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Learning Preference of Business Students

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Abstract **– The research explored the Learning Preference of Business Students where the respondents are the business students of the American College of Dubai in UAE. The study made use of the VARK instrument postulated by Fleming (1992) and the statistical manipulations were done in accordance to the guideline provided for in the website. The objective of the study is to distinguish business learners regarding their mode of learning whether visual, aural, reading/writing and kinesthetic. It also aims to suggest further studies that will develop teaching designs that will best facilitate the learning preference of the business students. The study showed that the business students are multi-modal learners and they are kinesthetic. Females are multimodal but prevalent to them is auditory while males are kinesthetic and auditory.**

Keywords **– Learning Preference, Learning Predilection, VARK, Learning Predilection, American College of Dubai**

I. Introduction

This study investigated the learning predilection of business students in Dubai. The specific school from which the data were gathered is from the American College of Dubai. The college has multicultural students who come from the different parts of the Gulf Region. The study is made to make a baseline data to further improve instruction styles that will maximize students learning based from the findings of the study.

In the work of Fleming (2012) the learning preference of students can come in four ways, these are Visual, Auditory, Reading/Writing and Kinesthetic, thus, VARK learning styles. He further distinguished each learning preferences in his work where he said Visual preference includes learning by appreciating information in charts, graphs and flow charts, and all the symbolic arrows, circles, hierarchies and other devices that teachers use to represent what might have been presented in words. They find meanings from layout, whitespace, headings, patterns and designs and even in the colors. This type of learners manifests more awareness in their immediate environment and "their place in space". The Auditory learner prefers to learn from spoken or heard information. These learners learn best through discussion, oral feedback, emails, phone chats, discussion boards, oral presentation classes as well as tutorials.

Accordingly, kinesthetic learners learn best through "perceptual preference" related to the use of experience and practiced especially if it is real. These learners learn when they are connected to the reality through experience, example, practice or simulation and learning by doing. The senses that they usually use to learn are sight, touch, taste and smell all combined. Some theorist believes that movement is important for this preference but is the very real simulation of a situation that appeals most.

It is therefore interesting to know how the business students are learning to be able to come up with a factual baseline data on how instruction to these students maybe done to facilitate learning.

II. Statement of the Problem

It is the aim of this study to find answers to the following questions:

1. What is the learning preference of the students of the American College of Dubai?
2. Is there a difference in the learning preference of the students of the American College of Dubai when they are grouped according to :

2.1. Gender
2.2. Class rank

Significance of the Study

The results of the study will be significant as an important contribution to the current body of knowledge in this area and to the following specific groups of stakeholders:

The Respondents.

The results of the study enable the respondents to know their learning predilection of students thus, they are more aware of how they can best learn.

The Researchers.

The study has enabled the researchers to present a fact based understanding of the learning preferences of their students which will be considered in designing class activities and other classroom experiences relevant to fully effect students' understanding and learning. Moreover, it will be used as bases to propose continuing development programs for the faculty centered on student learning.

Future Researchers.

The results of the research maybe used to add up to the body of knowledge in this area and as baseline data that will be used to further research on the topic.

III. Scope and Limitations of the Study

The research was conducted in the American College of Dubai and the respondents of the study are business students who are enrolled in the Spring Semester of 2017. The study used the VARK 16 Point questionnaire of Fleming and interpreted it accordingly.

Definition of Terms

For the purpose of common understanding, the following terms are defined operationally as they are used in this paper.

Auditory Learning Preference –

It is the term which refers to the learner's preference to hearing information to learn.

Kinesthetic Learning Preference –

It is a term which refers to a learner's preference to learn using all his senses. They like to experience their learning by using all their senses including touch, smell, taste, hear, sight.

Learning Predilection.

The term refers to the modalities at which learning takes place with students. In this paper it is used interchangeably with learning preference.

Reading and Writing Learning Preference –

The term refers to a learner's preference to learn from gathering information through printed words.

VARK –

The term is an acronym for Visual, Aural, Read/Write and Kinesthetic types of learners.

Visual Learners –

It is a term which refers to a learner's preference of seeing information to learn. They like information to arrive in the form of graphs, charts and flow diagrams.

