

The Correlation Between Faculty Teaching Practices, Students' Dominant Learning Styles and Academic Achievement

Algean M. Solatorio*, & Erwin Cubillan

Misamis University, Ozamis City, Philippines

Abstract

This study investigated the influence of clinical instructors' teaching practices on nursing students' learning styles and academic achievement during clinical exposure. Specifically, it determined the level of clinical instructors' teaching practices in terms of instructional planning and design, teaching strategies, and evaluation, identified the prevailing learning styles of nursing students, and examined their academic achievement. It further tested the relationship between clinical instructors' teaching practices and students' learning styles, as well as between teaching practices and academic achievement. A descriptive correlational research design was employed. Data was collected from nursing students using a validated questionnaire and official academic records. Descriptive statistics were used to determine the level of teaching practices, learning styles, and academic achievement, while Pearson's r was applied to establish relationships among the variables. Findings showed that clinical instructors' teaching practices were rated high across all domains, although instructional planning and design obtained the lowest means. Nursing students demonstrated varied learning styles. A significant relationship was found between clinical instructors' teaching practices and students' learning styles, but no significant relationship was identified between teaching practices and academic achievement. The study concludes that effective clinical teaching practices influence how students learn during clinical exposure, while academic achievement may be affected by factors beyond instructional practices. Based on these findings, the study recommends strengthening instructional planning and design, aligning teaching strategies with students' learning styles, and implementing continuous faculty development programs to enhance the quality of clinical instruction.

Keywords: Academic Achievement, Education Teaching Practices, Learning Styles, Nursing Education, Outcome-Based.

1. Introduction

Nursing education in the Philippines operates within an outcomes-based education (OBE) ecosystem that demands coherence between program outcomes, teaching strategies, and assessments, with constructive alignment recognized as a driver of deeper student learning. Recent analyses of the Bachelor of Science in Nursing (BSN) policy environment emphasize that while current Philippine standards endorse OBE, additional integration of transformative principles would strengthen the pathway from classroom activity to demonstrable competencies (Ramos, 2024). International research during 2021 to 2025 consistently shows that learner-centered approaches such as simulation with structured debriefing, inquiry-driven tasks, and problem-based activities enhance reasoning, decision making, and engagement, aligning well with OBE goals (Pérez-Perdomo & Zabalegui, 2024). Student perspectives studies also indicate that when teaching, assessment, and outcomes are tightly aligned, learners are more likely to adopt deep approaches that improve performance in demanding courses (Hailikari et al., 2022). Within the Philippine context, this highlights the need to further examine how faculty teaching practices and students' dominant learning approaches relate to measurable academic outcomes in order to fully realize the intent of OBE in nursing education.

Faculty teaching practices are the immediate mechanisms through which programs cultivate nursing competencies across theory and clinical arenas. Evidence from qualitative and systematic reviews demonstrates that active methods, such as Peyton's step, mind mapping, and structured debriefing, are associated with improved communication, critical thinking, and safer performance of procedures compared with predominantly lecture-based formats (Pivač et al., 2021; Theobald et al., 2021). When simulation is delivered repeatedly, scaffolded to clear objectives, and paired with high-quality debriefing, studies report more consistent gains in clinical reasoning and judgment, though effects depend on design fidelity and measurement (Theobald et al., 2021; Alharbi et al., 2024). Emerging technology-supported strategies, including mobile applications and learning games, have shown promise in strengthening decision-making and motivation among nursing students when embedded in problem solving tasks (Pérez-Perdomo & Zabalegui, 2024). A correlational design that profiles specific teaching practice patterns (e.g.,

case-based learning plus repeated simulation and OSCEs) and relates them to academic outcomes can yield practical, evidence-based guidance for course and program improvement (AlMekkawi et al., 2024; Hailikari et al., 2022).

Students' dominant learning styles and preferred strategies shape how they interact with complex tasks in a rigorous nursing curriculum. A multi-center study using Kolb's Learning Style Inventory found that new nursing students often cluster in Diverging and Assimilating profiles, patterns that influence how learners benefit from experience-based cycles and visual-analytic materials, with implications for designing multimodal teaching (Campos et al., 2022). Philippine research employing the VARK (visual, aural/auditory, read/write, and kinesthetic) framework reports widespread visual preferences among BSN students, yet many analyses find weak or non-significant direct links between self-reported style and academic outcomes, suggesting that style-matching alone may be insufficient for performance gains (Absin et al., 2021). Contemporary reflections in educational psychology argue that durable improvements stem from learning strategies rather than static "styles," urging educators to help students flexibly adapt strategies to task demands within multimodal instruction (Hattie & O'Leary, 2025). Qualitative evidence on flexible learning during the pandemic further shows that modality shifts exposed gaps in the kinesthetic/practical components of nursing, motivating faculty to diversify methods and restore hands-on experiences aligned to outcomes (Condes & Quezon, 2021). These strands point to the need to explore how teaching practices that encourage multimodal and strategy-based learning interact with students' dominant learning approaches in shaping academic performance.

