

Study Habits and Their Effects with the Academic Performance of Bachelor of Science in Radiologic Technology Students

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Abstract

This study aimed at investigating the effects of students' study habits on their academic performance in professional and general education subjects. To attain this aim, the researcher used a sample of thirty-two (32) students from the Bachelor of Science in Radiologic Technology program under the College of Allied Medical Sciences for the academic year 2019–2020 of a university in Bulacan. The researcher used the descriptive-correlational method of research, which utilized a standardized questionnaire as the primary data gathering technique. Results of the regression analysis indicate that all eight (8) variables of study habits are correlated with academic performance (professional subjects and general education subjects) of the students to a varying extent, as shown by the non-zero B coefficients. The results of the analysis of variance of the regression of study habits on the academic performance of the students revealed an F ratio of 0.939 and 0.900 with an associate probability equal to 0.505 and 0.533, respectively. Since the p-values are greater than alpha, the null hypothesis (H_0) cannot be rejected. It may be safely concluded that the study habits of the students did not produce significant combined effects on the academic performance of the students. Conclusions were drawn, and recommendations were offered.

Keywords: Study Habits, Academic Performance, Bachelor of Science in Radiologic Technology Students

I. Introduction

In the present time, learners' study habits affect their learning and academic performance, and the outcome progress illustrates the development of cognitive and practical skills and their future profession. Identifying the learners' study habits and their effect with the academic performance can, thus, improve their academic performance, strengthen and modify their study habits. Prioritizing studies immensely determines the level of academic performance of the learner. The level of preparation and learning strategies improved and applied consciously by learners, leading to affect their level of academic performance.

According to Ebele & Olofu (2017), while some students can breeze through school with minimal effort, the majority of successful students achieve their success by developing and applying effective study habits. Thus, study habits is a huge influence on students' academic achievements. If undermined by students at all levels, teachers, administrators, parents, and the government, then the trend and menace of students' abysmal performance in both internal and external examinations would continue to boom and become more devastating and alarming.

In a study conducted by Jaimes, Tweedie, Kreinovich, & Ceberio (2012), self-esteem does not account for low or high academic performance, as most students reported enjoying a good level of self-esteem, regardless of their grades. However, the same is not true of study habits, which are tied to academic performance. Hence the better performance is expected of students if their study techniques are to improve. In research performed by Bimbo Sanni & Sakirudeen (2017), students that are conscious of how their time is utilized are the ones who are performing well academically. It was also recommended that group guidance should be organized in schools by academicians to create awareness on how students can develop effective

study habits, which could lead to good academic performance. The need for a functional school library should also be readily available for students.

There are numerous reasons like different levels of intelligence, lack of good infrastructural facilities, and lack of good libraries, and so on. But one of the reasons why students fail is that they don't put enough effort to learn, and they don't recognize the importance of study habits to their academic achievement. This study intended to identify various study habits used by the students and the effects of it on their academic performances. Provided the abovementioned issues and problems, this study investigated the study habits utilized by the learners and effects on their academic performance.

Statement of the Problem

The researcher aimed to find out the effects of study habits on the academic performance of the BS Radiologic Technology students.

Specifically, it sought to answer the following questions:

1. How may the study habits of the learners be described in terms of:
 - 1.1. division of time;
 - 1.2. physical status;
 - 1.3. ability to read;
 - 1.4. noting;
 - 1.5. learning motivation;
 - 1.6. memory;
 - 1.7. exams; and
 - 1.8. wellness?
2. What is the level of students' academic performance in terms of:
 - 2.1. General Weighted Average (GWA)
 - 2.1.1. Professional subjects; and
 - 2.1.2. General education subjects?
3. Do study habits significantly affects students' academic performance?
4. Based on the findings of the study, what management implications may be drawn?

Hypothesis of the Study

The following null hypothesis was tested at 0.05 level of significance:

"Study habits do not significantly affect students' academic performance."

II. Methods

This section presents the method and techniques, population and sample of the study, an instrument of the study, and the data processing and statistical treatment applied.

Methods and Techniques Used

The descriptive-correlational method of research was utilized in the study to determine the effects on study habits and academic performance. Correlational research is a systematic investigation of the effects present between two or more variables. The study made use of a quantitative research approach in analyzing and understanding the predictor and criterion variables.

Standardized questionnaires on study habits were used as a primary data gathering tool.

Respondents of the Study

The universal sampling design was used. Universal sampling refers to sample collection, where not all individuals in the population have the same productivity of being included in the survey, and the probability of being selected is unknown to each of them. The researcher preferred to use a universal sampling technique to select respondents from the radiologic technology program because they are the ones who provided useful information that tested the hypothesis of this research.