Sometimes they will draw maps of their learning sequences or create patterns of information. They are sensitive to different or changing spatial arrangements and can work easily with symbols.

This chapter presents the summary of related studies of the subject under study. It will talk about, student learning, teaching design, learning theories and the VARK theory.

IV. On Student Learning

Literatures have it that students learn in different ways and their learning is affected by an array of reasons. It also said that learning is caused by something and that something must be an influence that is seen in the world that surrounds the learner. The world that surrounds the leader would include how teachers are affecting the students' learning. This was specifically argued by Ramsden (2002) in his book Learning to Teach in Higher Education. He said that learning is about understanding the important competencies in the academic discipline. He further said that by understanding, this refers to the students way of apprehending and discerning situations related to the subject rather than what they actually know about them of how they can maneuver their own understanding of the subject matter. He emphasizes that learning cannot be measured by merely repeating what the textbook has said but rather how their can apply their understanding when they solve real problems.

Improving teaching involves the same process that informs higher quality student learning. It requires how teachers think about and experience teaching. Thus, it involves changes in teacher's conceptions, in common-sense theories and how they are actually expressed in practice. Students' thoughts and actions are influenced by the educational context or environment in which they learn. They react to the demands of teaching and assessment in ways that are difficult to predict. Good teaching therefore affects student learning thus, teaching should strive to continually learn about students' understanding and the eff-ects of teaching on it.

A.N. Whetehead also made a claim on an essay published in 1929 that differences in quality learning are due to the differences in the ways that students go about learning and these differences can in turn be explained in terms of their experiences of teaching. The foregoing statement implies that higher education should be made relevant to the economy and that of the community. Making it relevant should mean that the effected student learning should be that when they become integrated in the community as professionals, their learning is relevant to be able to be applied in the real issues faced by the society. In the essay, it pointed out that universities who do not take serious consideration to the real issues of society should not exist. It further said that a "fact is no longer a bare fact". Facts are already providing invested possibilities. Students are already seeing it in this manner.

Ashby (1973) also described how students should develop 'from the uncritical acceptance' of what is common to creative divide such that, there must be opportunities for the intellect to be stretched to its capacity, the critical faculty sharpened to the point at which it becomes loaded with substance to see things in proper perspective.

Matching Learning styles with teaching Design Research with secondary students (Hodges, 1982) has demonstrated that "approximately 90 percent of traditional classroom instruction is geared to the auditory learner. Teachers talk to their students, ask questions and discuss facts. However, research revealed that only 20 to 30 percent of any large group could remember 75 percent of what was presented through discussion". To solve this problem, some learning style theorists suggest matching teachers' and students' styles. In this way, students are exposed to teaching styles that are consistent with their learning styles (Barbe, Swassing & Milone, 1979; Dunn, 1984; Dunn).

V. The VARK Learning Preferences

The concept of VARK learning preference is focused on the different ways that one takes in and gives out information. The only perceptual modes, or senses, it does not address are taste and smell. The VARK Inventory provides measures of learning preference in each of the four perceptual modes, with learners having preferences for anywhere from one to all four of the learning preference list.

Fleming (2001) reports that about 41 percent of the population who have taken the instrument online have single style preferences, 27 percent two preferences, 9 percent three preferences, and 21 percent have a preference for all four styles.

The free VARK questionnaire provided sixteen statements that describe a situation and asks the respondent to pick one or more of three or four actions that the respondent would take. Each action corresponds with a VARK Learning Style preference. The total of all four scores ranges from 13 to 48, with individuals having a preference for one, two, three, or all four of the learning channels. Students and faculty can self-administer, self-score, and self-interpret the VARK Inventory.

There are also differences in learning approaches for the four VARK Learning Styles. Visual learners prefer maps, charts, graphs, diagrams, brochures, flow charts, highlighters, different colors, pictures, word pictures and different spatial arrangements. Aural learners like to explain new ideas to others, discuss topics with other students and their teachers, use a tape recorder, attend lectures and discussion groups, and use stories and jokes. Read/Write learners prefer lists, essays, reports, textbooks, definitions, printed handouts, readings, manuals, Web pages, and taking notes. Kinesthetic learners like field trips, trial and error, doing things to understand them, laboratories, recipes and solutions to problems, hands-on approaches, using their senses, and collections of samples. Fleming (2001) suggested that extensive classroom approaches must be employed for matching teaching styles and learning styles.

