

## Student Satisfaction and Academic Performance of Radiologic Technology Students in a Private Higher Education Institution in Davao City

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### Abstract

Student satisfaction is recognized as an essential factor influencing academic engagement and persistence in higher education. This study examined the level of student satisfaction and its relationship to academic performance among Radiologic Technology students in a private higher education institution in Davao City. Anchored on Tinto's Model of Institutional Departure, which underscores the role of institutional integration in student retention, the research employed a descriptive-correlational design involving 365 students selected through stratified random sampling. The Ruffalo Noel Levitz (RNL) Student Satisfaction Inventory was used to assess satisfaction across twelve institutional dimensions, including academic advising, campus climate, instructional effectiveness, and safety, while academic performance was measured through students' general weighted averages (GWA). Findings revealed that students were generally satisfied ( $M = 5.38$ ,  $SD = 0.842$ ), with the highest ratings in Instructional Effectiveness ( $M = 5.73$ ,  $SD = 0.838$ ) and Academic Advising Effectiveness ( $M = 5.69$ ,  $SD = 0.942$ ), and comparatively lower satisfaction in Campus Life ( $M = 5.19$ ,  $SD = 0.904$ ) and Safety and Security ( $M = 5.05$ ,  $SD = 1.115$ ). Meanwhile, academic performance was interpreted as Moderate ( $M = 2.89$ ), indicating that most students performed within an average academic range. Spearman's rho correlation test showed that none of the satisfaction dimensions, including overall student satisfaction ( $\rho = -0.036$ ,  $p = 0.492$ ), exhibited a significant relationship with academic performance, leading to the failure to reject the null hypothesis. These findings suggest that while students hold favorable perceptions of institutional services and instructional quality, satisfaction alone does not directly influence their academic outcomes. The study underscores that academic success among Radiologic Technology students is shaped by multifaceted factors beyond satisfaction, such as learning motivation, instructional strategies, and academic preparedness. Recommendations include enhancing campus life and safety initiatives, sustaining strong academic advising practices, and developing support programs that address individual academic needs to further strengthen student success and institutional quality.

**Keywords:** *Radiologic Technology, Student Satisfaction, Descriptive-Correlational, Davao City*

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### Introduction

Student dropout continues to pose a major challenge in higher education worldwide, often linked to factors such as academic dissatisfaction and lack of institutional support. The problem lies in the insufficient understanding of how student satisfaction influences academic outcomes, particularly in specialized programs like Radiologic Technology, where both retention

and performance are critical for professional readiness. Several studies have emphasized that student satisfaction is a critical predictor of retention, directly influencing students' decisions to persist or withdraw from their academic programs. Lee and Carroll (2019) and Nurmalitasari et al. (2023) both highlighted how dissatisfaction can increase dropout risks, making it essential for institutions to address the

underlying factors contributing to student engagement and experience. Particularly in the Philippines, Gaitan and Laganhon (2022) emphasized gaps in services for students with disabilities, pointing to areas of improvement within higher education institutions. Limited research has explored this relationship in allied health programs, particularly Radiologic Technology in the Philippine setting. This research seeks to examine the relationship between student satisfaction and academic performance, particularly among Radiologic Technology students—a group not often studied in this context.

This study is anchored on Tinto's Model of Institutional Departure, which emphasizes the dual importance of academic and social integration in student persistence. Students are more likely to stay and succeed when they are both academically supported and socially engaged. The model underlines that academic performance is not solely a function of classroom experience but also of the broader institutional context, including advising, campus life, and support services. This theoretical grounding supports the study's investigation into whether satisfaction across various dimensions correlates with academic performance, operationalized through General Weighted Average (GWA).

Student satisfaction is multidimensional, shaped by perceptions of teaching quality, institutional support, campus environment, and personal experiences. Prior literature identifies instructional effectiveness, academic advising, and institutional services as major factors influencing student satisfaction (Douglas et al., 2006; Palacio et al., 2002). Additional influences include empathy from faculty, which in Radiologic Technology (RT) programs often manifests as instructors' understanding of students' clinical challenges, workload stress, and the need for mentoring during hospital rotations, and effective registration systems, referring to streamlined enrollment and scheduling processes that minimize administrative difficulties common in local higher education institutions. Inclusivity for diverse populations and campus safety also

significantly affect how students evaluate their educational experience. During the pandemic, factors like online engagement and emotional support from instructors gained prominence as predictors of satisfaction (Bailey & Lee, 2020; Zhao & Watterston, 2021).

