# LEARNING IDIOSYNCRASIES OF THE BUSINESS STUDENTS IN SELECTED ASIAN COUNTRIES

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#### **ABSTRACT**

Learning idiosyncrasies which is interchangeably used to refer to learning preferences in this research is an important topic in education since students learning preference are part of their individuality, their idiosyncrasies. Oftentimes, this topic is an important topic for investigation in educational institutions for the sole purpose of maximizing teaching and learning experiences of both the teachers and students. This research studied the learning idiosyncrasies of the students in the selected Asia Countries for purposes of comparison. The countries under study from where the business students are from are Philippines, Dubai and Oman. This covers 3 academic institutions offering business administration program. There were 400 business students who have participated in the study. The findings indicate a large percentage of both populations have multimodal learning preferences. And, that there is a difference in learning preferences with respect to gender the results from Dubai and Oman but there was no significant difference in the learning preference of students with regards to gender in the Philippines. It was found out that the female students are auditory learners while male students were kinesthetic.

**Index Terms:** Learning Idiosyncrasies, Business Students, Selected Asian Countries, Learning Preference

#### INTRODUCTION

This study investigated the learning preferences of business students in Dubai Oman, and the Philippines. The researchers gathered data at the American College of Dubai, the Middle East College in Oman, and Xavier University-Ateneo de Cagayan, Philippines. These institutions have multicultural students who come from the different parts of the Arab States and the Philippines. The study was conducted to provide data that will further improve instruction and maximize students learning based on the findings of the study.

In the work of Fleming (2012), the learning preferences of students can come in four ways, 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. Visual learners 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 feel connected to 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 theorists believe that movement is important for this preference but it is the real simulation of a situation that appeals most to them.

It is therefore necessary to identify the learning preferences of business students in order to design more systematic, relevant, and meaningful lessons; hence, achieve effective teaching and learning environment.

#### **Statement of the Problem**

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

- 1. What are the learning preferences of the business students at American College of Dubai, the Middle East College in Oman, and Xavier University-Ateneo de Cagayan, Philippines?
- 2. Is there a difference in the learning preferences of the respondents when they are grouped according to gender?

# Significance of the Study

The result of the study is a significant contribution to this area of research and to the following specific groups of stakeholders:

The Respondents. The results of the study enable the respondents to know their learning preference; thus, they become more aware of how they can best learn.

The Researchers. The study enables 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' 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 this research maybe used as a reference for similar areas of concern. Also, different variables and respondents may be considered to identify learning preferences

#### **Scope and Limitations of the Study**

The research is conducted in the American College of Dubai, the Middle East College in Oman and Xavier University – Ateneo de Cagayan Philippines and the respondents of the study are the 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, and taste, hear, and sight.

**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, and 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.

#### REVIEW OF RELATED LITERATURE

This chapter presents the summary of related studies. It talks about, student learning and the VARK theory.

# On student learning

Literatures have it that students learn indifferent 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 learner 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 understanding requires student's way of apprehending and discerning situations related to the subject rather than making assumptions on what students know or maneuver one's personal understanding of the subject matter. He emphasized that learning cannot be measured by merely repeating what the textbook has said but rather how students 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 teachers' conceptions, in common-sense theories and how they are actually expressed in practice. Students' thoughts and actions are severely moved 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 effects of teaching on it.

In the study conducted by Firkov - Norris. Et al (2013) about the findings of previous studies conducted on the same topic. He said that the modal learning preference of undergraduate and postgraduate level physiology, nursing, dental and medical where the results show that some aspects student's backgrounds such as English language proficiency have an association with the learning preference of the students .

So how do other studies suggests about the developing a broader influence for students learning preference? 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)

## **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. (VARK).

<u>Fleming (2001)</u> reported that about 41% of the population who took the instrument online has single style preferences, 27% with two preferences, 9% with three preferences, and 21% have a preference for all four styles.

The free VARK questionnaire, which the researchers used provided thirteen statements that describe a situation and asksthe respondents to pick one or more of three or four actions that the they 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.

# **Related Studies**

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

Table 1. Studies conducted of the same topic

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

		were analysed by using SPSS software and Chi- square test.	
Felicia Lincoln & Barbara Rademacher Community College Journal of Research and Practice_Vol. 30 ,Iss. 5-6,2006	Learning Styles of ESL Students in Community Colleges	This study investigated the learning styles of adult English as a second language (ESL) students 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	<ul> <li>✓ 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</li> <li>✓ 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.</li> <li>✓ 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.</li> </ul>
Ganesh, Anjali; Ratnakar, U P. SCMS Journal of Indian Management; Kochi 2014	Learning Preferences of PG and UG students: Application of VARK	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	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.

