

LEARNING STYLE PREFERENCES AMONG FORM 4 MALE AND FEMALE ARTS STUDENTS IN TWO URBAN SCHOOLS

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ABSTRACT

This study aimed to identify the perceptual learning style preferences (PLSP) of Form 4 Arts male and female students in learning literature in English. It also attempted to investigate whether teachers were aware of, and subsequently varied their instructional strategies to cater to students' PLSP. Data were collected through questionnaires and semi-structured interviews. The results revealed although both male and female students displayed similar PLSP patterns, female students showed greater preference for certain learning styles. The results also showed teachers' instructional strategies were seldom varied despite them being aware of their students' PLSP. Implications of the findings for practical applications of PLSP research in language classrooms are discussed.

Introduction

In this modern day, a typical classroom situation is no longer restricted to the talk and chalk method. Diversity in teaching and learning styles is beginning to gain more attention as many studies have pointed out students learn better when instructional strategies match their preferred learning styles (Reid, 1987; Blackmore, 1996; Zhenhui, 2001; Kang, 1999). However, effective matching between instructional strategies and learning styles can only be achieved when teachers are aware of their learners' needs, capacities, potentials and learning style preferences (Zhenhui, 2001).

Learning styles can be categorised into three broad areas – cognitive, affective (personality) and perceptual (sensory) (James & Gardner, 1995, cited in Brown, 1998). The cognitive learning style is concerned with ways people think about and process information (Merriam & Caffarella, 1991, p. 159, cited in Brown, 1998). The affective learning style, however, is influenced by one's personality traits as it supports the belief that every individual has different personality traits (Swanson,

1995, cited in Brown 1998). Lastly, the perceptual learning style refers to the preferred sensory channel or “modality strength” through which an individual receives and processes information in his environment. In Reid’s (1987) study, she classified perceptual learning styles into six categories – visual, tactile, auditory, kinesthetic, group and individual.

In the Malaysian classroom setting, having 30 – 50 students in a classroom is a typical scenario. Complementing this scenario is the diversity in students’ characteristics as well as their preferences in the teaching and learning process. As such, teachers cannot assume that all their students would be able to learn equally well from what is presented in class. Studies focused on perceptual learning styles have shown that learners do show cultural and gender differences in their learning process (Reid, 1987; Park, 1997, 2000).

In a comparative study of Korean, Chinese, Japanese, Malay, Arab and Spanish college students’ learning English as a second language, Reid (1987) distributed a perceptual learning style preferences (PLSP) questionnaire to 1388 students to investigate their preferred modalities. The findings showed there were significant cultural differences in visual, auditory, kinesthetic, tactile, group and individual learning styles. Nevertheless, most of the students showed a strong preference for kinesthetic and tactile learning styles but a negative preference for group learning style.

Park (2000) later conducted a similar study and investigated the PLSP of Southeast Asian students (Cambodian, Hmong, Lao and Vietnamese) and compared them with those of White’s. She employed Reid’s (1987) questionnaire on 738 students. The study reported a significant difference in the PLSP of Southeast Asian and White’s students. The study also revealed that Southeast Asian students exhibited either major or minor PLSP for all four basic perceptual learning styles – visual, auditory, kinesthetic and tactile - as well as group learning. The strong preference for group learning supports the notion that Asian students are more collaborative in their learning styles (Ramburuth & McCormick, 2001).

Other research about PLSP observed gender differences. In her study of the PLSP of Mexican, Armenian, Korean, American and Anglo students in secondary schools, Park (1997b) observed that across the four ethnic groups, girls had a significantly higher preference for the kinesthetic learning style than boys.

Likewise, Dunn, Griggs and Price (1993, cited in Park, 2002) also found gender differences in their study of the PLSP of Mexican and Anglo-American children in elementary schools and concluded that male Mexican American students had the strongest tactile preferences, whereas the girls in general preferred the least amount of tactile learning; and the least auditory were the male Mexican American children. They also found that Mexican American children were significantly more

peer-oriented than students in general and that female Mexican-American children were more peer-oriented than the males.

In a similar study, Restak (1979, cited in Park, 2002) also documented gender differences between boys and girls in his study of little children. He observed that girls were both more sensitive to sounds than boys and more proficient at fine motor performance (tactile) than boys.

On the other hand, Park (1997a) found gender was not a factor influencing the PLSP of Anglo, Chinese, Filipino, Korean and Vietnamese secondary school students. In contrast, the students' PLSP were related to their academic achievement levels. She found that among the high, middle, and low achievers, the high achievers were the most visual as opposed to the low achievers, who were the least visual. The high achievers also had a negative preference for group learning.