The respondents of the study were the thirty-two (32) students from the radiologic technology program under the College of Allied Medical Sciences for the academic year 2019–2020 of a university in Bulacan. Table 1 shows the distribution of the respondents in each corresponding year level.

Table 1
Respondents of the Study

Year Level	Respondents
2 nd year	26
3 rd year	1
4 th year	5
Total	32

Instruments of the Study

This study utilized a standardized instrument on students' study habits Palsane and Sharma Study Habit Inventory (PSSHI) with 45 questions. According to (Looyeh et al., 2017) the instructions of the questionnaire are the following: the minimum and maximum scores were 0 and 90, respectively; scores of 60 and above were considered as the desirable study habits; scores between 31 and 59 were considered relatively desirable, and scores below 30 were considered as undesirable.

The contents of the instrument assessed the students' study habits in eight domains: division of time, physical status, ability to read, noting, learning motivation, memory, exams, and wellness. The instrument was reliable, as evidenced by the Cronbach's alpha of 0.88, which is acceptable in terms of measuring. The students' academic performance was assessed in terms of their General Weighted Average (GWA) that had taken from the School Automate of GTI Software by the students.

The content of the instrument was derived from the study of (Looyeh, H. R., Fazelpour, S. F., Reza Masoule, S.R., Chehrzad, M. M., & Leili, E. K. N., 2017) entitled "The Relationship between the Study Habits and the Academic Performance of Medical Sciences Students."

Data Gathering Procedure

The questionnaire method was the mode of data gathering. Each of the respondents was given a structured set of questions. In gathering the data, the researcher carried out the following procedure:

1. A letter was sent to the Office of the President of the university to ask permission to conduct a study.
2. The researcher distributed the questionnaire to the respondents personally.
3. The researcher collected the questionnaires from the respondents and checked whether all the questions are answered.

Data Processing and Statistical Treatment

The collected data were tabulated using Microsoft Excel and processed using Statistical Package for the Social Sciences (SPSS) software. To categorize and summarize the data, descriptive statistics such as the mean, the standard deviation, and frequency distribution of the study habit methods were carried out by items separation.

Treatment of data on the responses was based on a three-point Likert scale and was quantified using the following scale:

Rating Scale	Range	Descriptive Evaluation
3	2.50–3.00	Always/ Great Extent
2	1.50–2.49	Sometimes/ Moderate Extent
1	1.00–1.49	Rarely/ Rare

The effects on respondents' study habits and academic performance were explored using correlation and regression analyses.

Ethical Considerations

The following were considered while doing this study to be able to abide with existing laws and principles of ethical research.

The researcher provided a consent letter, well understood and concurred with by the respondents to ensure that all the respondents in this study chose to participate in their own free will and the researcher informed all the respondents regarding the procedures involved in this study. The researcher guaranteed to the respondents their anonymity and the confidentiality of their profile. Data containing the profile and responses of the students were permanently deleted and physical copies were destroyed after the completion of the research. The researcher of this study made sure that all the studies cited in this paper have been paraphrased. The university provided a plagiarism checker that proved this study did not violate the law regarding plagiarism.

III. Results

This section presents analyses and interprets the data collected in the study. For clarity of presentation and consistency in the discussion, the data are presented following the order and sequence of the questions raised in the Statement of the Problem, to wit: (1) study habits of the learners, (2) level of students' academic performance, (3) effects on respondents' study habits and academic performance, and (4) management implications drawn from the findings of the study.

Study Habits of the BS Radiologic Technology Students

Study habit is one of the learning factors that significantly influence the academic performance of students. Not all students are the same; different learners have distinct and unique study habits. What may be a good study habit for a particular student may be a bad habit for another student. In this way, it is often challenging to identify essentially if it is what type of study habit. There is no question that various people are learning in different ways, and it is almost certain that what works for one person may not work for another (Badau, 2018).

For those reasons, this paper investigated the study habits of the BS Radiologic Technology Students of a university in Bulacan in terms of division time, physical status, ability to read, noting, learning motivation, memory, exams, and wellness.

Division of Time. The table presented the study habits of the respondents in terms of division of time. The data obtained in Table 2 suggested that division of time was utilized by the respondents to a moderate extent, with the average mean of 2.18. Based on the table, most of the respondents get disturbed by the surroundings at the time of the study with the mean of (2.22), study at a particular time of the day (2.16), have all the required books and other relevant materials of study with them (1.94) and study every day (1.81) to a moderate extent. However, some of the respondents take rest in between if they have to study for a longer time (2.53) and do their homework daily (1.94) to a great extent.