VI. Related Studies

The table 1 show the tabular presentation of the studies conducted of the same topic but in different coverage. This information are presented by authors.

Table 1. Related Studies

AUTHOR: Hadi Peyman, Jamil Sadeghifar, Javaher Khajavi khan Masood Yasemi Mohammad Rasool, Yasemi Monireh Yaghoubi, Monireh Mohammad Hassan Nahal, and Hemati Karim.
TITLE: Using VARK Approach for Assessing Preferred Learning Styles of First Year Medical Sciences Students: A Survey from Iran.
METHODOLOGY: A cross-sectional study which employed VARK learning style's questionnaire done to 141 first year medical sciences students at Ilam University of Medical Sciences in 2010. Data was collected with use of VARK questionnaire. The validity of the questionnaire was assessed on basis of experts' views and its reliability was calculated by using Cronbach's alpha coefficients (α = 0.86). Data were analyzed by using SPSS software and Chi-square test.
FINDINGS : 1. 41.6% of the samples preferred to use a single learning style (Uni-modal). Of these, 17.7% preferred the Aural style, 17% preferred Reading and Writing, 6.4% preferred Kinesthetic style and 0.7% preferred Visual styles. Among the rest of the 82 students who preferred more than one style (multimodal), 17% chose two modes (bimodal), 13.5% chose three modes (tri-modal), and 27.6% chose four modes (quad-modal). 2. There was a significant difference between educational levels and majors on one hand and choice of quad modal of VARK styles on the other hand ($p = 0.008$). A significant association was also found between participants' genders and selection of visual and reading/writing styles ($p = 0.03$).

AUTHOR: Felicia Lincoln & Barbara Rademacher Community College Journal of Research and Practice Vol. 30, Iss. 5-6, 2006.
TITLE: Learning Styles of ESL Students in Community Colleges.
METHODOLOGY: This study investigated the learning styles of adult English as a second language (ESL) student in Northwest Arkansas. Learning style differences by age, gender and country of origin were explored. A total of 69 northwest Arkansas adult ESL students attending 7 adult-education centers were administered the VARK Learning Styles Questionnaire.
FINDINGS : 1. Note taking was chosen by 1/3 of participants as their favorite learning style, 20% favored aural modes, 15% favored kinesthetic, 4% favored visual, and 15% chose combinations of learning styles 2. Females chose auditory and multimodal learning styles, while males favored note taking. Students differed by level of English proficiency, beginning-intermediate favoring aural learning styles more than advanced students. 3. Asian males favored note taking and aural learning. Correlation was found between age and learning styles with subgroups exhibiting a negative correlation between age and kinesthetic learning, with Mexican males and females exhibiting the strongest negative correlation. Males showed a low positive correlation between age and note taking.

AUTHOR: Ganesh, Anjali; Ratnakar, U P. SCMS Journal of Indian Management; Kochi 2014.
TITLE: Learning Preferences of PG and UG students: Application of VARK.
METHODOLOGY: The study is a micro study and has been confined to Mangalore region of Dakshina Kannada District of Karnataka state, India. The study was conducted in PG departments of the affiliated colleges as well as the UG departments in Mangalore. The responses were received from 250 UG students and 250 PG students. The UG students comprised Engineering graduates from the Electrical, Electronics, Mechanical and civil background. The PG students are comprised of M.Com, MBA, Journalism and MCA background. SPSS version 15 was used and t-test, Chi-square, ANOVA, were applied to analyze the data.
FINDINGS: No correlation between the learning style preference and performance which probably proves that no style is superior; learning in the preferred style only makes learning easier and interesting. Learning is never a burden if the new information to be grasped is presented in a style that is favorable to students. If learning is made pleasurable, the performance in examinations will improve. The obligation is on the teacher to understand the students' style and deliver the topics by combining all modes of learning viz., Visual,

Auditory, Read-write and Kinesthetic to make the sessions effective and also to enable the students of different learning styles to learn better.

