Nursing Faculty's Pedagogical Skills in Relation to Students' Academic Engagement and Academic Satisfaction

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ABSTRACT

Pedagogical skills of faculty members play a crucial role in shaping students' academic engagement and satisfaction, thereby fostering a positive learning environment and enhancing the quality of educational experiences. In nursing education, understanding how these pedagogical competencies influence students' learning experiences is essential for improving teaching effectiveness and preparing competent future healthcare professionals. This study investigated the relationship between nursing faculty's pedagogical skills and students' academic engagement and academic satisfaction. A quantitative, descriptive-correlational research design was employed involving 159 nursing students from a higher education institution in Ozamiz City, Philippines. Respondents were selected through stratified random sampling. Data were collected using a validated researcher-made questionnaire that assessed nursing faculty's pedagogical skills, students' academic engagement, and academic satisfaction. The data were analyzed using descriptive statistics, including mean and standard deviation, and inferential statistics through the Pearson Product–Moment Correlation Coefficient. Findings revealed that nursing students rated their faculty members' pedagogical skills as very satisfactory, while demonstrating high levels of cognitive and emotional academic engagement and high overall academic satisfaction with their learning experiences. Nursing faculty's pedagogical skills were significantly associated with students' academic engagement and academic satisfaction. Significant relationships were observed between selecting and planning, teaching and learning activities, assessment strategies, and content mastery with students' academic engagement, whereas interaction strategies showed no significant relationship. Furthermore, all pedagogical skill domains demonstrated significant positive relationships with students' academic satisfaction. The study concludes that nursing faculty's pedagogical competence plays a significant role in enhancing students' academic engagement and academic satisfaction, underscoring its importance in promoting effective teaching and meaningful learning experiences. The findings highlight the need for continuous professional development programs that strengthen pedagogical competencies, particularly in instructional planning, teaching strategies, assessment practices, and content mastery, to further improve student engagement, academic satisfaction, and the overall quality of nursing education.

Keywords: effective teaching, healthcare professional, learning experience, professional development, quality nursing education

INTRODUCTION

The quality of nursing education depends not only on curricular content but also on the pedagogical competence of faculty, which shapes students' engagement, satisfaction, and overall learning experiences. Nursing faculty play a pivotal role in developing future nurses by fostering critical thinking, clinical reasoning, problem-solving, and decision-making skills necessary for safe and effective practice (Carless-Kane & Nowell, 2023). Effective pedagogical practices enhance students' satisfaction, self-confidence, and active participation in learning while ensuring that theoretical knowledge is translated into meaningful clinical experiences (Alharbi & Alharbi, 2022; Bayoumy & Alsayed, 2021). Consequently, strengthening faculty pedagogical competence remains fundamental to improving educational quality in nursing programs.

Pedagogy encompasses the deliberate strategies, approaches, and instructional decisions that facilitate student learning (Munna & Kalam, 2021). Pedagogical skills include designing learning objectives, selecting

appropriate teaching methods, managing classroom interactions, implementing effective assessment strategies, and demonstrating content mastery to promote meaningful learning (Beichumila et al., 2022). The effective use of instructional materials enhances student learning and performance (Chisunum & Nwadiokwu, 2024), while nursing students perceive faculty as more effective when instructors foster trust, encourage critical thinking, provide constructive feedback, and demonstrate adaptability and organizational competence (Wille et al., 2025).

Contemporary nursing education has adopted diverse pedagogical approaches, including technology-enhanced instruction, simulation, collaborative learning, blended learning, and active learning strategies to improve student participation and learning outcomes (Tiago & Mitchell, 2024). However, instructional practices remain highly variable among nursing faculty, ranging from lecture-dominated approaches to more balanced teaching methods that integrate active learning (Sadat & Vasilica, 2025). Furthermore, clearly defined learning objectives based on Bloom's Taxonomy have been recognized as essential for effective teaching and meaningful student learning (Momen et al, 2022).

Academic engagement reflects the extent of students' behavioral, cognitive, and emotional involvement in learning and is a strong predictor of academic achievement and professional success (Wong et al., 2024). Research demonstrates that faculty support, effective teaching, clear learning goals, appropriate assessment, and autonomy-supportive instruction significantly enhance student engagement (Lauermann & Berger, 2021; Sokhanvar et al., 2021). Among the three dimensions of engagement, emotional engagement has been identified as particularly important because students who perceive learning as valuable demonstrate stronger commitment to their educational experiences (Liu et al., 2024).

Student satisfaction represents the extent to which educational experiences meet or exceed learners' expectations and serves as an important indicator of institutional effectiveness and educational quality (Soroush et al., 2021). It is influenced by multiple pedagogical factors, including teaching methods, curriculum design, learning resources, assessment practices, and psychosocial support (Guerra-Martín et al., 2021; Wong & Chapman, 2022). Studies have consistently shown that simulation, blended learning, flipped classrooms, and technology-enhanced instruction improve students' satisfaction and learning outcomes, while supportive faculty interactions and clinically relevant curricula further strengthen students' educational experiences (Widiasih et al., 2022; Černelič-Bizjak & Dolenc, 2022).

Despite substantial evidence demonstrating that faculty pedagogical competence contributes to positive student learning outcomes, an important gap remains in understanding which specific pedagogical skill domains most strongly influence nursing students' academic engagement and academic satisfaction. Existing studies have largely conceptualized pedagogical competence as a multidimensional or global construct, emphasizing its overall effect on academic performance, motivation, or learning outcomes, while providing limited examination of the relative contribution of distinct pedagogical competencies. Moreover, empirical evidence within nursing education, particularly in Philippine higher education institutions, remains scarce. Consequently, it is unclear which aspects of faculty pedagogical practice, such as instructional planning, teaching and learning strategies, classroom interaction, assessment practices, and content mastery, are most influential in promoting students' engagement and satisfaction. Addressing this knowledge gap is important because identifying the pedagogical competencies most strongly associated with these outcomes can provide evidence-based direction for targeted faculty development, instructional improvement, and quality enhancement in nursing education.

In response to this gap, the present study examined the relationship between nursing faculty's pedagogical skills and nursing students' academic engagement and academic satisfaction in a higher education institution in Ozamiz City, Philippines. Specifically, it assessed nursing faculty's pedagogical skills in terms of selecting and planning instructional objectives, teaching and learning activities, classroom interaction strategies, assessment strategies, and content mastery. Furthermore, it determined the students' levels of academic engagement across the behavioral, cognitive, and emotional dimensions and academic satisfaction in terms of teaching skills, assessment expectations, and overall learning experiences; and examined the relationships between nursing faculty's pedagogical skills, students' academic engagement, and academic satisfaction.

This study determined the nursing faculty's pedagogical skills in relation to students' academic engagement and satisfaction in one of the higher education institution in Ozamiz City. This study was guided by the following objectives: 1) What is the level of the pedagogical skills of the nursing faculty in terms of selecting and planning instructional objectives, teaching and learning activities, classroom interaction strategies, assessment strategies, and content mastery? 2) What is the level of the nursing students' academic engagement in terms of behavioral engagement, cognitive engagement, and emotional engagement? 3) What is the level of the nursing students' satisfaction in terms of the teaching skills of the nursing faculty, assessment expectations, and overall learning experience 4) Is there a significant relationship between the nursing faculty's pedagogical skills and student's academic engagement? 5) Is there a significant relationship between nursing faculty's pedagogical skills and students' academic satisfaction?

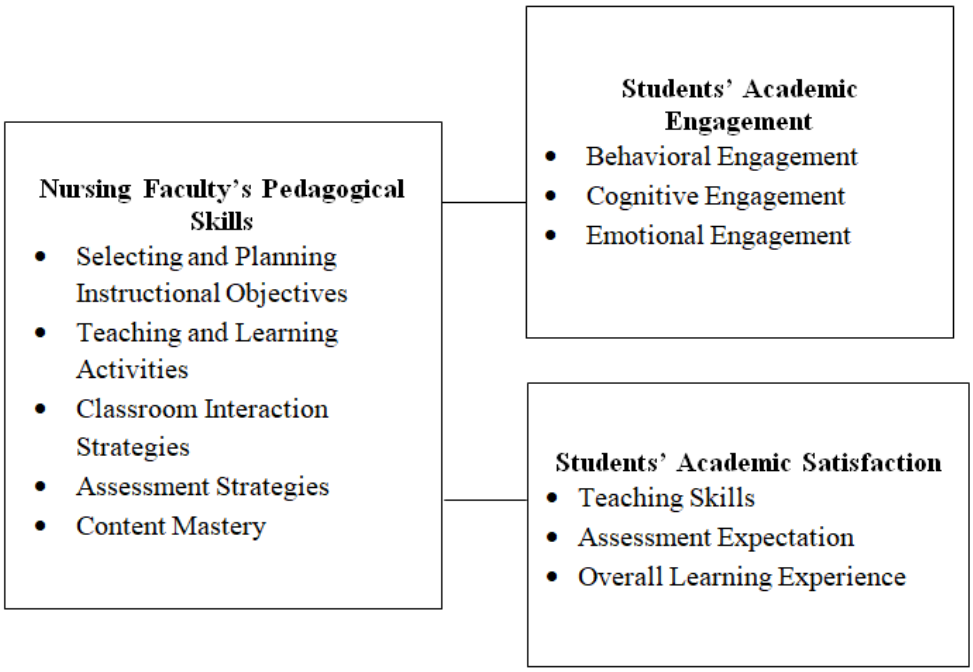

Figure 1. Conceptual Framework

This figure illustrates the hypothesized relationships between the nursing faculty's pedagogical skills in relation to students' academic engagement and academic satisfaction, anchored on the Expectancy-Value Theory (EVT) the Theory of Goal Attainment (TGA).

The lens of the Expectancy-Value Theory and King's Theory of Goal Attainment investigated the relationship between the Nursing faculty's pedagogical skills and student academic engagement and academic satisfaction. EVT explains that students' achievement motivation is determined by two fundamental factors: expectancy of success, which refers to learners' beliefs about their ability to successfully perform academic tasks, and task value, which reflects the importance, usefulness, enjoyment, and perceived cost associated with engaging in those. Within educational settings, EVT provides a theoretical explanation of how instructional practices influence students' motivation, engagement, and academic outcomes. Students are more likely to actively engage in learning when they believe they can succeed and perceive educational activities as valuable.

