Describing the Learning Styles and Academic Performance of Accountancy Students

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Abstract: This paper aims to describe the prevalent learning styles, emphasizing on the VAK (visual, auditory, and kinesthetic) learning model, among accountancy students from the second to fourth-year level and explore their relationship with academic performance. Findings revealed that visual learning style is the prevalent learning style among accountancy students with 130 learners. Overall, accountancy students with varying learning styles have favorable academic performance classified from "Good" to "Very Good". This study implies that the favorable academic performance of the students may be dependent on their preferred learning styles. Further, this study suggests that the employment of teaching styles or approaches tailored to students' learning styles in the class may aid in further improvement of the learning process and academic performance of the students and achieve a conducive and inclusive learning environment. The insights gained from this can serve as a foundation for optimizing teaching and learning methods and ensuring that accountancy students continue to excel in their chosen field of study. Limitations of this study include the absence of demographic factors such as age, gender, and other necessary factors and the lack of a correlational test.

Keywords: Learning Styles, Academic Performance, Accountancy Students, Accounting

1. Introduction

Accountancy is considered to be one of the most challenging undergraduate programs anywhere in the world. Low passing and failure rates are usually associated with it. This phenomenon has been proved by numerous studies across the globe (Velasco, 2019). In the Philippines, the accountancy program has one of the most stringent policies imposed on students. Such policies include a grade retention policy and passing the yearly qualifying exam to proceed to the higher level of the program. Many students who enrolled in accountancy programs shifted to different courses because they needed help to sustain themselves in the program at various universities and colleges. There were 160,622 enrollees in Bachelor of Science in Accountancy (BSA) in 572 Higher Educational Institutions (HEIs) in the Philippines from 2015 to 2017; however, only 14% or equivalent to 23,225 finished and graduated (Cammayo & Gonzales, 2022).

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One of the primary factors that could affect this situation is their learning styles. The educational process employed during undergraduate determines the level of competence of the accounting students, which will impact their learning in exercising their profession once they become professional accountants (Shaffie et al., 2020). How they learn and understand accounting lessons is not solely dependent on the teaching method employed by the teacher but also on utilizing their learning style.

Learning style is a method of acquiring knowledge by an individual, which will then be organized, processed, and interpreted (Chouhan et al., 2023). In literature, learning style is defined as one's method of doing analysis and comprehension of a particular subject matter. Moreover, learning styles are natural and influence the learning process of an individual. Furthermore, learning style is a unique approach to processing and comprehending new knowledge done by an individual. In the case where accounting is the subject matter for learning, understanding theories and their application becomes more challenging (Tahir et al., 2019).

Individuals differ in how they prefer to receive and absorb information (Storm, 2023). Concerning the mismatch of the learning approaches by both student and instructor, learning difficulty, course discouragement, and poor academic performance will likely arise (Gilakjani, 2012a). Over the last seven years, this distinctness in learning styles has caught the attention of all educational levels. Additionally, the impact in the work field could be influenced by learning styles.

Determining the best learning methods has always attracted many individuals, especially educators, and students in different educational institutions. Academics and researchers developed and adopted various models for understanding students' learning styles. Such learning style models were developed by different researchers from the field of psychology and education (Deng et al., 2022). These include Fleming VARK's model, Kolb's learning style model, Honey-Mumford Model, Felder-Silverman's model, 4MAT model, and Gregorc Model, among others.

The Kolb learning style model encompasses perception and processing (Idkhan & Idris, 2021). Kolb defines the way learners absorb and process information along an iterative process that includes concrete experience, reflective observation, abstract conceptualization, and active exploration. Kolb also claims that there are four distinct learning styles that people used to take information namely: diverging (feeling and watching), assimilating (watching and thinking), converging (doing and thinking), and accommodating (doing and feeling). The learning style inventory provides two purposes: as a teaching tool to improve individuals' understanding of the learning process from experience and their own distinctive individual methods for learning, as well as to investigate experiential learning concepts and characteristics of various styles of learning.

A variation of Kolb learning model, which introduced four learning preferences, is the Honey-Mumford learning style model (Tran, 2023). The preferences comprised activists, reflectors, theorists, and pragmatists. The activists learn when engaged in new experiences and opportunities. They also learn best when working with others. Moreover, learners under this style are capable of leading a group. Next, reflectors learn the best through observation. They think, investigate, and take into account all possible considerations before giving an opinion. They are considered to be cautious and thoughtful. On the other hand, theorists learn best when they understand the theory anchored on a certain idea. They heavily rely

on concepts and facts. These learners like to analyze things. Lastly, pragmatists enjoy taking chances and experimenting. They seek for fresh ideas that can be applied in a particular issue. They learn best when demonstrated methods that have clear and practical benefits.

