

CHAPTER 4

Methodology

4.1 Introduction

Reid's PLSPQ has been used by a number of researchers either in English or its translated form, in other languages, since 1987.

In this study, Reid's survey translated into Thai and then piloted to test the validity and reliability of the questionnaires with Thai secondary school target group. The present study carried out to determine students' perceptual learning style and to find out whether learning styles vary by gender in a secondary school. This section presents information on the instrument, limitations of instrument, pilot study survey method and procedures, which used to collect data by applying perceptual learning style inventory.

4.2 Instrument

The Perceptual Learning Style Preferences Survey (PLSPS) by Reid (1987) was chosen as an instrument for this study to determine students' PLSP. Reid's 1998 PLSP used for this study because it is a self-analysis instrument for the one take test and also the results are easy to understand. The survey questionnaire has adopted from Reid (1998) and translated into the Thai language by bilingual graduate students who were Thai and had lived in an English-speaking country for many years.

They were working on their master of arts degrees in a TEFL program at the time of this study. The translation was checked by a bilingual professor who speaks both Thai and English and lectures at the university; subsequently, a number of Thai English teachers and students checked the translation as well.

The true aim of using questionnaire was to have students explicitly notice what strengths or what weaknesses they have in their learning style. On the other hand, this questionnaire is useful to teachers in not only identifying their students' learning styles but also in raising their awareness of the fact that their learning styles do indeed vary.

Maggioli (1996) makes suggestions for better collection of data for research study.

“In order to find out more about the learning styles a student may have, the teacher should either observe the student's behavior in class or administer some kind of a questionnaire in which the student in question is asked to rate the ways in which he/she learns best” (p. 33).

In this study, I chose to use a survey and the characteristics of the survey are discussed in the following section.

4.2.1 Perceptual Learning Style Preferences Survey (PLSPS)

Characteristics

A self-report questionnaire of 30 items was randomly arranged in statements (5 each) in six areas of learning style preferences. The instrument consisted of randomly arranged sets of five Likert-type statements (5 = Strongly agree, 4 = Agree, 3 = Undecided, 2 = Disagree, and 1 = Strongly disagree). Each

of the given items allows five possible responses upon different characteristics of learning styles. Reid (1998) classified styles as major, minor, or negligible. The term “major,” referred to preferred learning style, “minor” means the learning style in which learners can still function well, and “negligible,” means learners may have difficulty learning that way.

The questionnaires can be scored according to a scale developed by Reid. Each response was given a value from 5-1, with 5 being the response most agreeable to the modality being questioned. Five responses for each modality were added, and then multiplied by two. The calculation can be seen in appendix F. Major learning style preferences were considered to be final totals those were between 38-50; values falling in the range of 25-37 were referred as minor learning style preferences; any value from 0 to 24 was taken as negligible (negative) learning style preferences.

4.2.2 Limitation of Instrument

Reid's inventory has limitations for Asian students because the majority of learning style questionnaires by Reid has been normed on native English speakers and ESL learners. Thus, the instruments used in this study may not necessarily yield absolutely valid results with EFL learners. Although the PLSP has been used with ESL learners and translated into other languages, to the knowledge of the researcher, it has not been tested with a group of Thai secondary school students.

Cultural factors can play a significant role. Understanding of vocabulary is different in cross-cultural situation. Some of the terms in the questionnaire might

cause problems for Thai EFL speakers; for instance the questionnaire asks learners to respond unfamiliar statements such as, 'I enjoy learning in class by doing experiments'. In order to reduce misunderstanding of questions, the questionnaire is translated into Thai. However, it was possible that the original meaning was not maintained when the questionnaire was translated from English into Thai, thus potentially caused weakness in terms of reliability and validity.

Another limitation of the survey was the results were based solely on the way learners rated themselves.

4.3. Pilot Study

4.3.1. Instrument, Participants and Procedure

In order to try out the method outlined above in Chapter 4, a small pilot study was carried out. A Perceptual Learning Style Preferences (PLSP) survey was chosen as an instrument for this pilot study. The survey was designed to determine students' perceptual learning style preferences.

The Perceptual Learning Style Preferences Survey (PLSPS) by Reid (1987) is a self-analysis instrument for the one take test and also the results are easy to understand. The survey questionnaire has adopted from Reid (1987) and translated into the Thai language. A perceptual learning style self-report questionnaire of 30 items was randomly arranged in statements (5 each) in six areas of learning style preferences. More of the characteristics of the instrument are discussed in chapter 4.2.

Participants for piloting questionnaires were two groups of students who were asked to complete the survey that was to be used for validating main survey study. The two groups were:

- a) Thai students learning English at the Wichai Wittaya Bilingual School 10th grade students. 5 male students randomly picked out of 60. Age range was 15 to 16.
- b) Thai students learning English at the Pingkarat School 6th grade students. 3 males and 4 females randomly picked out of 50. Age range was 11 to 12.

I asked permission from the schools in advance and requested the day and the time. The schools accepted my request. On the day the survey was administered, the participants were allowed to leave the classroom and fill out the questionnaire form during class time. I gave a short talk on learning styles and mentioned that no style better than the other prior to handing out the questionnaires.

