

LEARNING STYLE PREFERENCES OF ENGLISH MAJOR STUDENTS AT SRINAKHARINWIROT UNIVERSITY, PHITSANULOK

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BACKGROUND OF THE STUDY

In recent years English language research in Thailand has begun to focus on the learner. Boosakorn Vijchulata (1986) studied motivation and desire to learn English of first year students at Mahidol University. Achara Wangsotorn (1987) focused on a number of learner variables including I.Q., language aptitude, attitudes and motivation, and study habits as well as students' use of visual and auditory learning modes as related to their success in English. Most recently a graduate student at Srinakharinwirot University, Phitsanulok, Pongsak Pojason (1988), completed a study of high school students' use of learning strategies as related to achievement in English.

This focus on the learner is giving us valuable insights into how the learner can better achieve success in learning English in Thailand.

Morley (1987) in her list of current areas of interest in theory and practice includes "...a focus on the individuality of learners and individual learning styles and strategies." Richards and Rodgers (1987: 46) in their recent review of trends and issues in TESOL in the past twenty years presents the major ideas under four headings: 'Input Considerations', 'Instructional Considerations', 'Learner Considerations', and 'Output Considerations'. Under 'Learner Considerations' the authors (Richards and Rodgers 1987: 58) discuss 'Learner Styles' which they define as, "...pre-disposition to particular ways of acquiring and processing knowledge and intimately related to perso-

nality types." What determines a previous particular style of learning is the result of many factors. Brown (1980: 90) notes, "A person's cognitive style is determined by the way he internalizes his total environment, and since that internalization process is not strictly cognitive, we find that physical, affective, and cognitive domains merge in cognitive style." Joseph Hill (1972, cited in Brown 1980: 89) has identified twenty-nine different factors relating to learning style.

While there are many individual factors involved in one's learning style, it is possible to categorize learning styles under a small number of cognitive or learning modes. Hartnett (1985) in his review of research on cognitive style and second language learning discusses the dichotomy of the analytic and the holistic learner. He notes that research has shown the analytic learner to be more receptive to a deductive teaching style; the holistic learner more receptive to an inductive teaching style. Kolb (1984, cited in Richards and Rodgers 1987: 59) focusses on four major modes of learning: "concrete experience, reflective observation, abstract conceptualization and active experimentation."

In 1987 Reid reported on a study conducted on the learning styles of 1,234 ESL students in thirty-nine intensive English language programs in the U.S. as well as 154 native speaking university students. Reid constructed a questionnaire with ten statements for each of six learning styles: auditory, group, kinesthetic, visual, tactile and individual learning. Validation was done using the split-half method. The students learning

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style preferences were analyzed as to the students' age, language background, TOEFL score, length of time in the U.S., length of time studying in the U.S., graduate or undergraduate status, major field of study, and sex.

This research on learner style has pointed out the importance of having both students and teachers become aware of learning styles. Students taught in a teaching mode in line with their learning style preference perform better. Discussing the results of research on cognitive styles, Hartnett (1985 : 28) concludes that "Students learning English as a second language seem to be more successful and to feel more comfortable in a class which complements their cognitive style." This is supported by Willing (1985, cited in Richards and Rodgers : 60) in work with adult learners in Australia. Willing stresses the importance of teachers making themselves aware of learners' different styles and being open to adjusting their own teaching styles in order to achieve maximum learner attainment. At the same time, these learning styles are general tendencies rather than absolute stable characteristics and hence learners who are able to adjust their style and utilize more than one major mode of learning may be at an advantage in learning language.

The advantage of utilizing multiple learning styles was pointed out in Wangsotorn's study. She found in her study of ninety-seven beginning students of English that "...learning modes could explain achievement by 32% and that learning through the aural-visual modes and the visual modes significantly yielded higher achievement scores than learning through the aural mode only." (Wangsotorn, 1987 : 41) Likewise, Holobow, Lambert and Sayegh (1984) in a study on learning dialogs found that using a bimodal approach of listening and reading was more effective than simply reading the dialog. Students who listened to the dialog in L_1 and read in L_2 outperformed those who only read in L_2 . While those who listened in L_2 and also read in L_2 did best. The researchers concluded that, "...presenting a verbal passage through both auditory and visual modes helps to 'solidify' or 'root' the message in the sense that the visual analysis of L_2 material could enrich L_2 auditory processing and vice versa." (Holobow et al. 1984 : 68)

Considering the importance of learning styles on language learning, the author decided to conduct an exploratory study on the learning style preferences of English major students in Thailand.