Academic achievement encompassing theory grades, objective structured clinical examination (OSCE) / return-demonstration performance, clinical evaluations, and licensure-related indicators remains the central metric for evaluating program effectiveness and graduate readiness. Reviews of problem-based learning indicate improvements in critical thinking and evaluative capacities that underpin complex assessment performance, though impacts vary with implementation details and assessment alignment (Lang & Parkinson, 2023). Systematic reviews of simulation document consistent gains in knowledge and skills, with stronger effects when exposure is repeated and scenarios are scaled to learning goals, reinforcing simulation's role in meeting clinical competence targets (Alharbi et al., 2024; Theobald et al., 2021). Meta-analytic evidence on evidence-based practice education demonstrates sizeable effects on critical thinking and problem-solving among undergraduate nursing students, supporting OBE's emphasis on reasoning and applied judgment (Jeong et al., 2024). Philippine studies report high perceived competence among graduating students despite pandemic disruptions with perceived competence showing associations with self-reported academic performance while broader licensure analyses of Philippine educated nurses identify contextual and academic factors related to NCLEX RN success (Molanida et al., 2023; Montegricon & Chen, 2025). These findings justify correlating faculty practices and learner approaches with objective academic outcomes to optimize constructive alignment in Philippine BSN programs.

A notable empirical gap persists locally: many Philippine studies emphasize satisfaction or perceptions under shifting modalities rather than concurrently analyzing faculty teaching practices, dominant learning approaches, and objective achievement outcomes. A HERDIN registered investigation illustrates the registry's breadth while highlighting the scarcity of multivariable correlational designs in BSN education, especially those linking pedagogy and learner preferences to performance within theory and clinical courses (Philippine Council for Health Research and Development, 2022). Policy analyses recommend deeper integration of OBE principles in teaching and assessment, but few local studies test how particular practice profiles interact with learner approaches to predict measurable achievement (Ramos, 2024). Pandemic-era qualitative findings detail lived challenges of flexible learning, particularly reduced clinical exposure, without empirically modeling how strategy-centric, multimodal teaching can offset these deficits to improve course grades, OSCE results, and clinical evaluations (Condes & Quezon, 2021). This study aims to address the empirical gap. Addressing this gap through robust correlational methods will provide actionable evidence to refine curriculum, recalibrate teaching portfolios, and improve assessments across diverse learner cohorts in Philippine nursing programs (Alharbi et al., 2024; Hailikari et al., 2022).

The proposed correlational study is timely because it links OBE mandates to classroom realities by testing how faculty practices (e.g., frequency and quality of simulation, case/ problem based learning, OSCE utilization, debriefing structure) interact with learners' dominant approaches (e.g., Kolb profiles, VARK preferences plus strategy use) to predict academic achievement. Such work can surface high-yield pedagogical configurations that are feasible and impactful in Philippine settings, enabling targeted improvement of theory and clinical courses (Campos et al.,

2022; Lang & Parkinson, 2023). Student reported evidence on constructive alignment suggests that clearer connections between activities, assessments, and outcomes foster deeper learning and better performance, a principle that can be operationalized through data driven redesign (Hailikari et al., 2022). Recent syntheses further supply design levers repeated, well debriefed simulation; inquiry-driven tasks; and explicit strategy coaching within multimodal instruction that have been associated with gains in reasoning, motivation, and skill acquisition when aligned to outcomes (Pérez-Perdomo & Zabalegui, 2024; Alharbi et al., 2024). By examining these factors concurrently, the study seeks to generate evidence that can inform more effective instructional designs and strengthen the implementation of OBE within nursing programs

The study's practical significance extend to faculty development, curriculum optimization, and student success interventions grounded in empirical relationships rather than assumptions. Faculty can use correlational results to prioritize high-impact strategies and calibrate assessment instruments (e.g., OSCE rubrics, validated clinical judgment measures) tied to demonstrated gains in their cohorts (Theobald et al., 2021; Jeong et al., 2024). Programs can invest selectively in simulation and emerging methods flipped classroom, team-based learning, and VR/AR where local data demonstrate robust associations with achievement, improving the return on limited resources (AlMekawi et al., 2024; Alharbi et al., 2024). Students can be coached to adopt adaptable learning strategies that complement their preferred modalities, thereby enhancing engagement and measurable performance across theoretical and clinical assessments. Correlating faculty practices, dominant learner approaches, and objective achievement will strengthen OBE implementation and help produce competent, ethical, clinically ready Filipino nurses who meet contemporary healthcare demands