In the local context, however, no similar study has been done concerning the relationship between students' PLSP and gender. As such, a study to investigate the relationship between Malaysian students' PLSP and gender was deemed apt. In addition, investigating whether teachers were aware of their students' different PLSP, as well as the extent they varied their instructional strategies could also shed some light on the level of Malaysian teachers' awareness of students' PLSP as this could have a bearing on the effectiveness of the teaching-learning process in the classroom (Reid, 1987; Blackmore, 1996; Zhenhui, 2001, Kang 1999). Hence, the objectives of this study were to find out:

- 1) the perceptual learning styles preferred by the male and female students in learning literature in English;
- 2) whether teachers were aware of the differences in students' perceptual learning styles preferences (PLSP) in learning literature in English; and
- 3) the extent teachers varied their instructional strategies to cater to the differences in students' PLSP in learning literature in English.

Method

Data were collected through questionnaires and semi-structured interviews. The questionnaire was adapted from Reid's (1987) study on perceptual learning style preferences of ESL students. There were 30 items in the questionnaire; 5 items on each of the six categories of perceptual learning styles – visual, tactile, auditory, kinesthetic, group and individual. The items were randomly distributed and respondents were asked to rate their preferences according to a Likert scale from 1 (strongly disagree) to 5 (strongly agree). The questionnaire was presented in both the English language and Bahasa Melayu, allowing students to have a better understanding of the questionnaire items.

The subjects for the questionnaire comprised 61 Form 4 male students from an all boys' school and 85 Form 4 female students from an all girls' school located at the centre of Kuching city. The subjects were students of two Arts classes in their respective schools. Distribution of students and their academic achievement levels are shown in Table 1(a):

Table 1(a): Student Distribution and Academic Achievement Levels

Class/Gender	Sample size	Academic achievement levels
Form 4 A1 (Male)	31	Below average achievers
Form 4 A2 (Male)	30	Low achievers
Form 4 A1 (Female)	46	Average or Medium achievers
Form 4 A2 (Female)	39	Low achievers
Total	146	

The questionnaires were administered to the students of one school in one day, and students of the other school the following day. Prior to students completing the questionnaires they were informed of the study's purpose and were briefed on how to fill in the questionnaires. Respondents were also not encouraged to interact among themselves as this might influence their responses. Instead a researcher was there to entertain any queries regarding the completion of the questionnaires.

The numerical values of each learning styles category were then added up and multiplied by two to get a grand score. Then, the grand scores of all students for each learning styles category were summed up and divided by the number of students in the class to get the preference mean for the learning style. A mean score of 37.50 and above indicates the learning style is a major PLSP among students, 24.50-37.49 a minor PLSP, and a mean score of 24.49 and below a negative/negligible PLSP among students. Major PLSP means the best/most preferred way in which students learn. Minor PLSP means the second best/preferred way in which students learn and negative/negligible PLSP means the students' least preferred way to learn and they would have difficulty learning if they use this learning style (Reid, 1987).

Semi-structured interviews were also conducted with an English teacher, from each school to find out their awareness level of their students' differences in PLSP and the extent they varied their instructional strategies to cater to these differences. At the time the study was conducted, both schools had one English teacher assigned to teach the sample students in each school. For the purpose of this study, the English teacher for the all boys' school will be referred to as Teacher A while the English teacher in the all girls' school will be referred to as Teacher

B. The teachers were interviewed separately. The interviews were tape-recorded, and later transcribed. The distribution of the two English language teachers and the respective classes that they were teaching is shown in Table 1 (b):

Table 1(b) English Language Teachers and the Respective Classes Taught

Teacher	Class/Gender
Teacher A	Form 4 A1 (Male) Form 4 A2 (Male)
Teacher B	Form 4 A1 (Female) Form 4 A2 (Female)

Results and Discussion

This section presents the results on:

- 1) the perceptual learning styles preferred by the male and female students in learning literature in English;
- 2) whether teachers were aware of the differences in students' perceptual learning styles preferences (PLSP) in learning literature in English; and
- 3) the extent teachers varied their instructional strategies to cater to the differences in students' PLSP in learning literature in English

Male and Female Students' Perceptual Learning Style Preferences (PLSP) in Learning Literature in English

Table 2: Mean Scores Summary of the Six Perceptual Learning Styles

Gender	Class/No. of SS	Perceptual Learning Styles					
		Visual	Tactile	Auditory	Kinesthetic	Group	Individual
Male	Form 4 Arts 1 (31)	34.58	33.42	36.06	35.55	37.42	29.33
Male	Form 4 Arts 2 (30)	33.53	32.47	35.40	34.20	37.07	26.15
Female	Form 4 Arts 1 (46)	33.56	34.96	41.30	38.35	40.87	28.57
Female	Form 4 Arts 2 (39)	32.05	34.0	35.9	34.41	38.92	28.10

As Table 2 indicates, the results show that the male students in both classes shared a similar PLSP pattern. Both the below average achievers of Form 4 Arts 1 and low achievers of Form 4 Arts 2 chose all the six perceptual learning styles as their minor PLSP. This probably indicates that the male students preferred using a combination of learning styles rather than restricting themselves to only one style in particular.

