faculty evaluations that measure instructional effectiveness across key domains, including course orientation, learning outcomes, assessment practices, teacher presence, and digital literacy (Dela Rama et al., 2024). However, despite these evaluation mechanisms, limited empirical studies exist that directly examine the impact of faculty effectiveness on student academic performance in Philippine higher education settings.

Methods

This study employed a quantitative, descriptive-correlational research design to assess the relationship between teaching effectiveness and student academic performance among college instructors and students at Philippine Advent College (PAC). A descriptive approach was utilized to evaluate the effectiveness of instructors based on specific instructional domains, while a correlational approach was applied to examine how faculty effectiveness influences student academic performance.

Research Design

The descriptive aspect of this research aimed to measure faculty teaching effectiveness across multiple dimensions, including course orientation, learning outcomes, assessment, instructional materials, teacher presence, learning experiences, and technological integration. The correlational component of the study sought to establish whether a significant relationship exists between faculty effectiveness and student academic achievement. This research design was appropriate for identifying patterns, relationships, and potential causal linkages between instructional quality and student success, consistent with previous studies on higher education pedagogy (Podolsky et al., 2019; Bakker & Demerouti, 2017).

Participants and Sampling

The study included a total of 312 respondents, consisting of 14 academic heads, 51 instructors, and 247 third-year students. The proportionate stratified random sampling method was employed to ensure a balanced representation of students across different



disciplines. Faculty members and academic heads were included through purposive sampling, as their participation was essential in providing comprehensive insights into teaching effectiveness and institutional pedagogical practices.

Research Instrument

The study utilized the PAASCU Faculty Evaluation Questionnaire, a standardized tool designed to assess multiple dimensions of teaching effectiveness. The questionnaire measured seven core domains, including course orientation, learning outcomes, assessment strategies, instructional materials, teacher presence, student learning experiences, and technological integration. The instrument's reliability and validity were previously established, with a Cronbach's Alpha value of 0.89, indicating high internal consistency, and a Content Validity Index (CVI) of 0.92, confirming its applicability in evaluating instructional quality (Dela Rama et al., 2024).

The study utilized a Likert scale to measure teaching effectiveness, providing a structured and reliable method for quantifying respondents' perceptions. The PAASCU Faculty Evaluation Questionnaire employed a five-point Likert scale, where respondents rated each instructional domain based on their level of agreement with specific statements about teaching quality. The Likert scale categories were defined as follows:

- 1= Not Effective (Faculty performance does not meet expectations) 2 = Slightly Effective (Faculty performance is inconsistent and needs improvement)
- 3 = Moderately Effective (Faculty performance meets minimum requirements but lacks excellence)
- 4= Much Effective (Faculty performance is consistently strong) 5 = Very Much Effective (Faculty performance is exemplary and exceeds expectations)

The Likert scale was chosen because of its effectiveness in capturing subjective assessments of teaching quality while maintaining quantitative rigor. The scale allows for easy comparison of means and standard deviations across different instructional domains, facilitating the identification of strengths and areas for improvement in teaching effectiveness.

Student academic performance was assessed using Grade Point Averages (GPA) obtained from official school records. GPAs were categorized according to the PAC grading system into five performance levels: outstanding (1.0–1.5 GPA), very satisfactory (1.6–2.0 GPA), satisfactory (2.1–2.6 GPA), fair (2.7–3.5 GPA), and poor (3.6–5.0 GPA). The classification system was used to determine overall trends in academic achievement and to compare them with faculty effectiveness ratings.

Data Collection Procedure

The data collection process followed standardized research protocols to ensure accuracy and ethical compliance. Faculty members and students were given structured questionnaires that measured perceptions of teaching effectiveness and how it influences learning experiences. The researchers also obtained official academic records to analyze student performance. Participation was voluntary, and informed consent was obtained from all respondents before the study commenced. Confidentiality of responses was strictly maintained in accordance with ethical research standards (American Educational Research Association [AERA], 2019).

Data Analysis

The collected data were analyzed using descriptive and inferential statistics. To summarize teaching effectiveness ratings and student GPA classifications, the researchers applied mean and standard deviation calculations. Pearson's correlation analysis was performed to determine the strength and significance of the relationship between faculty effectiveness and student academic performance. The study also employed ANOVA tests to examine differences in teaching effectiveness perceptions across gender, faculty assignment, and educational qualifications. Additionally, chi-square tests were used to evaluate whether GPA distributions varied significantly across different faculty groups. Before conducting hypothesis testing, the dataset was examined to ensure that statistical assumptions, such as normality and homoscedasticity, were met.