2. Literature Review [Times New Roman 10pt, before: 12pt, after: 12pt, Line spacing Exactly 12pt]

This study is anchored on Patricia Benner's Novice-to-Expert Theory (1984), Sister Callista Roy's Adaptation Model (1976) and Malcolm Knowles' Andragogy Theory (1984)

Patricia Benner adapted the Dreyfus model of skill acquisition to nursing, proposing a developmental pathway from novice to expert grounded in experiential learning and situated clinical judgment (Benner, 1984). Novices rely on rules and context-free features; advanced beginners begin to recognize salient patterns; competent practitioners plan and prioritize care deliberately; proficient nurses perceive situations holistically; and experts act intuitively on the basis of extensive, reflective experience (Benner, 1984). Benner's subsequent scholarship on nursing education underscored high-impact pedagogies—simulation, case analysis, guided bedside teaching, and mentored immersion—as mechanisms for cultivating clinical judgment and professional formation (Benner, et.al 2010)

In relation to faculty teaching practices, Benner's theory provides a framework for structuring instruction according to students' developmental levels. Faculty members are expected to design learning experiences that progressively build competence, beginning with structured and guided instruction for novices and advancing toward complex, independent clinical decision-making for more experienced learners. This developmental alignment ensures that teaching strategies are responsive to students' readiness and promote meaningful learning. Practices such as scaffolding, feedback, and experiential learning opportunities are essential in helping students transition across levels of proficiency.

Some studies support the application of Benner's Novice to Expert Model to simulation educator knowledge, skills, and attitude for academic and practice settings. Facilitator development in the use of simulation methods is gaining more attention and support. If simulation is to continue to advance as a discipline, a theoretical basis is needed. The Novice to Expert Model provides the necessary conceptual structure to guide simulation facilitator development and assist in understanding learning trajectory (Thomas, 2017). Faculty Teaching Practices, Benner's developmental perspective directly guides the sequencing of faculty teaching practices bedside coaching for novices, pattern-recognition through case discussions for advanced beginners, deliberate prioritization drills for the competent, and holistic scenario analysis for the proficient so that instructional complexity matches learners' current level and fosters clinical judgment (Benner, 1984; Benner et al., 2010).

Another theory is the Sister Callista Roy's Adaptation Model that views individuals as adaptive systems who respond to internal and external stimuli through coping mechanisms, resulting in adaptive or ineffective responses (Roy, 2009). The model identifies four adaptive modes: physiological, self-concept, role function, and interdependence. Central to this theory is the idea that individuals continuously adjust their behaviors and responses to

maintain balance and achieve effective functioning within changing environments. In an educational context, students are seen as adaptive learners who modify their approaches based on academic demands and learning conditions

In relation to students' dominant learning styles, Roy's Adaptation Model provides a framework for understanding how learners develop preferred ways of processing and responding to information. Rather than viewing learning styles as fixed traits, the theory suggests that they are adaptive responses shaped by environmental stimuli such as teaching methods, academic expectations, and clinical experiences. Students adjust their learning strategies such as visual, auditory, or experiential approaches depending on what is most effective in a given situation. This perspective highlights the dynamic nature of learning styles and underscores the importance of flexible and supportive instructional strategies that promote positive adaptation

Supporting studies indicate that students who effectively adapt their learning strategies to different educational contexts demonstrate improved engagement and academic performance (Roy, 2009). Research in nursing education shows that adaptive learners who can modify their approaches based on situational demands are more successful in both theoretical and clinical settings. Additionally, studies suggest that supportive learning environments and varied teaching methods enhance students' ability to adapt, thereby strengthening their learning preferences and overall academic outcomes (Roy, 2009).

Malcolm Knowles' Andragogy Theory focuses on the principles of adult learning, emphasizing that adult learners are self-directed, bring prior experiences into the learning process, and are motivated by the relevance and applicability of what they learn (Knowles et al., 2015). Knowles' andragogy emphasizes immediate applicability; realistic scenarios, interprofessional simulations, and patient-centered cases heighten adult learners' engagement and transfer, culminating in better clinical evaluations and readiness for practice (Knowles et al., 2015; Merriam & Bierema, 2014). The theory outlines key assumptions, including the need for learners to understand the purpose of learning, their readiness to learn based on real-life roles, and their preference for problem-centered rather than content-centered instruction. In nursing education, these principles are essential as students are expected to apply theoretical knowledge in real-world clinical settings

In relation to students' academic achievement, Knowles' theory suggests that learning outcomes improve when instructional strategies align with adult learning principles. When students are actively engaged in meaningful, problem-centered activities, they are more motivated and better able to understand and retain information. Strategies such as case-based learning, simulation, collaborative activities, and reflective practice support deeper learning and enhance academic performance. Thus, academic achievement is influenced not only by cognitive ability but also by the extent to which teaching approaches address adult learners' needs and characteristics.