Nevertheless, all the male students indicated group as the most preferred perceptual learning style, followed by auditory, kinesthetic, visual, tactile and individual perceptual learning styles. The high preference for group learning supports findings from Park (2000), and Ramburuth & McCormick (2001) that Asian students have a strong preference for group learning.

On the other hand, there were differences in the PLSP between the female medium achievers of Form 4 Arts 1 and the female below average achievers of Form 4 Arts 2. The medium achievers of Form 4 Arts 1 chose auditory, group and kinesthetic as their major PLSP. Tactile, visual and individual were their minor PLSP. In contrast, the below average achievers of Form 4 Arts 2 chose only the group learning style as their major PLSP. All the other five learning styles were minor PLSP for these students.

As group learning was a major perceptual learning style preference for both classes of female students, this finding is similar to the findings by Dunn, Griggs and Price (1993, cited in Park, 2000) that female students are more peer-oriented, i.e. they prefer to work with their peers and be involved in group activity in the classroom.

Nevertheless, among all the four classes, only the female medium achievers of Form 4 Arts 1 indicated auditory and kinesthetic learning styles as major PLSP. Both male and female students of the other classes, comprising below average and low achievers rated auditory and kinesthetic as only minor PLSP, with the male low achievers of Form 4 Arts 2 showed the lowest preference mean for both perceptual learning styles. As such, academic achievement levels could be a factor in PLSP among students.

However, contrary to findings by Park (1997a), the female students in this study did not have a significantly higher preference for the kinesthetic learning style than male students. In contrast, only the female medium achievers of Form 4 Arts 1 showed a significantly higher preference for this learning style. The below average female students of Form 4 Arts 2 shared about the same preference mean with the male students for the kinesthetic learning style. Again, academic achievement levels could be a factor influencing the results of the study.

The findings also showed auditory learning was the most preferred perceptual

learning style with both male and female students. It was chosen as the most (female students of Form 4 Arts 1) or second most preferred learning style (male students of both classes and female students of Form 4 Arts 2). Thus, this indicates both male and female students in this study generally liked the auditory learning style although in studies by Dunn, Griggs & Price (1993) and Restak (1979), they found that female students were generally more auditory than male students.

Table 3: Students' Perceptual Learning Style Preferences (PLSP) Means According to Classes and Gender

Gender	Class/No. of SS	Perceptual Learning Styles				Group	Individual
		Visual	Tactile	Auditory	Kinesthetic		
Male	Form 4 Arts 1 (31)	34.58	33.42	36.06	35.55	37.42	29.33
Male	Form 4 Arts 2 (30)	33.53	32.47	35.40	34.20	37.07	26.15
Female	Form 4 Arts 1 (46)	33.56	34.96	41.30	38.35	40.87	28.57
Female	Form 4 Arts 2 (39)	32.05	34.0	35.90	34.41	38.92	28.10

Table 4: Students' Overall Perceptual Learning Style Preferences (PLSP) Means According to Gender

Gender	Class/No. of SS	Perceptual Learning Styles				Group	Individual
		Visual	Tactile	Auditory	Kinesthetic		
Male	Form 4 Arts 1 & 2 (61)	34.07	32.95	35.74	34.89	37.25	31.15
Female	Form 4 Arts 1 & 2 (85)	32.87	34.52	38.82	36.54	39.98	28.35

The findings also revealed male students did not have any major PLSP, while female students had at least one major PLSP – Form 4 Arts 1 female students chose auditory, kinesthetic and group as major PLSP and Form 4 Arts 2 female students chose group as their major PLSP (Tables 3 and 4). This could indicate that male students were more flexible in the way they learned. Hence, these students were possibly quite comfortable with any instructional strategy. In contrast, activities that required pair or group work among students probably worked best for female students. Instructional strategies that incorporated teachers lecturing, explaining or discussing literary texts in the classroom also probably worked well for these female students since auditory learning was a major PLSP for Form 4 Arts 1 female

students and was the second most preferred PLSP for the Form 4 Arts 2 female students.

Nevertheless, both male and female students chose group as their most preferred PLSP, and individual learning as their least preferred PLSP. This finding shows that both male and female students probably enjoyed collaborative learning, and subsequently learned more effectively through that learning style.