The study also drew upon Imogene King's Theory of Goal Attainment (TGA), particularly its Interpersonal System. Within the interpersonal system, communication facilitates the exchange of information, transactions represent meaningful interactions directed toward goal achievement, roles define expected behaviors within relationships, and stress reflects individuals' continuous adaptation to environmental. In nursing education, the interpersonal system highlights the importance of faculty-student interactions in promoting meaningful learning experiences. Through positive interpersonal transactions, faculty members not only facilitate knowledge acquisition but also serve as role models who influence students' professional attitudes and behaviors. Thus, supports the proposition that nursing faculty's pedagogical skills, particularly those involving communication, classroom interaction, and instructional support, contribute to higher levels of students'

academic engagement and academic satisfaction by creating a collaborative and goal-oriented learning environment.

METHODOLOGY

Research Design

This study used a descriptive-correlational design. The descriptive-correlational design aimed to provide static pictures of situations as well as establish the relationship between different variables. In the context of this research, the design was used to delineate and establish connections between nursing faculty's pedagogical skills, students' academic engagement, and academic satisfaction.

Setting

The study was conducted in one of the private higher education institutions (HEIs) in Ozamiz City, Philippines that offers a Bachelor of Science in Nursing Program. This educational institution advocates a progressive and dynamic education supporting the city's commitment to providing diverse educational opportunities. In the city, the institution has become an urban and modern university sharing in the development growth and success in the region and continues to strengthen its reputation as a provider of an exceptional education, underscoring the importance placed on healthcare education and training. The university's aim for quality education is ensured by its high commitment to engage in continuous local and international evaluation geared toward its holistic development.

Respondents

Of the 179 eligible nursing students, a total of 159 nursing students from the 3rd and 4th-year levels \ participated in the study, resulting to an 88.8% response rate. Using the Raosoft calculator, the sample size of the population was determined, then stratified random sampling was employed. In this study, students from their 3rd and 4th- academic years were selected. The researcher aimed to capture the responses of the more senior nursing students, recognizing the advanced experiences and perceptions they may have obtained in the course of their nursing education and the utilization of the nursing process. The selection criteria for participation included 1) currently enrolled 3rd and 4th year nursing students in the College of Nursing during the First Semester of the School Year 2023-2024, and 2) gave the consent to participate in the study.

Instruments

The following instruments were used in the data gathering:

A. *Nursing Faculty's Pedagogical Skills*. This researcher-made questionnaire assessed nursing faculty pedagogical skills, focusing on selecting and planning instructional objectives, teaching and learning activities, and classroom interaction strategies, assessment strategies, and content mastery. The researcher-made instrument underwent a rigorous validation process by experts in the field of nursing, ensuring its reliability and accuracy for the intended research purposes. Furthermore, this tool underwent pilot testing to establish the reliability of the instrument. The test yielded the following Cronbach's Alpha results: selecting and planning instructional objectives (α=0.7696), teaching and learning activities (α=0.7346), and classroom interaction strategies (α=0.7388), assessment strategies (α=0.7477), and content mastery (α=0.7563).

B. *Students' Academic Engagement Scale***.** This researcher-made questionnaire measured the level of students' academic engagement in terms of behavioral, cognitive and emotional engagement. The researcher-made instrument underwent a rigorous validation process by experts in the field of nursing, ensuring its reliability and accuracy for the intended research purposes Furthermore, this tool underwent pilot testing to establish the reliability of the instrument. The test yielded the following Cronbach's Alpha results: behavioral engagement (α=0.9477), cognitive engagement (α=0.733) and emotional engagement engagement (α=0.7535).

C. *Students' Academic Satisfaction Questionnaire***.** This researcher-made questionnaire measured the level of students' satisfaction classified as teaching skills, assessment expectations, and overall learning experience. The researcher-made instrument underwent a rigorous validation process by experts in the field of nursing, ensuring its reliability and accuracy for the intended research purposes. Furthermore, this tool underwent pilot testing to establish the reliability of the instrument. The test yielded the following Cronbach's Alpha results: teaching skills (α=0.7026), assessment expectations (α=0.8427), and overall learning experience (α=0.7343).

The complete research instruments are provided as supplementary appendices to enhance transparency and facilitate future replication.

Data-Gathering Procedure

Prior to data collection, a pilot test was conducted with individuals similar to the target respondents to evaluate the reliability and internal consistency of the research instruments and to identify issues related to the clarity and comprehensibility of the questionnaire items. Ethical approval and institutional permission were obtained from the Dean of the Graduate School of Misamis University and the Dean of the College of Nursing, Midwifery and Radiologic Technology before the study commenced. Eligible participants were selected based on the established inclusion criteria, informed of the study's purpose and procedures, and invited to participate voluntarily. Written informed consent was obtained from all participants, and confidentiality, anonymity, and privacy were strictly maintained throughout the study. Data collection was conducted in a private setting within the institution using paper-based questionnaires administered according to a scheduled assessment. Student respondents evaluated the pedagogical skills of nursing faculty members and provided responses regarding their academic engagement and satisfaction. Completed questionnaires were collected, coded, and tabulated for statistical analysis, after which the findings were interpreted.

Ethical Considerations

The study received ethical approval from the Misamis University Research Ethics Board (MUREB) following a comprehensive ethical review to ensure that all research procedures complied with established institutional and international ethical standards for research involving human participants. Participation in the study was entirely voluntary, and eligible respondents were provided with clear and comprehensive information regarding the study's objectives, research procedures, potential risks and benefits, and their rights as participants, including the right to decline participation or withdraw from the study at any stage without penalty. Written informed consent was obtained from all participants before data collection commenced. Throughout the research process, the researcher upheld the principles of respect for persons, beneficence, and justice by safeguarding participants' dignity, privacy, confidentiality, and anonymity. No personally identifiable information was disclosed in any report or publication, and all collected data were securely stored using password-protected electronic files and locked storage for hard-copy documents, with access restricted solely to the researcher. The data were used exclusively for research purposes and handled with integrity, honesty, and transparency to ensure compliance with ethical research principles and to protect the rights and welfare of all participants.

Data Analysis

The collected data were encoded, cleaned, and analyzed using appropriate statistical software. Descriptive statistics, specifically the mean and standard deviation, were computed to describe the levels of faculty pedagogical skills, students' academic engagement, and students' academic satisfaction. The mean was used to determine the average responses for each variable, while the standard deviation measured the variability or dispersion of respondents' scores, providing insight into the consistency of their responses. To examine the relationships among the study variables, the Pearson Product–Moment Correlation Coefficient (Pearson's r) was employed. This inferential statistical test was used to determine the direction and strength of the relationship between faculty pedagogical skills and students' academic engagement, as well as between faculty pedagogical skills and students' academic satisfaction. Pearson's r was selected because the variables were measured on continuous scales and the analysis aimed to assess linear associations between them. Statistical significance was evaluated using an alpha level of 0.05, with $p < .05$ considered indicative of a statistically

significant relationship. Because the study employed a cross-sectional descriptive-correlational design, the statistical analyses examined associations only and do not imply causal relationships among the variables.

RESULTS AND DISCUSSIONS

Nursing Faculty's Pedagogical Skills

Table 1 presents the nursing students' assessment of the faculty's pedagogical skills in terms of selecting and planning, teaching and learning activities, classroom interaction strategies, assessment strategies, and content mastery. The respondents demonstrated a high level of agreement regarding the effectiveness of the nursing faculty's pedagogical skills (WM = 3.63, SD = 0.0482), indicating consistent positive perceptions of faculty teaching practices across the identified domains.

Among the assessed constructs, teaching and learning activities received a very satisfactory evaluation (WM = 3.67, SD = 0.3253), suggesting that structured course progression, collaborative learning opportunities, diverse instructional approaches, and technology integration contributed to meaningful learning experiences. Active learning strategies enhance student engagement and improve learning outcomes by encouraging reflective and participatory learning (Dzaiy & Abdullah, 2024). Although variations in learning activities may sometimes be perceived as lacking clear educational outcomes (Malone & Lepper, 2021), the diverse learning needs of student nurses require educators to utilize varied methodologies that address different learning styles and intelligences (Rajaram, 2023). Similarly, selecting and planning instructional content was rated very satisfactory (WM = 3.57, SD = 0.4845), reflecting students' recognition of effective curriculum organization and instructional preparation. Lesson quality and student achievement are significantly influenced by teachers' ability to plan and develop instructional content (Hung, 2023), emphasizing the importance of purposeful instructional design (Gupta, 2023).

Classroom interaction strategies also received a very satisfactory rating (WM = 3.61, SD = 0.3481), demonstrating that faculty members effectively facilitated discussions, encouraged critical thinking, promoted collaboration, and maintained a supportive learning environment. Faculty members serve not only as sources of knowledge but also as facilitators who guide meaningful student interactions and enhance the learning process (Gautam & Agarwal, 2023). The positive perception of innovative and interactive teaching approaches is consistent with findings that students value active instructional methods (Eli, 2021). Furthermore, faculty training and increased confidence in using interactive strategies contribute to the continued adoption of advanced teaching approaches (Fernandes et al., 2022).

Assessment strategies were rated very satisfactory (WM = 3.65, SD = 0.4591), indicating that faculty members employed appropriate assessment practices to evaluate theoretical knowledge, laboratory skills, and clinical competencies while providing feedback to support learning. However, differences may exist between faculty and student perceptions regarding the variety of assessments, feedback practices, and monitoring of learning progress (Stevens, 2023). In nursing education, assessment should extend beyond evaluation toward developing students' capacity for self-assessment and reflective practice, which are essential professional skills (Kolmos et al., 2021). Review and continuous improvement of assessment procedures remain necessary to ensure fairness, consistency, and alignment with student learning needs (Chaimo & Thanasilp, 2026).

Content mastery obtained the highest satisfaction rating among the pedagogical constructs (WM = 3.69, SD = 0.3883), highlighting students' strong recognition of faculty expertise, confidence, and ability to connect theoretical concepts with clinical practice. Professional competence, including strong theoretical and clinical knowledge, effective communication, and sound clinical judgment, is considered a key attribute of nursing faculty members (Perry et al., 2024). Content mastery is strengthened by clinical experience, as students place greater trust in instructors who demonstrate clinical competence and effectively communicate nursing concepts (Soroush et al., 2021). Moreover, continuous professional development through teaching experience, advanced education, and training contributes to the development of highly qualified nursing educators (Bastable, 2021). Overall, the findings demonstrate that nursing faculty members possess effective pedagogical skills that positively influence students' learning experiences, while emphasizing the need for continuous improvement in instructional practices, assessment strategies, and professional development.

