Academic Performance Among Business and Accounting Students: The Role of Learning Styles

Dr. Wilson C Bation[1]
Pilgrim Christian College

Ruino L Renoblas[2]
Pilgrim Christian College

Marilou O Carumba[3]
Pilgrim Christian College

Olivia C Flores[4]
Pilgrim Christian College

Dr. Neilson D. Bation[5]
Opol Community College

Abstract:- Learning styles concern the ability of the learner to perceive and process information in learning situations which can increase educational outcomes. The study examined the learning styles toward academic achievement among business and accountancy students at Pilgrim Christian College. The study used a descriptive-correlational design and used an online survey in gathering the primary data. Findings revealed that the majority of the respondents were females, 18 to 22 years old dominated the age range, the majority were single in status, and more of the respondents had a monthly allowance of fewer than 500 pesos.

The respondents' level of learning styles in terms of Auditory, Tactile, Visual, Individual, and Kinesthetic learning styles concluded as Highly practiced. These results are subject to improvement for it did not achieve the highest score of "4". The academic achievement of the business and accountancy students as assessed by themselves in terms of Grades, and Awards concluded as Good academic achievement. Still, the result is in needs to be improved for it did not reach the highest score of "4". The study concluded that there is a significant difference in the learning styles and the academic achievement of business and accountancy students when they are grouped according to their demographic profile, there is a significant relationship between learning styles and the academic achievement of business and accountancy students, and learning styles significantly influence the academic achievement of business and accountancy students.

Recommendations are: School Administrators may use the results of the demographic profile of the respondents as a basis for the planning in improving the academic achievement of the students, teachers may continue to apply the learning styles based on the results of the study in giving the instruction, and students can use the result of the study as their priority learning style to have better achievement in terms of grades and awards.

Keywords:- Learning Styles, Academic Achievement, Teachers, Students, Philippines.

I. INTRODUCTION

The style of learning is a way to receive, process, remember and apply information easily. Each student has way of learning is different. Student learning styles can be recognized among the learning styles of visual, auditory, and kinesthetic. Students with a visual learning style learn through what they see, auditory students learn through what they hear and kinesthetic students learn through movement and touch. Learning style refers to the ability of learners to perceive and process information in learning situations. One of the most important uses of learning styles is that it makes it easy for teachers to incorporate them into their teaching. There are different learning styles. Three of the most popular ones are visual, auditory, and kinesthetic in which students take in information (Vaishnav & Chirayu, 2013).

Learning styles pertain to a learner's capacity to perceive and process information during educational experiences. Proficiency in comprehending students' learning styles can lead to improved educational achievements. One of these learning styles, known as VAK (Visual, Auditory, Kinesthetic), involves students utilizing three sensory modalities to absorb information. Educators have the opportunity to integrate these diverse learning styles into their classroom activities, thereby equipping students with the tools they need to excel in their coursework (Ibrahim & Hussein, 2016). Learning style is a broad concept playing an important role in classroom education outcomes. Students' favorites and styles for their learning play an important role in educational consequences and these favorites are conveyed in different learning styles.

II. LITERATURE REVIEW

The auditory learning style focuses on the learning style of a student who learns by hearing and listening. The student possesses a natural ability to grasp and retain information through auditory input. They excel in encoding data based on its auditory characteristics, making it simpler for them to comprehend verbal instructions compared to written ones. Individuals learn in different ways using several learning styles, but lecturers may not always share material and learning experiences that match students' learning preferences. Mismatches between learning and teaching styles can

lead to disappointments in students are taking, and lead underperformance among students. The results indicated that most students favored a visual learning approach, and they also demonstrated that the teaching methods employed by instructors influenced students' academic achievements. This study suggests that teaching styles play a substantial role in shaping students' learning preferences and academic success (Chetty et al, 2019).

Education that tailors instruction to accommodate different learning styles, with a particular emphasis on auditory and visual learners, is a widespread approach used from early childhood education to higher education. The fundamental idea behind learning styles is that teaching in alignment with a student's preferred style leads to the most effective learning outcomes. For instance, there is a hypothesis that students identified as visual learners will have better retention when information is presented visually, and similarly, those identified as auditory learners will retain more when the content is delivered in an auditory manner. While it seems intuitively reasonable that students perform at their best when taught in their preferred learning style (Rogowsky, 2020).

In line with previous research involving adults, the outcomes did not reveal a substantial connection between a preference for either auditory or visual learning styles and comprehension. However, when it comes to fifth-grade students, those who leaned towards visual learning outperformed their counterparts who leaned towards auditory learning in listening and reading comprehension assessments. This suggests that, contrary to prevailing educational assumptions and methods, teachers might not be benefiting students by investing resources in identifying their learning style and customizing the curriculum accordingly (Rogowsky, 2020).

