Learning Styles and Academic Achievement of Criminology Students Mercy O. Caba-ong, Ph.D.

J.H Cerilles State College, Dumingag, Zamboanga del Sur

ABSTRACT

The learning process has been the focus of research but remains complex and affected by many factors. This study identified the learning styles and academic achievement of criminology students in J.H Cerilles State College. A survey method was used in this study, utilizing a questionnaire to assess the learning styles. The academic achievement in terms of the general point average of the respondents for the school year 2021-2022 was taken from the promotional report of the College Registrar's Office. Results showed that criminology students ranked first the dependent learning style and tend not to use the participant learning style. There is no significant difference in the learning styles of criminology students when gender is taken into account. No significant difference is seen in the learning style of students when they are grouped according to their intelligence quotient. The academic achievement of criminology students was average. There is a significant relationship between the participant, independent, avoidance learning style and academic achievement, respectively. The results may be used as a basis for discussing the learning styles and preferences of students and in planning a mixture of methods and alternatives that may accommodate a diverse group of students.

KEYWORDS: avoidance, diverse, gender, methods, preferences

INTRODUCTION

One of the priorities of the Higher Institutions is to give the best and high-yielding education to students. There are many constructs in education and learning style is considered one of these. Learning style refers to an individual's approach to learning based on one's preferences, strengths, and weaknesses (Hung et al. [1]. Cognitive, affective, and psychomotor are the components of learning style all which being influenced by a person's environment (Mukherjee & Chatterjee) [2]. Students may have different learning styles and it is unclear, if tailoring instructional methods for a student's preferred learning style improves the educational outcomes (Papanagnou et al.) [3].

Based on Kolb's learning theory, learning is a combination of how one is able to approach a task and respond to the experience, whereas learning strategy measures if deep or surface learning tactics are used when learning new material (Nichols & Edmondson) [4]. Learning style is found to be influential in learning and academic achievement, and may explain how students learn (Yazici) [5].

A system for identifying the learning styles was developed by Grasha J. Reichman in 1974 on the basis of the taxonomy of six learning styles. The independent learning style is exemplified in the students' preference to work on their own but will listen to the ideas of others in the classroom. In

dependent learning style, the learners are those who are more sensitive to context. Students attack problems more globally viewing ideas in larger context. They rely on others for help and work better in groups. In the avoidance style of learning, the student is not interested in learning the course content in the traditional classroom. The learner is generally turned off by classroom activities. The student does not like enthusiastic teachers and teacher-student instructions. In competitive learning style, the student learns the material in order to perform better than the others in the class. The collaborative learning style is typical of students who feel they can learn the most by sharing ideas and talents. They cooperate with teachers and students and choose to work with others.

Different learners learn through different styles and it helps the teachers to apply proper activities in teaching if they know their learners' learning style preferences (Negari & Barghi) [6]. Matching teaching activities with learning styles is one method that may address identified learning barriers. Research demonstrates that learning is more effective if education is provided in a way that suits individuals' learning style (Hu et al.) [7]. However, there are researchers who do not consider the learning style worth to be researched and they have certain reservations (Nichols & Edmondson) [4].

In J.H. Cerilles State College - School of Criminal Justice Education specifically the students of Bachelor of Science in Criminology are generally observed to have been performing not very satisfactorily and many factors may have contributed to this low performance. Taking into account that the school has a relatively higher student population than most schools, there is a significant challenge in looking into the factors that affect the students' performance. In an attempt to improve the instructional approaches, this study aimed to identify the learning styles and academic achievement of Criminology students of J.H. Cerilles State College during the school year 2021-2022. The paper also determined whether these learning styles and academic performance differ as to the profile of the students and whether the difference is significant. This study also determined the if there is a relationship between the respondents' learning styles and academic achievement

The findings of this study may serve as the basis in determining new strategies in teaching that would meet the learning styles predominantly used by the students. On the other hand, it allows the teachers to re-examine their classroom practices and emphasize the learning styles that may prove more effective in improving academic achievement. Parents are also updated with the way their students tackle their classroom work that may give them the idea how to reinforce their children's efforts and develop better or other learning techniques that may help increase performance. Interesting and appropriate reading materials may then be provided at home.

METHODS

This study employed the descriptive-quantitative design. Data were obtained from the survey method using a modified-questionnaire to determine the profile of students and their learning styles. Documentary analysis was used to determine the academic achievement of the students which was obtained from the Promotional Report of students at the College Registrar's Office.

Part 1 of the questionnaire determines the profile of students in terms of their gender and intelligence quotient (IQ). The IQ was taken with consent from the records of the Guidance Center with full confidentiality. The Purdue Non-Language Test (PNLT) is given every year to keep a

profile of the IQs of students. Part II of the questionnaire determines the learning styles of the students. The Student Learning Styles Questionnaire developed by Grasha and Reichman in 1974 was adapted in this study which consists of 15 items describing each of the six learning styles of the students that include independent, dependent, avoidance, competitive, collaborative and participant learning styles.