Table 2
Study Habits in terms of Division of Time

Interpretation	Mean	Interpretation
1. I study every day.	1.81	Moderate Extent
2. I study at a particular time of the day.	2.16	Moderate Extent
3. I do my homework daily.	2.41	Great Extent
4. If I have to study for a longer time, I take rest in between.	2.53	Great Extent
5. I have all the required books and other relevant materials of study with	1.94	Moderate Extent

me.		
6. For the time of study, I get disturbed by the surroundings at the time of the study.	2.22	Moderate Extent
Average	2.18	Moderate Extent

With the data provided, it is implied that some of the BS Radiologic Technology students are aware of utilizing their time for their study, also it is not how much the students spent studying, but also how effectively the time is spent (Nonis & Hudson, 2010).

Physical Status. The table presented the study habits of the respondents in terms of physical status. The data showed in Table 3 reveals that physical status has a great extent to the respondents, as evidenced by the average mean of 2.48. Based on the table, most of the respondents realized the importance of the subjects for their future career (2.78) and develop an automatic interest in the subjects as soon as they start studying (2.44) to a great extent. Moreover, it shows that some respondents have stray thoughts gradually flow in as soon as they settle down to study with a mean value of (2.22) to a moderate extent.

Table 3 *Study Habits in terms of Physical Status*

Interpretation	Mean	Interpretation
1. I develop automatic interest in the subjects soon I start studying it.	2.44	Great Extent
2. I realize the importance of the subjects for my future career.	2.78	Great Extent
3. Other stray thoughts gradually flow in, as soon as I settle down for the study.	2.22	Moderate Extent
Average	2.48	Great Extent

With the data provided it is implied that the most of the respondents has a stable physical status that is important not just for their well-being but also for their mind to work better to cope with their studies (Kurata, Bano, & Matias, 2015).

Ability to Read. The table presented the study habits of the respondents in terms of the ability to read. The data showed in Table 4 gleaned that the ability to read has a moderate extent to the respondents, as evidenced by the average mean of 2.22. Based on the table, most of the respondents read according to the importance and difficulty of the subject matter, change and adjust the speed of their reading (2.31), study figures and graphs very carefully while reading (2.19), take down notes while reading (2.06) and read the main points before they read the chapter (2.03). Moreover, it shows that some respondents read very carefully to understand every point (2.63); they try to recall the matter after reading it (2.59) and continue their reading despite the difficulties in understanding the meaning of some of the words (2.41) to a great extent. However, rare students never read silently with a mean value of (1.53).

Table 4 *Study Habits in terms of Ability to Read*

Interpretation	Mean	Interpretation
1. I read the main points before I read the chapter.	2.03	Moderate Extent
2. I take down notes while reading.	2.06	Moderate Extent
3. I try to recall the matter after reading it.	2.59	Great Extent
4. I continue my reading despite the difficulties in understanding meaning of some of the words.	2.41	Great Extent
5. I read very carefully in order to understand every point.	2.63	Great Extent
6. I never read silently.	1.53	Rare
7. According to the importance and difficulty of the subject matter, I change and adjust speed of my reading.	2.31	Moderate Extent
8. I study figures and graphs very carefully while reading.	2.19	Moderate Extent

Average	2.22	Moderate Extent
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It is inferred with the data provided that some of the learners can read, which refers to the ability to comprehend written text. (Nouhi, et al., 2008).

Noting. The table presented the study habits of the respondents in terms of noting. The data in Table 5 obtained that noting has a moderate extent to the respondents, with an average mean of 2.19. Based on the table, some of the respondents compare their class notes with the notes from the textbooks at home with a mean value of (1.75) to a moderate extent. In contrast, to a great extent of respondents, take down notes very sincerely during the classroom teaching with a mean value of (2.63).

Table 5 *Study Habits in terms of Noting*

Interpretation	Mean	Interpretation
1. During the classroom teaching, I take down notes very sincerely.	2.63	Great Extent
2. At home, I compare my class notes with the notes from the textbooks.	1.75	Moderate Extent
Average	2.19	Moderate Extent

It is inferred with the data provided that some of the students who take notes while studying can better understand and remember learning material (Looyeh, et al., 2017).

Learning Motivation. The table presented the study habits of the students in terms of learning motivation. The data obtained in Table 6 suggested that learning motivation has moderate extent to the respondents with the average mean of 1.91. Based on the table, most respondents attend their classes regularly in time with the mean value of (2.84) and take help of anybody if they do not follow anything (2.41) to a great extent.