The tactile learning style concentrates on the learning style of students who learn by touching and doing. He understands and remembers things through physical movement. The student is a "hands-on" learner who prefers to touch, move, build, or draw what he/she learns, and tends to learn better when some type of physical activity is involved. Students with impulsive behavior are always very curious and energetic. This curiosity and excessive energetic nature impede them from attending to a task with the necessary amount of concentration. The result declared that the Tactile Learning Style is effective in developing attention span among Upper Primary School Students with Impulsive Behavior. Students always fail to pay attention to the work they are assigned to. Especially Upper Primary School Students with Impulsive Behavior are sometimes in troublesome conditions maintaining their attention throughout the completion of various tasks given to them. This inattentive nature of children pulls them back from scaling heights in life. Inattention is one of the biggest blocks of success (Bincy & John, 2019).

Visual focus to the learning style of students who learn by reading or seeing pictures. The student easily understands and remembers things by sight and can picture what is learning in their head, and learns best by using primarily visual methods. This study aims at investigating the relationship between learning styles and academic achievement in Physics of high school students in Thai Nguyen city, Vietnam. This study used the formula for sample size calculation developed by Watson (2001), with a population size of 307 students. This study used an online questionnaire survey method using Google Forms and Zalo form. The result implied that different learning styles, like visual learning styles accompanied by learning settings, can contribute greatly to students' academic achievement (Ha, 2021).

This study explores the primary factors influencing the utilization of metacognitive listening strategies by Indonesian students. The research involves the interaction of research instruments assessing digital literacy skills and learning styles to enhance students' metacognitive listening strategies, involving a total sample size of 242 participants. Quantitative research methods are employed, utilizing the ex-post-facto approach, and data analysis employs both descriptive and inferential statistics, including a linear regression test.

The findings reveal that digital literacy skills wield the most significant influence. When digital literacy skills and learning styles interact, they contribute to an enhancement of students' metacognitive listening strategies, accounting for approximately 50.40% of the improvement. Consequently, digital literacy skills and learning styles play a constructive role in elevating students' metacognitive listening strategies, with an improvement observed as both digital literacy skills and learning styles advance (Arsyad & Villia, 2022).

Learning style pertains to an individual's preferred approach to studying that yields the most effective results for them. It can be classified into one or more categories, such as visual, auditory, and kinesthetic, which are believed to correlate with the effectiveness of acquiring knowledge and enhancing learning through instruction tailored to these styles. Proponents of assessing learning styles argue that optimal guidance involves identifying individuals' learning styles and adapting instruction accordingly. Consequently, this underscores the importance for educators to identify students' unique learning styles, including kinesthetic, and employ diverse teaching methods. Conversely, students have the opportunity to strengthen their preferred learning styles while also enhancing their proficiency in utilizing other learning styles (Arnin et al, 2021).

III. THEORETICAL FRAMEWORK

The study is anchored on Experiential Learning Theory (Kolb, 1984). The Experiential Learning Theory of David Kolb considered learning as "the process whereby knowledge is created through the transformation of experience". Knowledge results from the combination of

grasping and transforming experience. According to Kolb, concrete experience provides information that serves as a basis for reflection. From these reflections, we assimilate the information and form abstract concepts. People then use these concepts to develop new theories about the world, which they then actively test. Through the testing of our ideas, we once again gather information through experience, cycling back to the beginning of the process. The process does not necessarily begin with experience, however. Instead, each person must choose which learning mode will work best based on the specific situation. This theory will help the readers and researchers of the study to have a better understanding of the learning styles of students auditory, tactile, visual, individual, and kinesthetic.

A. Conceptual Framework

The study will examine the learning styles toward academic achievement among business and accountancy students at Pilgrim Christian College. Specifically, the study will attempt to answer the following questions:

➢ *What is the Demographic Profile of the Respondents in terms of:*

- *Sex,*
- *Age,*
- *Marital Status, and*
- *Monthly Allowance?*

➢ *What is the Respondents ' Level of Learning Styles in terms of:*

- *Auditory Learning Style,*
- *Tactile Learning Style,*
- *Visual Learning Style,*
- *Individual Learning Style, And*
- *Kinesthetic Learning Style?*

➢ *What is the Academic Achievement of the Business and Accountancy Students as Assessed by Themselves in terms of:*