After that, I handed out one set of questionnaires written in Thai and English to Wichai Wittaya and Pingkarat schools in December. The Survey was administered on the same day. Students were instructed through written instructions that can be seen in Appendix A. Wichai Wittaya School students took the survey in the morning and were interviewed afterwards by the researcher in terms of having any difficulties with the survey. The survey and interview took place in one of the empty classrooms, which were provided by school. In Pingkarat School, the survey and interview took place in the afternoon in the

meeting room where they were also interviewed after they had completed the survey and had been asked for their comments.

Questionnaires with instructions and answer sheets were distributed to WWBS and Pingkarat School students. The subjects were given 20 minutes to respond to the questionnaire with a total of 30 items. An approximate average of 30 seconds was considered a reasonable length of time to answer each item by considering subjects language level. However, it only took the subjects about 10 minutes to complete the survey.

While the subjects were responding to the survey's questions, they were quite relaxed and seemed to know what they were doing. They did not ask any questions. During the interview, they were asked if questions were hard to understand and they responded negatively.

4.3.2. Results and Discussion

Results

The results of the questionnaire, which was collected from students' responses, were manually entered into a computer using a keyboard. During the process of entering data, no invalid data was found in terms of leaving questions not answered. The data obtained from the questionnaire was processed with MS Excel 2000 to calculate the mean for each learning style and gender. The questionnaire was scored according to the scale developed by Reid (1998). The results are shown in tables and a graph below.

Figure 1: Students' Perceptual Learning Style Preferences by Group

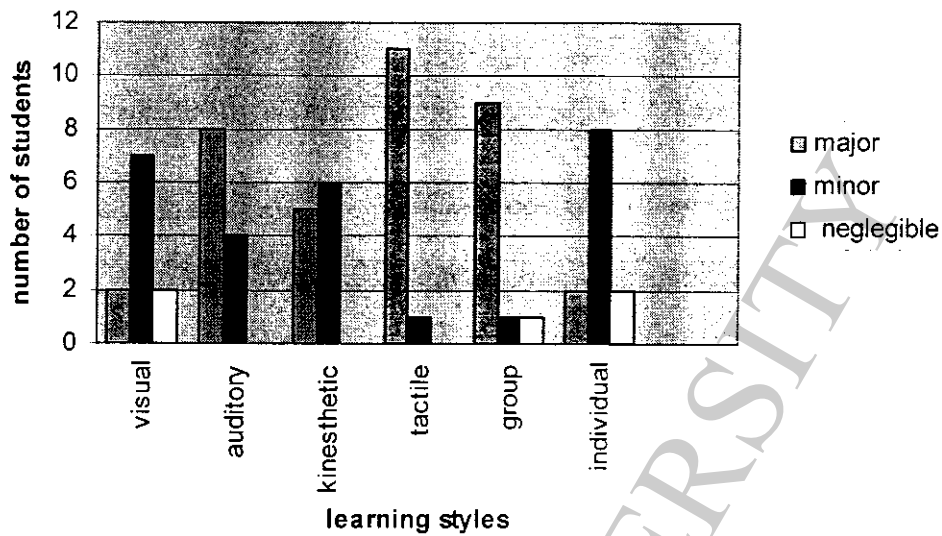


Figure 1 shows that 11 students out of 12 prefer the tactile learning style, which is their major learning style, followed by the group learning style 9 out of 12 and auditory learning style 8 out of 12. In general students favors tactile, group and auditory learning styles but still junction well in all six perceptual learning styles.

Table 6: Perceptual Learning Style Preferences Mean by Gender

Learning Styles	Gender	
	Male	Female
Visual	28.5	33.5
Auditory	40.5	36.5
Kinesthetic	44.3	38
Tactile	38.8	40.5
Group	37	38.5
Individual	32.8	31

As we can see from Table 6, the mean score is quite high for auditory, kinesthetic and tactile learning. The maximum mean score with 44.3 is Kinesthetic learning style and minimum mean score with 28.5 is visual learning style. Individual learning seemed to be their first choice of minor learning style preference. Student responses show that they almost did not have any negative learning style. This might be because in the Thai culture, students usually hesitate to check “strongly disagree”.

Table 7: Perceptual Learning Style Preferences Standard Deviation by Gender

Learning Styles	Gender	
	Male	Female
Visual	5.93	7.72
Auditory	2.78	2.52
Kinesthetic	5.06	2.31
Tactile	5.01	3.00
Group	12.00	5.74
Individual	9.97	4.76

As can be seen from Table 7, the Standard Deviation calculation indicates differences in the perceptual learning style preferences between females and males. Females' responses to the statements were more narrowly ranged compared to the males, most notably for kinesthetic, tactile, group and individual learning.

Discussion

The questionnaire was piloted with the primary 6th and high school 10th grade students to find out whether the perceptual learning style questionnaire could be used with the target group (Wichai Wittaya 7th, 8th, and 9th grade students) or not. Student age groups were another consideration so questionnaires were tried out to determine if students have any difficulty in understanding the questionnaire; appropriate amount of time was given for the survey; to observe the anxiety of

respondents; and to talk about the instruments given before the survey questionnaire was administered to the target group.

The observation from the pilot study and the data analysis results showed that Reid's PLSP questionnaires could be used with the participants from WWBS.

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