However, some of the students were rarely read books whenever they get free time whether at home or in the school/college (1.66), study subject matter at home thoroughly before it is taught (1.59) and few of them frequently remain absent from class (1.06).

Table 6 *Study Habits in terms of Learning Motivation*

Interpretation	Mean	Interpretation
1. I take help of anybody, if I do not follow anything.	2.41	Great Extent
2. I study the subject matter at home thoroughly before it is taught	1.59	Rare
3. I read books whenever I get free time whether at home or in the school/college.	1.66	Rare
4. I attend my classes regularly in time.	2.84	Great Extent
5. I frequently remain absent from class.	1.06	Rare
Average	1.91	Moderate Extent

With the data provided it is implied that some of the learners are engaged in their study process and may acquire an interest in learning when motivated (Cerna & Pavliushchenko, 2015).

Memory. The table presented the study habits of the students in terms of memory. The data in Table 7 gleaned that memory has a moderate extent to the respondents, with an average mean of 1.84.

Based on the table, most of the respondents, with a great extent tend to read and memorize the matter part by part if it is to be learned by heart with a mean value of (2.44), while to the moderate extent of respondents, cram certain things without understanding (1.75). However, it shows that some of the respondents rarely revise the subject matter from time to time (1.59) and seldom studies in the library regularly (1.56).

Table 7 *Study Habits in terms of Memory*

Interpretation	Mean	Interpretation
1. If a matter is to be learnt by heart, I read and memorize it part by part.	2.44	Great Extent

2. I cram certain things without understanding.	1.75	Moderate Extent
3. I revise the subject matter from time to time.	1.59	Rare
4. I study in the library regularly.	1.56	Rare
Average	1.84	Moderate Extent

With the data provided it is implied that some of the students build resilience in their memory management to their effective study habits (Nouhi et al., 2008).

Exams. The table presented the study habits of the students in terms of exams. The data in Table 8 obtained that exams have a moderate extent to the respondents, with an average mean of 2.24. Based on the table, most of the respondents with moderate extent tend to answer the examination question in their serial order with a mean value of (2.28), during examination days they sleep as usual in the night and divide the time according to the matter to be answered in respect of the number of questions (2.03), the students draw an outline of answers of each question, before writing answers to the questions in the examination (1.97), they single out my weak subjects on the strength of my examination results (1.94), also the students carefully record their examination results (1.81). They prepare for the examinations from the guides/notes available in the market (1.66). Moreover, to a great extent, it shows that some students read their notes carefully before the examination and realized that they have made some mistakes in the answers they have written, or they have forgotten some essential points after the examination (2.75). Also, the students read the entire question paper very carefully before writing the answers to the questions in the examination (2.59), they feel tense at the beginning of the examination (2.47), if the examination result is not favorable they get disappointed (2.44) but they try to make up their deficiency in the weak subjects to their best (2.41).

Table 8 *Study Habits in terms of Exams*

Interpretation	Mean	Interpretation
1. During examination days also, I sleep as usual in the night.	2.03	Moderate Extent
2. Before writing the answers to the questions in the examination, I read very carefully the entire question paper.	2.59	Great Extent
3. In the examination, I answer the question in their serial order.	2.28	Moderate Extent
4. I divide the time according to the matter to be answered in respect of the number of questions.	2.03	Moderate Extent
5. Before examination, I read my own notes carefully.	2.75	Great Extent
6. I prepare for the examinations from the guides/notes available in the market.	1.66	Moderate Extent
7. I draw an outline of answers of each question, before writing answers to the questions in the examination.	1.97	Moderate Extent
8. I feel tense at the beginning of the examination.	2.47	Great Extent
9. After the examination, I realize that I have made some mistakes in the answers I have written or I have forgotten some important points.	2.75	Great Extent
10. I carefully record my examination results.	1.81	Moderate Extent
11. I single out my weak subjects on the strength of my examination results.	1.94	Moderate Extent
12. I try to make up my deficiency in the weak subjects to my best.	2.41	Great Extent
13. I get disappointed, if the examination result is not favorable.	2.44	Great Extent
Average	2.24	Moderate Extent

With the data provided, it is implied that some of the students can manage their time and prepare for the exams with appropriate study habits (Khurshid et al., 2012).

Wellness. The table presented the study habits of the respondents in terms of wellness. The data obtained in Table 9 suggested that the wellness of the respondents has a great extent with the average mean of 2.38.