- *Grades, and*
- *Awards?*

➢ *Is there a Significant Difference in the Learning Styles of Students when they are Grouped According to their Demographic Profile?*

➢ *Is there a Significant Relationship between Learning Styles and the Academic Achievement of Business and Accountancy Students?*
➢ *Do the Learning Styles Significantly Influence the Academic Achievement of Business and Accountancy Students?*

B. Statement of Hypotheses

➢ *The following null hypotheses will be tested at a 0.05 level of significance. The statistical tools that will be used are the T-test and multiple linear regression analysis.*

- Ho1: There is no significant difference in the level of learning styles of business and accountancy students when they are grouped according to their demographic profile.
- Ho2: There is no significant relationship between learning styles and the academic achievement of business and accountancy students.
- Ho3: The learning styles do not significantly influence the academic achievement of business and accountancy students.

IV. METHODOLOGY

➢ *The Models and Variables*

The study will use a quantitative research design with a simple diagram analysis that uses inferential and descriptive statistical tools. The population will be 300 students (First-year level, second-year level, and third-year level, and fourth-year level). A modified questionnaire that will be based on the related literature will be developed by the researchers and will be administered to gather the students' profiles and academic achievements. The variables of the study are illustrated in Figure 1 which will include the independent variables and the dependent variable. The independent variables will consider the demographic profile such as sex, age, marital status, and monthly allowance. The learning styles will include auditory, tactile, visual, individual, and kinesthetic. These independent variables will influence the academic achievement of business and accountancy students at Pilgrim Christian College, Philippines.
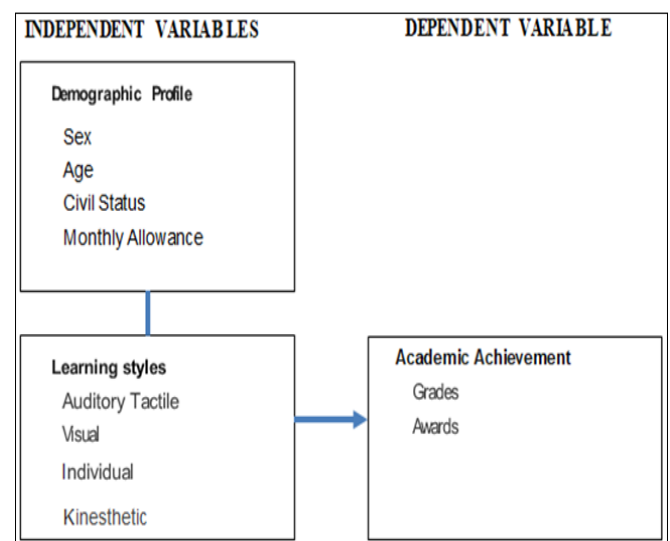

Fig 1 The Schematic Diagram of the Study

The Auditory learning style focuses on the learning style of business and accountancy students who learn by hearing and listening. The student can easily understand and remember things that have heard. *Individual learning style concerns* the learning style of students who learn more to the preferential way in which the student absorbs, processes, comprehends, and retains information individually or alone. *The kinesthetic learning style concentrates* on the learning style of students who learn best when shown simulations, presentations, and videos or when moving around in a hands-on environment. Similar to tactile learning, which emphasizes the likes of drawing, touching, and building in educational circumstances, kinesthetic learning stresses full- body movement to process new information .*The tactile learning style* focuses on the learning style of students who learn by touching and doing. He understands and remembers things through physical movement. *Visual learning style* concerns the learning style of the student who learns by reading or seeing pictures. The student easily understands and remembers things by sight and can picture what is learning in *his* head, and learns best by using primarily visual methods.

➢ *Data Collection*

The various stages followed in the study such as the preparation of the letter request, the gathering of data for the online survey, the interpretation of the results, and the analysis of data. Letters of information and request for approval to gather data were addressed to the President of Pilgrim Christian College. In gathering the data, the researchers followed the protocol required by the management of the college, seeking his approval to determine the items and materials that were included in the study. The approved letter was presented to the school heads of the different departments of the college. The study used a purposive sampling method with a population of 300 Business and Accountancy students of Pilgrim Christian College, Cagayan de Oro City in the 2022-2023 academic year. The students included in the study were coming from the School of Business and Accountancy.

➢ *Data Analysis*

The following descriptive and inferential statistics will be considered in the study using the Statistical Package for Social Sciences (SPSS) software.

➢ *Descriptive Statistics*

Frequency and percentage were used in problem number 1 for determining the profile of the respondents. Mean and standard deviation was used in problem numbers 2 and 3 particularly the respondents' assessment of the learning styles and the academic achievement of business and accountancy students.