DESIGN AND METHODOLOGY

A study of the learning style preferences of English major students at Srinakharinwirot University, Phitsanulok, Thailand was undertaken with the following objectives :

- (1) to identify the students' learning style preferences according to year of study and sex,
- (2) to compare the students' learning style preferences according to year of study and sex for any significant differences in learning styles, and
- (3) to analyze any relationships between sex/year of study and learning style preferences.

All English major students studying in the second semester of the academic year 1987-88 were asked to indicate their learning style preferences. A total of 269 students completed the questionnaires ; fifty first year students, seventy-two second year students, seventy-seven third year students, fifty-six fourth year students, and fourteen graduate students. This accounted for 98.9 percent of the total English major student population studying in the full-time program. There were forty-seven male students and 222 female students.

The questionnaire used was a Thai version of Reid's (1987) **Perceptual Learning Style Preference Questionnaire**. Reid's questionnaire, based on a study of existing learning style questionnaires and validated by experts in linguistics and education, consists of thirty statements, five for each of six different learning styles. The learning styles include the four perceptual styles of auditory, visual, tactile and kinesthetic learning as well as individual and group learning. Auditory learning is learning through the listening mode from lectures and/or audiotapes, visual learning is basically through reading, kinesthetic learning involves activities and total physical participation in the learning situation, tactile learning is through building something or carrying out laboratory experiments, while the individual learning style refers to working on assignments or activities alone and group learning means studying and doing assignments within a group.

The thirty statements regarding learning styles were accompanied by a five point Likert scale, for each statement regarding style of learning. The students were asked to indicate their agreement or disagreement ranging from strongly agree counted as five to strongly disagree counted as one. Hence, the highest possible

score for any one learning style would be twenty-five, the least would be five.

Data Analysis

Preference means and rankings were calculated for each of the six learning styles for the English major students grouped according to year of study and sex. Analysis of variance and multiple comparison of means tests using the Scheffe and Tukey B methods were calculated for the preference means ($P < .05$). The statistical analysis was carried out using the SPSS (Statistical Package for the Social Sciences) computer program at the Chulalongkorn University Center for Language Study, Bangkok.

RESULTS AND DISCUSSION

In general, English major students at Srinakharinwirot University, Phitsanulok prefer to learn through an experiential learning mode. That is, they showed highest preference for kinesthetic learning. The students indicated a preference to learn through in-class and out-of-class involvement in activities, in "doing" things to learn English. They least preferred to learn alone, individual learning style, or to be assigned to work in a group, group learning style.

A detailed look at the group means by year of study and sex as seen in tables 1 and 2 indicates that all study groups preferred multiple learning styles.

TABLE 1

Learning Style Preference Means According to Year of Study

Year of Study	Auditory	Group	Learning Style			Individual
			Kinesthetic	Visual	Tactile	
1	19.40	17.18	19.26	18.08	15.40	18.10
2	18.93	16.38	19.39	18.46	15.99	17.93
3	18.55	16.73	19.74	17.47	15.18	17.42
4	17.89	15.71	20.52	18.11	16.04	18.89
Grad.	18.14	16.00	20.36	18.43	18.36	17.86

TABLE 2

Learning Style Preference Means According to Sex

Sex	Auditory	Group	Learning Style			Individual
			Kinesthetic	Visual	Tactile	
Male	18.28	15.96	19.17	18.15	15.62	17.32
Female	18.73	16.58	19.87	18.00	15.82	18.16

As can be seen from tables 1 and 2 the mean range is from a high of 20.52 for kinesthetic learning by fourth year students to a low of 15.18 for tactile

learning by third year students. These high preference scores differ greatly from the results in Reid's study. The forty-seven Thai students in Reid's study had a

high mean score of 14.63 for kinesthetic learning with a low mean score of 11.49 for group learning. Indeed, Reid considered a mean score of 13.50 or higher as indicating a major learning style and 11.49 or less as indicating a negative learning style. His students rated visual learning at 13.40, auditory at 12.83, tactile learning at 14.09 and individual learning at 12.49 (Reid 1987 : 96).