Using the stratified random sampling, a representative group from each year level was selected as the respondents. A total of 201 criminology students were sampled from the second (96), third (42) and fourth year (63). An informed consent was obtained from the respondents for their voluntary participation in the research. Before data were gathered, the respondents were informed of the objectives and scope of the study and were made aware of their right to refuse participation.

Frequency, percentage and weighted mean were the descriptive statistics used.

RESULTS AND DISCUSSION

Learning Styles of Criminology Students

Table 1 presents the learning styles of criminology students. The dependent learning style was used regularly by students which obtained the highest rank. The result is similar with the findings of Khalid et al. [8]. Criminology students were more inclined to be dependent learners. They prefer teachers who outline or write notes on the board. The students show little intellectual curiosity and tend to learn what is only required. Criminology students tend to depend on authority for guidelines and want to be told what to do.

Table 1. Learning styles of criminology students

Learning Styles	Rank	Mean	Interpretation
Dependent Learning Style	1	3.08	Used regularly
Participant Learning Style	2	2.93	Used regularly
Competitive Learning Style	3	2.77	Used regularly
Collaborative Learning Style	4	2.75	Used regularly
Independent Learning Style	5	2.74	Used regularly
Avoidance Learning Style	6	2.40	Used
			sometimes

Next in rank was the participant learning style. Students were motivated to come to class due to their desire to learn. There are criminology students who also perceive that the class activities are generally interesting so they tend to maximize their participation in the class. The findings of Yazici [5] found out that business students with participant learning style were found to be high academic achievers and successful critical thinkers.

The competitive learning style is ranked third in this study. There are criminology students who also prefer to be competitive in the class. Students often feel that they have to be aggressive to do well in the course. On the other hand, students sometimes believe that they have to step in other's toes to get ahead in the class and compete with other students for the teachers' attention. They tend

International Journal of Arts, Humanities and Management Studies

not to share notes and ideas with others and dislike instructors who deviate from the lesson. The competitive learner likes to be always the winner. Students tend to compete with other students in the class to gain reward. The competitive learner likes to be a group leader when working on projects or during discussions. He asks questions and has no real preference for any classroom method as long as the method has more of a teacher-centered focus than a student-centered focus. However, the findings of Farkas et al. [9] suggest that specific study time and not the learning preferences is associated with better performance. Time matters for competitive students as they tend to excel in the class.

The collaborative learning style is ranked fourth in this study. There are criminology students who find support from other students and at the same time feel responsible in helping others achieve their goals. They prefer to work in groups rather than alone. With this style, students love to do group projects and talk about the course outside of class with other students. Students also enjoy interacting with the instructor and peer. The study of Kuo et al. [10] showed that those students who utilized the online collaborative learning approach outperformed those who used the traditional paper-based learning approach. Hence, technology-assisted learning may also show a positive result in student performance (Hu et al.) [7].

The criminology students ranked the independent learning style fifth. In this style, students were more comfortable with independent activities as they could work well alone without the need for external reinforcement. In independent learning, students are having choices about what to learn that can be influenced by students' intrinsic motivation and natural curiosity (Mondal et al.) [11].

The avoidance learning style was sometimes used by the students. In this style, criminology students sometimes avoid active instructions in the classroom leading to inattentiveness. There are occasions that students regularly tend to avoid instruction not trying to learn anything and go through the process of coming to class just to pass through.

Table 2. Difference in students' learning styles when grouped according to gender

	Independent Learning Style	Dependent Leaning Style	Avoidance Learning Style	Competitive Learning Style	Collaborative Learning Style	Participant Leaning Style
\mathbf{x}^2	0.522	0.522	0.1646	0.665	0.1646	3.801
cv	3.841	3.841	3.841	3.841	3.841	3.841
df	1	1	1	1	1	1
p	0.05	0.05	0.05	0.05	0.05	0.05

There is no significant difference in the learning styles of criminology students when gender is taken into account (Table 2). No significant difference is seen in the learning style of students when they are grouped according to their IQ (Table 3).



Table 3. Difference on the respondents' adherence to learning styles when grouped according to IQ level

	Independent Learning Style	Dependent Leaning Style	Avoidance Learning Style	Competitive Learning Style	Collaborative Learning Style	Participant Leaning Style
x^2	5.846	0.137	51.517	1.740	4.865	2.0806
cv	5.991	5.991	5.991	5.991	5.991	5.991
df	1	1	1	1	1	1
p	0.05	0.05	0.05	0.05	0.05	0.05

The academic achievement in terms of grade point average (GPA) is shown in Table 4. The data revealed that the academic achievement of most criminology students was average.

Table 4. Criminology students' academic achievement

Academic achievement	Frequency	Percentage
Superior	9	4.48
Above Average	48	23.88
Average	81	40.30
Below Average	25	12.44
With 2 to 3 subjects failed	28	13.93
With 4 or more subjects	10	4.98
failed		
Total	201	100.00

Table 5. Relationship between the respondents' learning styles and academic achievement.