Based on the table, most of the respondents think that they can improve their study habits fairly with the mean of (2.78), the students will also take advantage if a guidance program in study habits is arranged (2.47). Also, they get guidance about proper study habits from their teachers (2.34) to a great extent. However, some of the respondents tend to compare their marks with others after the results are declared (1.91) to a moderate extent.

Table 9 *Study Habits in terms of Wellness*

Interpretation	Mean	Interpretation
1. I have tendency to compare my marks with others after the results are declared.	1.91	Moderate Extent
2. I think that I can improve fairly my study habits.	2.78	Great Extent
3. I get guidance about proper study habit from my teachers.	2.34	Great Extent
4. I will take advantage if a guidance programme in study habits is arranged.	2.47	Great Extent
Average	2.38	Great Extent

With the data provided, it is implied that wellness in most of the students demonstrated being productive and can perform when they are mentally well to function in their best interest (Wald et al., 2014).

The Respondents' Level of Academic Performance

At present, academic performance is measured on the student grades, which is essential in the construction of an image of the university, hence the interest in researching factors that have an effect on students scoring excellently or poorly on their classes. The challenges of studying academic performance lie in defining the term itself. Often referred to as academic achievement, academic performance, or school performance, conceptual differences between tend to be only semantic, as these terms are used as synonyms. It has been agreed that academic performance should refer to university populations, whereas school performance applies to regular and alternative basic education populations.

General Weighted Average (GWA) in Professional Subjects. The data analysis in Table 10 presented the respondents' level of academic performance in terms of a general weighted average (GWA) in professional subjects. No students got an Excellent, Fair, Passed, and Failed performance rating. However, there were two (2) students who got a Superior rating (6.3%), nine (9) students got a Very Good rating (28.1%), and six (6) students with Good and Very Satisfactory rating (18.8%). Seven (7) students got a Satisfactory (21.9%) performance rating, whereas two (2) students got a Fairly Satisfactory performance rating with (6.3%) percent of the total respondents.

The results of the statistical calculation showed a standard deviation value of 0.35. Statistician ruled that the middle 68.27 percent of the respondents can be estimated between one (1) standard deviation below and above the arithmetic mean. It indicates that in a normal distribution, the middle twenty-two (22) BS Radiologic Technology students obtained grades in professional subjects between 1.43 and 2.13. The other five (5) students obtained grades higher than 0.35, and the other five (5) students acquired grades below 0.35.

General Weighted Average (GWA) in General Education Subjects. The data analysis in Table 10 presented the respondents' level of academic performance in terms of a general weighted average (GWA) in general education subjects. No students got an Excellent and Superior performance rating. However, there were fourteen (14) students who got a Very Good rating (43.8%) and eleven (11) students with a Good rating (34.4%). Three (3) students got a Very Satisfactory (9.4%) performance rating, whereas four (4) students got a Satisfactory rating with (12.5%) percent of the total respondents.

The results of the statistical calculation showed a standard deviation value of 0.27. Statistician ruled that the middle 68.27 percent of the respondents can be estimated between one (1) standard deviation below and above the arithmetic mean. It indicates that in a normal distribution, the middle twenty-two (22) BS Radiologic Technology students obtained grades in professional subjects between 1.33 and 1.87. The other five (5) students obtained grades higher than 0.27, and the other five (5) students acquired grades below 0.27.

Therefore, with the data provided, academic performance affected by several variables that are linked in a complicated manner, making studying challenges. However, academic performance does involve factors such as academic skills, individuality, learning motivation, proficiency, interests, study habits, self-assurance, or the teacher-student relationship. Inconsistency on student's academic performance and his or her expected performance are known as differing performance. Unsatisfactory academic performance is one that is below the expected performance. This may, at times, be connected to teaching strategies (Chilca, 2017).

Table 10 *General Weighted Average (Professional Subjects and General Education Subjects)*

Indicators	Professional Subjects		General Education Subjects	
	Frequency	Percentage	Frequency	Percentage
Excellent	0	0.0	0	0.0
Superior	2	6.3	0	0.0
Very Good	9	28.1	14	43.8
Good	6	18.8	11	34.4
Very Satisfactory	6	18.8	3	9.4
Satisfactory	7	21.9	4	12.5
Fairly Satisfactory	2	6.3	0	0.0
Fair	0	0.0	0	0.0
Passed	0	0.0	0	0.0
Failed	0	0.0	0	0.0
Total	32	100	32	100
	Mean = 1.78		Mean = 1.60	
	Std. Deviation = 0.35		Std. Deviation = 0.27	

Effects of the BS Radiologic Technology Students' Study Habits on their Academic Performance

The study conducted by (Kumari & Chamundeswari, 2015) revealed the impact of study habits on the academic performance of learners. It shows that no single factor can be indeed pointed out as forecasting grades.