Fitkov-Norris, ElenaAuthor Information; Yeghiazarian, Ara. European Conference on Research Methodology for Business and Management Studies; KidmoreKidmor e End: Academic Conferences International	Vark Preferred Learning Styles and Online Education	carried out at a large Midwestern university during the fall and spring semesters of 2002-2003. This university's College of Business had begun offering online classes six years before and	3.	Online courses seem to be attracting students with high visual and readwrite learning styles.  The visual learning style is positively and significantly associated with the aural and kinesthetic learning styles.  The read-write learning style was strongly and negatively associated with the kinesthetic learning style.  Read-write learners appear to be less satisfied with online delivery.  Students with all four learning styles as dominant were less satisfied with online delivery.  Aural/read-write learners were
Limited. (Jul 2013)  Ganesh, Anjali; Ratnakar, U P. SCMS Journal of Indian Management; Kochi 11.3 (Jul-Sep 2014): 26-36.	Learning Preferences Of Pg And Ug Students: Application Of Vark	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.		Influence of gender on different VARK style, VARK mode and unimodal 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  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.  No gender differences were observed in the learning style preferences  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.  5. 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.
EsraAlkhasaw neh Sultan Qaboos University Charles Docherty MajdMrayyan Hamzeh Yousef	Problem-based learning (PBL): Assessing students' learning preferences using VARK	The data was analyzed suing SPSS	<ol> <li>Students have multi-modal preferences</li> <li>Read/Write preference is considered the highest among students preference</li> </ol>
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	Student Learning Preferences and Teaching Implications	Student questionnaires were scored and tabulated to determine the distribution of VARK preferences. Preference rankings were calculated by totaling all Aresponses (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.	1. 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.  2. 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

		Scoring was further		learning preferences as the
		refined using the		learning environment changes
		stepping-stone		from lecture hall to preclinical
		method detailed in		laboratory to patient clinic.
		the website		Educators should be aware of
		(instructions		these differences in order to
		provided at		accommodate or at least explore
		www.vark-		the possibilities of improving
		learn.com). Mean		opportunities for aural and
		scores with		kinesthetic learners. material or
		standard deviations		even disrespect.
		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		
		an association exists between the		
		two categorical		
		variables of class		
		and learning		
		preferences.		
Ali Sarabi-	The	A cross-sectional	1.	Out of 184 participants who
Asiabar,MehdJa	Relationship	study employing		responded to and returned the
fari,JamilSadegh	Between	the visual-aural-		questionnaire, 122 (66.3%) were
ifar,Shahram	Learning Style	read/write-		female; more than two-thirds
Tofighi,	Preferences and	kinesthetic		(68.5%) of the enrolled students
Rouhollah	Gender,	(VARK) learning		were at the professional
Zaboli, Hadi	Educational	style's		doctorate level (medicine,
Peyman,	Major and	questionnaire was		pharmacy, dentistry) and 31.5%
Mohammad	Status in First	done on 184 first		at the undergraduate level
Salimi, and Lida	Year Medical	year students of		(nursing and health services
Shams <sup>8 2015</sup>	Students: A	medicine,		management). Eighty-nine
	Survey Study	pharmacy,		(48.4%) students preferred a
	From Iran	dentistry, nursing		single-modal learning style. In
		and health services		contrast, the remaining 95
		management at		students (51.6%) preferred
		Isfahan University of Medical	2.	multi-modal learning styles.  A significant relationship
		Sciences in 2012.	۷.	between gender and single
		The validity of the		modal learning styles (P =
		questionnaire was		0.009) and between status and
		assessed through		learning styles $(P = 0.04)$ was
		experts' views and		observed.
	<u> </u>	onports from und		55551100.