Table 1 Nursing Faculty's Pedagogical Skills (n = 159)

Constructs	WM	SD	Interpretation
Selecting and Planning	3.57	0.4845	Very Satisfactory
Teaching and Learning Activities	3.67	0.3253	Very Satisfactory
Classroom Interaction Strategies	3.61	0.3481	Very Satisfactory
Assessment Strategies	3.65	0.4591	Very Satisfactory
Content Mastery	3.69	0.3883	Very Satisfactory
Overall Weighted Mean	3.63	0.0482	Very Satisfactory

Legend: *3.41-4.00-Very Satisfactory (VS)* *1.81-2.60-Fair (F)*

2.61.3.40-Satisfactory (S) *1.00-1.80-Poor (P)*

Respondents' Academic Engagement

Table 2 presents the respondents' academic engagement, which was rated as highly engaged (WM = 3.58, SD = 0.0482). The findings indicate that nursing students demonstrated substantial involvement in their academic activities, characterized by behavioral participation, cognitive investment, and emotional connection to learning. While all dimensions reflected positive engagement, cognitive and emotional engagement emerged as stronger contributors, suggesting students' commitment, enthusiasm, and psychological investment in their academic experiences. The findings imply that students' level of engagement may contribute to academic achievement and future professional development.

Among the dimensions, cognitive engagement obtained a high rating (WM = 4.02, SD = 0.7917), reflecting students' strong mental effort, critical thinking, self-regulation, and active application of learning. Emotional engagement was also rated highly (WM = 3.77, SD = 0.7869), indicating students' enthusiasm, motivation, sense of connection, and positive attitudes toward their learning experiences. Behavioral engagement was rated as engaged (WM = 2.97, SD = 0.8070), demonstrating students' participation in classes, completion of academic tasks, attendance, and involvement in learning activities. Overall, the findings reveal that nursing students exhibit meaningful academic engagement through active participation, reflective learning, and positive emotional involvement, with opportunities to further strengthen behavioral engagement to achieve a more balanced engagement profile.

Importantly, cognitive engagement emerged as the key factor that significantly influenced student engagement, thereby contributing to their academic performance. The research aligns with previous studies that show undergraduates who were more engaged in class tended to achieve higher grades. This underscores the crucial role of educators in fostering cognitive engagement, which is more dependent on the student's investment in their academic progress, rather than group dynamics or participation in classroom activities (Bhardwaj et al., 2025). While the present study reflects the high cognitive and emotional engagement as strong contributors to overall academic engagement, behavioral engagement remains an aspect of academic engagement, as reflected in the students' achievements.

Digital technology has become integral to higher education, significantly influencing all aspects of the student experience. It is associated with increased behavioral, affective, and cognitive student engagement, a key focus for educators. The growing international emphasis on ICT skills and digital literacy underscores their importance for active citizenship. Technology can enhance teaching and learning, improve student self-regulation and self-efficacy, and boost participation in courses and the broader university community, leading to higher student engagement (Bond et. al., 2020). It is a necessary step to engage in meaningful discussion on

how to foster student behavioral engagement in the digital age and provide the grounds for further exploration into discipline-specific use of technology to foster student behavioural engagement (García-Pinar, 2024).

The highly engaged overall status suggests a positive and conducive academic environment, potentially influenced by effective teaching methodologies, a supportive learning community, and relevant curriculum design. The variations in individual constructs provide valuable insights for educators to further tailor their strategies to enhance specific aspects of engagement. Addressing any variability in behavioral engagement may involve targeted interventions to promote active participation while maintaining and further nurturing robust cognitive and emotional engagement, which can contribute to sustained academic success. The findings imply a need for continued support and reinforcement of positive academic behaviors and attitudes, ensuring a holistic and enriching learning experience for the respondents.

Table 2 Respondents' Academic Engagement (n = 159)

Constructs	WM	SD	Interpretation
Behavioral Engagement	2.97	0.8070	Engaged
Cognitive Engagement	4.02	0.7917	Highly Engaged
Emotional Engagement	3.77	0.7869	Highly Engaged
Overall Weighted Mean	3.58	0.0482	Highly Engaged

Legend: 4.21-5.00-VeryHighly Engaged (VHE) 1.81-2.60-Low Engagement (LE)

3.41-4.20-Highly Engaged (HE) 1.00-1.80-Not Engaged (NE)

2.61.3.40-Engaged (E)

Respondents' Academic Satisfaction

Table 3 presents the respondents' academic satisfaction regarding the nursing faculty's teaching skills, assessment expectations, and overall learning experiences, with an overall moderately high satisfaction level (WM = 3.93, SD = 0.367). The findings indicate that nursing students generally perceived their educational experiences positively, reflecting alignment between their academic expectations, achievements, and learning outcomes. Although variations were observed across the individual constructs, the consistent satisfaction levels suggest that the educational environment, teaching practices, and learning opportunities contributed to students' overall fulfillment and academic growth.

The respondents reported a moderately high level of satisfaction with the teaching skills of nursing faculty members (WM = 3.54, SD = 0.5698), indicating that faculty members were perceived as knowledgeable, effective communicators, respectful, and responsive to students' learning needs. Assessment expectations also obtained a moderately high satisfaction rating (WM = 3.97, SD = 0.8089), suggesting that students recognized the clarity, fairness, alignment with learning outcomes, and timely feedback provided through assessment practices. However, variations in assessment satisfaction indicate the importance of continuously improving the transparency, communication, and consistency of assessment procedures to better address students' expectations.

Among the constructs, overall learning experiences received the highest satisfaction rating (WM = 4.27, SD = 0.6724), demonstrating students' positive perceptions of nursing education in developing critical thinking, teamwork, communication skills, confidence, adaptability, and professional preparation. These findings suggest that engaging course content, supportive learning environments, effective teaching strategies, peer support, application of knowledge, and achievement of learning objectives contribute significantly to students' academic satisfaction. Overall, the results highlight the importance of sustaining effective pedagogical

practices and enhancing learning experiences to promote students' holistic personal and professional development.

The finding aligns the study by Cant et al. (2023), wherein the curriculum and teaching skills, having the highest satisfaction rate, stand out as the main drivers of students' satisfaction with the nursing program. High ratings in this area were probably caused by efficient teaching strategies, well-structured courses, and advancements in knowledge and abilities, such as cognitive, communication, collaboration, and psychomotor skills. Opoku-Danso (2025) also discovered that factors that contribute to increased student satisfaction with their education include a curriculum that is pertinent to clinical practice, highly qualified faculty in both academics and pedagogy and positive psychosocial contact. Furthermore, key contributors to satisfaction include clear learning objectives, convenient class schedules, well-defined policies, information on assessment criteria, quality instruction, student needs assessment, administrators' concern for success, and timely release of results (Konstantinidou & Nisiforou, 2022).

The findings suggest an opportunity for educators and institutions to capitalize on areas of strength while addressing potential areas for improvement. Strategies to enhance teaching skills involve professional development programs, incorporating diverse teaching methods, and soliciting student feedback. For assessment expectations, transparent communication, clear guidelines, and feedback mechanisms help align expectations and experiences. The high satisfaction in overall learning experiences underscores the importance of maintaining and expanding successful practices that contribute to a positive and enriching academic journey for all students. Regular feedback, open communication channels, and a commitment to continuous improvement can contribute to sustained and enhanced satisfaction levels among nursing students.

Table 3 Respondents' Academic Satisfaction (n = 159)

Constructs	WM	SD	Interpretation
Teaching Skills of the Nursing Faculty	3.54	0.5698	Moderately High
Assessment Expectations	3.97	0.8089	Moderately High
Overall Learning Experiences	4.27	0.6724	High
Overall Weighted Mean	3.93	0.367	Moderately high

Legend: *4.51-5.00-Very High (VH)* *2.00-2.99-Low (L)*

4.00-4.50-High (H) *1.00-1.99-Very Low (VL)*

3.00-3.99-Moderately High (MH)

Significant Relationship between the Nursing Faculty's Pedagogical Skills and Students' Academic Engagement

Table 4 presents the significant relationships between nursing faculty pedagogical skills and students' academic engagement across behavioral, cognitive, and emotional dimensions. The findings indicate that selecting and planning, teaching and learning activities, assessment strategies, and content mastery were significantly associated with students' academic engagement, while interaction strategies showed no significant relationship across the engagement dimensions. Specifically, selecting and planning demonstrated a strong positive relationship with behavioral engagement ($r = 0.620$, $p = 0.00$) and a significant positive relationship with cognitive engagement ($r = 0.252$, $p = 0.00$), suggesting that effective course preparation, clear learning objectives, and well-organized instructional materials enhance students' participation, focus, reflection, and understanding of nursing concepts. Effective lesson planning serves as a guide for teaching and learning processes, while organized classroom structures and routines contribute to improved student engagement (Nurtanto et al., 2021; Nguyen & Tran, 2024). The constructs teaching and learning activities

exhibited significant positive relationships with all dimensions of academic engagement, including behavioral engagement ($r = 0.610$, $p = 0.00$), cognitive engagement ($r = 0.641$, $p = 0.00$), and emotional engagement ($r = 0.765$, $p = 0.00$). These findings highlight the influence of diverse, interactive, and student-centered teaching approaches in promoting active participation, critical thinking, motivation, and enthusiasm among nursing students. The integration of innovative teaching strategies, active learning practices, and technology-enhanced activities creates a dynamic learning environment that supports deeper comprehension, knowledge retention, and meaningful engagement.

Overall, the results demonstrate that effective nursing faculty pedagogical skills contribute significantly to students' academic engagement. Well-designed instruction, aligned learning objectives, and engaging teaching approaches foster students' behavioral participation, cognitive investment, and emotional connection to learning. These findings emphasize the importance of strengthening faculty pedagogical competencies to sustain an environment that promotes active, reflective, and meaningful learning experiences among nursing students.

According to Munna and Kalam (2022), the adoption of pedagogical approaches has resulted in students demonstrating a readiness to engage actively in the educational process. Moreover, the utilization of instructional methods, such as interactive learning activities, has positively impacted students by enhancing attendance rates, elevating task-focused concentration levels, and fostering greater involvement in school-related activities. Furthermore, intentional instructional designs and strategic planning, such as gamification in flipped learning or thoughtful course preparation in general pedagogical approaches, positively influence students' cognitive engagement (Zainuddin, 2024). Significantly, the pedagogical skills of a teacher enhance students' academic involvement while also fostering a stronger connection with the school and a heightened sense of belonging within the school community (Munna & Kalam, 2022).

