SOCIAL AND MANAGEMENT RESEARCH JOURNAL

SOCIAL AND MANAGEMENT RESEARCH JOURNAL

SOCIAL AND MANAGEMENT RESEARCH JOURNAL

Preference of Learning Style among the Diploma Students of UiTM Penang: An Overview

Cheang Eng Kwong[1], Mah Boon Yih and Ch'ng Pei Eng

Academy of Language Studies, Universiti Teknologi MARA
Pulau Pinang Campus, 13500 Permatang Pauh, Pulau Pinang
[1]Email: cheang@ppinang.uitm.edu.my

ABSTRACT

This paper gives a brief overview of UiTM Penang diploma students' preferences of learning styles specifically among those who are undertaking the English language courses. The five types of learning styles – auditory, visual, tactile, group, and individual are examined with the particular objectives of whether gender and the types of programs taken affect the learning styles of the students. The study also emphasize on the students' results of SPM and UiTM English courses'; whether or not their preferences were affected by their learning styles. Thus, the Chi-square test and reliability test were used to measure the significance and the consistent reliability. The findings show that auditory, tactile, and group learning styles were predominantly popular among the students of different gender, programs of study, and those who had obtained different grades of their SPM and UiTM examination results. The writers hope that the findings of this study may provide new directions in the teaching of English courses in UiTM.

Keywords: *Learning styles, gender, English courses, programs of study*

Introduction

This study came about as a result of many mismatches between students' learning styles and teachers' or lecturers' teaching materials used in the classroom. ESL lecturers often use methods and materials that are outdated. In many cases, neither students nor lecturers are aware that

difficulties in learning class material, high frustration levels and even failure may not rest solely in the materials themselves.

In a study by Brickbichler and Omaggio (1978), it was found that one can identify a general cognitive style or strategy that a person prefers and designs activities in all skill areas to accommodate that style. Knowing the students' learning style preference gives teachers/lecturers the possibility of modifying instruction in terms of grouping within the class, pacing and materials. Teachers or lecturers should focus on their students' learning styles and needs before selecting content, materials and methods of instruction. It is unwise to adopt certain methods and materials just because that is "the thing to do". What works for some students may not work for others. The more teachers/lecturers know about their students, the better equipped they will be to tailor instructions to their needs. According to Nunan (1995), learning styles refer to any individual's preferred ways of going about learning which result from personality variables including psychological and cognitive make-up, socio-cultural background and educational experience. Therefore, it is necessary to understand and identify the learning styles a student utilizes in order to enhance motivation and increase learning.

Four research questions based on the objectives of the study are as follows:

1. Do students of the different gender differ in learning styles when they study English?
2. Do students of different programs differ in learning styles when they study English?
3. Do students who had obtained better English results in SPM differ in their ways of learning from others?
4. Are students who had obtained better English grades in their UiTM English courses' results (BEL 260) more inclined to auditory and group learning styles?

Methodology

The total population of UiTM Penang Diploma students for the semester December 2008 until April 2009 was 240 students. The number was derived from five different programs – Diplomas in Hotel Management (HM), Diploma in Mechanical Engineering (EM), Diploma in Civil Engineering (EC), Diploma in Chemical Engineering (EH), and Diploma in Electrical Engineering (EE).

The sampling design of this study was taken from all part 3 students who were doing BEL 311. Table 1 shows the stratified sampling frame of the study based on the different programmes.

Table 1: Stratified Sampling Frame of the Study Based
on the Different Programmes

Programmes	HM	EM	EC	EE	EH	Total
Male	47	30	16	26	16	135
Female	37	7	28	16	17	105
Total	84	37	44	42	33	240
Percentage	35%	15.4%	18.3%	17.5%	13.8%	100%

Initially, the questionnaire was pilot-tested with a set of 40 statements given to 35 students of two different programmes selected at random. The questionnaire consisted of randomly arranged sets of eight statements on each of the five learning style preferences to be measured: visual, auditory, tactile, individual, and group. Validation of the questionnaire was done by using internal consistency reliability. Correlation analysis of an original set of 40 statements was used (eight per learning style) and the value of Cronbach's Alpha obtained was 0.79 for the 15 statements remained within each subset after the analysis.