		reliability was	
		calculated using	
		Cronbach's alpha	
		coefficients ( $\alpha$ =	
		0.86). Data were	
		analyzed using the	
		SPSS ver.18	
		software and $x^2$	
		test.	
The Journal of	Learning Style	A Pearson	There are no significant relationships
Educators	Preferences	correlation	between any of the four dimensions of
Online	Among Male	analysis was	learning style and gender.
-	and Female ESL	conducted to	rearming styre and gender.
JEO July 2015	Students	study the	
ISSN	in	relationship	
1547	UniversitiesinM	between learning	
1347	alaysia	styles' dimension	
500X	aiaysia	and	
Vol			
		gender. Then,	
13 Number 2		independent t	
103		-	
103		test w	
		as	
Munir Shuib,		performed to	
National Higher		examine	
Education		the differences	
Research		between male and	
Institute		female respondents	
(NaHERI),		in the mean values	
Malaysia,		for each of the	
Penang,		learning styles.	
Malaysia			
Siti			
NorbayaAzizan			
National Higher			
Education			
Research			
Institute			
(NaHERI),			
UniversitiSains			
Malaysia,			
Penang			
Yemane Y*,	Assessment of	A Comparative	There was no significant difference
Ambaye E,	Gender	institutional based	in learning style preferences between
Alehegn A,	Difference on	Cross sectional	the two genders ( $p=0.373$ ).
Sahile E,	Learning Styles	study was	(P 0.5/5).
Dimtsu B,	Preferences	conducted.	
Kebede S,	among Regular		
Genetu A and	Undergraduate		
Girma A (2017)	Students of		
Jiiiia A (2017)	Mekelle		
Marwa Ahmed	University, CHS	Version 7 of the	1. There is a differences between
	Identifying and		
Abd El-Aziz El	Comparing	VARK	male students in first year and

	T			
Nagga	Learning Styles	questionnaire was		final year, 50%, 21%, 16% and
	Preferences	used. The		13% of first year students prefer
	among Medical	questionnaire		bimodal, uni-modal, tri-modal,
	Undergraduates	measures four		and multimodal respectively,
	Students at	perceptual		comparing with final year
	College of	preferences (V, A,		students who prefer 41.9%,
	Medicine Aljouf	R and K).		22.58%, 19.63% and 16% uni-
	University	Satisfactory levels		modaL, tri-modal, multi modal,
		of reliability and		bimodal respectively.
		validity of the	2.	Female students are mainly
		VARK have been		visual as well as read and write
		reported using		(8.3% both) comparing with
		factor analysis		male students who are
		techniques. It		predominantly kinesthetic
		consists of 16		(13%).
		questions with four		
		options each		

#### RESEARCH METHODOLOGY

#### **Research Design**

This study utilized the descriptive method of research. This method 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 investigate the learning preference of business students in Dubai and Oman.

## **Research Setting**

The research was conducted in the American College of Dubai, Middle East College in Oman, and Xavier University- Ateneo de Cagayan, Philippines.

## **Respondents and Sampling Procedure**

The respondents of the research were business students of the American College of Dubai, Middle East College in Oman and Xavier University - Ateneo de Cagayan, Philippines. There were a total of 117 students (73 male; 34female) who served as respondents of the questionnaire in Dubai, 186 students (113 male; 73female) in Oman and 64 students (36 male; 28 female) from the Philippines. The respondents were given the questionnaire in the class and then these were collected by the researchers on the same day.

#### **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 surveys about the age 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.

# **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 and Middle East College in Oman during the spring season of 2017 while data at Xavier University-Ateneo de

Cagayan, Philippines were gathered during the second semester of 2017 students from first to fourth year levels were randomly picked to answer the questionnaire. These questionnaires were then collected and the results were tabulated.

# **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. In order to measure statistical associations among students, gender was considered with the assessed learning preference using Chi-Square analyses  $(X^2)$ . Statistical significance was set at p < 0.05. All tests were 2tailed. For this investigation, students were grouped into gender (Male and Female) in order to assess any association between gender and learning preference.

## PRESENTATION OF RESULTS

This part presents the interpretation of results about the inquiry on what are the learning preferences of the students in American College of Dubai, the Middle East College in Oman, and Xavier University-Ateneo de Cagayan, Philippines. Business Students from these academic institutions participated in this examination. The academic institutions were located in Dubai, Oman, and the Philippines. A total of 186 business students from Oman, 117 from version

Dubai, and 64 from Philippines participated The Surveys were conducted during various class hours held during the 2016-2017 and 2017 - 2018 academic years. Surveys were distributed during class time, with students assured that participation was voluntary and had no impact on course grades. The survey instrument used was that which was constructed by Niel D Fleming's (2014), VARK 16 - item questionnaire for young adults, which is available (http://vark-learn.com/wp-content/uploads/2014/08/The-VARKonline Questionnaire.pdf). The respondents were 68.22% male, 31.78% female were from Dubai, 31.78% female and 73% male from the Philippines and 60.80% male, 39.2% female were from Oman. **Table 2. Summary of Respondents** 

Gender	Middle East College in Oman		·			
	f	%	f	%	f	%
Female	73	39.2	34	31.78	28	43.8
Male	113	60.8	73	68.22	36	56.3
Total	186	100.0	107	100.00	64	100

The VARK survey which was used in this study contains 16 questions; students' preferred mode was determined by looking at the percentage of answers he or she gave corresponding to the items V, A, R or K preferences. Survey answers were analyzed using different approaches for nominal data.