➢ *Inferential Statistics*

T-test and ANOVA were used in problem number 4 in determining the significant difference in the learning styles as assessed by the respondents when they are grouped according to their demographic profiles.

Pearson R was used in problem number 5 for the test of the significant relationship between learning styles and academic achievement as assessed by the respondents.

Multiple regression analysis was used in problem 6 in determining how the learning styles influence the academic achievement of business and accountancy students.

V. RESULTS AND DISCUSSION

This section includes the presentation, analysis, and interpretation of the data gathered in the study. The presentation of data is based on the sequence of the problem presented.

➢ *What is the Demographic Profile of the Respondents in Terms of Sex, Age, Marital Status, and Monthly allowance?*

The frequency and percentage distribution of the respondents according to their sex. The data revealed that males have 112 or 37.3 percent and females have 188 or 62.7 percent. Furthermore, data revealed that out of 300 respondents, there is 188 or 62.7 percent were female, which obtained the highest frequency.

In terms of age, 18 to 22 years old got 155 or 51.7 percent, ages 23 to 27 years old got 58 or 19.3 percent, and 28 years old and above has 87 or 29.0 percent. This means that the distribution of responses in respondents' ages is dominated by 18 to 22 years old with 155 or 51.7 percent.

According to marital status, data show that single participants have 199 or 66.3 percent, married got 93 or 31.0 percent, and separated got 8 or 2.7 percent. Moreover, single participants are the highest in terms of marital status with a frequency of 199 or 66.3 percent.

In terms of Monthly allowance, data show that participants with an allowance of fewer than 500 pesos have 106 or 35.3 percent, 600 to 1000 pesos have 62 or 20.7 percent, 1100 to 1500 pesos have 25 or 8.3 percent, 1600 to 2000 pesos have 23 or 7.7 percent, and 2000 pesos and above have 84 or 28.0 percent. Moreover, the participants with an allowance of fewer than 500 pesos are the highest in terms of monthly allowance with a frequency of 106 or 35.3 percent.

➢ *What is the respondents' level of learning styles in terms of Auditory learning style, tactile learning style, Visual learning style, Individual learning style, and Kinesthetic learning style?*

Table 1 shows the respondent's level of learning styles in terms of Auditory learning style revealed an average mean of 2.54 and described as *"Highly Practiced"*. In line with this, the highest mean of the respondent's level of learning styles in terms of Auditory learning style is *"If I hear something, I will remember it."* with a mean of 2.85 with an interpretation of *"Highly Practiced"*.

Table 1 The Respondent's level of Learning Styles in Terms of Auditory Learning Style

Items	Mean	Std. Deviation	Interpretation
1. If I hear something, I will remember it.	2.85	0.70	Highly Practiced
2. Writing has always been difficult for me.	2.10	0.88	Poorly Practiced
3. I would rather listen and learn than read and learn.	2.75	0.97	Highly Practiced
4. I'm not very good at interpreting an individual's body language.	2.44	0.82	Poorly Practiced
Average	2.54	0.84	Highly Practiced
Legend: 1.00-1.75 (Very poorly practiced) 2.51-325 (Highly practiced)		1.76-250 (Poorly practiced) 3.26-4.00 (Very highly practiced)	

Table 2 demonstrates the respondent's level of learning styles in terms of Tactile learning style which revealed an average mean of 2.46 and was described as *"Poorly Practiced"*. In line with this, the highest mean of the respondent's level of learning styles in terms of Tactile learning style is *"I use my hands to describe things."* with a mean of 2.70 and interpreted as *"Highly Practiced"*.

Table 2 The Respondent's level of Learning Styles in Terms of Tactile Learning Style

Items	Mean	Std. Deviation	Interpretation
5. I start a project before reading the directions.	2.10	0.96	Poorly Practiced
6. I hate to sit at a desk for a long period.	2.53	0.89	Highly Practiced
7. I like to read my textbook while pacing at home.	2.51	0.79	Highly Practiced
8. I use my hands to describe things.	2.70	0.81	Highly Practiced
Average	2.46	0.86	Poorly Practiced
Legend: 1.00-1.75 (Very poorly practiced) 2.51-325 (Highly practiced)		1.76-250 (Poorly practiced) 3.26-4.00 (Very highly practiced)	

Table 3 illustrates the respondent's level of learning styles in terms of Visual learning style that revealed an average mean of 2.81 with an interpretation of "Highly Practiced". In line with this, the highest mean of the respondent's level of learning styles in terms of Visual learning style is "*Jotting down notes makes me remember information better.*" with a mean of 3.16 described as "*Highly Practiced*".