AUTHOR: Fitkov-Norris, Elena Author Information; Yeghiazarian, Ara. European Conference on Research Methodology for Business and Management Studies; Kidmore Kidmore End: Academic Conferences International Limited. (Jul 2013).

TITLE: Learning Preferences of PG and UG students: Application of VARK.

METHODOLOGY: The study is a micro study and has been confined to Mangalore region of Dakshina Kannada District of Karnataka state, India. The study was conducted in PG departments of the affiliated colleges as well as the UG departments in Mangalore. SPSS version 15 was used and t-test, Chi-square, ANOVA, were applied to analyze the data..

FINDINGS :

1. Influence of gender on different VARK style, VARK mode and uni-modal or multi-modal style of learning: Out of the 500 sample respondent students, 229 were male and 271 were female students. They exhibited different VARK styles.
2. There is an association between gender and the learning style assessment by the individuals. There is statistical similarity the way the gender plays a role in determining the VARK style and also the self assessment of the learning style though there is not much congruence between VARK style and self assessment of learning style on a real basis.
3. No gender differences were observed in the learning style preferences
4. No correlation between the learning style preference and performance which probably proves that no learning style is superior; learning in the preferred style only makes learning easier and interesting. Learning is never a burden if the new information to be grasped is presented in a style that is favorable to students. If learning is made pleasurable, the performance in examinations will improve. The obligation is on the teacher to understand the students' style and deliver the topics by combining all modes of learning viz., Visual, Auditory, Read-write and Kinesthetic to make the sessions effective and also to enable the students of different learning styles to learn better.

AUTHOR: Esra Alkhasawneh Sultan Qaboos University Charles Docherty Majd Mrayyan Hamzeh Y Yousef.

TITLE: Problem-based learning (PBL): Assessing students' learning preferences using VARK.

METHODOLOGY: The data was analyzed suing SPSS

FINDINGS :

1. Students have multi-modal preferences
2. Read/Write preference is considered the highest among students preference

AUTHOR: Robert J. Murphy, M.B.A., Sarah A. Gray, D.D.S., M.S., Sorin R. Straja, Ph.D. and Meredith C. Bogert, D.M.D. Department of Pathology and Laboratory Medicine, Temple University Hospital

TITLE: Student Learning Preferences and Teaching Implications.

METHODOLOGY: Student questionnaires were scored and tabulated to determine the distribution of VARK preferences. Preference rankings were calculated by totaling all *A* responses (visual), all *B* responses (aural), all *C* responses (read/write), and all *D* responses (kinesthetic). Each category was equally weighted, and dominant preference was defined by determining which category received the most responses. Scoring was further refined using the stepping-stone method detailed in the website (instructions provided at www.vark-learn.com). Mean scores with standard deviations were calculated for each VARK component on the basis of class and gender. Inter-class means were compared for statistical significance using the Student t-test. A chi-square test for independence was performed to determine whether an association exists between the two categorical variables of class and learning preferences.

FINDINGS :

Students are multi- modal. The distribution of dental student scores for both multimodal and single dominant learning preferences shows a preference for instructors who use strong visual presentations and facilitate note-taking during lectures. However, there is a small, but significant number of dental students who prefer to learn by listening or doing. While dominant preference aural learners may appreciate lectures, they also enjoy in-class discussion and case studies to understand the material better and relate to its relevance. More student opportunities to participate actively in lecture or preclinical demonstrations, with the instructor playing the role of coach, will appeal to the kinesthetic learner. Some dental students may undergo a shift in learning preferences as the learning environment changes from lecture hall to preclinical laboratory to patient clinic. Educators should be aware of these differences in order to accommodate or at least explore the possibilities of improving opportunities for aural and kinesthetic learners. Academicians should also recognize that many students are engaged in a high level of self-directed learning, demonstrating a need for more interactive, electronic instructional media. They may misconstrue poor lecture attendance as lack of interest in the instructional material or even disrespect. Faculty should temper these feelings by making an attempt to understand why students want to learn in different ways.