The instrument for the study was a set of questionnaire covering the following sections:

1. Demographic Data
    a. Gender
    b. Respondents' Programmes of study
    c. Respondents' SPM English results
    d. Respondents' UiTM BEL 260 examination results

2. Preference of learning styles (auditory, visual, tactile, group learning, individual learning)

The data was analysed using the Statistical Package for the Social Science (SPSS). The following types of statistical analyses were done:

1. Descriptive Statistics
    a. Frequency count
    b. Mean and standard deviation
    c. Cross tabulation

2. Reliability Analysis
3. Chi-square Test

Results and Discussion

Learning Styles Based on Gender

It is interesting to note that more than 60% of each gender prefers the auditory style. Female students (67.3%) are slightly more inclined towards auditory as compared to male students (61.7%). This suggests that female students depend a great deal on what they listen to in class for them to carry out their work or assignments. It also explains that they prefer listening to lectures than to reading. Interestingly, one finding of this learning style preference concurs with the study done for overseas foreign students (Reid, 1984) in which female undergraduates or graduates preferred auditory learning more than male undergraduates and graduates.

The data also reveals that female students (45.7%) are slightly more inclined towards visual compared to male students (36.8%). This indicates that female students are better in understanding what they read than when they listen to lectures. This may be because they are more confident in reading and can keep pace with their own reading. Furthermore, it was found that both male and female students had exhibited their interest in tactile learning. Male students comprised 58.5% and female students comprised 61.3% in this finding. This explains the fact that both genders can understand better and faster when they had the opportunity to do 'hands-on' experience with materials.

In terms of individual learning, it was found that 40.3% of female students prefer individual learning as compared to 36.3% male students. It was also discovered that more male students (71.1%) prefer group learning as compared to female students (68.2%). This suggests that female students can do assignments better individually and can concentrate better when they study on their own. On the contrary, it explains that male students like group work such as working on projects and group discussion. This is very similar to a study on the UKM students' learning style (Frances & Rahman, 1987), which 86.1% of the students like to work with their course mates in group projects. Table 2 shows the learning styles based on gender.

Table 2: Learning Styles Based on Gender

Gender		Auditory	Visual	Tactile	Individual	Group
	Agree	61.7% (83)	36.8% (50)	58.5% (79)	38.3% (52)	71.1% (96)
Male	Neutral	31.9% (43)	47.7% (65)	34.8% (49)	38.8% (53)	23.7% (32)
	Disagree	6.4% (9)	15.5% (20)	6.7% (7)	22.9% (30)	5.2% (7)
	Agree	67.3% (70)	45.7% (48)	61.3% (65)	40.3% (41)	68.2% (73)
Female	Neutral	26.3% (27)	40.9% (43)	38.2% (20)	37.5% (38)	26.4% (27)
	Disagree	6.4% (7)	13.4% (14)	10.5% (11)	22.2% (26)	5.45% (5)
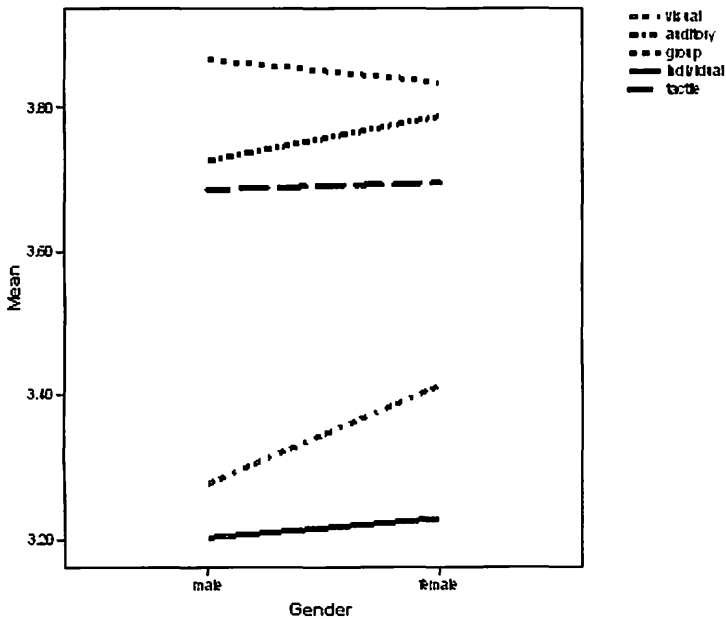
Figure 1: The Mean for Learning Styles Based on Gender