Table 3 The Respondent's level of Learning Styles in Terms of Visual Learning Style

Items	Mean	Std. Deviation	Interpretation
9. Jotting down notes makes me remember information better.	3.16	0.88	Highly Practiced
10. I can focus well by looking directly at a person's eye.	2.79	0.84	Highly Practiced
11. Writing down directions is better than taking them verbally.	3.02	0.84	Highly Practiced
12. I have trouble following lectures.	2.27	0.82	Poorly Practiced
Average	2.81	0.84	Highly Practiced
Legend: 1.00-1.75 (Very poorly practiced) 2.51-325 (Highly practiced)		1.76-250 (Poorly practiced) 3.26-4.00 (Very highly practiced)	

Table 4 discusses the respondent's level of learning styles in terms of Individual learning styles which revealed an average mean of 2.59 and was described as "*Highly Practiced*". Added to this, the highest mean of the respondent's level of learning styles in terms of Individual learning style is *"I want to be alone to concentrate on my work."* with a mean of 2.95 with an interpretation of "*Highly Practiced*".

Table 4 The Respondent's level of Learning Styles in Terms of Individual Learning Style

Items	Mean	Std. Deviation	Interpretation
13. I want to be alone to concentrate on my work.	2.95	0.96	Highly Practiced
14. I can't get the idea behind a joke.	2.27	0.75	Poorly Practiced
15. I prefer to make sketches on my notes.	2.63	0.92	Highly Practiced
16. I can recall the page of a book every when I'm resting.	2.51	0.77	Highly Practiced
Average	2.59	0.85	Highly Practiced
Legend: 1.00-1.75 (Very poorly practiced) 2.51-325 (Highly practiced)		1.76-250 (Poorly practiced) 3.26-4.00 (Very highly practiced)	

Table 5 defines the respondent's level of learning styles in terms of Kinesthetic learning styles which revealed an average mean of 2.86 with an SD of 0.73 or a *"Highly Practiced"*. Moreover, the highest mean of the respondent's level of learning styles in terms of Kinesthetic learning style is *"I use the trial-and-error approach to problem-solving."* with a mean of 2.90 and described as *"Highly Practiced"*.

Table 5 The Respondent's level of Learning Styles in Terms of Kinesthetic Learning Style

Items	Mean	Std. Deviation	Interpretation
17. I prefer first to see something done and then do it myself.	2.89	0.81	Highly Practiced
18. I use the trial-and-error approach to problem-solving	2.90	0.73	Highly Practiced
19. I have to write or type my class notes to reinforce the material.	2.88	0.66	Highly Practiced
20. I take frequent study breaks.	2.76	0.73	Highly Practiced
Average	2.86	0.73	Highly Practiced
Legend: 1.00-1.75 (Very poorly practiced) 1.76-250 (Poorly practiced) 2.51-325 (Highly practiced) 3.26-4.00 (Very highly practiced)			

➢ *What is the academic achievement of the business and accountancy students as assessed by themselves in terms of Grades, and Awards?*

Table 6 illustrates the academic achievement of the business and accountancy students as assessed by themselves in terms of Grades with an average mean of 2.84 and described as "*Good in academic achievement*". With this, the highest mean of the academic achievement of the business and accountancy students as assessed by themselves in terms of Grades is "*My grade in my subject was improved through a visual learning style.*" with a mean of 2.97 with an SD of 0.68 or "*Good in academic achievement*".

Table 6 The Academic Achievement of the Business and Accountancy Students as Assessed by Themselves in Terms of Grades

Items	Mean	Std. Deviation	Interpretation
I. My grade in my subject was improved through the auditory learning style.	2.78	0.73	Good in academic achievement
2. My grade in my subject was improved through a visual learning style.	2.97	0.68	Good in academic achievement
3. My grade in my subject was improved through the kinesthetic learning style.	2.78	0.77	Good in academic achievement
4. My grade in my subject was improved through a tactile learning style.	2.78	0.77	Good in academic achievement
5. My grade in my subject was improved through an individual learning style.	2.90	0.75	Good in academic achievement
Average	2.84	0.74	Good in academic achievement
Legend: 1.00-1.75 (Very poor in academic achievement) 1.76-250 (Poor in academic achievement) 2.51-325 (Good in academic achievement) 326-4.00 (Very good in academic achievement)			

Table 7 presents the academic achievement of the business and accountancy students as assessed by themselves in terms of Awards with an average mean of 2.53 and described as *"Good in academic achievement"*. Relative to this, the highest mean of the academic achievement of the business and accountancy students as assessed by themselves in terms of Awards is "*I received an award due to my individual learning style."* with a mean of 2.65 with an SD of 0.76 or *"Good in academic achievement"*.