An interesting finding of the present study was the absence of statistically significant relationships between classroom interaction strategies and the three dimensions of academic engagement [behavioral ($r = 0.610$, $p = 0.502$), cognitive ($r = 0.804$, $p = 0.741$), and emotional engagement ($r = 0.725$, $p = 0.641$)]. Nursing students remained actively involved, reflective, and emotionally connected to their learning experiences regardless of the interaction strategies utilized. Although interaction strategies received a very satisfactory descriptive rating, they did not differentiate students' levels of engagement. One plausible explanation is that interaction practices may have been implemented consistently across faculty members, resulting in limited variability among students' responses. Consequently, interaction strategies may have reached a ceiling effect, reducing their ability to explain differences in engagement. Another possible explanation is that the researcher-developed instrument may not have captured the complexity and quality of classroom interactions, particularly spontaneous dialogue, collaborative learning processes, or psychologically supportive communication. It is likewise possible that nursing students' engagement is more strongly influenced by instructional design, meaningful learning activities, and faculty content expertise than by interaction strategies alone. However, effective communication, student-to-student and student-to-faculty interactions, and feedback mechanisms remain important components of student engagement, particularly through technology-supported and blended learning environments (Bond, 2020; Adeshola & Agoyi, 2023; Fisher et al., 2021). Future investigations employing classroom observations, qualitative interviews, or mixed-methods approaches may provide deeper insight into how interaction practices contribute to engagement within nursing education.

In contrast, assessment strategies demonstrated significant relationships with students' behavioral and cognitive engagement. A significant positive correlation was found between assessment strategies and behavioral engagement ($r = 0.610$, $p = 0.00$), indicating that clear expectations, aligned assessments, reliable evaluation methods, and constructive feedback contributed to students' active participation in academic activities. Similarly, assessment strategies showed a strong positive relationship with cognitive engagement ($r = 0.847$, $p = 0.00$), suggesting that fair, accurate, and competency-based assessments enhanced students' understanding, critical thinking, and application of nursing concepts across theoretical, laboratory, and clinical contexts. Overall, the findings emphasize that effective assessment practices play a significant role in promoting behavioral and cognitive engagement, while emotional engagement remains a complex construct influenced by multiple personal and contextual factors.

Gomis et al., (2024) recommended in his study that the teacher, as the primary key to learning success and one of the essential inputs in education, instructional practices which include varied strategies of assessment must be sustained and strengthened, especially among Higher Education Institutions (HEIs), to improve student performance in various academic disciplines. It underscores the crucial role of teachers in fostering the success of student engagement, encompassing the behavioral, cognitive, and emotional dimensions. By emphasizing the significance of instructional practices and varied assessment strategies, he highlighted the need for educators to actively promote involvement and interaction in the learning process. A study claimed that emotional engagement's effect on student behavior has still not been adequately studied. Yet, the emotional dimension provides incentives for students to engage in participatory behaviors and to be resolute in their scholarly efforts. Therefore, emotional engagement is considered to play a fundamental role in active learning, resulting in their expounded academic engagement (Eriksen & Bru, 2023).

Despite this, the literature suggests that the emotional dimension serves as a significant motivator, providing students with incentives to actively participate and persist in their academic endeavors. It underscores the crucial role of emotional engagement in fostering active learning and contributing to heightened levels of academic engagement among students. The findings reveal significant positive relationships between nursing faculty content mastery and students' behavioral, cognitive, and emotional engagement. Content mastery demonstrated a significant correlation with behavioral engagement ($r = 0.641$, $p = 0.00$), indicating that faculty expertise, confidence, and comprehensive understanding of nursing concepts significantly influenced students' active participation, involvement in learning activities, and application of nursing skills. The depth of faculty knowledge, continuous professional development, and ability to relate lessons to clinical experiences through relevant examples contributed to students' increased participation and commitment to their academic responsibilities.

Content mastery also showed a strong positive relationship with cognitive engagement ($r = 0.825$, $p = 0.00$), suggesting that faculty members' mastery of subject matter enhanced students' comprehension, critical thinking, and deeper processing of nursing concepts. Faculty members who effectively communicate complex principles, theories, and clinical applications encourage students to explore, reflect, and develop a stronger understanding of the learning content. Furthermore, content mastery was significantly associated with emotional engagement ($r = 0.612$, $p = 0.00$), indicating that knowledgeable and passionate faculty members foster students' motivation, enthusiasm, and appreciation for learning. Overall, the findings emphasize that faculty content mastery is a critical component of effective nursing education. Faculty members who demonstrate expertise, confidence, and commitment to their discipline serve as positive role models, strengthening students' participation, intellectual engagement, and emotional connection to the nursing profession. Their ability to integrate theoretical knowledge with clinical experiences creates meaningful learning opportunities that support students' academic and professional development.

There is a growing recognition of teacher's content mastery in educational and learner psychology research (Dewaele & Li, 2021). The contagious effect of teacher enthusiasm positively influences student emotions and underscores the documented role of teachers in shaping student engagement. A study claimed that learners reveal correlations between perceived teacher enthusiasm, enjoyment, boredom, and social-behavioral learning engagement. Notably, student enjoyment and boredom are identified as mediators between teacher enthusiasm and social-behavioral engagement (Yan et al., 2023).

The findings of Mahajan et al. (2025) emphasized the significant role of nursing faculty's teaching ability, particularly their clarity in explaining and delivering lesson content, in providing quality education, and in aiding nursing students in achieving their learning outcomes. This clarity is indicative of students' engagement with the material. Additionally, Sun et al., (2024) underscored the importance of teacher enthusiasm in enhancing emotional engagement among students, which promotes their psychological investment in learning and prepares them to tackle challenges. Furthermore, teachers can foster emotional engagement by establishing connections to the course material and implementing interactive and collaborative learning activities tailored to students' preferences, thereby eliciting emotional responses that enhance cognitive engagement with the content (Zhu et al., 2021). Thus, strong content mastery among faculty members positively correlates with students' behavioral, cognitive, and emotional engagement, leading to active participation, critical thinking,

and emotional investment in learning. It underscores the importance of instructors' pedagogical skills in creating an engaging learning environment and facilitating students' academic success.

These results suggest that variables related to selecting and planning, teaching and learning activities, assessment strategies, and content mastery significantly influence various aspects of engagement in teaching and learning processes. These findings provide valuable insights into the relationships between different educational components and student engagement levels, particularly among nursing students. As the demand for nursing education greatly evolves, different pedagogical skills should continue to keep up with the advancements to better engage learners in their field of health care.

Table 4 Significant Relationship between the Nursing Faculty's Pedagogical Skills and Students' Academic Engagement (n = 159)

Variables	Behavioral Engagement	Cognitive Engagement	Emotional Engagement
Selecting & Planning	r=0.620 p=0.00** D=Reject Ho	r=0.765 p=0.00** D=Reject Ho	r=0.790 p=0.0.00** D=Reject Ho
Teaching & Learning Activities Classroom	r=0.252 p=0.00** D=Reject Ho	r=0.297 p=0.00** D= Reject Ho	r=0.214 p=0.00** D= Reject Ho
Interaction Strategies	r=0.610 p=0.502 D= Accept Ho	r=0.804 p=0.741 D= Accept Ho	r=0.725 p=0.641 D= Accept Ho
Assessment Strategies	r=0.610 p=0.0.00** D= Reject Ho	r=0.847 p=0.00** D= Reject Ho	r=0.659 p=0.561 D= Accept Ho
Content Mastery	r=0.641 p=0.00** D= Reject Ho	r=0.825 p=0.00** D= Reject Ho	r=0.612 p=0.00** D= Reject Ho

Ho1: There is no significant relationship between the nursing faculty pedagogical skills and students' academic engagement.

*Legend: 0.00-0.01**Highly Significant 0.02-0.05*Significant above 0.05 Not significant*

Significant Relationship between the Nursing Faculty's Pedagogical Skills and Students' Academic Satisfaction

Table 5 demonstrates that the selecting and planning dimension of nursing faculty pedagogical skills was significantly associated with all dimensions of students' academic satisfaction. Significant positive relationships were found with satisfaction regarding teaching skills of the nursing faculty ($r = 0.598$, $p < .001$), assessment expectations ($r = 0.719$, $p < .001$), and overall learning experiences ($r = 0.559$, $p < .001$), leading to the rejection of the null hypothesis in all cases. These findings indicate that effective instructional planning and

the clear formulation of learning objectives contribute substantially to students' perceptions of teaching quality, assessment practices, and their overall educational experience.

Specifically, students who perceived faculty members as demonstrating strong planning skills were more likely to express satisfaction with instructors' content expertise, effective communication, responsiveness to students' questions, respect for diverse learning needs, and ability to create engaging learning environments. Likewise, well-planned assessments characterized by clear criteria, fairness, timely feedback, and alignment with instructional content were strongly associated with students' satisfaction with assessment expectations, representing the strongest relationship among the three satisfaction domains. Furthermore, careful instructional planning was associated with more positive overall learning experiences by fostering a supportive learning environment, meaningful mentoring, and constructive alignment between learning objectives, teaching strategies, and assessment methods.

Overall, these findings underscore the pivotal role of instructional planning as a foundation for enhancing nursing students' academic satisfaction. Careful alignment of instructional objectives, teaching strategies, and assessment practices, together with transparent communication of learning and assessment expectations, promotes a more engaging, equitable, and supportive educational environment. Consequently, nursing faculty should prioritize systematic instructional planning as a key pedagogical practice to strengthen students' satisfaction with teaching quality, assessment processes, and their overall learning experience.

While Huang et al. (2025) highlighted the importance of remaining flexible in lesson planning to accommodate real-time classroom dynamics. Wang et al. (2025) underscored the significance of faculty pedagogical skills in enhancing student satisfaction. Furthermore, the need for effective integration of technology, creative engagement of students, consistency in teaching methods, adaptation to diverse learning styles, and continuous training was emphasized. Faculty with strong pedagogical skills can navigate the evolving needs of students in a technology-driven learning environment. Therefore, while flexibility in planning is crucial, it is complemented by the proactive role of faculty in meeting student needs through pedagogical competence, leading to student satisfaction. Moreover, designing courses is crucial for fostering quality learning and ensuring student satisfaction, particularly in online settings. For instance, students tend to be most satisfied with technology in online courses when it facilitates real-life interactions and encourages active engagement (Yates et al., 2021).

The findings indicate that nursing faculty pedagogical skills related to teaching and learning activities were significantly associated with all dimensions of students' academic satisfaction. Significant positive relationships were observed with satisfaction regarding teaching skills of the nursing faculty ($r = 0.571$, $p < .001$), assessment expectations ($r = 0.219$, $p < .001$), and overall learning experiences ($r = 0.286$, $p < .001$), resulting in the rejection of the null hypothesis in all three domains. These findings suggest that effective classroom teaching practices contribute meaningfully to students' perceptions of teaching quality, assessment processes, and their overall educational experience.

