

Perceptual Learning Style Preference for Medical Terminology: A Case Study of 20 ESP Students

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Abstract

Due to the globalization, there has been a great demand for learning English for Specific Purposes (ESP) in different fields. How to teach medical terminology effectively to pre-service medical professionals is one of the main challenges that ESP instructors encounter in their English in Medicine classrooms. A variety of factors, including but are not limited to student learning style preference, prior knowledge, classroom facilities should be considered. In this study, we conducted a case study of 20 students in an ESP class to explore their learning style preference. This study employed two data collection instruments: questionnaire and interview. Data analysis interestingly revealed that the location of students' secondary education has an influence on their perceptual learning style preference of medical terminology at tertiary level. Drawing on the results, this study argues for a balance between student learning preference and teaching mythology.

Keywords: ESP, perceptual learning style preference, medical terminology

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1. Introduction

Almost all schools in Vietnam use placement tests to evaluate students' language proficiency level but do not systematically diagnose students' learning styles before they enter the classroom. By doing so, schools just cover the academic part and ignore the sociological part of their job. As an English teacher with many years in the career, we find that it is very hard for teachers with a new group of students to understand their sociological perspectives and prepare relevant activities to achieve good learning outcome. Students are different individuals with different learning styles. Information about learning styles can help schools and teachers become more sensitive to the differences that students bring to the classroom. As Harmer (2001) says "an understanding that there are different individuals in our classes is vitally important if we are to plan the kinds of activities that will be appropriate for them". Being aware of the significance of students' learning styles in the classroom, we would like to do a mini research about the learning style preferences of two groups of students in the same class in a southern university in Vietnam to adapt our teaching style accordingly. This study is also intended to benefit our own interest for professional self-improvement by exploring our academic concern as a lifelong teacher as Hyman and Rosoff (1987) suggest teachers should also become students of teaching. A wide variety of studies have explored perceptual learning style preference in various contexts. However, little research has been done to investigate student preferences of learning medical terminology in an ESP context. To diversify research literature in this specific area, this study aims to address the following research question:

1. *What do ESP students prefer perceptually when they learn new medical terminology?*
2. *What may influence their perceptual learning style in an ESP class?*

2. Literature Review

Learning style is a term that is defined in many different ways by different theorists and researchers. Learning style is ...

1. a set of cognitive, emotional, characteristic and physiological factors that serve as relatively stable indicators of how a learner perceives, interacts with, and responds to the learning environment (Keef, 1979, pp 1-7).
2. "a pervasive quality in the learning strategies or the learning behavior of an individual" (Reid, 1987:89).
3. indicates preferred or habitual patterns of mental functioning and dealing with new information (Oxford and Ehrman, 1990: 511).
4. comes from the field of general psychology and refers to the characteristic ways in which individuals orientate to problem solving (Ellis, 1994: 499).
5. "the complex manner in which, and conditions under which, learners most efficiently and most effectively perceive, process, store, and recall what they are attempting to learn" (James and Gardner, 1995: 20).

Different researchers classify learning styles into different categories. According to Reid (1987), learners have four basic perceptual learning channels:

- Visual learning: reading, studying charts
- Auditory learning: listening to learning

- Kinesthetic learning: experimental learning, that is, total physical involvement with a learning situation
- Tactile learning: “hands on” learning, such as building models or doing laboratory experiments.

Reid (1987) defines perceptual learning styles as the variations among learners using one or more senses to understand, organize, and retain experience. He identifies four basic learning styles. Visual learners like to receive information visually by reading, looking at the board, pictures, diagrams, flow charts, timelines, films and demonstrations. Auditory learners prefer to learn with ears and enjoy listening exercises. They do not need to see words written down in order to understand or remember something. Kinesthetic learners like movement and need frequent break from desk activities. They like to move around, touch and talk as well as use body language. Tactile learners learn by touching and manipulating objects. They like to write, draw and do experiments the most.

Learning style is an important issue that teachers, especially language teachers should be aware of to create a successful classroom. Reiff (1992) says that styles influence how students learn, how teachers teach, and how they interact. Each person is born with certain preferences toward particular styles, but these preferences are influenced by culture, experience, and development. Dorsey and Pierson (1984) conclude that age and prior work experience influence learning styles.

According to Dewar (1999), a key to getting and keeping students actively involved in learning lies in understanding learning style preferences, which can influence a students’ performance. Keefe (1987) asserts that perceptual style is a matter of learner choice, but that preference develops from infancy almost subconsciously. A teacher alert to these preferences can arrange for flexibility in the learning environment. Hedge (2000) has the same point of view when claiming that “insights into learning style highlight the teachers’ need to create a variety of learning activities to cater for the range of styles.”

3. Study Participants

Twenty freshmen in an ESP class in a medical university in the south of Vietnam were invited to participate in the study. Among these students, ten of them are from Ho Chi Minh City, the biggest city in the southern region and the other ten come from surrounding provinces such as Tien Giang, Binh Thuan, Cu Chi, Ben Tre, Long An, Binh Duong. These students, aged from 18 to 21, have finished their high schools and have learnt English for about 6 years.

These participants are required to successfully complete 75 hours of ESP training before graduation. *Basic Reading in Anatomy and Physiology* is the main textbook used in their ESP classes. This book aims to provide students with basic medical terminology to explore the science of medicine. The medical terms that students gain from this book promote their comprehension and usage of English in medical contexts such as maintaining a healthy lifestyle, communicating with unwell patients, looking after the needy at home, in clinics or hospitals, and treating patients.