Table 7 The Academic Achievement of the Business and Accountancy Students as Assessed by Themselves in Terms of Awards

Items	Mean	Std. Deviation	Interpretation
6. I received an award through the aid auditory learning style.	2.46	0.75	Poor academic achievement
7. I received an award through the use of a visual learning style.	2.61	0.77	Good in academic achievement
8. I received an award due to my kinesthetic learning style.	2.48	0.71	Poor academic achievement
9. I received an award due to my tactile learning style.	2.47	0.74	Poor academic achievement
10. I received an award due to my individual learning style.	2.65	0.76	Good in academic achievement
Average	2.53	0.74	Good in academic achievement
Legend: 1.00-1.75 (Very poor in academic achievement) 1.76-250 (Poor in academic achievement) 2.51-325 (Good in academic achievement) 326-4.00 (Very good in academic achievement)			

➢ *Is there a significant difference in the learning styles of students when they are grouped according to their demographic profile?*

Table 8 The Significant Difference in the Learning Styles of Students when they are Grouped According to their Demographic Profile

| Profile | Learning Styles | | | | | | | | | | | | | | |
| | Auditory | | | Tactile | | | Visual | | | Individual | | | Kinesthetic | | |
	t-value	p-value	Decision on Ho	t-value	p-value	Decision on Ho	t-value	p-value	Decision on Ho	t-value	p-value	Decision on Ho	t-value	p-value	Decision on Ho
Sex	22.58	0.00	reject	20.05	0.00	reject	28.20	0.00	reject	23.66	0.00	reject	27.69	0.00	reject
Age	14.08	0.00	reject	13.23	0.00	reject	19.54	0.00	reject	15.92	0.00	reject	19.45	0.00	reject
Civil Status	25.09	0.00	reject	23.33	0.00	reject	30.86	0.00	reject	26.15	0.00	reject	28.83	0.00	reject
Monthly Allowance	-0.64	0.52	accept	-1.70	0.09	accept	2.23	0.03	reject	0.13	0.90	accept	2.35	0.02	reject
Significant if p-value <0.05															
Legend: Ho is rejected if Significant															

Table 8 defines the significant difference in the learning styles of students when grouped according to sex, age, marital status, and monthly income. The data showed that there is a significant difference in the learning styles of students in terms of Auditory, Tactile, Visual, Individual, and Kinesthetic when grouped according to sex, age, and marital status. The result shows that p - *values = 0.000,* which means that the null hypothesis is rejected.

➢ *Is there a significant relationship between learning styles and the academic achievement of business and accountancy students?*

Table 9 illustrates the significant relationship between learning styles and the academic achievement of business and accountancy students. The data describes that the learning styles in terms of Auditory, Tactile, Visual, Individual, and Kinesthetic have a significant positive relationship with the student's academic achievement in terms of grades and awards. This means that the p-value is <0.05, therefore, the null hypothesis is rejected.

Table 9 The Significant Relationship between Learning Styles and the Academic Achievement of Business and Accountancy Students

| Learning Styles | Academic Achievements | | | | | |
| | Grades | | | Awards | | |
	t-value	p-value	Decision Ho	t-value	p-value	Decision Ho
Auditory	.203**	0.00	reject	.252**	0.00	Reject
Tactile	.238**	0.00	reject	.303**	0.00	Reject
Visual	.535**	0.00	reject	.306**	0.00	Reject
Individual	.467**	0.00	reject	.352**	1.00	Reject
Kinesthetic	.554**	0.00	reject	.310**	2.00	Reject
Significant if p-value <0.05						
Legend: H o is rejected if Significant						

➢ *Do the Learning Styles Significantly Influence the Academic Achievement of Business and Accountancy Students?*

Table 10 presents the influence of learning styles on the academic achievement of business and accountancy students. The study reveals that the academic achievement of students had 0.876, Auditory has 0.178, Tactile has 0.166, Visual has 0.269, Individual has 0.284, and Kinesthetic has 0.332.

Relative to this, with a per-unit increase in Auditory, there is a 0.178 increase in student academic achievement, with a per-unit increase in Tactile, there is a 0.166 increase in student academic achievement, with a per-unit increase in Visual, there is a 0.269 increase in student academic achievement, with a per-unit increase in Individual, there is a 0.284 increase in student academic achievement, and with a per-unit increase in Kinesthetic, there is a 0.332 increase in

student academic achievement. The findings show that Kinesthetic learning style is the highest variable influencing student academic achievement.