The table 3 below shows the learning preferences of the Business students at American College of Dubai, the Middle East College in Oman, and Xavier University-Ateneo de Cagayan, Philippines. The results showed that the students are multi-modal learners. It means that they learn best by combining different modes of learning. However, combining all the frequency of all the respondents, would show that women are auditory learners while men are visual learners

Table 3. The Learning Preferences of the Business Students at American College of Dubai, the Middle East College in Oman, and Xavier University-Ateneo de Cagayan, Philippines Asia

Learning Preference	Middle East College in Oman			Aı	merican	BAI Colleg bai	ge of	Xav	PHILIF vier Unive de Ca		Ateneo	
	Fe	male	M	ale	Fe	male	N	<b>I</b> ale	Fe	emale	N	Male
	f	%	f	%	f	%	f	%	f	%	f	%
Visual (V)	28	15.1	25	13.4	6	9.4	9	14.1	6	5.61	5	4.67
Auditory (A)	15	8.06	29	15.6	9	14.1	9	14.1	14	13.08	26	24.30
Reading / Writing (R)	12	6.5	38	20	6	9.4	10	15.6	7	6.54	6	5.61
Kinesthetic (K)	18	9.7	21	11.3	7	10.9	8	12.5	7	6.54	36	33.64
Total	73	39.2	113	60.8	28	43.8	36	56.3	34	31.78	73	68.22

Table 4. Test of difference of Dubai, Oman, and Philippines' Business Students' Learning Preferences and Gender

		Visual (V)	Auditory (A)	Reading / Writing (R)	Kinesthetic (K)	Row Totals
Middle East	Female	28 (20.80) [2.49]	15 (17.27) [0.30]	12 (19.62) [2.96]	18 (15.31) [0.47]	73
College in Oman	Male	25 (32.20) [1.61]	29 (26.73) [0.19]	38 (30.38) [1.91]	21 (23.69) [0.31]	113
	Column Totals	53	44	50	39	186(Total)

The chi-square statistic is 10.2469. The p-value is .01658. The result is significant at p < .05

	•	Visual (V)	Auditory (A)	Reading / Writing (R)	Kinesthetic (K)	Row Totals
American	Female	6 (6.56) [0.05]	9 (7.88) [0.16]	6 (7.00) [0.14]	7 (6.56) [0.03]	28
College of Dubai	Male	9 (8.44) [0.04]	9 (10.12) [0.12]	10 (9.00) [0.11]	8 (8.44) [0.02]	36
	Column Totals	15	18	16	15	64 (Total)

The chi-square statistic is 10.5069. The p-value is 0.014714. The result is significant at p < .05

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

The chi-square statistic is 0.6772. The p-value is .878542. The result is not significant at p < .05 <u>http://www.socscistatistics.com/tests/chisquare2/Default2.aspx</u> The above table shows the test of difference of Dubai, Philippines, and Oman Business students' Learning preference and gender. Comparing the respondents' learning preferences showed similar findings, and that there is a significant association between learning preference and gender, OMAN:  $\chi^2$  (N=186) = 10.2469, p=.01658,  $\alpha=.05$  and DUBAI:  $\chi^2$  (N=107) = 10.5069, p=0.014714, however, there is no significant difference in terms of gender of the respondents in the Philippines,  $\chi^2$  (N=107) = .6772, p=.878542, all tested at  $\alpha=.05$ .

## CONCLUSIONS AND RECOMMENDATIONS

This part presents the conclusions and recommendations derived from the analysis of the data.

#### **CONCLUSIONS**

The following are the conclusions drawn from the data gathered.

- 1. The respondents are multimodal learners
- 2. There is a significant difference of learning styles when the respondents are grouped according to gender for both the Business students in Dubai, Oman but there is no significant difference in terms of gender of the respondents in the Philippines
- 3. The female students' learning preference is auditory while male students' preference is kinesthetic.
- 4. Asia to establish a conclusive report regarding the learning styles of Business Students

#### RECOMMENDATIONS

From the conclusion, the following are drawn for recommendations:

- 1. There is a need to investigate an objective study of the teaching styles to see if they match the learning styles of the students.
- 2. Regular and continuing development program is needed to update teaching skills that will address the learning preferences of students.
- 3. Correlation studies should be conducted in order to identify and match students' learning preferences with teachers' teaching styles.
- 4. Further studies of this same topic may be conducted in a larger scope covering different parts of

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