Learning Styles Based on Programs of Study

All the programs of study prefer the auditory style with Human Management having the largest percentage (67.8%). This could be attributed to the fact that students of Human Management are more proficient in English. Therefore, they tend to resort to listening to tapes or CDs. On top of that they are more attentive when their lecturers are

delivering lectures. In terms of visual learning, students of Civil Engineering tend to read more as compared to students of other programs. This could be because this group of students is more inclined to read more materials to complete their assignments or projects.

On the whole, tactile learning is predominantly useful for students of all programs. Out of the five faculties, the faculty of Hotel Management has ranked the best with the highest percentage of 62.3%.This is mainly because students of Hotel Management has to cook in the pantry, especially the group of students taking up culinary skills. especially for the group of students taking up culinary skills. This is followed by faculty of Chemical Engineering (61.6%) and the faculty of Civil Engineering (61.4%). This also explains that students of these two faculties have to go the laboratory to do experiments.

Interestingly, it was found that students of all the faculties do not like to perform their assignments on an individual basis. On the contrary, they have a strong preference to study or work in groups. This could be promoted by the fact that faculties of all engineering programs require students to do group projects or laboratory work with 4-5 students in a group.

Learning Styles Based on Respondents' SPM English Results

Based on the SPM English results achieved by the UiTM respondents, it was found that majority of those with distinction, credit and pass prefer the auditory learning style. Interestingly, students who had obtained distinction and credit also prefer the group learning style. As for tactile learning, it is also common among students who had obtained better SPM English results such as distinction and credit. This indicates that auditory, tactile and group learning are commonly preferred learning styles among students who had obtained distinction and credit. This also explains that being attentive in class and discussion of work among peers had also helped them attain better English results.

It is worth to be noted that visual and individual learning styles are not so popular among the students of all grades. This is because they do not like to read after the class as majority of them have not cultivated the habit of reading. In addition, they do not have the preference to do work on their own. It is surprising to know that students with "fail" in their SPM results are slightly more inclined towards individual leaning style (54.4%). This group of weak students apparently needs as much help as