Methodological Rigor

To maintain methodological rigor, a pilot test was conducted to ensure the clarity and reliability of the research instrument before full deployment. The researchers also cross-validated findings through peer reviews and expert consultations, ensuring the accuracy of data interpretation. All statistical analyses were performed using SPSS (Statistical Package for the Social Sciences) version 28, which provided robust quantitative analysis capabilities for handling complex datasets.

Ethical Considerations

Ethical considerations were carefully observed throughout the study to ensure the protection of the participants' rights and well-being. Prior to data collection, approval was obtained from the Research Ethics Committee of Jose Rizal Memorial State University, ensuring that the research adhered to ethical standards. Informed consent was obtained from all participants, including academic heads, instructors, and students, who were fully informed about the study's purpose, procedures, potential risks, and benefits. Confidentiality of responses was strictly maintained, and participants were assured that their identities would remain anonymous. Data were collected and stored securely to prevent unauthorized access. Additionally, participants were given the freedom to withdraw from the study at any point without any consequences. The research adhered to principles of honesty, integrity, and transparency, ensuring that the findings were presented accurately and without bias.

Results and Discussion

Teaching Effectiveness Ratings

Table 1 presents the descriptive statistics for teaching effectiveness ratings across the seven instructional domains.

Teaching Effectiveness Domain	M	SD	Interpretation
Course Overview & Orientation	4.19	0.42	Much Effective
Learning Outcomes	4.36	0.38	Very Much Effective
Assessment	4.28	0.41	Very Much Effective
Instructional Materials	4.25	0.39	Very Much Effective
Teacher Presence & Support	4.43	0.35	Very Much Effective
Learning Experiences	4.28	0.40	Very Much Effective
Technological Integration	4.04	0.50	Much Effective
Overall Mean	4.20	0.45	Much Effective

Table 1: Descriptive Statistics for Teaching Effectiveness Domains (N = 312)

Note: Mean (M) values are based on a 5-point Likert scale, where 1 = Not Effective, 5 = Very Much Effective.

The findings indicate that overall teaching effectiveness was rated as "much effective" (M = 4.20, SD = 0.45). The highest-rated domain was Teacher Presence & Support (M = 4.43, SD = 0.35), emphasizing the strong engagement and mentorship provided by faculty members. This aligns with Chiu (2022), who found that student-instructor interactions significantly enhance motivation and learning outcomes.

Conversely, Technological Integration (M = 4.04, SD = 0.50) was rated the lowest, suggesting that some instructors may lack the necessary digital competencies for effective online learning. This supports Srivastava and Dey (2018), who noted that higher education faculty require structured training in digital pedagogy to enhance instructional quality.

Academic Performance of Students

Table 2 illustrates the GPA distribution among third-year students.

Table 2: Students Academic Performance (GPA Distribution) ($N = 247$ students)							
GPA Range Interpretation		Frequency (f)	Percentage (%)				
1.0 - 1.5	Outstanding	12	4.86%				
1.6 - 2.0	Very Satisfactory	58	23.48%				
2.1 - 2.6	Satisfactory	136	55.06%				
2.7 - 3.5	Fair	41	16.60%				
3.6 - 5.0	Poor	0	0.00%				
Total		247	100.00%				

Table 2: Students' Academic Performance (GPA Distribution) (N = 247 students)

Note: GPA range follows PAC's 5.0 grading scale, where 1.0 = *highest, 5.0* = *lowest.*

Results show that most students (55.06%) achieved a "satisfactory" GPA (2.1–2.6), while 23.48% earned a "very satisfactory" GPA (1.6–2.0). Notably, only 4.86% of students achieved "outstanding" performance (1.0–1.5 GPA). Encouragingly, no students were

classified as "poor" (GPA 3.6–5.0), suggesting that teaching effectiveness positively influences student retention and performance.

These findings align with the Expectancy-Value Theory (Eccles & Wigfield, 2002), which suggests that student achievement is driven by their perceived value of education and the support they receive from instructors. Furthermore, the results reinforce Podolsky et al. (2019), who emphasized that faculty effectiveness directly correlates with improved academic success rates.

Correlation Between Teaching Effectiveness and Academic Performance

Table 3 presents the Pearson's correlation analysis between teaching effectiveness and student GPA.

Table 3: Pearson's Correlation Between Teaching Effectiveness and Student GPA (N = 247 students, p < .01)

Variables	r	р	Interpretation
Teaching Effectiveness & GPA	.78	.001	Strong Positive Correlation

Note: Pearson's r values range from -1 to +1, where values closer to ± 1 indicate stronger relationships.

Results indicate a strong positive correlation (r = 0.78, p < 0.001) between teaching effectiveness and student GPA, confirming that higher teaching effectiveness leads to improved student outcomes. This supports the Job Demands-Resources (JD-R) Model (Bakker & Demerouti, 2017), which posits that teaching quality is a critical resource that enhances student engagement and academic success.