Academic satisfaction has often been associated with better academic performance, as satisfied students tend to be more engaged, persistent, and motivated, resulting in stronger outcomes (Astin, 1993; Kuh et al., 2005). However, this relationship is not always consistent. Some studies have reported a strong positive link between satisfaction and performance (Jamaludin et al., 2021; Alsheyadi & Albalushi, 2020), suggesting that institutional support and quality teaching play crucial roles in academic success. In contrast, other studies have found weak or negligible correlations, indicating that satisfaction alone may not guarantee higher academic achievement (Umbach & Wawrzynski, 2005). External factors such as institutional climate, student expectations, and personal challenges—alongside internal factors like self-motivation and study habits—can moderate or overshadow the influence of satisfaction on performance.

This mixed evidence highlights the need to examine the satisfaction-performance relationship within specific academic contexts. By focusing on Radiologic Technology students, this study addresses a gap in the literature, particularly in the Philippine allied health setting, where limited research has explored these dynamics. Radiologic Technology students represent a unique group due to the specialized nature of their curriculum, which integrates both theoretical learning and extensive clinical training. The rigorous academic requirements, combined with clinical competencies, professional licensure preparation, and exposure to high-stakes healthcare environments, may result in distinct academic stressors that could influence both satisfaction and performance.

The findings of this study are expected to benefit multiple stakeholders. Radiologic Technology students may gain from improved

services aligned with their needs, which can positively affect both their well-being and academic outcomes. Educators can use the results to refine teaching methods and foster inclusive, engaging environments. For program heads and supervisors, the data may guide strategic improvements in curriculum and support programs. Educational administrators can draw insights for policy development and institutional planning. Lastly, future researchers can build upon this framework to explore satisfaction-performance dynamics across different programs and institutions, contributing to broader educational improvements.

### **Methods**

This study employed a descriptive-correlational research design to explore the relationship between student satisfaction and academic performance among Radiologic Technology students. The descriptive component focused on examining various dimensions of student satisfaction, while the correlational component analyzed whether satisfaction levels were statistically related to academic outcomes. A correlation approach, rather than regression, was selected because the study aimed to determine the presence and strength of relationships rather than predict academic performance based on satisfaction variables.

Data collection was conducted using the Ruffalo Noel Levitz (RNL) Student Satisfaction Inventory (SSI), a standardized and validated tool comprising 72 items across 12 satisfaction dimensions, rated on a 7-point Likert scale. The SSI is widely regarded as a highly reliable instrument, with the official Interpretive Guide reporting a Cronbach's alpha of approximately 0.98 for satisfaction items and 0.97 for importance ratings, indicating excellent internal consistency (Ruffalo Noel Levitz, 2023). Since the questionnaire was adopted in its original form without any modifications, no pilot testing was conducted, as the instrument has already undergone extensive validation in prior studies.

The students' academic performance was measured using their general weighted average (GWA), which was self-reported by the

respondents using a 7-point performance scale: 1 = Below 70 (Failing), 2 = 70–74 (Poor), 3 = 75–79 (Fair), 4 = 80–84 (Good), 5 = 85–89 (Satisfactory), 6 = 90–94 (Very Satisfactory), and 7 = 95–100 (Excellent).

The study was conducted in a private higher education institution in Davao City, selected due to its large Radiologic Technology student population and the researcher's professional affiliation with the institution. A total of 365 students participated in the study, chosen through stratified random sampling from a population of approximately 700 students. The sample size was determined using Cochran's formula with a 5% margin of error and 95% confidence level. Ethical considerations were strictly followed, including voluntary participation, informed consent, and adherence to the Data Privacy Act of 2012 to ensure confidentiality and data protection. Participation was anonymous, with students given the option to omit their names on the questionnaire, and no incentives were provided to encourage participation.

The research underwent ethics review and validation procedures before implementation. After obtaining approval from the Ethics Review Committee. The data gathering process involved coordination with school administrators and program heads, and was carried out on non-class days. Participants were oriented and asked to sign consent forms. Completed questionnaires were collected, screened, encoded, and prepared for statistical analysis to minimize error and outliers.

For data analysis, frequencies and percentages were used to describe the demographic profile of the respondents. Mean and standard deviation were calculated to assess the levels of student satisfaction across all 12 dimensions. The relationship between student satisfaction and academic performance was assessed using the Spearman's rho correlation test, which was selected due to the non-normal distribution of the data. All statistical analyses were performed using SPSS.

The scope of the study was limited to Radiologic Technology students from a single private higher education institution in Davao City, with data collection taking place from June 2024 to December 2025. While the study

provides insights into satisfaction and performance, its generalizability is limited to similar educational contexts.