The results of this study at Srinakharinwirot University, Phitsanulok, show that female students preferred all learning styles more than males with the exception of the visual mode for which males had a slightly higher mean preference, males 18.15 to females 18.00.

A comparison of the student groups' rankings of the six learning styles as seen in table 3 again points out the English major students' preference for

the kinesthetic mode followed for most student groups by the auditory mode with the least preferred mode of learning being individual and group learning. Students in the first three years of university least preferred individual learning with fourth year and graduate students least preferring group learning. In Reid's (1987 : 96) study group learning received the lowest mean scores for all language backgrounds with the exception of Malay speakers. As shown in tables 1 and 3, upper class students in this study, in particular graduate students, prefer to work alone on assignments rather than being assigned to do group work. Reid, quoting a study by Vigna and Martin, notes that 84 percent of native speakers of English at secondary school level prefer to work individually (Vigna and Martin 1982, cited in Reid 1987 : 98).

TABLE 3

Student Group' Rankings of the Six Learning Styles

Group	Rankings					
	1	2	3	4	5	6
1 st Year	Auditory	Kinesthetic	Tactile	Visual	Group	Individual
2 nd Year	Kinesthetic	Auditory	Visual	Tactile	Group	Individual
3 rd Year	Kinesthetic	Auditory	Visual	Tactile	Group	Individual
4 th Year	Kinesthetic	Tactile	Visual	Auditory	Individual	Group
Grad.	Kinesthetic	Visual	Individual	Auditory	Tactile	Group
Male	Kinesthetic	Auditory	Visual	Tactile	Group	Individual
Female	Kinesthetic	Auditory	Tactile	Visual	Group	Individual

The higher ranking for visual as compared to auditory learning for fourth year and graduate students may reflect the increasing importance of reading skills for more advanced language learners and their increased reliance on the visual mode in studying English.

These most preferred and least preferred styles of learning correspond to the learning style preferences given by students studying in the humanities in Reid's study :

Humanities Students		
Rank	Style	Mean
1	Kinesthetic	14.23
2	Auditory	13.26
3	Tactile	13.02
4	Visual	12.80
5	Individual	12.68
6	Group	16.96

(Reid, 1987 : 94)

Reid (1987 : 94) notes, "...humanities majors were the least oriented toward visual learning." This is when compared with students in fields of engineering, medicine, business, computer science, and the hard sciences. In this study at Phitsanulok, visual learning ranked third or fourth for all student groups, with the exception of graduate students who ranked visual learning second. This is supported in Reid's study which also shows graduate students as having a higher preference for visual learning than undergraduate students to do research and undertake more outside reading than that required of undergraduate students.

The results of the analysis of variance for the six learning styles according to sex showed no significant difference. While in general it might be expected that male students would prefer constructing things in a 'hands on' tactile style of learning, the lack of male preference for the tactile style in this study may be a result of the male students, who are in an overwhelming minority as English major students, adjusting their style to that of the female majority. The ratio of male to female students in this study can be seen in table 4.

TABLE 4

**Number of Male and Female
Students by Year of Study**

Year	Male	Female
1 st	5	45
2 nd	13	59
3 rd	14	63
4 th	12	44
grad.	3	11
Total	49	222

In addition, it should be noted that in general studying English does not avail itself to actual construction activities as readily as in other fields of study.

The male students slight though non-significant preference for visual learning was also found in Reid's

study where male students in all areas of study were found to significantly prefer visual and tactile learning (Reid 1987 : 94).