Table 3: Learning Styles Based on Programs of Study

| Diploma Courses		Auditory	Visual	Tactile	Individual	Group
Hotel Management	Agree	67.8% (57)	39.2% (33)	62.3% (52)	40.5% (34)	71.4% (60)
	Neutral	27.0% (23)	43.7% (37)	30.6% (26)	40.5% (34)	23.4% (19)
	Disagree	5.2% (4)	17.1% (14)	7.1% (6)	19.4% (16)	5.2% (5)
Mechanical Engineering	Agree	60.4% (23)	29.7% (11)	60.4% (22)	34.2% (13)	70.3% (26)
	Neutral	35.1% (13)	58.6% (22)	35.1% (13)	37.9% (14)	22.0% (10)
	Disagree	4.5% (1)	11.7% (4)	4.5% (2)	27.9% (10)	7.3% (1)
Civil Engineering	Agree	63.6% (28)	50.7% (22)	61.4% (27)	42.4% (19)	71.2% (32)
	Neutral	29.6% (13)	40.2% (18)	28.8% (13)	39.4% (17)	23.5% (10)
	Disagree	6.8% (3)	9.1% (4)	9.8% (4)	18.2% (8)	5.3% (2)
Chemical Engineering	Agree	59.5% (25)	39.7% (17)	52.4% (22)	41.3% (17)	66.7% (28)
	Neutral	33.3% (14)	41.3% (17)	36.5% (15)	35.7% (15)	29.3% (12)
	Disagree	7.2% (3)	19.0% (8)	11.1% (5)	23.0% (10)	4.0% (2)
Electrical Engineering	Agree	65.7% (22)	44.4% (15)	61.6% (20)	35.4% (12)	70.7% (24)
	Neutral	25.2% (8)	42.4% (12)	30.3% (10)	34.3% (11)	22.2% (7)
	Disagree	9.1% (3)	13.2% (4)	8.1% (3)	30.3% (10)	7.1% (2)
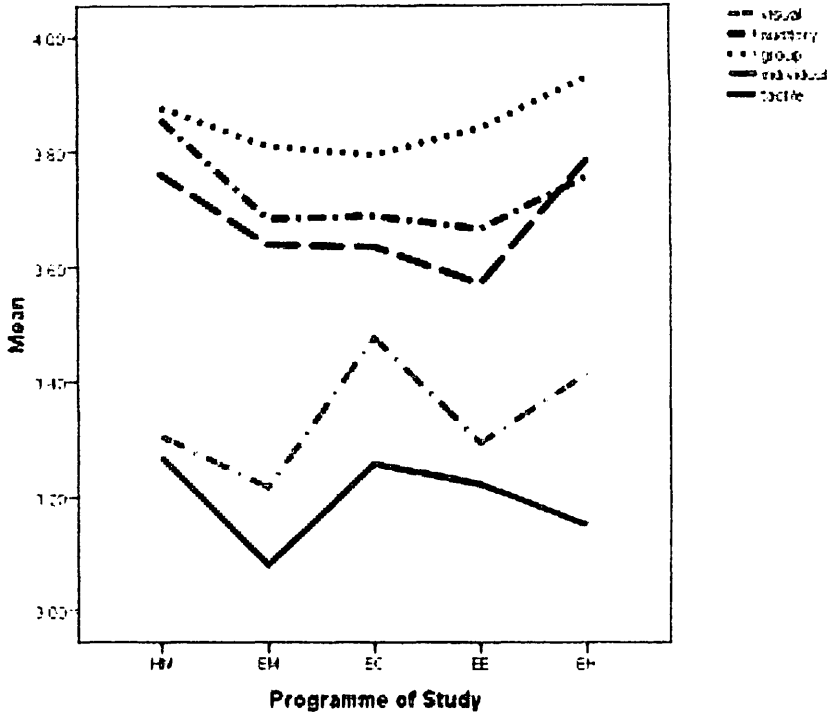
Figure 2: The Mean for Learning Styles Based on Programs of Study

possible as they cannot understand and concentrate well when they study on their own. Consequently, they resort to tactile and group learning styles to boost their comprehension of the subject matter. It is interesting to note that they stay clear of the auditory and visual learning styles which are indicated by a very low preference for both styles.

Learning Styles Based on Respondents' UiTM English Results (BEL 260)

As a whole, the auditory and group learning styles are common preferences among the students who had obtained distinction (A, A-), credit (B+, B, B-, C+) or pass (c) in their BEL 260 UiTM English results. The results correspond to the SPM English results which the students had achieved. This explains that these two groups of students had probably resorted to the same learning style preference. As for the tactile learning style, it