Furthermore, evidence indicates that students who are actively involved in their learning process demonstrate better retention of knowledge and improved clinical competence. These findings highlight that the application of adult learning principles plays a crucial role in achieving positive academic outcomes in nursing education (Knowles et al., 2015; Merriam & Bierema, 2014). Knowles' andragogy links achievement gains to relevance and application; problem-centered tasks, authentic cases, and integration of prior experience raise motivation and comprehension, translating to higher theoretical course marks (Knowles et al., 2015; Merriam & Bierema, 2014).

3. Research Method and Materials

This section explains the research respondents, materials and instruments, and design and procedures employed in the study.

A. Research Respondents

The study's respondents will be chosen from the entire population of 552 nursing students enrolled in the Bachelor of Science in Nursing (BSN) program. The investigation necessitates roughly 232 respondents, as calculated using Slovin's technique to ascertain the suitable sample size. To make sure that everyone is fairly and proportionally represented, a stratified random sample method will be used, with strata based on the second, third, and fourth years. To reduce selection bias and keep the sample representative, random selection will be done within each stratum.

B. Instruments

The primary data gathering tool for this study will be a researcher-made questionnaire designed specifically to assess the relationship between faculty teaching practices, students' dominant learning styles, and academic achievement. There is also an adaptive questionnaire. Prior to its actual administration, the entire instrument underwent a systematic process of pre testing, expert validation, and reliability assessment to ensure its appropriateness, clarity, and consistency for the target respondents. The instrument is composed of three major sections: Faculty Teaching Practices, Dominant Learning Styles, and Academic Achievement.

Faculty Teaching Practices, which will be structured around six (6) key constructs: instructional planning and design, teaching methods and approaches, instructional delivery and facilitation, use of instructional technology, classroom management, and communication and interpersonal skills. Each construct will include carefully developed 10 validated survey questions aligned with the study's objectives to measure the correlation between faculty teaching practices, students' dominant learning style and academic performance

Learning Style Questionnaire, developed by the researcher to identify students' preferred ways of acquiring and processing knowledge in the context of nursing education. This section of the questionnaire will include six constructs: perceptual preference, cognitive processing style, motivational orientation, environmental preference, social interaction style, and adaptability to instructional methods. Each construct will consist of 10 validated survey questions designed to capture the specific learning tendencies and approaches that influence how students engage with instructional content both in the classroom and during clinical practice.

Academic Achievement, the students' official grade equivalents will be used to quantify their academic success. These grades show how well they did in both theoretical and clinical courses. The study will use the students' final grades of major subjects as an objective measure of their overall academic performance instead of a questionnaire created by a researcher. These grade equivalents are a standardized and valid way to measure academic performance because they are properly evaluated through institutional assessment systems that are in line with the nursing curriculum

C. Research Design

The study utilized a descriptive-correlational research design to explore the relationship between faculty teaching strategies, students' dominant learning styles, and academic achievement. This design is appropriate because it allows the researcher to describe the existing conditions and determine the degree to which variations in teaching strategies and learning styles are statistically associated with students' academic performance without manipulating any variables. According to Polit and Beck (2021), a descriptive-correlational design is a non-experimental approach that seeks to observe, describe, and explore relationships among variables in their natural settings. Employing this design enables the design to capture authentic data from students' perceptions and their academic outcomes, which is crucial for understanding patterns that emerge in actual classroom environments. By using this approach, the study can identify significant correlations that may inform improvements in instructional strategies to enhance student learning outcomes

D. Figures

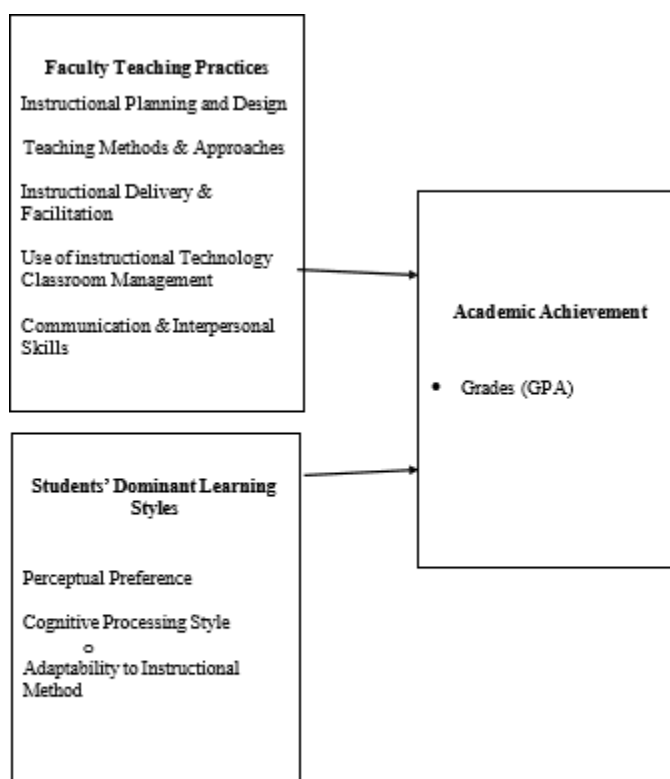


Figure 1. Schematic Diagram of the Study

4. Results and Discussion

This section presents the results and analysis of the data gathered. The presentation follows the research objectives