- Student Academic Achievement = .876 + .178 Auditory + .166 Tactile + .269 Visual + .284 Individual + .332 Kinesthetic

Table 10 Multiple Linear Regression Analysis of the Learning Styles and the Academic Achievement of Business and Accountancy Students

Independent Variables	Beta	T-value	Sig.
Auditory	.178	5.979	.000
Tactile	.166	5.505	.000
Visual	.269	7.103	.000
Individual	.284	8.380	.000
Kinesthetic	.332	8.734	.000
Dependent Variable	Student Academic Performance		
Constant	0.876		
Adjusted R2	0.763		
F-value	193.809		
Significance	0.000		

Moreover, the adjusted R of the dependent variable connotes that 76.3% of the variation in the Academic Achievement of Business and Accountancy students can be explained by the independent variables. The rest 24.7% is due to other factors not included in this study. Thus the statistical model is highly significant (F = 193.809) and significant at the 0.000 level.

VI. CONCLUSION

➢ Based on the Findings of the Study, the following Conclusions are drawn:

The study concluded that the majority of the respondents were females, 18 to 22 years old dominated the age range, the majority were single in status, and more of the respondents had a monthly allowance of fewer than 500 pesos. Additionally, more of the respondents were female working students studying in college.

The respondents' level of learning styles in terms of Auditory, Tactile, Visual, Individual, and Kinesthetic learning styles concluded as Highly practiced. These results are subject to improvement for it did achieve the highest score of "4".

The academic achievement of the business and accountancy students as assessed by themselves in terms of Grades, and Awards concluded as Good academic achievement. Still, the result is in needs to be improved for it did not reach the highest score of "4".

There is a significant difference in the learning styles of students when they are grouped according to their demographic profile, there is a significant relationship between learning styles and the academic achievement of business and accountancy students, and learning styles significantly influence the academic achievement of business and accountancy students.

RECOMMENDATIONS

➢ Based on the Conclusions and the Significance of the Study, the following Recommendations are Presented:

- The School Administrators may use the results of the demographic profile of the respondents as a basis for their planning in improving the academic performance of the students through teachers ' teaching performance.
- The School Teachers of the institution may continue to apply the learning styles based on the results of the study in giving the instruction and collaboration with the school heads to maintain and improve the academic achievement of students and the school as well.
- The students can use the result of the study as their priority learning style to have a better achievement in terms of grades and awards.
- Future researchers can use the findings of the study and may introduce additional indicators for the betterment of their study related to the learning styles and academic achievement of the students.

REFERENCES

A. Book

[1]. Kolb, D.A., Boyatzis, R.E., & Mainemelis, C. (2014). Experiential learning theory: Previous research and new directions. In *Perspectives on thinking, learning, and cognitive styles* (pp. 227-248). Routledge.

B. Journals

[2]. *Amin,* N. A. M., Nizman, N. I.M., Zainal, Z. N., Razif, M.A. M., Ab Manan, N., & Samad, N. A. (2021). Learning Style and Academic Performance Among Clinical Years ' Medical Students. *Age (years),* 20(1), 1.

[3]. Arsyad, S., & Villia, A. S. (2022). Exploring the Effect of Digital Literacy *Skill* and Learning Style of Students on Their Meta-Cognitive Strategies in Listening. *International Journal of Instruction,* 15(1), 527-546.

[4]. Bincy, 0. G., & John, R. (2019). Effectiveness Of Tactile Learning Style To Develop Attention Span Among Upper Primary School Students With Impulsive Behaviour. *Think India Journal,* 22(14), 3668-3672.

[5]. Chetty, N. D. S., Handayani, L., Sahabudin, N. A., Ali, Z., Harnzah, N., Rahman, N. S. A., & Kasim, S. (2019). Learning Styles and Teaching Styles Determine Students' Academic Performances. *International Journal of Evaluation and Research in Education,* 8(4), 610-615.

[6]. DePorter, Bobbi, Mark Reardon, & Sarah Singer-Nourie. (2014). Quantum Teaching. Bandung: PT Mizan Pustaka

[7]. Ha, N. T.T .(2021). Effects of learning style on students achievement: experimental research . *linguistics and Culture Review,* 5(S3), 329-339.

[8]. Ibrahim, R .H., & Hussein, D . A. (2016). Assessment of visual, auditory, and kinesthetic learning style among undergraduate nursing students. *lnt J Adv Nurs Stud,* 5(1), 1-4.