The core idea of Kolb learning model is that the process of learning is cyclical and has four stages: concrete experience, reflective observation, abstract conceptualization, and active experimentation. Although Honey and Mumford acknowledged this cyclical process, they claimed that within the cyclical process, most people tend to prefer a particular stage. Consequently, they developed their learning style. Moreover, the Honey-Mumford learning style model emphasized that people usually favor learning in one of four ways. Further, if people are aware of their learning style and given the opportunity to reflect on the process, learning becomes more effective (Rusconi, 2024).

One of the most common and widely used learning style models in different fields is the VAK (visual, auditory, and kinesthetic) learning style model. It was developed by various psychologists in 1920s that provides a simple way of understanding and explaining various learning styles (Cuofano, 2024). Accordingly, learners are classified into three: visual, auditory, and tactile or kinesthetic.

Visual learners are the ones who learn through visual tools such as illustrated textbooks, videos, diagrams, and photos, among others. Moreover, visual learners learned the best through visual representation such as pictures, charts, etc. Moreover, they are dependent on the non-verbal acts done by an instructor or facilitator such as body language to understand things Accordingly, this type of learners more likely to sit in front during class (Gilakjani, 2012b).

The characteristics possessed by visual learners include giving importance on details regarding the appearance of something. They carefully plan things for long-term purposes and favorably remember things with visual associations. Additionally, while studying with a crowd, distraction is not something difficult for them to deal with and prefer to read alone. They also like to do demonstrations and sometimes they get lost when other things caught their attention (Rahayu et al., 2020).

These people will say things like "show me," "let's take a look at it," and "let's see how it's done" and will be most successful at a new task if they read the directions or see someone else complete it first. They are the ones who will follow written instructions, lists, and guidelines. A visual learner doesn't need as many oral explanations as an auditory learner (Agullo, 2022).

Auditory learners acquired knowledge by speaking or reading out the information. Written learning materials less effective on them and may not gain full understanding on them. Auditory learners excel with sound-based instruction, preferring lectures, discussions, and verbal explanations while utilizing mnemonic devices for memory enhancement and enjoying music, sound activities, and group discussions (Axtamova & Yarqulova, 2023). These learners often talk to themselves, move their lips when reading, and distracted by the noise around them. Moreover, they are good speakers, likes to discuss something through verbal in a longer period of time (Rahayu et al., 2020).

Auditory learners are known to be a great listener. They have the ability to interpret symbols, words, or letters just by hearing them. However, they can hardly follow written directions than spoken ones. They

are fond of listening lectures or class discussions, but they are easily distracted with the noise. They are the good talkers and can resolve the problems just by talking (Kayalar & Kayalar, 2017).

Kinesthetic learners learn by simply doing or actively engage in physical activities rather than passively listening to lectures. According to pedagogical studies, this type of learning is fundamental, common, and effective learning method (Sivilotti & Pike, 2007). They need to feel in order to remember. They can absorb the information just by touching or holding something without knowing the explanation. The kinesthetic learning style involves students learning through physical movement and tactile experiences, demonstrating that those with this preference learn more effectively when actively engaged in hands-on activities (Wahyudin & Wahyuni, 2022).

Similar to Honey-Mumford model, the VAK learning style model presumes that addressing one's learning style and considering one's potential will allow learning process more effective (Hardiana & Suyata, 2018). Applying the VAK learning style model provides a main advantage of allowing both educators and students to modify their behaviors according to their preferences, which permits teaching and learning more effective. Additionally, teaching approach tailored to learning preferences allow students to increase their learning interest. Hence, this will further enhance students' own learning (Glinicka, 2021).