Table 4: Learning Styles Based on Respondents' SPM English Results

| SPM English Results		Auditory	Visual	Tactile	Individual	Group
Distinction	Agree	66.7% (42)	41.3% (26)	61.9% (42)	45.2% (28)	74.1% (47)
	Neutral	22.8% (15)	44.4% (28)	25.4% (16)	31.7% (20)	22.2% (14)
	Disagree	10.5% (4)	14.3% (9)	12.7% (5)	23.1% (15)	3.7% (2)
Credit	Agree	62.9% (94)	41.8% (60)	58.4% (88)	38.7% (58)	73.1% (110)
	Neutral	33.3% (47)	42.9% (67)	32.9% (49)	38.4% (57)	22.2% (33)
	Disagree	3.8% (9)	15.3% (23)	8.7% (13)	22.9% (35)	4.7% (7)
Pass	Agree	60.3 (13)	31.7% (7)	49.2% (11)	25.4% (5)	40.9% (9)
	Neutral	4.7% (7)	58.7% (12)	38.6% (9)	57.1% (12)	46.0% (10)
	Disagree	35.0% (1)	9.6% (2)	22.2% (1)	17.5% (4)	13.1% (2)
Fail	Agree	33.3% (2)	38.9% (2)	50.0% (3)	54.4% (3)	55.6% (3)
	Neutral	44.4% (3)	44.4% (3)	33.3% (2)	23.3% (2)	27.8% (2)
	Disagree	22.3% (1)	16.7% (1)	16.7% (1)	22.3% (1)	16.6% (1)
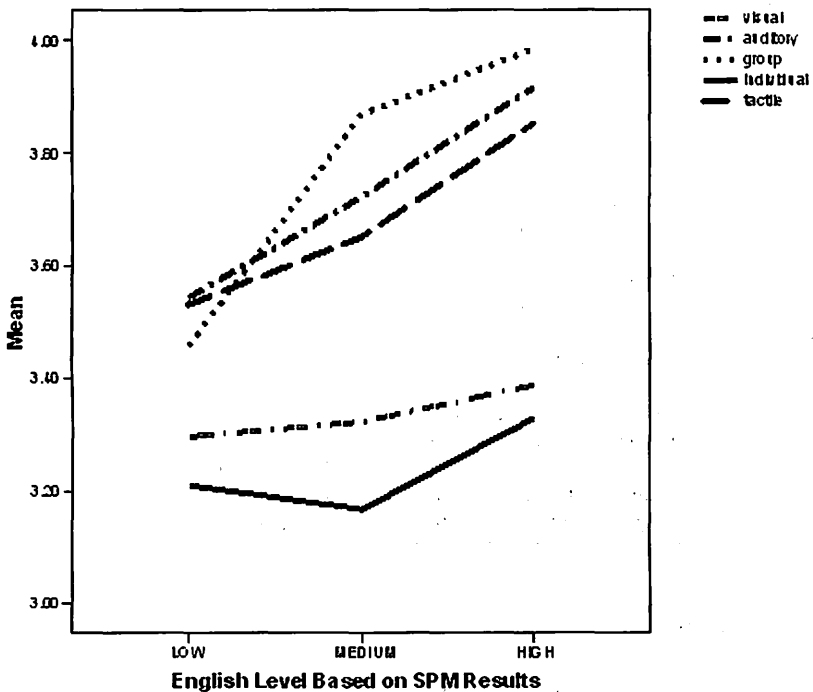
Figure 3: The Mean for Learning Styles Based on
Respondents' SPM English Results

63

was found that students who had obtained distinction and credit are also more inclined to this learning preference.

Significantly, only students who had obtained distinction (52.2%) have the preference to the individual learning style as compared to students who had obtained other grades. This explains the fact that this group of students who learn best when they work alone and they remember information they learn by themselves faster. This result is slightly different when compared with the students who had attained distinction in SPM English results.

Visual learning style is, on the whole, not a favourable preference to students of all grades. This elucidates that the students do not like to read up supplementary reading materials during leisure hours. Even if they were to read, they chose to find diagrams, sketches, schematics, photographs and others. This concurs with the study done by Richard Felder & Barbara Soloman (2004) The findings are also very similar to the one mentioned in the students' SPM English results.