AUTHOR: AliSarabi-Asiabar, Mehd Jafari, Jamil Sadeghifar, Shahram Tofighi, 5 Rouhollah Zaboli, 6 Hadi Peyman, 7 Mohammad Salimi, 8 and Lida Shams 8 2015.

TITLE: The Relationship Between Learning Style Preferences and Gender, Educational Major and Status in First Year Medical Students: A Survey Study From Iran.
METHODOLOGY: A cross-sectional study employing the visual-aural-read/write-kinesthetic (VARK) learning style's questionnaire was done on 184 first year students of medicine, pharmacy, dentistry, nursing and health services management at Isfahan University of Medical Sciences in 2012. The validity of the questionnaire was assessed through experts' views and reliability was calculated using Cronbach's alpha coefficients (α = 0.86). Data were analyzed using the SPSS ver.18 software and x2 test.
FINDINGS : Out of 184 participants who responded to and returned the questionnaire, 122 (66.3%) were female; more than two-thirds (68.5%) of the enrolled students were at the professional doctorate level (medicine, pharmacy, dentistry) and 31.5% at the undergraduate level (nursing and health services management). Eighty-nine (48.4%) students preferred a single-modal learning style. In contrast, the remaining 95 students (51.6%) preferred multi-modal learning styles. A significant relationship between gender and single modal learning styles (P = 0.009) and between status and learning styles (P = 0.04) was observed.

AUTHOR: The Journal of Educators Online-JEO July 2015 ISSN1547-500XVol 13 Number 2103103 Munir Shuib, National Higher Education Research Institute (NaHERI), Malaysia, Penang, Malaysia Siti Norbaya Azizan National Higher Education Research Institute (NaHERI), Universiti Sains Malaysia, Penang.
TITLE: Learning Style Preferences Among Male and Female ESL Students in Universities in Malaysia.
METHODOLOGY: Pearson correlation analysis was conducted to study the relationship between learning styles' dimension and gender. Then, independent t-test was performed to examine the differences between male and female respondents in the mean values for each of the learning styles.
FINDINGS: There are no significant relationships between any of the four dimensions of learning style and gender.

AUTHOR: Yemane Y*, Ambaye E, Alehegn A, Sahile E, Dimtsu B, Kebede S, Genetu A and Girma A (2017).
TITLE: Assessment of Gender Difference on Learning Styles Preferences among Regular Undergraduate Students of Mekelle University, CHS.
METHODOLOGY: A Comparative institutional based Cross sectional study was conducted.
FINDINGS: There was no significant difference in learning style preferences between the two genders (p = 0.373).

AUTHOR: Marwa Ahmed Abd El-Aziz El Nagga
TITLE: Identifying and Comparing Learning Styles Preferences among Medical Undergraduates Students at College of Medicine Aljouf University.
METHODOLOGY: Version 7 of the VARK questionnaire was used. The questionnaire measures four perceptual preferences (V, A, R and K). Satisfactory levels of reliability and validity of the VARK have been reported using factor analysis techniques. It consists of 16 questions with four options each.
FINDINGS: Comparing between male and female students learning styles preferences the results shows that both male and female students prefer bimodal learning styles. There is a differences between male students in first year and final year, 50%, 21%, 16% and 13% of first year students prefer bimodal, uni-modal, tri-modal, and multimodal respectively, comparing with final year students who prefer 41.9%, 22.58%, 19.63% and 16% uni-modaL, tri-modal, multi modal, bimodal respectively. Unfortunately, despite that, FOM-JU adapted integrated system based curriculum, students learn through modern learning and assessment methods like problem based learning sessions, team based, small group discussion, project based learning, clinical simulation using simulated models, patients, students in the final year prefer only one modality of learning mainly visual. Female students are mainly visual as well as read and write (8.3% both) comparing with male students who are predominantly kinesthetic (13%). In a study held in Netherland identify learning styles and preferences for live and distance education, they found that 83% of the students are visual. Visual learners remember best what they see: pictures, diagrams, flow charts, time lines, films, demonstrations and all the symbolic arrows, circles and concept map, mind tree. Learners may still prefer specific ways to learn new material; however, they may be able to approach different kinds of tasks with more strategies and less apprehension.