	Independent Learning Style	Dependent Leaning Style	Avoidance Learning Style	Competitive Learning Style	Collaborative Learning Style	Participant Leaning Style
\mathbf{x}^2	7.815	1.718	9.932	0.931	7.6987	68.39
cv	5.991	5.991	5.0991	5.991	5.991	5.991
df	1	1	1	1	1	1
p	0.05	0.05	0.05	0.05	0.05	0.05

There is a significant relationship between the students' independent learning style and their academic achievement (Table 5). Students therefore should be encouraged to do independent study at their own pace. They should be provided with situations or problems which give the students the opportunity to think. In this way, they can discover for themselves what they actually do and can possibly do and tap their innate capacities. The result is similar with avoidance learning style. When

International Journal of Arts, Humanities and Management Studies

students refuse or avoid requirements and assignments and do not like active interactions, there would likely be an effect in their academic achievement. Students' learning styles can promote students' learning and maximize their academic achievement (Baraz et al.) [12]. There is a significant relationship between the participant learning style and academic achievement. A participant learning style is proactive. Students like enthusiastic presentations of materials and admire teachers who are likewise enthusiastic. These attributes boil down to better performance and higher academic achievement. On the other hand, there is no significant relationship between the other learning styles and academic achievement of the criminology students.

No one style of learning is better than the other to effect higher academic achievement and no single style leads to better learning. Learning style may just help explain the differences observed among students as basis of building a range of teaching strategies based on the different strengths the individual brings to the classroom.

CONCLUSION AND RECOMMENDATION

Differing learning styles of students can be identified and need to guide the instructor in devising a mixture of student-centered and teacher-dependent alternatives. The result may be used as a basis for discussing the learning styles and preferences of students. It is also high time to include in planning a mixture of methods and alternatives that may accommodate a diverse group of students.

College instructors should plan and devise teaching methods and alternatives that would cater to the various learning styles manifested by students. Instructors should develop a varied range of instructional strategies that would form choices about which of the available instructional alternatives would best facilitate learning. Since no one style of learning is better than the others to effect higher academic achievement of students, it is best that teachers, upon knowing the learning preferences of students help by giving activities that complement their style in addition to the regular activities in the classroom.

REFERENCES

- i. Hung, Y. H., Chang, R. I., & Lin, C. F. (2016). Hybrid learning style identification and developing adaptive problem-solving learning activities. *Computers in Human Behavior*, *55*, 552-561.
- ii. Mukherjee, S., & Chatterjee, I. (2016). Learning style of humanities, commerce and science students: A study on higher secondary students from West Bengal. *The International Journal of Indian Psychology*, 3(3), No. 10, 14.
- iii. Papanagnou, D., Serrano, A., Barkley, K., Chandra, S., Governatori, N., Piela, N., ...& Shin, R. (2016). Does tailoring instructional style to a medical student's self-perceived learning style improve performance when teaching intravenous catheter placement? A randomized controlled study. *BMC Medical Education*, 16(1), 205.

International Journal of Arts, Humanities and Management Studies

- iv. Nichols, C. T., & Edmondson, A. C. (2016). Examination of the roles of learning style and learning strategy on the academic performance of first year medical students. *The FASEB* (*Federation of American Societies for Experimental Biology*) *Journal*, *30*(1 Supplement), 569-5.
- v. Yazici, H. J. (2016). Role of learning style preferences and interactive response systems on student learning outcomes. *International Journal of Information and Operations Management Education*, 6(2), 109-134.
- vi. Negari, G. M., & Barghi, E. (2014). An exploration on Iranian EFL learners' learning style preferences. *Modern Journal of Language Teaching Methods*, 4(2), 17.
- vii. Hu, P. J. H., Hui, W., Clark, T. H., & Tam, K. Y. (2007). Technology-assisted learning and learning style: A longitudinal field experiment. *IEEE Transactions on Systems, Man, and Cybernetics-Part A: Systems and Humans*, 37(6), 1099-1112.
- viii. Khalid, R., Mokhtar, A. A., Omar-Fauzee, M. S., Kasim, A. L., Don, Y., Abdussyukur, N. F., ... & Geok, S. K. (2013). The learning styles and academic achievements among arts and science streams student. *International Journal of Academic Research in Progressive Education and Development*, 2(2), 68-85.
- ix. Farkas, G. J., Mazurek, E., & Marone, J. R. (2016). Learning style versus time spent studying and career choice: Which is associated with success in a combined undergraduate anatomy and physiology course?. *Anatomical sciences education*, 9(2), 121-131.
 - x. Kuo, Y. C., Chu, H. C., & Huang, C. H. (2015). A learning style-based grouping collaborative learning approach to improve EFL students' performance in English courses. *Educational Technology & Society*, 18(2), 284-298.
- xi. Mondal, H., Mondal, S., & Das, D. (2016). Learning style preference for basic medical science: A key to instructional design. *International Journal of Clinical and Experimental Physiology*, 3(3), 122.
- xii. Baraz, S., Memarian, R., & van aki, Z. (2014). The diversity of Iranian nursing students' clinical learning styles: A qualitative study. *Nurse Education in Practice*, *14*(5), 525-31. doi:http://dx.doi.org/10.1016/j.nepr.2014.03.004