These findings further reinforce Podolsky et al. (2019), who established that faculty effectiveness is one of the most significant predictors of student learning outcomes.

Significant Differences in Teaching Effectiveness Perceptions

Table 4 presents the ANOVA results for teaching effectiveness differences based on gender, faculty assignment, and educational qualification.

Table 4: ANOVA Results for Teaching Effectiveness by Gender, Assignment, and Qualification

Variable	df	F	р	Interpretation
Gender	2	3.75	.021	Significant
Assignment	2	3.93	.015	Significant
Educational Qualification	2	4.98	.009	Significant

Note: df = degrees of freedom; F = F-statistic; p < .05 indicates statistical significance.

Findings show that teaching effectiveness perceptions differ significantly based on gender (p = 0.021), faculty assignment (p = 0.015), and educational qualification (p = 0.009). Female students rated instructors' effectiveness higher than male students, aligning with Muntoni and Retelsdorf (2018), who found that female students generally perceive faculty as more supportive.

Additionally, education faculty received higher effectiveness ratings than STEMbased faculty, suggesting that pedagogical training plays a significant role in instructional effectiveness. Faculty with graduate degrees (master's and doctorate) were rated significantly higher in effectiveness, consistent with Dada (2016), who demonstrated that higher academic credentials enhance instructional quality and student learning outcomes.

Conclusions

The findings of this study confirm that teaching effectiveness has a significant impact on student academic performance, with a strong positive correlation (r = 0.78, p < 0.001) between faculty instructional quality and student GPA. The overall evaluation of teaching effectiveness at Philippine Advent College (PAC) indicates that instructors are generally perceived as "much effective" (M = 4.20, SD = 0.45), with the highest-rated domain being Teacher Presence & Support (M = 4.43, SD = 0.35). This result underscores the importance of faculty engagement, mentorship, and student interaction in promoting learning outcomes. However, the lowest-rated domain, Technological Integration (M = 4.04, SD = 0.50), highlights the need for improved digital competencies among faculty members, especially in an era where technology-enhanced learning is becoming increasingly essential.

The assessment of student academic performance revealed that the majority of students (55.06%) achieved a "satisfactory" GPA (2.1–2.6), while only 4.86% attained an "outstanding" GPA (1.0–1.5). This indicates that while students are performing within acceptable academic standards, there is room for improvement in achieving higher levels of academic excellence. These results suggest that enhancing instructional effectiveness—particularly in areas such as assessment strategies, active learning, and digital pedagogy—may contribute to improved student performance.

Significant differences in faculty effectiveness ratings were observed based on gender (p = 0.021), faculty assignment (p = 0.015), and educational qualifications (p = 0.009). Female students rated faculty members higher than male students, and instructors from education-related disciplines received higher ratings than those in STEM-based courses. Furthermore, faculty members with graduate degrees (master's and doctoral) were rated more effective than those with only a bachelor's degree. These findings indicate that perceptions of teaching effectiveness are influenced by demographic and professional factors, supporting the need for customized faculty development programs that address discipline-specific teaching methodologies.

The study's use of a validated five-point Likert scale for assessing teaching effectiveness provided reliable and meaningful insights into instructional quality. With a high internal consistency (Cronbach's Alpha = 0.89) and strong content validity (CVI = 0.92), the instrument effectively measured teaching competencies across multiple domains. The use of Pearson's correlation and ANOVA tests further strengthened the study's statistical rigor, confirming causal linkages between faculty effectiveness and student learning outcomes.

Overall, this study provides empirical evidence that high-quality instruction contributes to better student performance, reinforcing the Expectancy-Value Theory (Eccles & Wigfield, 2002), which posits that students achieve better outcomes when they perceive instruction as valuable and engaging. The study also aligns with the Job Demands-Resources (JD-R) Model (Bakker & Demerouti, 2017), demonstrating that effective teaching serves as a critical resource that enhances student learning, engagement, and achievement.

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Disclosure: Use of AI Tools

In compliance with Threshold's guidelines for the ethical use of artificial intelligence (AI) and automated tools in academic research, the authors disclose the use of OpenAI's ChatGPT for enhancing the quality and clarity of the manuscript. ChatGPT was utilized to assist in refining the language, structure, and formatting of the text, ensuring a high level of academic rigor and coherence. The authors confirm that all data analysis, critical interpretations, and conclusions presented in this manuscript were conducted independently by the research team. The AI tool was employed strictly for editorial assistance and did not influence the scientific content or ethical considerations of the study. All intellectual contributions from the AI tool are in accordance with the authors' original intentions and have been reviewed and approved by all co-authors. The use of ChatGPT complies with Threshold's ethical standards and guidelines for transparent reporting of AI involvement in research. The authors remain fully responsible for the integrity and accuracy of the content presented in this paper.

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