Specifically, faculty members' ability to communicate effectively, motivate students, demonstrate enthusiasm for nursing concepts, and employ engaging teaching strategies was associated with higher levels of academic satisfaction. Likewise, teaching and learning activities that aligned with assessment methods and provided meaningful feedback helped students better understand their progress toward learning objectives, thereby improving satisfaction with assessment expectations. Furthermore, classroom experiences that promoted skill development, critical thinking, teamwork, and professional growth were positively associated with students' overall learning experiences, reinforcing the value of interactive and learner-centered instruction.

Overall, these findings emphasize that high-quality teaching and learning activities are fundamental to enhancing nursing students' academic satisfaction. Faculty who continuously strengthen their instructional approaches, integrate active learning strategies, and maintain alignment between teaching methods and assessment practices can foster a more engaging, supportive, and satisfying learning environment. Simultaneously, ensuring transparency and fairness in assessment further enhances students' confidence in the educational process and contributes to a more positive overall learning experience.

According to Pamzan et al., (2023), students perceived teachers who employed various effective teaching methods promoting collaboration as supportive, leading to heightened satisfaction levels. Utilizing active learning strategies contributed significantly to enhancing students' satisfaction with both individual and group learning experiences, irrespective of whether they occur in active learning or traditional classroom settings. The finding coincides with the study of Alahmadi (2020), wherein pedagogical activities positively impact satisfaction levels, particularly in graduate-level courses. Furthermore, the study underscores the impact of quality teaching on student satisfaction in the classroom. Engaging methods and faculty expertise enhance satisfaction. Balancing effective teaching with fair assessment practices is crucial for a positive learning experience, highlighting the importance of effective teaching assessment to foster student satisfaction (Levy-Feldman, 2025).

The findings demonstrate that nursing faculty interaction strategies were significantly and positively associated with all dimensions of students' academic satisfaction. Strong positive correlations were observed with satisfaction regarding teaching skills of the nursing faculty ($r = 0.702$, $p < .001$), assessment expectations ($r = 0.661$, $p < .001$), and overall learning experiences ($r = 0.577$, $p < .001$), leading to the rejection of the null hypothesis across all domains. These results indicate that effective faculty–student interactions play a critical role in shaping nursing students' perceptions of teaching quality, assessment practices, and their overall educational experience.

Specifically, improved interaction strategies—including effective communication, timely feedback, instructor accessibility, and meaningful student engagement—were associated with greater satisfaction with faculty teaching skills. Likewise, when assessment practices aligned with students' expectations and accurately reflected their learning and skill mastery, students reported higher levels of satisfaction with assessment processes. Positive faculty interactions also enhanced students' overall learning experiences by creating a supportive learning environment that fostered engagement, confidence, and academic success.

Overall, these findings underscore the importance of fostering high-quality faculty–student interactions as a key component of pedagogical competence in nursing education. Effective communication, responsive feedback, and learner-centered engagement not only strengthen students' satisfaction with teaching and assessment but also contribute to more positive and meaningful learning experiences. Consequently, continued investment in faculty development aimed at enhancing interaction strategies may further improve the quality of nursing education and students' overall academic satisfaction.

According to Ofosu-Asare (2024), the use of online interactive strategies proved to be a strong contributor to students’ satisfaction; however, achieving this requires user-friendly course design, clear guidance, interactive elements, and multimedia content. Using audio, video, and mobile tools enhances the learning experience. Understanding individual student needs, such as technology skills and personality traits, is vital. Engaged students tend to be more satisfied and motivated. Furthermore, the employment of interaction strategies such as blended learning leads to increased student satisfaction compared to traditional learning (Radovan & Radovan, 2024). Also, the study by Roque-Hernández et al., (2023) supported a strong positive correlation between interaction strategies and students' satisfaction across various educational aspects. Improved faculty interaction enhances students' satisfaction, aligning with the study's emphasis on the crucial role of professor-student interaction in fostering satisfaction and adjustment to university life.

The findings revealed that nursing faculty pedagogical skills related to assessment strategies were strongly and significantly associated with all dimensions of students' academic satisfaction, leading to the rejection of the null hypothesis. Strong positive correlations were found with satisfaction regarding teaching skills of the nursing faculty ($r = 0.710$, $p < .001$), assessment expectations ($r = 0.703$, $p < .001$), and overall learning experiences ($r = 0.669$, $p < .001$). These results indicate that well-designed assessment strategies substantially enhance students' perceptions of teaching quality, assessment processes, and their overall educational experience.

The findings further suggest that assessment practices characterized by effective communication, inclusivity, timely and constructive feedback, and alignment with learning objectives promote greater academic satisfaction. Likewise, assessment approaches that support students in overcoming learning challenges,

encourage peer-assisted learning, facilitate the application of knowledge, and reinforce the achievement of learning outcomes contribute to more positive overall learning experiences. Collectively, these results underscore the importance of implementing fair, learner-centered, and outcome-aligned assessment strategies to strengthen nursing students' academic satisfaction and improve the quality of nursing education.

There is a positive effect on students' academic satisfaction when authentic assessment is given. This student satisfaction could drive students' positive attitudes and behavioural intentions (Sokhanvar et al., 2021). The mediating role of academic self-efficacy in the relationship between critical thinking, and academic satisfaction with studies in nursing education can inform educational and support strategies aimed at improving emotional well-being and academic satisfaction. This knowledge allows educators and nursing program administrators to design interventions and educational strategies that promote the development of critical thinking, and strengthen academic self-efficacy, ultimately aiming to improve study satisfaction and academic success among students (Huaman-Tapia et al., 2023).

The findings demonstrate that nursing faculty content mastery was strongly and significantly associated with all dimensions of students' academic satisfaction. Significant positive correlations were found with satisfaction regarding teaching skills of the nursing faculty ($r = 0.714$, $p < .001$), assessment expectations ($r = 0.698$, $p < .001$), and overall learning experiences ($r = 0.683$, $p < .001$), resulting in the rejection of the null hypothesis across all domains. These findings indicate that faculty members' expertise in nursing content plays a critical role in enhancing students' perceptions of teaching quality, assessment practices, and the overall educational experience.

Specifically, faculty with strong content mastery were perceived to create more engaging, organized, and effective learning environments that promoted deeper understanding of nursing concepts and greater academic satisfaction. Their expertise also strengthened students' confidence in assessment practices, particularly when assessments were aligned with learning objectives and accompanied by meaningful feedback that guided students toward achieving expected outcomes. Furthermore, content mastery positively influenced students' overall learning experiences through well-structured instruction, coherent curriculum delivery, and effective course organization, enabling students' educational experiences to meet or exceed their expectations.

Overall, these findings highlight content mastery as a fundamental component of pedagogical competence that enhances both instructional quality and students' academic satisfaction. By ensuring deep subject expertise, aligning assessments with learning outcomes, and delivering well-organized instruction, nursing faculty can foster more meaningful learning experiences and contribute to the overall effectiveness and quality of nursing education.

The most crucial factor influencing both students' achievement and satisfaction, according to traditional learning theory, is the competence of the lecturer (Latip, 2020). This competence is identified as a critical element for ensuring institutional sustainability through the loyalty of students. The knowledge, credentials, industrial experience, and motivation of lecturers exhibit significant positive relationship with the nursing students' academic satisfaction. Thus, the institution needs to maintain and deliver high service quality, primarily achieved through competent lecturers. This fosters student satisfaction and contributes to institutional sustainability (Mendoza-Villafaina & López-Mosquera, 2024). Strong content knowledge is an essential element of teacher effectiveness (Martinez, 2022). Teachers with strong content knowledge in terms of preparation and delivery are more likely to have satisfaction and meaningful experiences among students.

Table 5 Significant Relationship between the Nursing Faculty's Pedagogical Skills and Students' Satisfaction (n = 159)

Variables	Teaching Skills of the Nursing Faculty	Assessment Expectations	Overall Learning Experiences
Selecting & Planning	r=0.598	r=0.719	r=0.559

	p=0.0.00**	p=0.00**	p=0.00**
	D= Reject Ho	D= Reject Ho	D= Reject Ho
	r=0.571	r=0.219	r=0.286
Teaching & Learning Activities Classroom	p=0.00**	p=0.00**	p=0.00**
	D= Reject Ho	D=Reject Ho	D= Reject Ho
	r=0.702	r=0.661	r=0.577
	p=0.00**	p=0.00**	p=0.00**
	D= Reject Ho	D= Reject Ho	D= Reject Ho
Interaction Strategies	r=0.710	r=0.703	r=0.669
	p=0.00**	p=0.00**	p=0.00**
	D= Reject Ho	D= Reject Ho	D= Reject Ho
	r=0.714	r=0.698	r=0.683
Assessment Strategies	p=0.00**	p=0.00**	p=0.00**
Content Mastery	D= Reject Ho	D= Reject Ho	D= Reject Ho

Ho2: There is no significant relationship between the nursing faculty pedagogical skills and students' satisfaction.

*Legend: 0.00-0.01**Highly Significant 0.02-0.05*Significant above 0.05 Not significant*

Strengths of the Study

Despite its limitations, this study has several notable strengths. First, it examined specific pedagogical skill domains rather than treating pedagogical competence as a single global construct, thereby identifying which instructional competencies were most strongly associated with nursing students' academic engagement and academic satisfaction. This domain-specific approach provides more actionable evidence for designing targeted faculty development interventions than studies examining pedagogical competence as a general construct. In addition, the use of expert-validated research instruments with acceptable internal consistency and a stratified random sampling procedure enhanced the methodological rigor and credibility of the findings. Furthermore, the study contributes to the limited body of evidence on nursing faculty pedagogical competencies within Philippine higher education, providing context-specific evidence that may inform institutional policies, faculty development initiatives, and future research in nursing education.

Limitations of the Study

Several limitations should be considered when interpreting the findings. First, the study was conducted in a single private higher education institution, which may limit the generalizability of the findings to public universities, state colleges, and other nursing schools across different Philippine regions. Second, all variables were measured using student self-report questionnaires, creating the possibility of common method bias and social desirability bias. Although anonymity and voluntary participation were emphasized to minimize these effects, students' perceptions may not fully reflect actual pedagogical practices. Third, faculty perspectives, peer observations, and objective indicators of teaching effectiveness (e.g., academic achievement, licensure examination performance, or classroom observations) were not included. Finally, the cross-sectional

correlational design identifies statistical associations but cannot establish causal relationships between pedagogical skills, engagement, and academic satisfaction.