An analysis of variance of the six learning styles according to year of study showed a significant difference only for the auditory mode of learning. The first year students preferred the auditory mode significantly more than the fourth year students, $F(4,264) = 2.9072$, $p = .0222$. These results, while apparently in conflict with Reid's findings, point out once again the vast difference between learning English in a host and foreign environment. In Reid's study it was found that the longer the language learner had lived in the U.S., the more the learner preferred the auditory learning style (Reid 1987 : 95). The results of this study of English language learners in a foreign language environment indicate that, while auditory learning is ranked high as a learning style, as the students continue their studies from first through fourth year this preference for the listening mode, auditory style, lessens while at the same time there is an increase in their preference for being involved in the learning, kinesthetic style. Students entering the university and planning to be English language majors need a lot of language input. The auditory style may provide them, as it were, a 'silent period' in which they can adjust to not only a greater amount and more advanced level of English but also to English from native speakers. In the academic year 1987-1988, there were six Thai teachers and five American teachers teaching in the English department at Srinakharinwirot University, Phitsanulok. At the same time, the students appear increasingly to want to become involved in using English through classroom activities as seen in their increased preference for kinesthetic learning. The graduate students for the most part have been away from school working as English teachers themselves. Their higher preference for auditory learning as compared to fourth year students may indicate their need to listen to gain input. The results of this study showed no other significant differences in style of learning and year of study. Nor were there any interactions between sex, year of study and style of learning. The statistics for the analysis of variance for the six learning styles according to sex and year of study, are presented in tables 5 through 10.

TABLE 5
Comparison of Auditory Learning
Style by Year and Sex

Variance	SS	df	MS	F	SF
Year	66.691	4	16.673	2.794	0.027 *
Sex	4.319	1	4.319	0.724	0.396
Year x Sex	47.142	4	11.786	1.975	0.099
Residual	1545.355	259	5.967		
Total	1667.152	268	6.221		

* significant at $p < .05$

TABLE 6
Comparison of Group Learning
Style by Year and Sex

Variance	SS	df	MS	F	SF
Year	61.090	4	15.272	1.323	0.262
Sex	9.933	1	9.933	0.860	0.355
Year x Sex	74.333	4	18.583	1.609	0.172
Residual	2990.690	259	11.547		
Total	3140.981	268	11.720		

TABLE 7
Comparison of Kinesthetic Learning
Style by Year and Sex

Variance	SS	df	MS	F	SF
Year	65.413	4	16.353	1.986	0.097
Sex	25.039	1	25.039	3.040	0.082
Year x Sex	70.756	4	17.689	2.148	0.075
Residual	2132.938	259	8.235		
Total	2288.312	268	8.538		

TABLE 8

**Comparison of Visual Learning
Style by Year and Sex**

Variance	SS	df	MS	F	SF
Year	40.238	4	10.060	1.050	0.382
Sex	0.795	1	0.795	0.083	0.774
Year x Sex	43.916	4	10.979	1.146	0.335
Residual	2480.798	259	9.578		
Total	2565.762	268	9.574		

TABLE 9

**Comparison of Tactile Learning
Style by Year and Sex**

Variance	SS	df	MS	F	SF
Year	74.352	4	18.588	2.055	0.087
Sex	29.583	1	29.583	3.271	0.072
Year x Sex	22.715	4	5.679	0.628	0.643
Residual	2342.627	259	9.045		
Total	2466.967	268	9.205		

TABLE 10

**Comparison of Individual Learning
Style by Year and Sex**

Variance	SS	df	MS	F	SF
Year	136.025	4	34.006	2.096	0.082
Sex	3.075	1	3.075	0.190	0.664
Year x Sex	73.279	4	18.320	1.129	0.343
Residual	4201.230	259	16.221		
Total	4412.059	268	16.463		

CONCLUSIONS AND RECOMMENDATIONS

The results of this study indicate that English major students at Srinakharinwirot University at Phitsanulok prefer to employ multiple learning styles. The most preferred learning styles involve total involvement in the learning situation, a kinesthetic style, and listening, an auditory style. Beginning English majors indicate a higher preference for an auditory approach to learning with a gradual increase in getting more actively involved in the learning process as indicated by the increased mean scores for kinesthetic learning by upperclass students. The results of this study also suggest that while students preferred being engaged in activities to learn, they would often prefer to work on the activities alone rather than assigned to a group at senior and graduate levels.