4. Data Collection

A 20-item questionnaire adapted from “The learning style preferences of ESL students” by Reid (1987) was administered to twenty students to explore their perceptual learning style preferences of learning medical terminology in ESP training. The questionnaire consisted of two parts. The first part asks respondents for some basic biographical data and the second part has 20 statements which are randomly arranged for each of the four learning style preferences to be measured: visual, auditory, kinesthetic, tactile (5 statements for each learning style). In order to make the questionnaire accessible to our students and to minimize the misunderstandings and confusion, we have translated the questionnaire into Vietnamese. Before the study participants were asked to complete the Vietnamese version of the questionnaire in class, an example of how to respond to the questionnaire was modelled. Frequency count and Percentage are calculated to analyze the questionnaire data. To validate the information they provided in the questionnaire, interviews in Vietnamese were performed by asking the participants about their learning styles. The following questions were asked:

1. *How would you like to learn English in class? Can you explain why?*
2. *Listen to this announcement. Now read it. Which way do you think is much easier to remember?*

All interviews took place within five weeks (once per week). The participants were invited to meet with the teacher individually during the break time. The participants were informed that their responses in the questionnaire and in the interview would be highly confidential and would serve for the research only.

5. Findings and Discussion

Study participants’ responses were geographically categorized into two groups. The first group consists of students coming from Ho Chi Minh City (coded as HCM in Table 1) while the other group represents those who come from other provinces (coded as P in Table 1). Table 1 displays the results from the questionnaire and Table 2 show the distribution of student preference to learning medical terminology.

Table 1: Students' preferred learning styles

Subject	Learning styles							
	Visual		Auditory		Kinesthetic		Tactile	
	HCM	P	HCM	P	HCM	P	HCM	P
1	X			X				
2		X	X					
3			X			X		
4		X	X					
5		X			X			
6	X	X						
7			X					X
8		X	X					
9		X					X	
10		X	X					

Table 2: Perceptual Learning Style Distribution (N=10)

Perceptual learning styles	N=10	N=10	%	%
	HCM City	Other Provinces	HCM City	Other Provinces
Visual	2	7	20	70
Auditory	6	1	60	10
Kinesthetic	1	1	10	10
Tactile	1	1	10	10

The majority of the students from other provinces chose 'visual' as their preferred perceptual input modality (70%). This result is validated by their interview transcripts:

- "I like to learn with my eyes because it is easy to follow what my teacher is explaining."
- "When I see things, I find it easier to learn."
- "Learning with eyes help retain things in my mind longer."

Reid (1987) noticed similar results in his study of sensory learning preferences of Korean, Chinese and Japanese students. It is believed the book-centered and blackboard-centered method that has formed this learning style for decades. Students from these areas are not lucky enough to enter foreign language centers with modern facilities and modern teachers with new methods. They learn English primarily in their regular schools. In most of the high schools in Vietnam, especially in the countryside, the old-fashioned Grammar-Translation is still very popular now. One of the main reasons is that teachers from rural areas do not have a lot of opportunities to attend workshops to be exposed to new methods of English language teaching. It is likely that feel secure in the traditional Grammar-Translation method and do not risk changes. Moreover, these teachers have a pressure of helping students pass the national tests which are designed in a very traditional way focusing on language form rather than language use. In these classes, choral reading is the primary target language for students' speaking and their listening to the target language is accompanied by scanning the printed text. This classroom practice has made students' perceptual channels strongly visual (text and blackboard).

In stark contrast with students coming from underprivileged provinces, most students from Ho Chi Minh City prefer auditory learning style (60%), as they reflected in the interview:

- "I like to learn with my ears because the information will be in my mind longer."
- "I like listening to my teachers in class because it helps me understand the lesson better."
- "When I listen, the input flows into my mind and makes me understand more quickly."

With the modern facilities that they city center offer, they grew up in the world of multimedia with full of auditory input and interactive activities. Televisions, CD players, movies and videos have helped them develop skills in interpreting auditory data. More fortunately, besides learning English in their high schools, they can enter evening English classes at foreign language centers where teachers have brought back new teaching techniques from seminars and apply the modern teaching methods to the classroom, using the target language for speaking and fact discussion as well as emphasize language use. It is clear to see that the students' learning style preferences are much influenced by prior life experience they have gone throughout their secondary education.

6. Conclusion and Implications

The major findings presented in this paper about learning styles preference shows that the students from other provinces strongly preferred visual learning styles whereas students from city center were the most auditory in their learning style preferences. The geographic distribution of two distinct learning styles calls for our attention of selecting relevant methodologies for teaching medical terminology because matching teaching styles to learning

styles can significantly enhance student behavior in foreign language instruction (Oxford & Ehrman, 1991).

What must be done to achieve effective foreign language learning in a class with different learning style preference is to balance instructional methods. This is good for ESP students because if they know how to employ multiple learning styles, they can get greater classroom success (Cronch & Snow, 1977; Stewart, 1981). As Friedman and Alley (1984) suggest, teachers should help students get to know their own learning styles and utilize their preferred learning styles. At the same time, teachers should also encourage students to diversify those preferences by providing different teaching styles to help them develop the style areas they are not familiar with.

Because students in this case study are more visual and auditory learners, we would suggest an extensive use of visual as well as auditory input in teaching medical terminology throughout their ESP training. Photographs, sketches and drawings should be used to illustrate and reinforce the meanings of medical terms. Short video clips should be shown to illustrate reading texts with highly specialized terminology. Role plays, group discussion and presentation should be employed as dominant activities. However, they should be asked to practice writing, making class projects and any other hands-on activities to help them maximize their learning efficiency.

In short, teaching is an interesting profession, with new approaches expanding teachers' roles and giving teachers more insights into how to help their students (Larsen- Freeman, 1988). A key to getting and keeping students actively involved in learning lies in understanding their learning style preference. The result of this study facilitates our understanding of students' learning styles and matching them with our teaching style to create a successful classroom.

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