Studies provide different learning styles of the students related to VAK (visual, auditory, and kinesthetic) learning model. There is also a strong interest among educators and researchers in understanding how learning styles relate to academic performance. Statistical findings suggest that students adopting pragmatist and theorist learning styles achieve higher academic success than those with reflector and activist learning styles (Tahir, 2020). Study also revealed that the most preferred learning style by the students taking biology class is the visual learning style, it then followed by auditory and kinesthetic learning style (Matazo & Ismail, 2023). Undergraduate medical students in India showed that their dominant learning style is kinesthetic, followed by auditory, and visual. It was also found out that their preferred learning style has no association with their academic achievement (Muniyapillai et al., 2023). Meanwhile, students majoring computer and network engineering revealed that the kinesthetic visual mixture is their dominant learning style. They primarily learn by using their sense of sight and physique (Kristia & Krismiyati, 2023).

Becoming a Certified Public Accountant (CPA) requires significant effort, perseverance, and a constructive attitude and conduct in accounting. Cultivating a positive outlook on accounting and productive study practices may improve academic performance and increase the likelihood of passing the board exam (Ballado-Tan, 2014).

Recognizing and accommodating students' varying learning styles is significant and can contribute to their academic success (Bangcola, 2016). The research on learning styles and academic performance among accountancy students underlines the importance of considering individual learning preferences in accountancy education.

Studies regarding in determining and describing the learning styles of the students using VAK (visual, auditory, and kinesthetic) learning model and academic performance based on learning styles of accountancy students are limited in the accountancy program. Hence, this paper seeks to provide such

deficiency in research and contribute more information regarding the learning styles and academic performance of the students on the said field.

1.1 Research Objectives

This paper aimed to describe the prevalent learning styles, emphasizing on the VAK learning model, among accountancy students from the second to fourth-year level and explore their relationship with academic performance. This study provides accountancy students with an idea of the impact of their learning styles on their academic performance. This study could also help accounting educators and students who would like to take an accountancy program to have an idea of possible learning styles to be utilized in sustaining the said program.

2. Method

2.1 Research Design

The study used a quantitative research design, specifically a descriptive design since its goal is to describe the learning styles and academic performance of accountancy students. Siedlecki (2020) said that "the goal of the descriptive design is to gather data to describe a phenomenon, circumstance, or population methodically." A descriptive research design is survey research (McCombes, 2019). Data collection and analysis were done through the distribution of survey questionnaires following a structured survey questionnaire with multiple choices.

2.2 Research Environment and Participants

The study was conducted in Pagadian City, the capital city of Zamboanga del Sur, Philippines. The specific environment is one of the colleges in the city that offers an accountancy program. The participants of this study were the second to fourth-year accountancy students both male and female regardless of their age, status, and other demographic information. The researchers selected the participants simply because, at their discretion, they believed that the selected participants were suitable for the information needed to answer the research questions of this study.

2.3 Research Instrument

The study utilized a structured learning style inventory questionnaire from the book entitled, "Facilitating Learning: A Metacognitive Process" (Lucas & Corpuz, 2007). This questionnaire facilitates the assessment of the students' learning styles. This questionnaire is composed of 14 questions, in which every question represents each learning style, the VAK (visual, auditory, and kinesthetic). It sought insights into students' learning preferences and tendencies. Participants indicated their agreement or preferences for different learning modalities, comprising visual, auditory, and kinesthetic. Moreover, the research instrument comprised a section designated for the collection of academic performance data from accountancy students using their weighted average grade in accounting major courses for the last semester. This section contained a table corresponds to their current year level.

2.4 Data Gathering Procedure

The researchers conducted an actual survey with the participants with a permission from the school's authorities. It was done by distributing the survey questionnaires. During the survey, participants were guided in answering the questions with clear instructions. After completion, the survey questionnaires were collected and securely stored to safeguard the data and maintain confidentiality throughout the research process.

2.5 Data Analysis

In identifying the learning styles of accountancy students, the frequency count has been utilized. The learning style garnering the highest frequency is considered to be the student's preferred learning style. The analysis and interpretation of the data regarding the learning styles are anchored on the theories under VAK learning model. Accordingly, no one has possessed one learning style only. Students could use all of these to absorb information. However, one or more learning styles are typically dominant. The dominant learning style is the student's best way to learn, absorb, and comprehend the information (Sundrum, 2013). The dominant learning style is considered to be the preferable learning style of the student (Rajapakshe, 2018).

In determining the academic performance of accountancy students, the mean and standard deviation has been utilized and determined using IBM SPSS. After computing the mean and standard deviation, the results were then interpreted using the hypothetical mean range established by the institution where the study was conducted. The hypothetical mean range comprised the following categories that serve as the descriptive equivalent for academic performance: "Excellent", "Superior", "Very Good", "Good", "Fair", "Passed", "Failed", and "No Grade". To provide comprehensive analysis of the data, the student's academic performance is then aligned with his or her preferred learning style. In this way, the researchers could provide more valuable insights.