Faculty Teaching Practices

student learning. These practices encompass instructional planning and design, teaching methods and approaches, instructional delivery, integration of technology, classroom management, and communication skills. Outcome Based Education (OBE) is a student-centered approach of curriculum design and teaching that emphasizes on what learners should know, understand, demonstrate and how to adapt to life beyond formal education (Alkhalide, 2024).

Table 1 presents the respondents' perception of faculty teaching practices, yielding an **overall weighted mean of 3.52 (SD = 0.2253)**, interpreted as **Very Satisfactory (VS)**. This indicates that faculty members generally demonstrate effective and commendable teaching behaviors in the classroom. This finding aligns with contemporary literature emphasizing that effective teaching practices significantly enhance student engagement, comprehension, and academic performance, particularly when aligned with outcomes-based education frameworks. Studies suggest that well-structured teaching strategies and strong instructional delivery contribute to improved learning outcomes and higher student satisfaction.

Supporting studies reinforce these findings, indicating that effective teaching practices particularly those involving interactive methods, clear communication, and student-centered approaches are strongly associated with improved academic achievement and learner satisfaction. Students get involved and learn better in history and social studies classes when methods like role-playing, debates, project work, group projects, class discussions, and learning from original historical sources are used (Lawal, 2025). Research also highlights that instructional planning and design play a critical role in ensuring coherence and alignment in teaching, which directly impacts the quality of learning (Hayati et.al. 2024).

The implications of these findings suggest that while faculty members demonstrate commendable teaching practices overall, there is a need for targeted professional development focusing on instructional planning and design. Strengthening this area can enhance the alignment between objectives, teaching strategies, and assessments, ultimately improving student learning outcomes.

Table 1
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Faculty Teaching Practices

Constructs	WM	StDev	I
Instructional Planning and Design	3.09	0.3367	VS
Teaching Methods and Approaches	3.72	0.3462	VS
Instructional Delivery and Facilitation	3.57	0.4409	VS
Use of Instructional Technology	3.52	0.4700	VS
Classroom Management	3.68	0.3872	VS
Communication and Interpersonal Skills	3.55	0.4985	VS
Overall Weighted Mean	3.52	0.2253	VS
<i>Legend: 3.26-4.00 – Very Satisfactory (VS) 1.76-2.50- Fair (F)</i> <i>2.51-3.25 – Satisfactory (S) 1.00-1.75 – Poor (P)</i>			

Students' Dominant Learning Styles

The variable Students' Dominant Learning Style refers to the preferred ways in which students perceive, process, and respond to learning experiences. It encompasses perceptual preferences (e.g., visual, auditory, kinesthetic), cognitive processing styles (e.g., reflective, analytical), and adaptability to instructional methods. Understanding students' learning styles is essential in designing effective teaching strategies that align with learners' needs, thereby enhancing engagement and academic performance.

Table 2 presents the respondents' perception of students' dominant learning styles, with an overall weighted mean of 3.54 (SD= 0.179), interpreted as Very Satisfactory (VS). This indicates that students generally demonstrate strong and adaptable learning preferences that support effective learning. This finding is supported by literature suggesting that when students' learning styles are recognized and addressed, it leads to improved comprehension, motivation, and academic achievement. Research further emphasizes that aligning teaching strategies with learners' preferences enhances knowledge retention and promotes deeper learning.

Supporting studies affirm that learning styles significantly influence academic performance and engagement. Research indicates that students who are taught using strategies aligned with their preferred learning styles demonstrate improved motivation and achievement. Cognitive processing abilities are strongly associated with higher-order thinking skills, which are essential in nursing education and practice. Earlier and contemporary studies in nursing education show that students perform better when teaching methods are responsive to their individual learning preferences and needs (Alharbiet al., 2021). The relatively low standard deviations across all constructs indicate a high level of agreement among respondents, suggesting that students share similar perceptions regarding

their learning styles. This consistency implies that the learning environment may be relatively uniform, allowing students to develop comparable learning behaviors and strategies. However, it also raises the need to ensure that teaching approaches remain flexible enough to accommodate individual differences.