It is suggested that teachers would do well to make themselves aware of individual student preferences with regard to working individually or in a group before planning activities and that a flexible attitude toward

group-individual work may enable students to learn to their fullest potential. Recent research on learning styles and strategies has increasingly stressed the importance of effective use of styles and strategies to improve attainment in a foreign or second language (O'Malley et al. 1985, Pojason 1988, and Reid 1987).

It is suggested that further research be conducted on the learning styles of Thai students of English. Research should be carried out to see if use of particular learning styles relate to greater attainment. The work of Holobow et al. (1984) and Wangsotorn 1987 are auditory and visual modes.

Another area that needs to be studied is that of the teacher's preferred teaching styles. It may be that the most effective avenue lies in teacher's and student's awareness of their own preferences and then an adjustment on the part of both teachers and students to negotiate the best possible modes for instruction and learning.

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Learning Style	Questionnaire Items
Auditory	1, 7, 9, 17, 20
Group	3, 4, 5, 21, 23
Kinesthetic	2, 8, 16, 19, 26
Visual	6, 10, 12, 24, 29
Tactile	11, 14, 15, 22, 25
Individual	13, 18, 27, 28, 30

Internal Reliability Co-officients

Auditory	.59
Group	.69
Kinesthetic	.64
Visual	.60
Tactile	.81
Individual	.65

แบบการเขียนรู้

คำอธิบายแบบสอบถาม

ในการเรียนรู้เราสามารถทำได้หลายแบบหลายวิธีด้วยกัน บางคนใช้ระบบสายตา (Visual Learners) เพื่อการเรียนรู้มากกว่าประสาทอย่างอื่น บางคนถนัดใช้ระบบการฟัง (Auditory Learners) บางคนชอบการเรียนรู้โดยแบบประสบการณ์ และ/หรือการฝึกหัดปฏิบัติงานทางด้านการสร้างหรือการผลิตสิ่งของต่าง ๆ (Kinesthetic or Tactile Learners) บางคนชอบการเรียนรู้ตามลำพังคนเดียว (Solitary Learners) ในทำนองเดียวกันก็มีบางคนชอบการเรียนรู้แบบเป็นกลุ่ม (Group Learners) จุดประสงค์ของแบบสอบถามฉบับนี้ ก็เพื่อต้องการให้ท่านได้รับทราบว่า ท่านมีความชอบการเรียนรู้ในแบบวิธีไหนมากที่สุด ตัวเลขที่ท่านจะต้องเลือกตอบและกรอกลงในกระดาษคำตอบ มีความหมายดังต่อไปนี้

เห็นด้วยอย่างยิ่ง	5
เห็นด้วย	4
ไม่แน่ใจ	3
ไม่เห็นด้วย	2
ไม่เห็นด้วยอย่างยิ่ง	1

โปรดใช้เวลาในการพิจารณาตอบคำถามอย่างรวดเร็ว โดยใช้ปากกาทำเครื่องหมาย กรุณาอย่าเปลี่ยนคำตอบหลังจากที่ได้ทำเครื่องหมายคำตอบไปแล้ว