V. Methodology

This study shows the research design, research setting, the sampling procedure and the research instrumentation. It also briefly explains the data gathering procedure and the statistical techniques used in manipulating the data gathered.

VI. Research Design

This study utilized the descriptive method of research. The descriptive method of research is a fact-finding study that involves adequate and accurate interpretation of findings. Descriptive research describes a certain present condition. The method was appropriate to this study since it aimed to ascertain the present assessment of the Learning Preference of Business Students in the American College of Dubai.

VII. Research Setting

The respondents of the research were business students of the American College of Dubai. There were a total of 107 students who served as respondents of the questionnaire in Dubai. The respondents were given the questionnaire in the class and the filled out questionnaires were then collected in the same class where they have been distributed.

VIII. Respondents and Sampling Procedure

The respondents of the research were business students of the American College of Dubai. There were 107 students who served as respondents of the study. The respondents were given the questionnaire in the class and where asked to answer the questions.

IX. Research Instrumentation

The instrumentation used in this research was developed by Fleming in 2011. He called it VARK questionnaire. The acronym VARK stands for Visual, Aural, Read/write and Kinesthetic sensory modalities that are used for learning information. Fleming and Mills (1992) suggested four modalities that seemed to reflect the experiences of the students and teachers. The instrument has two parts, the first part talk's surveys about the age, class rank and gender of the subject respondents while the second part contains 16 questions where the respondents are asked to tick on their desired learning preference.

X. Data Gathering Procedure

The data gathering procedure was done using the VARK questionnaire developed by Fleming (2001). It was distributed among students of the American College of Dubai during the spring season of 2017. Students from first year to fourth year levels were randomly picked to answer the questionnaire. These questionnaires were then collected and the results were tabulated.

XI. Statistical Techniques

The distributions of the VARK preferences were calculated in accordance with the guidelines given in the VARK website. Descriptive statistics were used for each VARK component.

Data are reported as percentages of students in each category of learning style preference. The number of students who preferred each mode of learning was divided by the total number of responses to determine the percentage.

For the completed questionnaires obtained, the results from each questionnaire were manually inputted into excel spreadsheet for analysis. Statistical associations among students, gender and class rank were made with assessed learning preference, respectively, using Chi-Square analyses (X^2). Statistical significance was set at $p < 0.05$. All tests were 2-tailed. For this investigation students were grouped into gender (Male and Female) and class rank (freshman, sophomore, junior and senior) in order to assess any association between gender, class rank and learning preference.

XII. Presentation of Findings

The following were the results of the study. The results were arranged according to the inquiry on the prevalent learning preferences of the students, and how they differ when they are grouped according to gender and class rank.

Table 2 shows the Learning Preferences of the students when they are grouped according to Gender. Arithmetically speaking, the results would show that the business students of the American College of Dubai are kinesthetic learners. This, after the results showed the combined frequency percentage is 40.19% under this mode.

The results also showed that there are more female students whose learning preference is visual with a percentage of 5.61, Males are more Auditory, females are more on Read/Write and Males are more Kinesthetic. However, the general picture would show that females prefers to learn more by listening (Auditory) while males learn more by using all their senses.

Table II. Gender vs Learning Preference.

Gender	Learning Preference								TOTAL	
	Visual (V)		Auditory (A)		Reading / Writing (R)		Kinesthetic (K)			
	f	%	f	%	f	%	f	%	f	%
Female	6	5.61	14	13.08	7	6.54	7	6.54	34	31.78
Male	5	4.67	26	24.30	6	5.61	36	33.64	73	68.22
TOTAL	11	10.28	40	37.38	13	12.15	43	40.19	107	100.00

Table 3 shows the test of difference between Gender and Learning Preference. The Chi-square showed 10.5069 with a p-value of 0.014914 implicating that there is a significant difference of learning styles when the respondents are grouped according to gender. This further means that in this part of the world, there is no significant difference of learning styles whether the learner is a male or female.

Table II. Test of Difference between Gender and Learning Preference.