It has been a reciprocation of many factors, such as Intelligence Quotient (I.Q), age, gender, year level, study habits, parents' educational attainment, social status, birth order, number of siblings, etc.

The findings revealed that study habit is influenced by time management, learning skills, and study skills, and thereby a positive effect exists on study habit and academic performance.

In this study, it was hypothesized that there are no significant effects on students' study habits and academic performance.

To determine the extent of the effects of the students' study habits and academic performance, the data were subjected to multiple correlations and regression analysis, and the data gathered were summarized in Table 11 and 12.

Table 11 *Regression Analysis of Study Habits on GWA (Professional Subjects)*

Variables	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
(Constant)	1.346	0.873		1.541	0.137
Division of time	0.081	0.378	0.07	0.215	0.832
Physical status	0.515	0.252	0.436	2.042	0.053
Ability to read	0.022	0.276	0.018	0.08	0.937
Noting	0.164	0.182	0.239	0.901	0.377
Learning motivation	0.063	0.407	0.048	0.155	0.878
Memory	0.207	0.267	0.196	0.775	0.446
Exams	0.277	0.364	0.188	0.762	0.454
Wellness	0.059	0.255	0.061	0.232	0.819
R-squared = .246					
F-value = .939					
p-value = .505					
alpha = 0.05					

Regression Analysis of Study Habits on GWA (Professional Subjects). Results of the regression analysis in Table 11 indicated that all eight (8) variables of study habits affect students' academic performance (professional subjects) to varying extent. The nature of effect is positive, which means that in general, the better the study habits of the students, the higher the academic performance. Conversely, the lower the quality of the students' study habits, the lower the academic performance. A closer look at the obtained coefficients, one could glean that of the eight (8) study habits, there is no habit recorded coefficients with associated probability less than the significance level set at 0.05. This means that physical status (0.515), exams (0.277), memory (0.207), noting (0.164), division of time (0.081), learning motivation (0.063), wellness (0.059), and ability to read (0.022), has significant effects on students' academic performance but not to a significant extent.

To determine the magnitude of the influence of the predictor variables on academic performance, the data were subjected to regression analysis and the results summarized in Table 11. Results of the regression run indicate that for every unit improvement in the study habits mentioned could generate 0.51, 0.27, 0.20, 0.16, 0.08, 0.06, 0.05 and 0.02, increase on students' academic performance. A closer look at the obtained Beta Coefficients, one could deduce that out of the eight (8) study habits, it was the physical status that exerts the greatest effect (Beta = 0.51) on the academic performance (professional subjects).

The results of the analysis of variance of the regression of study habits on the academic performance of the students revealed an F ratio of 0.939 with an associate probability equal to 0.505. Since the p-value is more significant than alpha, the null hypothesis (Ho) cannot be rejected. It may be safely concluded that the study habits of the students did not produce significant combined effects on the academic performance of the students.

Table 12 *Regression Analysis of Study Habits on GWA (General Education Subjects)*

Variables	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	1.219	0.678		1.799	0.085
Division of time	0.053	0.293	0.059	0.18	0.858
Physical status	0.342	0.196	0.375	1.749	0.094
Ability to read	0.152	0.214	0.162	0.712	0.484
Noting	0.163	0.141	0.308	1.155	0.26

Learning motivation	0.051	0.316	0.05	0.161	0.873
Memory	0.226	0.207	0.276	1.088	0.288
Exams	0.209	0.282	0.184	0.739	0.467
Wellness	0.077	0.198	0.103	0.387	0.702
R-squared = .238					
F-value = .900					
p-value = .533					
alpha = 0.05					

Regression Analysis of Study Habits on GWA (General Education Subjects). Results of the regression analysis in Table 12 indicated that all eight (8) variables of the study habits are correlated with academic performance (general education subjects) of the students to a varying extent. The nature of effect is positive, which means that in general, the better the study habits, the higher the academic performance. Conversely, the lower the quality of the students' study habits, the lower the academic performance. A closer look at the obtained coefficients, one could glean that of the eight (8) study habits, there is no habit recorded coefficients with associated probability less than the significance level set at 0.05. This means that physical status (0.342), memory (0.226), exams (0.209), noting (0.163), ability to read (0.152), wellness (0.077), division of time (0.053) and learning motivation (0.051), has significant effects on students' academic performance but not to a significant extent.