Table 2
n-232
Students Dominant Learning Style

Constructs	WM	StdDev	I
Perceptual Preference	3.73	0.3120	VS
Cognitive Processing Style	3.75	0.0218	VS
Adaptability of the Instructional Method	3.43	0.0324	VS
Overall Weighted Mean	3.54	0.179	VS

Legend: 3.26-4.00 – Very Satisfactory (VS) 1.76-2.50- Fair (F)
2.51-3.25 – Satisfactory (S) 1.00-1.75 – Poor (P)

Students' Academic Achievement

The variable Students' Academic Achievement refers to the level of students' academic performance as reflected in their grades, categorized into Excellent, Very Good, Good, Passing, and Failed. Academic achievement is a key indicator of learning outcomes and reflects the effectiveness of both teaching practices and students' learning processes. It is often used to evaluate the extent to which educational objectives have been successfully attained.

Table 3 presents the distribution of students' academic achievement. The results show that the majority of students fall under the "Good" category ($f = 125, 53.7\%$), followed by "Very Good" ($f = 58, 25.3\%$), and "Passing" ($f = 40, 17.4\%$). Only a small percentage achieved "Excellent" ($f = 8, 3.6\%$), while "Failed" ($f = 1, 0.44\%$) was minimal. This distribution indicates that most students perform at a satisfactory to above-average level. These findings are consistent with literature suggesting that the majority of students in structured educational environments tend to cluster within the average to above-average performance range, as academic achievement is influenced by multiple factors such as teaching effectiveness, learning styles, and student motivation.

Supporting studies indicate that academic achievement is influenced by a combination of instructional quality, student engagement, and individual learning differences. Research shows that effective teaching practices, when aligned with students' learning styles, significantly improve academic performance and overall learning outcomes (Tomlinson, 2021). Access to academic support services such as tutoring, mentoring, and learning resources plays a crucial role in enhancing students' performance, particularly among those who are struggling academically (Garcia & Santos, 2023). Studies also emphasize that differentiated instruction and learner-centered approaches help address diverse learning needs, enabling educators to bridge the gap between average and high-performing students and promote higher levels of achievement (Subban, 2022).

The implication of these findings suggest that educators should implement strategies to enhance both student support and academic challenge. For students in the passing category, remediation programs, mentoring, and individualized instruction may help improve performance. For those in the Good and very Good categories, enrichment activities and higher order learning tasks may encourage progression towards excellence. Continuous monitoring of student performance and the use of the data driven instructional strategies can help ensure that all students achieve their full academic potential.

Table 3
Students' Academic Achievements

Academic Achievement	Frequency	Percentage
Excellent	8	3.6
Very Good	58	25.3
Good	125	53.7
Passing	40	17.4
Failed	1	0.44
Total	232	100.00

Legend: *1.5-1.0 – Excellent (E)* *3.1-2.25 Fair*
 1.75-1.6 - Very Good (VG) *3.2 – Passed*

Significant Relationship Between The Teachers' Teaching Strategies and the Students' Dominant Learning Style

The table presents the relationship between faculty teaching practices and students' dominant learning styles in terms of perceptual preference, cognitive processing style, and motivational orientation. Specifically, the constructs of faculty teaching practices include instructional planning and design, teaching methods and approaches, instructional delivery and facilitation, use of instructional technology, classroom management, and communication and interpersonal skills. The results consistently show statistically significant relationships across all variables ($p = 0.00$), indicating that faculty teaching practices are significantly associated with students' learning styles. Overall, the correlation coefficients range from low to moderate positive relationships ($r = 0.200$ to $r = 0.568$), suggesting that improvements in teaching practices are linked with better alignment to students' learning preferences and styles. This finding supports the view that effective teaching strategies enhance student engagement and learning adaptability, as emphasized in constructivist and learner-centered theories (Biggs & Tang, 2011; Kolb, 1984).

Examining each construct, instructional planning and design shows moderate positive correlations with perceptual preference ($r = 0.429$), cognitive processing style ($r = 0.351$), and motivational orientation ($r = 0.447$), indicating that well-structured planning supports diverse learning needs. Teaching methods and approaches exhibit stronger relationships, particularly with motivational orientation ($r = 0.541$), suggesting that varied and interactive strategies significantly enhance student motivation. Instructional delivery and facilitation show weaker but still significant correlations ($r = 0.200$ to $r = 0.335$), implying that while delivery matters, it may not be as influential as planning or methods. The use of instructional technology demonstrates moderate relationships ($r = 0.359$ to $r = 0.492$), highlighting its role in supporting different learning modalities. Classroom management also shows moderate correlations ($r = 0.414$ to $r = 0.462$), suggesting that a structured learning environment fosters better learning engagement. Lastly, communication and interpersonal skills present the strongest relationship with motivational orientation ($r = 0.568$), indicating that positive teacher-student interaction greatly influences student motivation and engagement. The findings reveal that all aspects of faculty teaching practices significantly influence students' learning styles, with motivational orientation consistently showing stronger correlations across most constructs. This suggests that how teachers interact, motivate, and engage students play a critical role in shaping their willingness to learn. The rejection of all null hypotheses further confirms that teaching practices are not independent of students' learning styles but are, in fact, closely interconnected. These results highlight the importance of adopting diverse, flexible, and student-centered teaching strategies to accommodate various learning preferences.