3. Results and Discussions

3.1 Learning Styles of Accountancy Students

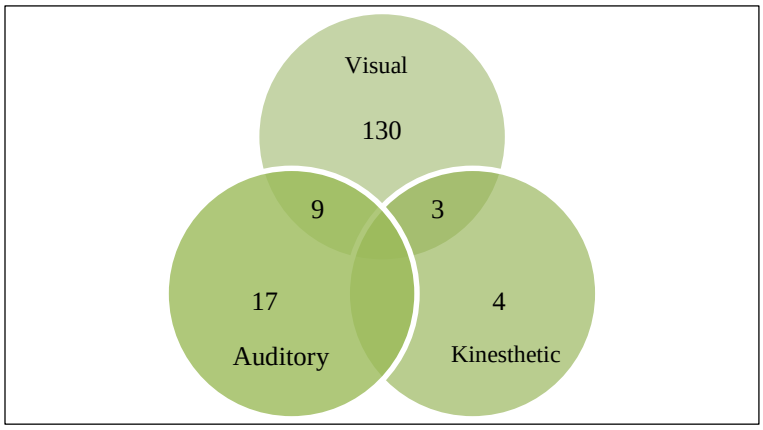

Figure 1: Number of Learners per Learning Style

Figure 1 above shows the different learning styles of accountancy students across different year levels. Results show that there are 130 visual learners, 17 auditory learners, and 4 kinesthetic learners. In addition, results show that there are 9 learners having both visual and auditory learning styles, while there are 3 learners having both visual and kinesthetic learning styles.

Considering that students exhibit different learning styles, study reveals that the visual learning style is dominant across second to fourth-year level. This further signifies that the visual is the preferred or prevalent learning style of the students utilized in the accountancy program. Professionals in the field of accounting and finance domain tend to comprehend information more effectively when it is visually presented. Additionally, they frequently linked specific topics, concepts, and activities with visual representations (Half, 2016). Moreover, students studying accounting were observed to find it more accessible to grasp lessons through visual approaches (Hidayat et al., 2019). This group of learners typically excelled when exposed to textbooks or visual presentations, with diagrams and images serving as valuable aids in comprehending and internalizing concepts.

From the study regarding the "Relationship Between Students' Learning Style and Their Academic Performance in Accounting", one of their study scopes is the College of Business Accounting, based on the data, 76% of the total respondents are visual learners. Meanwhile, 13% are kinesthetic learners and 11% are auditory learners (Sundrum, 2013).

In addition, a study entitled, "Relationship Between Learning Style and Academic Performance of Accounting Undergraduates in Online Classes", results show that visual learning style was found to be more prevalent than auditory and kinesthetic learning styles (Fadzillah et al., 2021). In the study entitled "Investigation of Learning Style Preferences of Business Students in Saudi Arabia using VAK Assessment Model", it revealed that the dominant unimodal learning style was the visual style (Rajapakshe, 2018).

The results presented above are in consonance with the VAK learning model. The results showed that students have their most preferred or dominant learning styles. Other students possessed a combination of either two or all learning styles such as visual-auditory, or visual-kinesthetic. The student's dominant learning style is their best way to learn and comprehend the lessons so that they will be able to survive in the program. In addition to that, it proved that students may prefer one learning style for a specific subject and a combination of two learning styles for other subjects.

3.2 Academic Performance of Accountancy Students According to their Learning Styles

Table 1: Academic Performance Based on Learning Style

Learning Style	n	Academic Performance		Descriptive Equivalent
		Mean	Standard Deviation	
Visual	130	1.70	0.28	Good
Auditory	17	1.86	0.28	Good
Kinesthetic	4	1.52	0.18	Very Good
Visual and Auditory	9	1.76	0.32	Good
Visual and Kinesthetic	3	2.00	0.21	Good

Table 1 above demonstrates the academic performance of accountancy students according to their learning styles across all year levels. Visual learners have a mean academic performance of 1.70 with a standard deviation of 0.28., classified as "Good". Auditory learners garnered a mean academic performance of 1.86 with a standard deviation of 0.28, which falls under the "Good" category. The kinesthetic learners have the mean academic performance of 1.52 with a standard deviation of 0.18, classified as "Very Good". Meanwhile, visual and auditory learners garnered a mean academic performance of 1.76 with a standard deviation of 0.32 falling into "Good" category. Lastly, students who have the combination of both visual and kinesthetic learning styles have a mean academic performance of 2.00 with a standard deviation of 0.21 and is categorized as "Good".