Practical Implications

The findings provide evidence to guide faculty development initiatives within nursing education. Professional development programs should prioritize instructional planning, learner-centered teaching strategies, authentic assessment design, and strengthening faculty content mastery, as these pedagogical domains demonstrated the strongest relationships with student engagement and satisfaction. Institutions may also consider workshops on active learning methodologies, technology-enhanced instruction, competency-based assessment, formative feedback techniques, simulation pedagogy, and reflective teaching practices. Integrating peer mentoring and classroom observation into faculty development programs may further enhance instructional quality and student learning experiences.

CONCLUSION

The findings demonstrate that nursing faculty's pedagogical competencies are significantly associated with students' academic engagement and academic satisfaction. Specifically, instructional planning, teaching and learning activities, assessment strategies, and content mastery were positively related to academic engagement, while pedagogical competencies across all domains were significantly associated with academic satisfaction. These findings underscore the pivotal role of effective pedagogy in fostering meaningful learning experiences in nursing education.

The study further highlights that not all pedagogical competencies contribute equally to student outcomes. Although classroom interaction strategies did not demonstrate a significant relationship with academic engagement, the overall findings underscore the importance of well-planned instruction, effective teaching strategies, appropriate assessment practices, and strong content mastery in promoting student engagement and satisfaction. Collectively, these results reinforce pedagogical competence as a cornerstone of quality nursing education and provide empirical evidence to support continuous faculty development initiatives aimed at enhancing teaching effectiveness, enriching students' learning experiences, and ultimately preparing competent and practice-ready nursing professionals.

Nevertheless, the findings should be interpreted as evidence of significant associations rather than causal relationships because of the study's cross-sectional design. Future longitudinal and multi-institutional investigations are necessary to establish temporal relationships and improve the generalizability of the findings.

RECOMMENDATIONS

The findings highlight the need for nursing education institutions to prioritize continuous professional development programs that strengthen nursing faculty's pedagogical competencies as a strategic approach to improving teaching quality, student engagement, academic satisfaction, and the overall quality of nursing education. Institutional administrators and nursing academic leaders may implement sustained, evidence-informed faculty development initiatives that focus particularly on instructional planning, teaching and learning strategies, assessment practices, and content mastery, as these pedagogical domains demonstrated significant associations with student outcomes. Such initiatives should be regularly evaluated and refined to ensure their continued responsiveness to educational innovations and the evolving needs of nursing students.

Nursing faculty may adopt learner-centered pedagogical approaches that actively foster behavioral, cognitive, and emotional engagement while promoting meaningful and satisfying learning experiences. Systematic mechanisms for obtaining and utilizing student feedback, such as periodic course evaluations and structured feedback sessions, should be integrated into instructional quality assurance processes to support continuous refinement of teaching practices. Given the absence of a significant relationship between classroom interaction strategies and academic engagement in this study, faculty and academic leaders should critically examine the

quality and effectiveness of interaction practices to identify approaches that better facilitate student engagement within nursing education.

Future research should investigate additional institutional, instructional, and learner-related factors that may influence nursing students' academic engagement and academic satisfaction. Longitudinal research designs are recommended to determine whether improvements in faculty pedagogical competence predict subsequent changes in students' engagement and academic satisfaction over time. Multi-site studies involving both public and private higher education institutions across different regions of the Philippines are likewise encouraged to enhance the external validity and generalizability of the findings. Further investigation of classroom interaction strategies is warranted to better understand their role in promoting student engagement and to identify evidence-based practices that strengthen faculty pedagogical effectiveness. Finally, mixed-methods studies incorporating classroom observations, faculty self-assessments, peer evaluations, and objective measures of student learning outcomes are recommended to provide a more comprehensive understanding of how pedagogical competence influences nursing education.

REFERENCES

1. Adeshola, I., & Agoyi, M. (2023). Examining factors influencing e-learning engagement among university students during covid-19 pandemic: A mediating role of “learning persistence”. Interactive Learning Environments, 31(10), 6195-6222.
2. Alahmadi, W. T. (2020). The Relationship of Institutional and Instructional Factors and International Graduate Students’ Academic Satisfaction in the United States (Doctoral dissertation, Concordia University Chicago). https://files.eric.ed.gov/fulltext/ED614302.pdf
3. Alghanmi, S. S., & Nyazi, A. K. (2022). Exploring Students' Engagement in Distance Learning during the Pandemic of COVID-19: A Correlational Exploratory Design. *Turkish Online Journal of Educational Technology-TOJET*, *21*(3), 46-62. https://eric.ed.gov/?id=EJ1345977
4. Alharbi, K., & Alharbi, M. F. (2022). Nursing Students’ Satisfaction and Self-Confidence Levels After Their Simulation Experience. *SAGE Open Nursing, 8*, 237796082211390. https://doi.org/10.1177/23779608221139080
5. Alqahtani, N., Innab, A., & Bahari, G. (2021). Virtual Education During COVID-19: Exploring Factors Associated with E-Learning Satisfaction among Saudi Nursing Students. Nurse Educator, 46(2), E18-E22. https://doi.org/10.1016/j.nepr.2020.102962
6. Anna, R., & Karachi, P. M. (2020). Elements of Teaching and Learning. i-Manager’s Journal on Nursing, 10(1), 1. https://doi.org/10.26634/jnur.10.1.17015
7. Bastable, S. B. (2021). Nurse as educator: Principles of teaching and learning for nursing practice. Jones & Bartlett Learning.
8. Bayoumy, H. M. M., & Alsayed, S. (2021). Investigating Relationship of Perceived Learning Engagement, Motivation, and Academic Performance among Nursing Students: A Multisite Study. *Advances in Medical Education and Practice, 12*, 351–369. https://doi.org/10.2147/amep.s272745
9. Beichumila, F., Bahati, B., & Kafanabo, E. (2022). Computer Simulations and Animations in the Teaching and Learning of Chemical Kinetics, Equilibrium, and Energetics: Assessing Teachers’ Pedagogical Skills in Tanzania Secondary Schools. *Eurasia Journal of Mathematics, Science and Technology Education, 18(11)*, em2174. https://doi.org/10.29333/ejmste/12498
10. Bhardwaj, V., Zhang, S., Tan, Y. Q., & Pandey, V. (2025). Redefining learning: student-centered strategies for academic and personal growth. In Frontiers in Education (Vol. 10, p. 1518602). Frontiers Media SA.
11. Bond, M. (2020). Facilitating Student Engagement through the Flipped Learning Approach in K-12: A Systematic Review. *Computers & Education, 151*, 103819. https://doi.org/10.1016/j.compedu.2020.103819
12. Bond, M., Buntins, K., Bedenlier, S., Zawacki-Richter, O., & Kerres, M. (2020). Mapping Research in Student Engagement and Educational Technology in Higher Education: A Systematic Evidence Map. International Journal Of Educational Technology In Higher Education, 17, 1-30. https://tinyurl.com/y54rfypa

13. Cant, R., Gazula, S., & Ryan, C. (2023). Predictors of nursing student satisfaction as a key quality indicator of tertiary students' education experience: An integrative review. Nurse Education Today, 126, 105806.
14. Carless-Kane, S., & Nowell, L. (2023). Nursing Students Learning Transfer from Classroom to Clinical Practice: An Integrative Review. *Nurse Education in Practice, 71*, 103731. https://doi.org/10.1016/j.nepr.2023.103731
15. Černelič-Bizjak, M., & Dolenc, P. (2022). Relationship Between Nursing Students' Attitudes Toward Nursing Profession and Online Learning Satisfaction During COVID-19 Lockdown. *PLOS ONE, 17(11)*, e0277198. https://doi.org/10.1371/journal.pone.0277198
16. Chaimo, K., & Thanasilp, S. (2026). A systematic review and meta-synthesis of ethics of teaching in nursing education. Nursing ethics, 33(4), 1139-1168.
17. Chan, C. K. Y., & Zhou, W. (2023). Deconstructing Student Perceptions of Generative AI (GenAI) through an Expectancy Value Theory (EVT)-based Instrument. *arXiv (Cornell University)*. https://doi.org/10.48550/arxiv.2305.01186
18. Chisunum, J. I., & Nwadiokwu, C. (2024). Enhancing student engagement through practical production and utilization of instructional materials in an educational technology class: A multifaceted approach. NIU Journal of Educational Research, 10(2), 81-89.
19. Cho, V., Mansfield, K. C., & Claughton, J. (2020). The Past and Future Technology in Classroom Management and School Discipline: A Systematic Review. *Teaching and Teacher Education, 90*, 103037. https://doi.org/10.1016/j.tate.2020.103037
20. Dzaiy, A. H. S., & Abdullah, S. A. (2024). The use of active learning strategies to foster effective teaching in higher education institutions. Zanco Journal of Human Sciences, 28(4), 328-351.
21. Development ASCD. *Colombian Applied Linguistics Journal*, 19(1), 140. https://doi.org/10.14483/calj.v19n1.11490
22. Dewaele, J. M., & Li, C. (2021). Teacher Enthusiasm and Students' Social-Behavioral Learning Engagement: The Mediating Role of Student Enjoyment and Boredom in Chinese EFL Classes. Language Teaching Research, 25(6), 922-945. https://tinyurl.com/y54rfypa
23. DiMattio, M. J. K., &Hudacek, S. S. (2020). Educating Generation Z: Psychosocial Dimensions of the Clinical Learning Environment that Predict Student's Satisfaction. *Nurse Education in Practice*, *49*, 102901. https://rb.gy/9v2m0x
24. Dong, L., Liu, M., & Yang, F. (2022). The Relationship between Foreign Language Classroom Anxiety, Enjoyment, and Expectancy-Value Motivation and their Predictive Effects on Chinese High School Students' Self-Rated Foreign Language Proficiency. Frontiers in Psychology, 13, 860603. https://tinyurl.com/yx6xarxk
25. Eriksen, E. V., & Bru, E. (2023). Investigating the links of social-emotional competencies: emotional well-being and academic engagement among adolescents. Scandinavian Journal of Educational Research, 67(3), 391-405.
26. Fernandes, S., Araújo, A. M., Miguel, I., & Abelha, M. (2023). Teacher professional development in higher education: The impact of pedagogical training perceived by teachers. Education Sciences, 13(3), 309.
27. Fieger, P. (2012). *Measuring Student Satisfaction from the Student Outcomes Survey.* Technical Paper. National Centre for Vocational Education Research. https://tinyurl.com/yx6xarxk
28. Fisher, R., Perényi, A., & Birdthistle, N. (2021). The positive relationship between flipped and blended learning and student engagement, performance and satisfaction. Active Learning in Higher Education, 22(2), 97-113.
29. Fűzi, B., Géring, Z., & Szendrei-Pál, E. (2022). Changing Expectations Related to Digitalisation And Socialisation in Higher Education. Horizon Scanning of Pre-And Post-COVID-19 Discourses. Educational Review, 74(3), 484-516. https://tinyurl.com/2p86wx2m
30. Gantasala, V. P., Gantasala, S. B., Tawil, T. N. A., & Prasad, P. V. S. (2021). Quality of Learning Experience, Student Satisfaction and Perceived Overall Experience in The COVID-19 Context. *Journal of Applied Research in Higher Education, 14(1)*, 507–520. DOI: 10.1108/jarhe-12-2020-0440
31. García-Pinar, A. (2024). Mapping undergraduates' engagement through multimodal composing. Technology, Pedagogy and Education, 33(3), 363-374.