Table 5: Learning Styles Based on UiTM BEL 260 Final Examination Result

UiTM BEL 260 Final Exam Results		Auditory	Visual	Tactile	Individual	Group
Distinction	Agree	72.5%(17)	30.4%(7)	66.7%(16)	52.2%(12)	73.9%(17)
	Neutral	21.7%(5)	50.7%(12)	26.1%(5)	33.2%(8)	21.7%(5)
	Disagree	5.8%(1)	18.9%(4)	7.2%(2)	14.6%(3)	4.4%(1)
Credit	Agree	64.6%(116)	42.4%(76)	61.3%(110)	38.9%(70)	70.0%(126)
	Neutral	29.4%(53)	44.1%(79)	30.7%(55)	36.9%(66)	24.5%(44)
	Disagree	6.0%(11)	13.5%(25)	8.0%(15)	24.2%(44)	5.5%(10)
Pass	Agree	59.3%(21)	38.9%(14)	50.0%(18)	33.3%(12)	69.4%(25)
	Neutral	32.4%(12)	43.5%(16)	40.7%(15)	48.1%(17)	25.0%(9)
	Disagree	8.3%(3)	17.6%(6)	9.3%(3)	18.6%(7)	5.6%(2)
Fail	Agree	0.0%(0)	100%(1)	0.0%(0)	0.0%(0)	66.7%(2)
	Neutral	100%(1)	0.0%(0)	66.7%(2)	33.3%(1)	33.3%(1)
	Disagree	0.0%(0)	0.0%(0)	33.3%(1)	66.7%(2)	0.0%(0)

Conclusion

As far as learning styles according to gender is concerned, both male and female students prefer the auditory style in which male students have an edge over the female students. Similarly, group and tactile learning styles are also very much preferred by the two genders. Where learning styles according to programs of study are concerned, the findings show
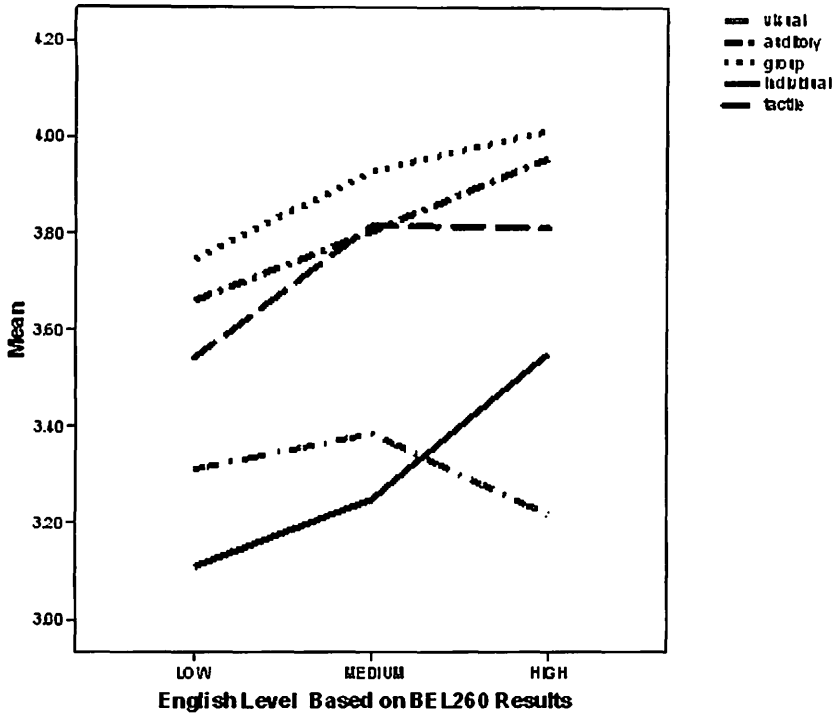
Figure 4: The Mean for Learning Styles Based on UiTM
BEL 260 Final Examination Results

that the auditory, group and tactile learning styles are predominantly popular among students of all the programs. It is specifically noted that students from the Faculty of Hotel Management are best ranked followed by the Faculty of Chemical Engineering a close second. In terms of SPM and UiTM English results, students with distinction, credit and pass exhibited their preferences for the auditory, group and tactile learning styles. On the whole, individual and visual learning styles are predominantly not well-liked by the students.

References

Brickbichler, D. and Omaggio, A. (1978). Diagnosing and responding to individual learner needs. *Modern Language Journal*, 62, 336-344.

Felder, R. and Soloman, B. (2006). Learning Styles and Strategies. Retrieved on December 5, 2006 from http://www.ncsu.edu/felder-public/ILsdir/Styles.htm

Frances, L. A. and Rahman, S. A. K. (1987). Student motivations using a task-based integrated skills approach to language learning. *Language Reporter*, 3, 24-36.

Nunan, D. (1985). *Language teaching methodology: A textbook for teachers*. Phoenix ELT.