	Visual	Auditory	Reading	Kinesthetic	***Row Totals***
Female	6 (3.50) [1.79]	14 (12.71) [0.13]	7 (4.13) [1.99]	7 (13.66) [3.25]	34
Male	5 (7.50) [0.84]	26 (27.29) [0.06]	6 (8.87) [0.93]	36 (29.34) [1.51]	73
Column Totals	11	40	13	43	107 (Grand Total)

The chi square statistics is 10.5069. The p-value is 0.014. The result is significant at $p<0.05$.

Table 4 shows the Learning Preference of Students in ter-ms of their Class Rank. The freshmen's learning preference is both kinesthetic and visual. The sophomores and juniors

are auditory learners and the seniors are both auditory and kinesthetic. There had been relatively low studies that include in their variables the class rank as a determinant in the differences of the learning preference of students. It will be good to have this results validated through further studies in the same topic with a different setting and set of respondents.

Table IV. The Learning Preference of Students when Grouped according to Class Rank.

Class Rank	Learning Preference								TOTAL	
	Visual (V)		Auditory (A)		Reading / Writing (R)		Kinesthetic (K)			
	f	%	f	%	f	%	f	%	f	%
Freshmen	6	5.61	5	4.67	5	4.67	6	5.61	22	20.56
Sophomore	5	4.67	14	13.08	6	5.61	12	11.21	37	34.58
Junior	5	4.67	11	10.28	5	4.67	5	4.67	26	24.30
Senior	5	4.67	6	5.61	5	4.67	6	5.61	22	20.56
TOTAL	21	19.63	36	33.64	21	19.63	29	27.10	107	100.00

Table 5 shows the test of differences between class ranks and learning preferences. The table showed that there is no significant difference between learning preferences when students are grouped according to their year level. This means that regardless of their year level, the same learning preference would prevail.

Table VI. Test of difference between Class Rank and learning preference

Results					
	Visual	Auditory	Reading	Kinesthetic	***Row Totals***
Freshmen	6 (4.32) [0.66]	5 (7.40) [0.78]	5 (4.32) [0.11]	6 (5.96) [0.00]	22
Sophomore	5 (7.26) [0.70]	14 (12.45) [0.19]	6 (7.26) [0.22]	12 (10.03) [0.39]	37
Junior	5 (5.10) [0.00]	11 (8.75) [0.58]	5 (5.10) [0.00]	5 (7.05) [0.59]	26
Senior	5 (4.32) [0.11]	6 (7.40) [0.27]	5 (4.32) [0.11]	6 (5.96) [0.00]	22
Column Totals	21	36	21	29	**107 (Grand Total)**

The chi-square statistic is 4.7075. The p-value is .859027. The result is *not* significant at $p < .05$.

XIII. Conclusion and Further Studies

The following were the conclusions derived from the results of the study as well as recommendation for further explorative studies in the topic.

The following are the conclusions drawn from the data gathered.

1. As to the prevalent learning predilection of the business students, the results shows that the students are kinesthetic learners but the data also showed that the student are multi.
2. As to the learning predilection of students when grouped according to gender, the female students are multimodal but showed that they are auditory learners while males are kinesthetic and auditory respectively.
3. There is a significant difference of learning styles when the respondents are grouped according to gender.
4. According to the learning predilection by class rank, the results showed that freshmen ate multimodal but a slight higher result is leaning to visual and kinesthetic. Sophomores ate auditory and kinesthetic; juniors are auditory while the seniors are multimodal which results are seen to be higher in auditory and kinesthetic.
5. There is no significant difference between learning preferences when students are group according to their year level.
6. From the conclusion the following are drawn as recommendations:
7. Conduct further studies involving the business students in different settings so as to make a final conclusion on the learning preference of business students in general
8. There is a need to investigate an objective study of the teaching style of the professors to see if the teaching styles matches with the learning styles of the students and whether or not the matching and the mismatch has a significant effect on student's class performance.
9. Regular continuing development program schedule is needed for the professors to update teaching skills that will address the millennial learning preferences of students.
10. Correlation studies should be conducted in order to establish the successful link of students' performance when their learning preference matches or mismatches the teaching styles.

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