1. ถ้าครูอธิบายคำสั่งจะทำให้ข้าพเจ้าเข้าใจดีขึ้น
2. ข้าพเจ้าชอบการเรียนรู้โดยการฝึกหัดปฏิบัติงานในชั้นเรียน
3. ถ้าข้าพเจ้าได้ร่วมทำงานกับผู้อื่น ข้าพเจ้าจะทำงานได้มากขึ้น
4. ข้าพเจ้าเรียนรู้ได้มากกว่า เมื่อได้ดูหนังสือร่วมกับเพื่อนเป็นกลุ่ม
5. ข้าพเจ้าเรียนรู้ในชั้นเรียนได้ดีที่สุดเมื่อได้ทำงานร่วมกับเพื่อนในชั้นเรียน
6. ข้าพเจ้าเรียนรู้ได้ดีกว่าเมื่อได้อ่านข้อเขียนต่าง ๆ ของครูบนกระดานดำ
7. ถ้ามีใครบอกอธิบายให้ข้าพเจ้าได้ฟังในชั้นเรียน ก็จะทำให้ข้าพเจ้าเรียนรู้ได้ดีกว่า
8. ถ้ามีโอกาสได้ฝึกหัดปฏิบัติงานในชั้นเรียน ก็จะทำให้ข้าพเจ้าได้เรียนรู้ดีกว่า
9. ข้าพเจ้าสามารถจดจำสิ่งที่ได้ฟังในชั้นเรียนได้ดีกว่าสิ่งที่ข้าพเจ้าอ่านเอง
10. ถ้าข้าพเจ้าได้อ่านคำสั่งเองจะทำให้ข้าพเจ้าสามารถจำได้ดีกว่า
11. ข้าพเจ้าสามารถเรียนรู้ได้มากกว่า เมื่อข้าพเจ้าได้สร้างหุ่นจำลองขึ้น
12. ข้าพเจ้ามีความเข้าใจดีขึ้น เมื่อได้อ่านคำสั่งด้วยตนเอง
13. ถ้าข้าพเจ้าได้อ่านหนังสือคนเดียว จะทำให้ข้าพเจ้าสามารถจดจำได้ดีกว่า
14. ข้าพเจ้าเรียนรู้ได้มากกว่า เมื่อข้าพเจ้าได้ทำงานโครงการผลิตเป็นชิ้นเป็นอัน
15. ข้าพเจ้าชอบเรียนรู้โดยแบบวิธีการทดลอง
16. ข้าพเจ้าเรียนรู้ได้ดีกว่าเมื่อสามารถวาดรูปประกอบเนื้อหาในเวลาทีดูหนังสือ
17. ข้าพเจ้าเรียนรู้ได้ดีกว่าเมื่อครูใช้วิธีสอนแบบการบรรยาย
18. เมื่อข้าพเจ้าทำงานคนเดียว ข้าพเจ้าสามารถเรียนรู้ได้ดีกว่า
19. ข้าพเจ้าสามารถเข้าใจเนื้อหาวิชาการในชั้นเรียนได้ดีกว่า เมื่อข้าพเจ้ามีส่วนร่วมในการเรียนแบบการแสดง
20. ข้าพเจ้าเรียนรู้ในชั้นเรียนได้ดีกว่า เมื่อได้รับฟังจากคนอื่น
21. ข้าพเจ้าชอบทำรายงานร่วมกับเพื่อนในชั้นเรียนสองสามคน

22. เมื่อข้าพเจ้าได้สร้างสิ่งใดสิ่งหนึ่งแล้ว จะทำให้ข้าพเจ้าสามารถจำสิ่งนั้นได้ดีกว่า
23. ข้าพเจ้าชอบดูหนังสือร่วมกับผู้อื่น
24. ข้าพเจ้าเรียนรู้ได้ดีกว่า โดยวิธีการอ่านมากกว่าการฟังจากผู้อื่น
25. ข้าพเจ้าชอบทำงานทางด้านงานโครงการของชั้นเรียน
26. ข้าพเจ้าเรียนรู้ได้ดีที่สุดในชั้นเรียน เมื่อข้าพเจ้าได้มีส่วนร่วมในกิจกรรมเกี่ยวกับการเรียน
27. ข้าพเจ้าทำงานได้ดีกว่า เมื่อทำงานตามลำพังในชั้นเรียน
28. ข้าพเจ้าชอบทำงานโครงการต่าง ๆ ตามลำพังคนเดียวมากกว่าทำร่วมกับคนอื่น
29. ข้าพเจ้าเรียนรู้โดยการอ่านหนังสือและตำราต่าง ๆ ได้มากกว่าการฟังบรรยาย
30. ข้าพเจ้าชอบทำงานตามลำพังคนเดียว