To determine the magnitude of the influence of the predictor variables on academic performance, the data were subjected to regression analysis and the results summarized in Table 12. Results of the regression run indicate that for every unit improvement in the study habits mentioned could generate 0.34, 0.22, 0.20, 0.16, 0.15, 0.07, 0.05 and 0.05, increase on students' academic performance. A closer look at the obtained Beta Coefficients, one could deduce that out of the eight (8) study habits, it was the physical status that exerts the greatest effect (Beta = 0.34) on the academic performance (general education subjects).

The results of the analysis of variance of the regression of the study habits on the academic performance of the students revealed an F ratio of 0.900 with an associate probability equal to 0.533. Since the p-value is more significant than alpha, the null hypothesis (H_0) cannot be rejected. It may be safely concluded that the study habits of the students did not produce a significant combined effect on the academic performance of the students.

For some inconsistencies in findings, it may be attributed to the use of varied samples from different disciplines. According to (Agha & Rehman, 2016), their findings imply that an increase in test anxiety can increase the student's performance. Moreover, in existing literature, the importance of metacognition and self-regulation is well documented and supporting their results. Thus, it can be concluded from the findings of their study that the learning habits of the medical students are a crucial factor associated with academic performance. There is a wide variation in results in other relevant studies.

Management Implications Drawn from the Findings of the Study

The following are some significant management implications drawn from the findings of the study:

1. The BS Radiologic Technology students of a university in Bulacan are challenged to improve their study habits. More importantly, they may have to consider their real purpose why they should pursue their chosen course, that is, to gain growth and to have knowledge and skills in the practice of radiologic technology.
2. BS Radiologic Technology students are also challenged in managing their time. Nevertheless, instructors may give proper guidance to the students regarding their study habits and motivational support.
3. The instructors of the BS Radiologic Technology program may give their students broad horizons for learning and by extending a hand for them to discover their full potentials towards excellence in their academic progress.

4. The productiveness of the students directly translates to the accomplishments of the university's academic objectives. In this sense, enhancing the students' competencies by strengthening the habit-forming program may clearly define the vision-mission statement of the university, especially in providing quality education. The integration of seminars and programs are vital to address contemporary educational challenges.

IV. Discussion

This section presents the summary of findings, conclusions, and recommendations regarding the study habits and their effects on the academic performance of Bachelor of Science in Radiologic Technology students.

Study habits of students play a significant role in the progress of students' academic performance. Several studies have tested this argument and have become an interesting topic for researchers from the past recent years. Gaps in research literature have been found due to conflicting results in connection with these variables. The main objective of the researcher was to evaluate the effects of study habits on the academic performance of the students in different aspects.

This study made use of the descriptive-correlational method of research, which utilized a standardized questionnaire as a primary data gathering technique. The respondents consisted of BS Radiologic Technology students that are enrolled for the academic year 2019–2020 of a university in Bulacan.

The following null hypothesis was tested at 0.05 level of significance:

"There are no significant effects on respondents' study habits and academic performance."

The results were processed using the Statistical Package for the Social Sciences (SPSS), and the data were presented using appropriate tables and texts. The results were analyzed and interpreted using statistical tests such as multiple correlations and regression analysis to determine the effects of students' study habits on their academic performance. Meanwhile, the students' study habits, as well as the students' academic performance, were analyzed using frequency and weighted mean procedures. Using the aforesaid procedures, the findings of the study may be summarized as follows:

Summary of Findings

Problem 1: How may the study habits of the learners be described in terms of division of time, physical status, ability to read, noting, learning motivation, memory, exams, and wellness?

The study habits of the students were described as memory, learning motivation, division of time, noting, ability to read, and exams of the learners have a moderate extent with the average mean of 1.84, 1.91, 2.18, 2.19, 2.22 and 2.24 respectively. Moreover, the wellness and physical status of the students have a great extent, with the average mean of 2.38 and 2.48, respectively.

Problem 2: What is the level of students' academic performance in terms of a general weighted average (GWA) of their professional subjects and general education subjects?

The level of students' academic performance was presented as the students' level of academic performance in terms of a general weighted average (GWA) in professional subjects. No students got an Excellent, Fair, Passed, and Failed performance rating. However, there were two (2) students who got a Superior rating (6.3%), nine (9) students got a Very Good rating (28.1%), and six (6) students with Good and Very Satisfactory rating (18.8%). Seven (7) students got a Satisfactory (21.9%) performance rating, whereas two (2) students got a Fairly Satisfactory performance rating with (6.3%) percent of the total respondents.