32. Gautam, K. K., & Agarwal, R. (2023). The new generation teacher: teacher as a facilitator. International Journal of Creative Research Thoughts, 11(7), 2320-2882.
33. Ghasemi, M. R., Moonaghi, H. K., & Heydari, A. (2020). Strategies for Sustaining and Enhancing Nursing Students' Engagement in Academic and Clinical Settings: A Narrative Review. *Korean Journal of Medical Education, 32(2)*, 103–117. https://doi.org/10.3946/kjme.2020.159
34. Gipson, F. (2020). The Moderating Effect of School Climate on Principal Servant Leadership and Teacher Job Satisfaction. Louisiana State University in Shreveport.
35. Gomis, K., Saini, M., Arif, M., & Pathirage, C. (2024). Enhancing the assessment and the feedback in higher education. Quality Assurance in Education, 32(2), 165-179.
36. Guerra-Martín, M. D., Cano-Orihuela, A., Martos-García, R., & Ponce-Blandón, J. A. (2021). Translation and first pilot validation study of the "Undergraduate Nursing Student Academic Satisfaction Scale" questionnaire to the Spanish context. *International Journal of Environmental Research and Public Health, 18(2)*, 423. https://doi.org/10.3390/ijerph18020423
37. Harden, R. M., & Laidlaw, J. M. (2020). *Essential Skills for a Medical Teacher: An Introduction to Teaching and Learning in Medicine*. Elsevier Health Sciences. https://tinyurl.com/bd9m5buj
38. Heilporn, G., Lakhal, S., & Bélisle, M. (2021). An Examination of Teachers' Strategies to Foster Student Engagement in Blended Learning in Higher Education. *International Journal of Educational Technology in Higher Education*, *18*(1), 25. https://tinyurl.com/5346r773
39. Huamán-Tapia, E., Almanza-Cabe, R. B., Sairitupa-Sanchez, L. Z., Morales-García, S. B., Rivera-Lozada, O., Flores-Paredes, A., & Morales-García, W. C. (2023). Critical Thinking, Generalized Anxiety in Satisfaction with Studies: The Mediating Role of Academic Self-Efficacy in Medical Students. *Behavioral Sciences*, *13*(8), 665. https://tinyurl.com/mthheds4
40. Huang, H., Li, M., & Dai, C. (2025). Adapting to Complexity: Teacher-Student interactions in synchronous online language classes through a dynamic systems lens. System, 133, 103732.
41. Ikromova, A. A. (2020). *The Concept Of Pedagogical Skills, Its Role And Importance In Teaching.* The American Journal of Applied Sciences. https://doi.org/10.37547/tajas/volume02issue08-17
42. Jacob, F. I. L. G. O. N. A., John, S. A. K. I. Y. O., & Gwany, D. M. (2020). Teachers' pedagogical content knowledge and students' academic achievement: A theoretical overview. *Journal of Global Research in Education and Social Science*, 14(2), 14-44. https://tinyurl.com/yvnrzmja
43. Kolmos, A., Holgaard, J. E., & Clausen, N. R. (2021). Progression of student self-assessed learning outcomes in systemic PBL. European Journal of Engineering Education, 46(1), 67-89.
44. Konstantinidou, A., & Nisiforou, E. (2022). Assuring the quality of online learning in higher education: Adaptations in design and implementation. Australasian Journal of Educational Technology, 38(4), 127-142.
45. Latip, M. S. A., Newaz, F. T., & Ramasamy, R. (2020). Students' Perception of Lecturers' Competency and the Effect on Institution Loyalty: The Mediating Role of Students' Satisfaction. *Asian Journal of University Education*, 16(2), 183-195. https://doi.org/10.1186/s12912-023-01507-2
46. Lauermann, F., & Berger, J. L. (2021). Linking Teacher Self-Efficacy and Responsibility with Teachers' Self-Reported and Student-Reported Motivating Styles and Student Engagement. Learning and Instruction, 76, 101441. https://doi.org/10.1186/s12912-023-01507-2
47. Levy-Feldman, I. (2025). The role of assessment in improving education and promoting educational equity. Education Sciences, 15(2), 224.
48. Liu, Y., Ma, S., & Chen, Y. (2024). The impacts of learning motivation, emotional engagement and psychological capital on academic performance in a blended learning university course. Frontiers in psychology, 15, 1357936.Loh, E. K. (2019). What We Know about Expectancy-Value Theory, and how it helps to design A Sustained Motivating Learning Environment. System, 86, 102119. https://tinyurl.com/k4snc7mp
49. Mahajan, N. M., Jadhav, V. S., & Sreeletha, A. (2025). Perspectives of nursing teachers on the use of microteaching as a teaching technique. Cureus, 17(4).
50. Maheshwari, G. (2021). Factors Affecting Students' Intentions to Undertake Online Learning: An Empirical Study in Vietnam. Education and Information Technologies, 26(6), 6629-6649.
51. Malone, T. W., & Lepper, M. R. (2021). Making learning fun: A taxonomy of intrinsic motivations for learning. In Aptitude, learning, and instruction (pp. 223-254). Routledge.

52. Manzanares, M. C. S., Del Camino Escolar Llamazares, M., & Arnaiz-González, Á. (2020). Effectiveness of Blended Learning in Nursing Education. *International Journal of Environmental Research and Public Health*, 17(5), 1589. https://doi.org/10.3390/ijerph17051589
53. Martinez, C. (2022). Developing 21st century teaching skills: A case study of teaching and learning through project-based curriculum. Cogent Education, 9(1), 2024936.
54. Mendoza-Villafaina, J., & López-Mosquera, N. (2024). Educational experience, university satisfaction and institutional reputation: Implications for university sustainability. The International Journal of Management Education, 22(3), 101013.
55. Meng, Q., & Zhang, Q. (2023). The Influence of Academic Self-Efficacy on University Students' Academic Performance: The Mediating Effect of Academic Engagement. *Sustainability*, 15(7), 5767. https://doi.org/10.3390/su15075767
56. Momen, A., Ebrahimi, M., & Hassan, A. M. (2022). Importance and implications of theory of bloom's taxonomy in different fields of education. In International conference on emerging technologies and intelligent systems (pp. 515-525). Cham: Springer International Publishing.
57. Munna, A. S., & Kalam, M. A. (2021). Impact of Active Learning Strategy on the Student Engagement. https://files.eric.ed.gov/fulltext/ED614302.pdf
58. Nguyen, A. T., & Tran, A. H. T. (2024). Challenges and strategies in managing disruptive behaviours: Insights from Vietnamese novice EFL teachers. Journal of Contemporary Educational Policies and Practices, 258-273.
59. Nkhoma, C., Nkhoma, M., Thomas, S., & Le, N. Q. (2020). The role of rubrics in learning and implementation of authentic assessment: A Literature review. Proceedings of InSITE, 237-276.
60. Nurtanto, M., Kholifah, N., Masek, A., Sudira, P., & Samsudin, A. (2021). Crucial Problems in Arranged the Lesson Plan of Vocational Teacher. *International Journal of Evaluation and Research in Education*, *10*(1), 345-354. https://tinyurl.com/5723htfu
61. Ofosu-Asare, Y. (2024). Enhancing user experience in online learning environments: Design, evaluation, and usability techniques. Journal of graphic engineering and design, 15(4), 45-59.
62. Opoku-Danso, R., Commey, I. T., Agyare, D. F., Owusu, G., Amoadu, M., & Abraham, S. A. (2025). Quality faculty-nursing students' relationship: A systematic review of facilitators, barriers, and impact on students. BMC nursing, 24(1), 925.
63. Pamzan, M., Javaid, Z. K., & Ali, A. A. (2023). Perception of students about collaborative strategies employed by teachers for enhancing English vocabulary and learning motivation. Pakistan JL Analysis & Wisdom, 2, 146.
64. Payamani, F., Borzou, S. R., Soltanian, A., Ghiasian, M., & Khatiban, M. (2023). Experiences Of Persons with Multiple Sclerosis of a Collaborative Care Programme: A qualitative study. Nursing Open, 10, 6435–6444. https://doi.org/10.1002/nop2.1893
65. Perry, A. G., Potter, P. A., Ostendorf, W. R., & Laplante, N. (2024). Clinical nursing skills and Techniques-E-Book: clinical nursing skills and Techniques-E-Book. Elsevier Health Sciences.
66. Radovan, M., & Radovan, D. M. (2024). Harmonizing pedagogy and technology: Insights into teaching approaches that foster sustainable motivation and efficiency in blended learning. Sustainability, 16(7), 2704.
67. Rajabalee, Y. B., & Santally, M. I. (2020). Learner Satisfaction, Engagement and Performances in an Online Module: Implications for Institutional E-Learning Policy. Education and Information Technologies, 26(3), 2623–2656. https://doi.org/10.1007/s10639-020-10375-1
68. Rajaram, K. (2023). Future of learning: Teaching and learning strategies. In Learning intelligence: Innovative and digital transformative learning strategies: Cultural and social engineering perspectives (pp. 3-53). Singapore: Springer Nature Singapore.
69. Ronnie, J. B., & Philip, B. (2021). Expectations and What People Learn From Failure. In Expectations and Actions (pp. 207-237). Routledge.
70. Roque-Hernández, R. V., Díaz-Roldán, J. L., López-Mendoza, A., & Salazar-Hernández, R. (2023). Instructor presence, interactive tools, student engagement, and satisfaction in online education during the COVID-19 Mexican lockdown. Interactive Learning Environments, 31(5), 2841-2854.
71. Sadat, A., & Vasilica, C. (2025). The impact of digital learning in the context of nursing pedagogy. Nurse Education in Practice, 104682.