## Results and Discussion

**Table 1. Levels of Student Satisfaction**

<b>Indicators</b>	<b>Mean</b>	<b>SD</b>
Campus Life	5.19	0.904
Instructional Effectiveness	5.73	0.838
Admissions and Financial Aid Effectiveness	5.28	1.008
Academic Services	5.32	0.958
Academic Advising Effectiveness	5.69	0.942
Registration Effectiveness	5.42	0.979
Safety and Security	5.05	1.115
Concern for the Individual	5.37	1.002
Campus Support Services	5.38	0.939
Responsiveness to Diverse Populations	5.39	0.959
Campus Climate	5.34	0.963
<b>Overall Student Satisfaction</b>	<b>5.38</b>	<b>0.842</b>

*Legend: 6.51–7.00 = Extremely Satisfied, 5.51–6.50 = Very Satisfied, 4.51–5.50 = Satisfied, 3.51–4.50 = Neutral, 2.51–3.50 = Dissatisfied, 1.51–2.50 = Very Dissatisfied, 1.00–1.50 = Extremely Dissatisfied.*

Table 1 reveals that Radiologic Technology students demonstrated an overall satisfied perception across all institutional dimensions, with mean scores ranging from  $M = 5.05$  to  $M = 5.73$ . The highest ratings were observed in Instructional Effectiveness ( $M = 5.73$ ,  $SD = 0.838$ ) and Academic Advising Effectiveness ( $M = 5.69$ ,  $SD = 0.942$ ), suggesting that students view teaching quality and academic guidance as key institutional strengths. The consistently high evaluations in these areas may reflect the perceived competence of faculty, clarity of course requirements, and the accessibility of advisors, which collectively enhance students' academic experiences. In contrast, the relatively lower mean scores in Campus Life ( $M = 5.19$ ,  $SD = 0.904$ ) and Safety and Security ( $M = 5.05$ ,  $SD = 1.115$ ) indicate areas where students perceive room for improvement—particularly in fostering student engagement, improving facilities, and ensuring campus safety. These findings are consistent with prior research emphasizing the central role of instructional quality and advising in promoting student satisfaction (Darling-Hammond et al., 2020; Jamaludin et al., 2021), while also resonating with studies identifying campus environment and safety as common institutional challenges (Morrison & Mensah, 2021; Simpeh & Adisa, 2020). Overall, the descriptive results affirm a positive institutional climate and reinforce the need for continuous enhancement of student life and security initiatives to sustain and improve satisfaction levels, echoing Patalinhug et al.'s (2021) assertion that regular assessment of satisfaction dimensions is vital for institutional development and quality assurance.

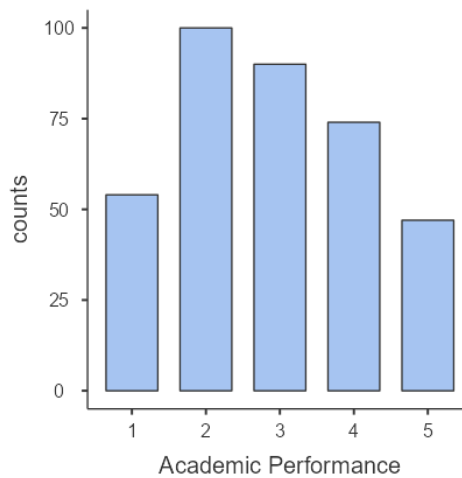
**Table 2. Level of Academic Performance**

	<b>Mean</b>	<b>Interpretation</b>
Academic Performance	2.89	Moderate

*Legend: 1.00–1.80 = Very Low; 1.81–2.60 = Low; 2.61–3.40 = Moderate; 3.41–4.20 = High; 4.21–5.00 = Very High.*

**Table 2.1 Frequencies of Academic Performance**

<b>Academic Performance</b>	<b>Counts</b>	<b>% of Total</b>	<b>Cumulative %</b>
1	54	14.8 %	14.8 %
2	100	27.4 %	42.2 %
3	90	24.7 %	66.8 %
4	74	20.3 %	87.1 %
5	47	12.9 %	100.0 %



**Figure 1. Distribution of Students' Academic Performance**

The data presented in Table 2 and Figure 1 reveal that the majority of students demonstrated a moderate level of academic performance with a mean score of 2.89, corresponding to the “Moderate” interpretation on the Likert scale. As shown in the frequency distribution, most students rated 2 (27.4%) and 3 (24.7%), indicating that nearly half of the respondents fell within the low to moderate range of performance. A smaller proportion achieved higher ratings, with 20.3% scoring 4 and only 12.9% attaining

the highest level (5), while 14.8% were categorized in the lowest performance level (1). Overall, these results suggest that while a considerable number of students are performing at an average level, there remains room for improvement in raising performance toward the higher categories of academic achievement. While prior research has linked academic performance to factors such as effective advising and institutional support (Jamaludin et al., 2021; Kuh et al., 2010), this study found no significant correlation between student satisfaction and academic performance, reinforcing the idea that satisfaction alone does not directly predict academic success. Factors such as pedagogy, student engagement, and personalized learning support remain critical to enhancing academic outcomes, underscoring the importance of addressing both satisfaction and academic needs simultaneously.