These findings are supported by previous studies which research in nursing education shows that interactive and student-centered teaching strategies significantly improve academic engagement, learning interest, and self-efficacy among students (Kim & Kim, 2025). In addition, studies highlight that aligning teaching strategies with students' learning styles enhances motivation, participation, and overall learning outcomes (Song et al., 2024).

The implications of these findings suggest that educators should adopt a holistic and student-centered approach to teaching. Faculty members are encouraged to enhance their instructional planning, diversify teaching methods, integrate technology effectively, and strengthen their communication skills to better support students' learning styles. Educational institutions should also provide continuous professional development programs focused on innovative teaching strategies and learner-centered practices. By aligning teaching practices with students' learning preferences, institutions can improve academic performance, increase student motivation, and promote meaningful and lifelong learning.

Table 4
Significant Relationship Between The Teachers' Teaching Strategies And The Students' Dominant Learning Style

Variable	Perceptual Preference	Cognitive Processing Style	Motivational Orientation
Instructional Planning and Design	r=0.429 p=0.00## Reject H0	r=0.351 p=0.00** Reject H0	r=0.447 p=0.00** Reject H0
Teaching Methods and Approaches	r=0.476 p=0.00** Reject H0	r=0.366 p=0.00** Reject H0	r=0.541 p=0.00** Reject H0
Instructional Delivery and Facilitation	r=0.200 p=0.00** Reject H0	r=0.264 p=0.00** Reject H0	r=0.335 p=0.00** Reject H0
Use of Instructional Technology	r=0.378 p=0.00** Reject H0	r=0.359 p=0.00** Reject H0	r=0.492 p=0.00** Reject H0
Classroom Management	r=0.462 p=0.00** Reject H0	r=0.414 p=0.00** Reject H0	r=0.432 p=0.00** Reject H0
Communication and Interpersonal Skills	r=0.489 p=0.00** Reject H0	r=0.303 p=0.00** Reject H0	r=0.568 p=0.00** Reject H0

H0: There is no significant relationship between the teachers' teaching strategies and the students' dominant learning style

Legend: 0.00-0.01** Highly Significant, 0.02-0.05* Significant, above 0.05 not Significant

Significant Relationship Between the Teachers' Teaching Strategies and the Students' Academic Achievements

The table presents the relationship between teachers' teaching strategies and students' academic achievement across several constructs, namely instructional planning and design, teaching methods and approaches, instructional delivery and facilitation, use of instructional technology, classroom management, and communication and interpersonal skills. The findings reveal that all computed p-values are greater than the 0.05 level of significance ($p = 0.511$ to 0.944), indicating that there is no statistically significant relationship between the variables. Consequently, all null hypotheses are accepted. The correlation coefficients are also very low ($r = 0.005$ to $r = 0.043$), suggesting negligible relationships between teaching strategies and academic achievement. Overall, these results imply that teaching strategies, as measured in this study, do not directly influence students' academic performance. This finding aligns with perspectives that academic achievement is influenced by multiple factors beyond teaching practices alone, such as student motivation, prior knowledge, and socio-environmental conditions (York et al., 2015; Richardson et al., 2012).

Looking at each construct, instructional planning and design shows a very weak relationship with academic achievement ($r = 0.013$, $p = 0.844$), indicating minimal influence on students' grades. Similarly, teaching methods and approaches ($r = 0.033$, $p = 0.621$) and instructional delivery and facilitation ($r = 0.043$, $p = 0.511$) demonstrate weak and non-significant relationships. The use of instructional technology also shows a negligible correlation ($r = 0.038$, $p = 0.569$), suggesting that technology integration alone does not guarantee improved academic outcomes. Classroom management exhibits the weakest relationship ($r = 0.005$, $p = 0.944$), indicating almost no association with academic achievement. Lastly, communication and interpersonal skills ($r = 0.014$, $p = 0.810$) also show a non-significant relationship, implying that while these skills may influence other aspects of learning, they do not directly translate into measurable academic performance.