72. Sengsouliya, S., Soukhavong, S., Silavong, N., & Sengsouliya, S. (2020). An Investigation on Predictors of Student Academic Engagement. Zenodo (CERN European Organization for Nuclear Research). https://doi.org/10.5281/zenodo.3603513
73. Shang, C., Moss, A. C., & Chen, A. (2023). The Expectancy-Value Theory: A Meta-Analysis of its Application in Physical Education. *Journal of Sport and Health Science*, 12(1), 52–64. https://doi.org/10.1016/j.jshs.2022.01.003
74. Sokhanvar, Z., Salehi, K., & Sokhanvar, F. (2021). Advantages of Authentic Assessment for Improving the Learning Experience and Employability Skills of Higher Education Students: A Systematic Literature Review. *Studies in Educational Evaluation*, *70*, 101030. https://tinyurl.com/mtbpyt4p
75. Soroush, A., Andaieshgar, B., Vahdat, A., & Khatony, A. (2021). The Characteristics of an Effective Clinical Instructor from the Perspective of Nursing Students: A Qualitative Descriptive Study in Iran. *BMC Nursing*, (2021). https://doi.org/10.1186/s12912-021-00556-9
76. Stevens, D. D. (2023). Introduction to rubrics: An assessment tool to save grading time, convey effective feedback, and promote student learning. Routledge.
77. Student Engagement within Higher Education: An Analysis of Staff and Student's Opinions beyond Academic Engagement - Northumbria Research Link. (n.d.). http://nrl.northumbria.ac.uk/id/eprint/44584. https://tinyurl.com/3u9vv9xb
78. Sun, Y., Zhou, G., & Deng, X. (2024). Emotional intelligence and joyful teaching: pathways to enhanced student engagement and achievement. Lecture Notes in Education Psychology and Public Media, 52(1), 163-168.
79. Taking the Mystery Out of Research: Descriptive - ProQuest. (n.d.). https://tinyurl.com/yckx7mdx
80. Terefe, A. B., & Gudeta, T. G. (2022). Factors Associated with Nursing Student Satisfaction with Their Clinical Learning Environment at Wolkite University in Southwest Ethiopia. *Nursing Research and Practice*, 2022, 1–7. https://doi.org/10.1155/2022/3465651
81. Tiago, R. D. S., & Mitchell, A. (2024). Integrating Digital Transformation in nursing education: best practices and challenges in Curriculum Development.
82. Total Population Sampling | Lærd Dissertation. (n.d.). https://shorturl.at/puJLR. https://eric.ed.gov/?id=EJ1345977
83. Uukule, N. (2022). Guidelines to Facilitate Clinical Nursing Education of Nursing Students in the Training Health Facilities of Oshana and Oshikoto regions, Namibia (Doctoral dissertation, University of Namibia). https://tinyurl.com/297np4fe.
84. Wang, T., Manda, T., Dai, T., & Hou, W. (2025). Empirical analysis on the impact of university teachers' pedagogical competence on students' satisfaction: the mediating role of learning experience. In Frontiers in Education (Vol. 10, p. 1532430). Frontiers Media SA.
85. Widiasih, R., Komariah, M., Pramukti, I., Susanti, R. D., Agustina, H. S., Arifin, H., & Nelson, K. (2022). VNursLab 3D simulator: A web-based Nursing Skills Simulation of Knowledge of Nursing Skill, Satisfaction, and Self-Confidence among Nursing Students. Sustainability, 14(9), 4882.
86. Wille, E., Opheim, H. M. S., Princeton, D. M., Kisa, S., & Hjerpaasen, K. J. (2025). Building resilience and competence in bachelor nursing students: a narrative review based on social cognitive theory. Nursing Reports, 15(7), 253.
87. Wong, W. H., & Chapman, E. (2022). Student Satisfaction and Interaction in Higher Education. Higher Education, 85(5), 957–978. https://doi.org/10.1007/s10734-022-00874-0
88. Wong, Z. Y., Liem, G. A. D., Chan, M., & Datu, J. A. D. (2024). Student engagement and its association with academic achievement and subjective well-being: A systematic review and meta-analysis. Journal of educational psychology, 116(1), 48.
89. Yan, X. Q., Zhou, Y. Y., Zhang, K., & Cui, G. Y. (2023). Perceived teacher enthusiasm and professional commitment: The mediating role of boredom and learning engagement. Psychology Research and Behavior Management, 1149-1163.
90. Yates, A., Starkey, L., Egerton, B., & Flueggen, F. (2021). High school students' experience of online learning during Covid-19: the influence of technology and pedagogy. Technology, Pedagogy and education, 30(1), 59-73.
91. Zainuddin, Z., Chu, S. K. W., & Perera, C. J. (2024). Gamification in the flipped classroom. In Gamification in A Flipped Classroom: Pedagogical Methods and Best Practices (pp. 115-165). Singapore: Springer Nature Singapore.

92. Zhu, G., Raman, P., Xing, W., & Slotta, J. (2021). Curriculum design for social, cognitive and emotional engagement in Knowledge Building. International Journal of Educational Technology in Higher Education, 18(1), 37.

APPENDIX A

Nursing Faculty's Pedagogical Skills Questionnaire

Direction: Please read each statement carefully. For each item, place a check (✓) in the column that best reflects your response.

4 – Always 3 – Sometimes 2 – Seldom 1 – Never

Indicators	**Responses**			
Selecting and Planning Instructional Objectives	**4**	**3**	**2**	**1**
1. The nursing faculty chooses appropriate activities aligned with the course's learning objectives.				
2. The nursing faculty frames the course syllabus, outlining topics and clearly delineating expectations for me.				
3. The learning outcomes include specific nursing skills i.e., nursing process skills.				
Teaching and Learning Activities	**4**	**3**	**2**	**1**
4. The nursing faculty clearly communicates fundamental concepts.				
5. The nursing faculty thoughtfully structures the course, systematically advancing from simple to complex concepts.				
6. The nursing faculty encourages us to participate and use what we learn in different ways through inquiry activities, i.e., brainstorming.				
7. The nursing faculty adapts different ways to teach to accommodate the diverse learning needs of the students.				
8. The nursing faculty engages with us extensively during activities, involving learners in collaboration into the lesson, i.e., group works, discussion.				
9. The nursing faculty does provide additional assistance and resources, preparing me to use the nursing process in the clinical practice.				
Classroom Interaction Strategies	**4**	**3**	**2**	**1**
10. The nursing faculty clearly establishes an optimal learning environment, ensuring smooth class operations by fostering a conducive setting and consistently enforces rules and expectations for behavior.				
11. The nursing faculty sets realistic expectations and motivates us to independently execute organized group activities, with minimal support.				
12. The nursing faculty effectively incorporates technology to enrich the learning experience.				

13. The nursing faculty keenly observes and listens as we interact within our groups and encourages us to share outcomes with the class.				
14. The nursing faculty initiates discussions and probes learners' understanding and critical thinking, creating opportunities to draw reasonable conclusions independently through group interactions.				
Assessment Strategies	**4**	**3**	**2**	**1**
15. The nursing faculty probes questions that resonates learner's comprehension and the application of the nursing process skills.				
16. The nursing faculty plans and designs engaging and innovative assessments and uses reliable tools i.e. rubrics				
17. The nursing faculty evaluates acquired concepts and provides constructive feedback of our assessments.				
Content Mastery	**4**	**3**	**2**	**1**
18. The nursing faculty demonstrates expertise in the course.				
19. The nursing faculty exhibits a comprehensive understanding of essential aspects of the lesson with confidence in the delivery.				
20. The nursing faculty answers/responds to learners' questions correctly.				
21. The nursing faculty uses examples to relate the lesson, activities, and real-life experiences.				
22. The nursing faculty projects a role model in the nursing profession.				

Appendix B

Nursing Student's Academic Engagement Questionnaire

Direction: Please read each statement carefully. For each item, place a check (✓) in the column that best reflects your response.

4 - Strongly Agree **3 – Agree** **2 – Disagree** **1 – Strongly Disagree**

Indicators	**Responses**			
A. **Behavioral Engagement Statements**	**4**	**3**	**2**	**1**
1. I'm very focused in class				
2. I complete assignments or tasks given by the faculty on time.				
3. I actively participate in group activities or projects related to nursing course.				
4. My attendance in classes is consistent.				
5. If I have trouble understanding a subject matter, I go over it again until I understand it.				
6. When I' m in class, my mind often wanders				

7. In class, I do just enough to get by.				
B. Cognitive Engagement Statements	**4**	**3**	**2**	**1**
8. I put effort into understanding the nursing course material presented by the faculty.				
9. I regularly reflect on my learning process by relating what I learned in everyday life.				
10. I practice self-regulation in my study habits.				
11. I organize my study materials in a way that facilitates better comprehension of nursing content.				
C. Emotional Engagement Statements	**4**	**3**	**2**	**1**
12. I approach learning with enthusiasm.				
13. I feel connected to the learning experience.				
14. When I'm in class, I feel worried.				
15. I feel nervous when we start learning something new.				

Appendix C

Nursing Student's Academic Satisfaction Questionnaire

Direction: Please read each statement carefully. For each item, place a check (✓) in the column that best reflects your response.

4 - Strongly Agree **3 – Agree** **2 – Disagree** **1 – Strongly Disagree**

Indicators	**Responses**			
Teaching Skills	**4**	**3**	**2**	**1**
1. My instructor had a thorough knowledge of the subject content.				
2. My instructor encouraged active student participation				
3. My instructor treated me with respect.				
4. My instructor understands my learning needs.				
5. My instructor communicated the lesson effectively.				
6. My instructor made the subject as interesting as possible.				
Assessment Expectations				
1. Learning assessments provided by the nursing faculty have clear criteria.	**4**	**3**	**2**	**1**
2. Assessments are fair and unbiased.				
3. I was assessed at appropriate intervals.				

4. Timely feedback on assessments is provided to enhance learning.				
5. Assessments align well with the learning outcomes.				
Overall Learning Experience	**4**	**3**	**2**	**1**
1. My nursing education has positively contributed to my critical thinking skills.				
2. Teamwork is fostered and valued in my nursing education.				
3. My nursing education improved my communication skills.				
4. My nursing education helped me to develop the ability to plan my own work in the nursing profession.				
5. My nursing education makes me feel more confident in addressing unfamiliar problems.				
6. My nursing education instilled confidence in my ability to learn and adapt.				
7. I feel more confident in my personal and professional growth due to my nursing education.				
8. My nursing education has helped me think about new opportunities in life.				