**Table 3. Test of Correlation between Student Satisfaction and Academic Performance**

<b>Satisfaction Dimension</b>	<b><math>\rho</math></b>	<b>p-value</b>	<b>Decision on <math>H_0</math></b>
Campus Life	-0.012	0.821	Fail to Reject
Instructional Effectiveness	0.027	0.601	Fail to Reject
Admissions & Financial Aid Effectiveness	-0.031	0.555	Fail to Reject
Academic Services	-0.023	0.664	Fail to Reject
Academic Advising Effectiveness	-0.017	0.741	Fail to Reject
Registration Effectiveness	-0.021	0.685	Fail to Reject
Safety & Security	-0.059	0.264	Fail to Reject
Concern for the Individual	-0.056	0.290	Fail to Reject
Campus Support Services	-0.071	0.179	Fail to Reject
Responsiveness to Diverse Populations	-0.006	0.911	Fail to Reject
Campus Climate	-0.024	0.649	Fail to Reject
<b>Overall Student Satisfaction</b>	<b>-0.036</b>	<b>0.492</b>	<b>Fail to Reject</b>

*Note:*  $p < 0.05$  (Significant).

Table 3 reveals that all student satisfaction dimensions, including the overall satisfaction score ( $\rho = -0.036$ ,  $p = 0.492$ ), exhibited no significant correlation with academic performance among Radiologic Technology students, thereby failing to reject the null hypothesis. Spearman's rho was utilized instead of Pearson's correlation due to the non-normal distribution of the data, as indicated by normality tests ( $p < .001$ ), and the ordinal nature of the Likert-type responses. Although the satisfaction dimensions (e.g., instructional effectiveness, academic advising effectiveness, campus life) are highly interrelated and positively associated with one another, their individual correlations with academic performance remain weak and statistically insignificant ( $\rho$  ranging from  $-0.071$  to  $0.027$ ,  $p > 0.05$ ). This result diverges from earlier studies reporting stronger positive associations between student satisfaction and academic success (Kuh et al., 2005; Astin, 1993), suggesting that in this setting, satisfaction alone does not directly predict academic performance. The findings underscore that academic achievement is likely influenced by more

complex factors—such as instructional methods, motivation, and preparedness—rather than institutional satisfaction measures alone.

### Conclusion and Recommendations

The study concluded that Radiologic Technology students exhibited an overall satisfied perception across all institutional dimensions assessed. The highest satisfaction levels were recorded in Instructional Effectiveness and Academic Advising Effectiveness, emphasizing the value students place on effective teaching, faculty competence, and accessible academic guidance. Conversely, relatively lower ratings in Campus Life and Safety and Security point to areas that require institutional attention, particularly in promoting student engagement, improving campus facilities, and ensuring a safer learning environment.

In terms of academic performance, students demonstrated a moderate level of achievement, indicating an average overall performance within the 85–89 grade range. The variability in grades highlights performance disparities among students, underscoring the need for targeted academic interventions such as mentoring, tutoring programs, and personalized academic support to enhance learning outcomes and promote academic equity.

Correlation analysis revealed no significant relationship between student satisfaction and academic performance, with all

Spearman's rho values ranging from  $-0.071$  to  $0.027$  ( $p > 0.05$ ). This finding implies that while students are generally content with institutional services and instructional delivery, satisfaction alone does not necessarily predict academic achievement. Consistent with Tinto's Model of Institutional Departure, student satisfaction is a multidimensional construct shaped by both academic and social integration but operates independently of performance outcomes.

Based on these findings, it is recommended that the institution sustain high instructional quality through continuous faculty development, strengthen academic advising systems by ensuring accessibility and responsiveness, and enhance campus life and safety by expanding extracurricular activities, improving lighting and security measures, and conducting regular safety audits. Furthermore, academic support programs should be tailored to address diverse learning needs, ensuring that underperforming students receive adequate guidance and intervention. Future research may focus on identifying which specific satisfaction factors most strongly influence student persistence and retention in allied health programs, contributing to more targeted and evidence-based institutional strategies for student success.

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