Teachers' Awareness of the Students' Different Perceptual Learning Style Preferences in Learning Literature in English

Semi-structured interviews were conducted with the teachers to find out the extent they were aware of their students' different perceptual learning style preferences (PLSP) in learning literature in English. The responses from the interviews showed that these two teachers were generally aware of students' PLSP in learning literature in English.

"[the students]...prefer attractive materials like pictures...if you are merely talking, they won't listen to you...there are interactive activities on vocabulary items as well as the text content for them to explore..." Teacher A

"...students...like to see things and prefer looking at pictures or images... Some however are auditory or group learners...like listening to the teacher's explanation of the text or discussing the text and doing class activity with their friends..."Teacher B

Both statements above reflect the teachers were aware their students had different preferences for various perceptual learning styles. In both Teacher A's and B's statements, it was clear that they could identify three different perceptual learning styles among their students – visual, auditory and group.

The Extent Teachers Varied Their Instructional Strategies to Cater to Students' Different Perceptual Learning Style Preferences in Learning Literature in English

Responses from the interviews also revealed that the two teachers employed various instructional strategies to cater to students' different PLSP in learning literature in English. In both Teacher A's and B's statements below, both employed instructional strategies that required students to learn through visual, auditory, kinesthetic, group and individual learning styles.

“I will go...into getting something that suits or interests them. Like for example... use visual aids in my teaching. I also let them do a lot of pair or group work and also presentation...Sometimes, they need to do presentation or role play after discussing the task with their group members.” Teacher A

“Sometimes I read and explain the text to them, given them notes or tasks to do in pairs or groups in the classroom or to be done individually as homework....I also use visual aids...I sometimes ask the students to do role play also.” Teacher B

Nonetheless, the interviews also revealed that although both teachers used a variety of instructional strategies, there was a tendency to use only a few when teaching their students.

“I look at the whole class as a big group with the same level of proficiency. As most of the students seem to prefer visual and group learning, I normally use visual aids and assign the students to do pair or group activity. I also prefer the students to do group presentation...” Teacher A

“I only use the CD-Rom and LCD projector occasionally in my teaching...we do not have enough LCD projector and other relevant equipment...That’s why I confine my teaching to using visual aids, textbook or reference books and also the OHP....” Teacher B

Teacher A generalized her students as one big group of students with similar proficiency levels who preferred visual and group learning. As such, she confined her teaching to strategies that incorporated these two learning styles. On the other hand, Teacher B’s constraints to varying her instructional strategies were external, governed by availability of facilities in the school.

Conclusion

The study set out to investigate the perceptual learning styles preferred by the male and female students in learning literature in English. It also aimed to find out whether teachers were aware of the differences in students’ perceptual learning styles preferences (PLSP) in learning literature in English, and the extent teachers varied their instructional strategies to cater to these differences. The results of the study showed that group learning was the most preferred perceptual learning style among both male and female students, although male students did not have any major PLSP. However, female students showed a significantly greater preference for certain perceptual learning styles, choosing auditory, group and kinesthetic learning as their major PLSP. Individual learning style was also the least preferred perceptual learning style for both genders. The results of the study

also indicated that teachers did have a general awareness of the differences in their students' PLSP, and subsequently, employed various instructional strategies in their teaching. However, there was also a tendency to limit themselves to use only a few instructional strategies, either because of catering to the majority's PLSP, or because of inadequate facilities in the school.

The findings of this study have some implications for the teaching-learning process in a language classroom. Considering that students have different PLSP, teachers need to prepare a variety of instructional strategies or activities that require students to learn through several perceptual learning styles. Nevertheless, as the results of the study show, group learning was the most preferred PLSP among both male and female students, teachers could incorporate more collaborative or cooperative activities in their lessons to match students' PLSP. In relation to the findings for female students, teachers could plan instructional activities that incorporate elements of auditory, group and kinesthetic learning styles. For instance, using multimedia presentations or having students present sketches in small groups would incorporate the above learning styles.

To conclude, teachers need to be not only aware of students' different PLSP, but also proactive in using a variety of instructional strategies that incorporate several perceptual learning styles in order to maximize students' learning. As highlighted by Willing (1988, cited in Nunan, 1989), a teacher who is sensitive to and accommodates students' PLSP could bring about improved learner satisfaction and attainment. This is further stressed by Brown (1994, cited in Zhenhui, 2001) who believes that when students' learning styles are matched with appropriate approaches in teaching, the students will have increased motivation, better performance and achievement. However, as the study only encompassed the investigation of PLSP in learning literature in English of the male and female Arts stream students in two single sex schools, future research conducted could include a comparative study on the PLSP of the male and female students from the Arts and Science streams in single sex or co-educational schools. Future research could also be carried out on the different ethnic groups of Malaysian students with regard to their different preferred perceptual learning styles in learning literature in English.

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