However, the respondents' level of academic performance in terms of a general weighted average (GWA) in general education subjects. No students got an Excellent and Superior performance rating. However, there were fourteen (14) students who got a Very Good rating (43.8%) and eleven (11) students with a Good rating (34.4%). Three (3) students got a Very Satisfactory (9.4%) performance rating, whereas four (4) students got a Satisfactory rating with (12.5%) percent of the total respondents.

Problem 3: Is there a significant effect on respondents' study habits and academic performance?

Results of the regression analysis indicate that all eight (8) variables of study habits have significant effects on academic performance (professional subjects) of the students to a varying extent, as shown by the non-zero B coefficients. The results of the analysis of variance of the regression of study habits on the academic performance of the students revealed an F ratio of 0.939 with an associate probability equal to 0.505. Since the p-value is more significant than alpha, the null hypothesis (Ho) cannot be rejected. It may be safely concluded that the study habits of the students did not produce significant combined effects on the academic performance of the students.

Moreover, the result of the regression analysis indicates that all eight (8) variables of the study habits have significant effects on academic performance (general education subjects) of the students to a varying extent, as shown by the non-zero B coefficients. The results of the analysis of variance of the regression of the study habits on the academic performance of the students revealed an F ratio of 0.900 with an associate probability equal to 0.533. Since the p-value is more significant than alpha, the null hypothesis (Ho) cannot be rejected. It may be safely concluded that the study habits of the students did not produce significant combined effects on the academic performance of the students.

Problem 4: Based on the findings of the study, what management implications may be drawn?

(1) The BS Radiologic Technology students of a university in Bulacan are challenged to improve their study habits. More importantly, they may have to consider their real purpose why they should pursue their chosen course, that is, to gain growth and to have knowledge and skills in the practice of radiologic technology.

(2) BS Radiologic Technology students are also challenged in managing their time. Nevertheless, instructors may give proper guidance to the students regarding their study habits and motivational support.

(3) The instructors of the BS Radiologic Technology program may give their students broad horizons for learning and by extending a hand for them to discover their full potentials towards excellence in their academic progress.

(4) The productiveness of the students directly translates to the accomplishments of the university's academic objectives. In this sense, enhancing the students' competencies by strengthening habit forming program, may clearly define the vision-mission statement of the university, especially in providing quality education. The integration of seminars and programs are vital to address contemporary educational challenges.

Conclusions

In light of the findings of the study, the following conclusions were drawn:

1. Students' study habits were manifested as moderate based on the data analysis. They need to improve in planning, managing, and organizing their habit-forming behavior.
2. The students' level of academic performance in terms of a general weighted average (GWA) in both professional and general education subjects was revealed as a "Very Good" performance rating, indicative of the students' competence to produce the result of the learning process and commitment towards excellence.
3. The eight (8) variables of study habits such as; division of time, physical status, ability to read, noting, learning motivation, memory, exams, and wellness, has significant effects on students' academic performance but not to a significant extent.
4. Significant management implications were drawn from the findings of the study: (1) the fundamental purpose must be towards the pathway of learning progression; (2) time management of the students is not that good because they don't set their priorities well. Nevertheless, proper guidance of the instructors and motivational support is vital; (3) the accountability of the educator for the improvement of students' study habits, progress, and academic performance goes hand-in-hand to achieve academic excellence; (4) the significance of enhancing the learners' competencies by strengthening habit forming program by the integration of seminars and programs to address the demands of contemporary education.

Recommendations

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

1. The faculty may provide more effective pedagogical strategies and methods that will fit with the learning styles of the students to improve their academic performance.
2. The BS Radiologic Technology students may conserve their "Very Good" performance rating in terms of their academic performance and discover ways to achieve an "Excellent" performance rating in both professional and general education subjects. It will be relevant to enhance the passing rate of the BS Radiologic Technology program in the licensure examination. Hoping that instilling better study habits to the students will translate to excellent licensure examination passing rate.
3. The eight (8) variables of study habits have significant effects on radiologic technology students' academic performance but not to a significant extent. In this regard, instructors of the program may have the initiative to attend various seminars, training, and workshops focused on innovative pedagogical strategies that would constantly enhance and update their teaching styles to keep up to the learning habits of the students as well as educational trends for the benefits of the radiologic technology students.
4. The educator is encouraged to commit to students' study habits and academic performance assessment to identify the improvement of their learning process. Student-Centered learning must be given attention to address distinct learning needs of the students for them to develop appropriate study habits which could lead to better performance with their academics considering that study habit plays a vital role to their capacity to learn and achieving success. That kind of habit-forming will translate to their professionalism and work ethic, and that would be a great contribution as a health care provider.

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