Study shows that accountancy students achieved a favorable academic performance using their preferred learning styles. This suggests that their learning styles provide positive impact on their academic performance. From the other study, it found out that the students' academic performance has been positively affected by their learning styles particularly the visual, auditory, and kinesthetic (Bentil, 2023). Some researchers argued that a potent approach to promoting personalized student-centered learning involves recognizing that all students can effectively learn if their preferred learning styles are acknowledged and accommodated (Garber et al., 2017). Hence, learning style has a direct impact on the success of the students (Polat et al., 2015). To achieve better academic performance, appropriate and effective learning styles should be employed. Thus, using the right learning tool directly correlates with students' learning abilities and academic achievement (Mariana et al., 2022).

From the study regarding the "Relationship Between Students' Learning Style and Their Academic Performance in Accounting", one of their study scopes is the College of Business Accounting, based on the data, results show that visual learners have an academic performance marked as "A" with 47% from the total respondents. Very few visual learners scored a "B" or a "C". On the other hand, auditory learners and kinesthetic learners' academic performance mostly marked as "B" (Sundrum, 2013).

Although study suggests that learning styles provide a favorable outcome, learning abilities and academic performance of accountancy students can still be further improved since majority of the students only achieved "Good", while very few achieved "Very Good" academic performance. This means that most of the students if not all could still attain higher "Superior" and even reaching "Excellent" as the highest

academic performance with appropriate learning interventions, specifically aligning instructor's teaching style with the student's learning style. Several investigations provide suggestions that to enhance the critical thinking of the students, formulating and designing educational techniques dependent on the student's learning style is necessary. It emphasized further that students' learning styles have a significant role in their learning process (Shirazi & Heidari, 2019). Determining the learning approaches used by the students will allow educators to assist the students in achieving broader and higher learning abilities.

4. Conclusion

Accountancy students employed varying learning styles to cope, retain, and survive in the program. Moreover, visual learning style is the dominant learning style of the students in the accountancy program. Furthermore, the academic performance among accountancy students according to their preferred learning styles has shown positive results, achieving "Good" to "Very Good" level. This suggests that students' preferred learning mode has a positive influence or impact on their academic achievement. Expanding on the practical implications, educators could tailor teaching methods based on prevalent learning styles. This could create a more personalized and effective learning environment enabling students to advance from "Good" to "Excellent" academic performance. It reaffirms the importance of maintaining high academic standards and encourages the continued pursuit of excellence within the field. To cater the different learning styles of the students effectively, educators can either provide different learning tools based on their different learning styles or give them multiple tasks that will cater their learning styles with the end goal of making the students thrive. For visual learners, accounting educators may provide learning materials such as PowerPoint presentations, short videos, graphics, illustrations, etc. Moreover, accounting book authors may integrate visual elements such as concept maps, diagrams, among others. For auditory learners, educators may emphasize and set the students prior to the discussion of the class to listen carefully, ensure that students hear their voice, facilitate oral presentations, among others. Lastly, for kinesthetic learners, accounting educators may conduct hands-on learning activities such as problem-solving tasks allowing students to make physical movements and have a direct contact with the accounting learning materials.

This study sheds light on accountancy students' diverse learning styles and commendable academic performance. The insights gained from this research can serve as a foundation for optimizing teaching and learning methods and ensuring that accountancy students continue to excel in their chosen field of study.

5. Limitations and Recommendations

The following are the limitations and recommendations of the study:

1. This study was unable to group or classified the respondents according to their gender, age, and other demographic factors. Hence, future research should consider these factors to identify any possible differences regarding their learning styles and academic performance that could impact the generalizability of the findings.
2. This study was unable to conduct a correlational test as the data do not qualify for such a test. Hence, future research should perform one to provide concrete evidence and strengthen the relationship between learning styles and academic performance.

3. This study may not represent all accountancy students. Hence, future research may be improved and strengthened the representation of the accountancy students by enlarging the size of the population. This can be done by including respondents from different educational institutions.

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