[9]. Rogowsky, B . A., Calhoun, B. M., & Tallal, P. (2020). Providing instruction based on students' learning style preferences does not improve learning. *Frontiers in Psychology, 11,* 164.

[10]. Sepulveda, M. E. B. (2022). Learning styles and Technology Livelihood. Education (TLE) Competency Assessment of Junior High School Students: Input for a Competency-Based Program. *Sch J Arts Humanit Soc Sci, 9,* 417- 423.

[11]. Vaishnav, R .S., & Chirayu, K .C. (2013). Learning style and academic achievement of secondary school students. *Voice of research,* 1(4), 1-4.

SURVEY QUESTIONNAIRE
Code No.

Dear Respondent,

We are conducting a study entitled "THE INFLUENCE OF LEARNING STYLES ON ACADEMIC ACHIEVEMENT AMONG BUSINESS AND ACCOUNTANCY STUDENTS AT PILGRIM CHRISTIAN COLLEGE".

As a student of the School of Business and Accountancy, you are chosen as one of the respondents in the study. Kindly answer the questions honestly as to your experience in the school. All of your answers will be treated as greatly confidential.

Thank you.

(Sgd.) Wilson C. Bation
Researchers' Representative

➤ *Part I Demographic profile*

• Sex: ( ) Male ( ) Female

• Age: ( ) 18-22 ( ) 23-27 ( ) 28 and above

• Civil status: ( ) Single ( ) Married ( ) Widowed ( ) Separated

• Monthly allowance (in pesos):

  ( ) less than 500
  ( ) 600 – 1,000
  ( ) 1,100 – 1,500
  ( ) 1,600 - 2,000
  ( ) 2,000 and above

➤ *Part II. Items Related to LEARNING STYLES AND ACADEMIC ACHIEVEMENT*

In your description, please rate the relationship between learning styles and academic achievement based on your experience as a student following the scale below.

(4) Strongly agree (3) Agree (2) Disagree (1) Strongly disagree

	A.Students' Learning Styles *(Gonzales, M. V.M., & Reyes, P.B.(2016).Academic Performance and Learning Styles of Liberal Arts Students in Physical Science.Asia Pacific Journal of Education, Arts, and Sciences, 3(3), 28-35.)*				
	Scale				
	A.1 Auditory learning style.				
1.	If I hear something, I will remember it.	4	3	2	1
2.	Writing has always been difficult for me.	4	3	2	1
3.	I would rather listen and learn than read and learn.	4	3	2	1
4.	I'm not very good at interpreting an individual's body language.	4	3	2	1
	A.2 Tactile learning style				
5.	I start a project before reading the directions.	4	3	2	1
6.	I hate to sit at a desk for a long period.	4	3	2	1
7	I like to read my textbook while pacing at home.	4	3	2	1
8.	I use my hands to describe things	4	3	2	1
	A.3 Visual learning style				
9.	Jotting down notes makes me remember information better.	4	3	2	1
10	I can focus well by looking directly at a person's eye.	4	3	2	1
11.	Writing down directions is better than taking them verbally.	4	3	2	1
12.	I have trouble following lectures.	4	3	2	1
	A.4 Individual learning style				
13	I want to be alone to concentrate on my work.	4	3	2	1
14	I can't get the idea behind a joke.	4	3	2	1
15.	I prefer to make sketches on my notes.	4	3	2	1
16.	I can recall the page of a book every when I'm resting.	4	3	2	1
	A.S Kinesthetic learning style				
17.	I prefer first to see something done and then do it myself.	4	3	2	1
18.	I use the trial-and-error approach to problem-solving	4	3	2	1
19.	I have to write or type my class notes to reinforce the material.	4	3	2	1
20.	I take frequent study breaks.	4	3	2	1
	B. Academic Achievement of the Students				
	B.1 Academic grade				
1.	My grade in my subject was improved through the auditory learning style.	4	3	2	**1**
2.	My grade in my subject was improved through a visual learning style.	4	3	2	**1**
3.	My grade in my subject was improved through the kinesthetic learning style.	4	3	2	**1**
4.	My grade in my subject was improved through a tactile learning style.	4	3	2	**1**
5.	My grade in my subject was improved through an individual learning style.	4	3	2	**1**
	B.2 Award				
6.	I received an award through the aid auditory learning style.				
7.	I received an award through the use of a visual learning style.	4	3	2	**1**
8.	I received an award due to my kinesthetic learning style.	4	3	2	**1**
9.	I received an award due to my tactile learning style.	4	3	2	**1**
10.	I received an award due to my individual learning style.	4	3	2	**1**