The findings suggest that students' academic achievement is not solely dependent on teachers' instructional strategies. The acceptance of all null hypotheses indicates that there may be other more dominant factors affecting

academic performance. These may include students' individual learning abilities, study habits, emotional factors, and external support systems. It also implies that while teaching strategies are important for facilitating learning, they may not always be directly reflected in students' grades or academic scores.

Supporting studies indicate similar finding where teaching strategies alone do not significantly predict academic achievement. Recent research in nursing education shows that while instructional approaches contribute to learning experiences, academic performance is more strongly influenced by learner-related factors such as self-regulated learning, engagement, and learning flow (Park et al., 2022), which were found to explain a substantial portion of academic achievement variance. A more recent study demonstrated that self-regulated and strategic learning practices including motivation, concentration, and test strategies are significant predictors of students' academic performance (Eilts, 2025). recent literature suggests that while effective teaching strategies enhance student engagement and learning experiences, their direct impact on grades may remain limited unless combined with other supportive factors such as motivation, self-efficacy, and academic support systems (Zhou et al., 2025).

The implications of these findings suggest that educators and institutions should adopt a more comprehensive approach to improving academic achievement. While enhancing teaching strategies remains important, equal attention should be given to developing students' self-regulation skills, motivation, and learning support systems. Schools should also consider reviewing assessment methods to ensure they capture a broader range of learning outcomes. Furthermore, interventions aimed at improving academic performance should integrate both instructional improvements and student-centered support mechanisms to achieve more meaningful and measurable results

Table 5
Significant Relationship between the Teachers' Teaching Strategies
and the Students' Academic Achievements

Academic Achievements	r	p	Decision
Instructional Planning and Design and Academic Achievements	0.013	0.844	Accept Ho
Teaching Methods and Approaches and Academic Achievements	0.033	0.621	Accept Ho
Instructional Delivery and Facilitation and Academic Achievements	0.043	0.511	Accept Ho
Use of Instructional Technology and Academic Achievements	0.038	0.569	Accept Ho
Classroom Management and Academic Achievements	0.005	0.944	Accept Ho
Communication and Interpersonal Skills and Academic Achievements	0.014	0.810	Accept Ho

Ho: There is no significant relationship between the teachers' teaching strategies and the students' academic achievements.

Legend: 0.00-0.01 ** Highly Significant, 0.02-0.05 * Significant, above 0.05 not Significant

5. Conclusion

Based on the findings of the study, the following conclusions are drawn.

1. Faculty members demonstrate a high level of teaching effectiveness, particularly in instructional delivery, teaching methods, and interpersonal communication; however, instructional planning and design require further enhancement to ensure stronger alignment of objectives, strategies, and assessments
2. Students possess well-developed learning styles, especially in cognitive processing and perceptual preference, indicating readiness for academic engagement. However, their adaptability to instructional methods is comparatively lower, suggesting the need to strengthen flexibility in learning.
3. Students generally exhibit moderate academic performance, with most achieving at the “Good” level. This indicates that while learning outcomes are met, higher academic excellence is not maximized.
4. Faculty teaching practices significantly influence students’ learning styles, affirming the importance of learner-centered and varied instructional approaches in shaping how students learn.
5. Faculty teaching practices do not significantly influence academic achievement, implying that academic performance is multifactorial and may be affected by other variables such as motivation, study habits, prior knowledge, and personal circumstances

Recommendations

Based on the findings and conclusions of the study, the following recommendations are hereby presented :

1. Clinical instructors are encouraged to strengthen their instructional planning and design in clinical teaching. Emphasis should be placed on developing clear clinical objectives, well-structured learning activities, and organized clinical schedules that are aligned with expected learning outcomes. Participation in instructional planning workshops, mentoring programs, and reflective teaching practices may further enhance the effectiveness of clinical instruction. Clinical instructors are also advised to align their teaching strategies with the diverse learning styles of nursing students.
2. Nursing school administrators and academic leaders are strongly encouraged to implement continuous faculty development programs for clinical instructors. These programs should focus on improving instructional planning and design, effective clinical teaching strategies, and learner centered evaluation methods through regular seminars, trainings, and in service education activities.
3. Nursing students are encouraged to take an active role in their clinical learning by identifying their own learning styles, participating meaningfully in clinical activities, and seeking constructive feedback from clinical instructors. Developing effective study habits and appropriate learning strategies may help enhance their clinical competence and support academic performance.
4. The nursing educational institution is encouraged to strengthen the overall quality of clinical instruction by providing adequate institutional support. This may include ensuring access to relevant instructional resources, maintaining reasonable clinical instructor workloads, and establishing policies that support effective instructional planning and continuous professional development.
5. Future researchers are encouraged to conduct further studies on factors that may influence nursing students’ academic achievement. Variables such as student motivation, study habits, learning environment, and institutional support systems may be explored using larger sample sizes and different research designs to broaden understanding of nursing education outcomes

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