

THE RELATIONSHIP BETWEEN
LEARNING STYLE PREFERENCES AND LANGUAGE ACHIEVEMENT
OF EFL STUDENTS IN BUŞEL

A THESIS
SUBMITTED TO THE INSTITUTE OF HUMANITIES AND LETTERS
OF BILKENT UNIVERSITY
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF MASTER OF ARTS
IN THE TEACHING OF ENGLISH AS A FOREIGN LANGUAGE

BY

İŞİK TEZİÇ
AUGUST 1994

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ABSTRACT

Title: The relationship between learning style preferences and language achievement of EFL students in BUSEL

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This study aimed at identifying perceptual and social learning style preferences of EFL students at BUSEL in order to find out whether good and poor language learners had different learning style preferences. There were 100 participants: 70 language learners classified as good and 30 language learners classified as poor as determined by their end-of-term test scores. A Learning Style Preference Questionnaire developed by Reid (1987) was used to identify perceptual and social learning style preferences of participants.

The results obtained from the Learning Style Preference Questionnaire indicated that good and poor language learners had different learning style preferences. Good language learners preferred a combination of perceptual learning styles and favored individual learning. However, poor language learners indicated no strong preference for any of the perceptual learning styles and preferred group learning.

The difference between learning style preferences of good and poor language learners was tested by a Chi-square test. There were two questions. The first question was whether good and poor language learners had

different learning style preferences. The statistical test showed that there was a significant difference between the two groups in their preference for perceptual learning styles ($p < .02281$), and for group and individual learning ($p < .05254$). The second question was whether there was a relationship between the type of high school (public or private) students have graduated from and the learning style preferences of good and poor language learners. Statistical analysis did not indicate any statistical difference between the groups.

The results of this study may help raise awareness of learning styles. This should lead teachers to consider planning activities and materials to accommodate classes consisting of students with various learning styles.

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The examining committee appointed by the
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has read the thesis of the student.
The committee has decided that the thesis
of the student is satisfactory.

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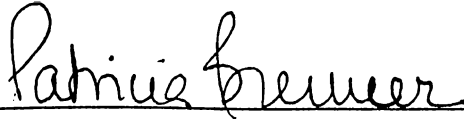
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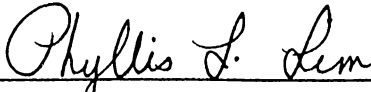
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We certify that we have read this thesis and that in our opinion it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Arts.



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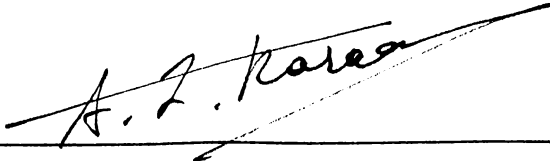


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To my father

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CHAPTER 1 INTRODUCTION

Background of the Problem

In studying the factors that influence student success in the foreign language classroom, researchers have become aware of the importance of individual differences. For this reason, they have shifted their focus from instructional approaches to the learner, putting the learners' individual uniqueness under study. While some researchers have studied the emotional and social factors that influence the learner's attitude towards learning (e.g., Gardner, 1985; Tucker & Lambert, 1972), others have looked into metacognition and the learning strategies employed in a learning situation (e.g., Naiman, Frohlich, Stern & Todesco, 1978; Oxford, 1989). Issues related to learner autonomy have also been investigated in order to understand how to give the learner a more independent and responsible role in the learning process (e.g., Dickinson, 1987; Wenden, 1991).

Attention to the topic of individual differences has also led to the identification of student learning styles. According to Ehrman and Oxford (1990), the term learning style indicates "preferred or habitual patterns of mental functioning and dealing with new information" (p. 20). However, Dunn, Beaudry, and Klavas (1989) view learning style quite differently, defining learning style as "a biologically and developmentally imposed set of personal

characteristics that make the same teaching method effective for some and ineffective for others" (p. 50). Although researchers have different definitions for learning styles, they all agree that each individual has a unique and preferred learning style.

Literature related to learning styles is largely dominated by research conducted with native speakers (NSs). After identifying the learning style preference of 200,000 NSs of English, Dunn (1983, 1984, 1990) and her colleagues (Dunn, Beaudry & Klavas, 1989) repeatedly found that students who received instruction according to their preferred learning style showed an increase in academic performance and improved attitudes towards school. Domino (cited in Reid, 1987) reached similar findings while investigating the relationship between learning styles and academic performances of college students. Students received higher scores on tests when they were taught in ways that matched their preferred learning style compared to students taught in instructional styles that did not match their own.

Learning style is comprised of various elements. Dunn (1983), in her learning style modal, mentions five forces which may influence an individual's learning style: environmental, emotional, psychological, social, and physical. Preferences for individual and group learning belong to the social elements of learning style. Included among the physical characteristics are perceptual

strengths: visual, auditory, kinesthetic, and tactile. According to Dunn (cited in Reid, 1987), perceptual learning style is "a term that describes the variations among learners in using one or more senses to understand, organize, and retain experience" (p. 89). James and Galbraith (1985) report seven perceptual learning styles: visual, auditory, kinesthetic, haptic (learning best through touch), print (learning through reading and writing), olfactory (learning through senses of smell and taste), and interactive (learning through group interaction). Thus they consider group learning a perceptual strength. They define perceptual learning styles as "the means through which information is extracted from the environment by the senses" (p. 20).

Research on perceptual learning styles with NSs has also been concerned with achievement. Using James and Galbraith's (1985) definition of perceptual learning styles, Ginter, Brown, Scalise, and Ripley (1989) reported on the influence of perceptual learning style preferences on grade point average (GPA) of remedial college students. Students who preferred an interactive style (learning through group interaction) achieved a higher GPA than students whose preferences were for a combination of perceptual learning styles. Carbo (1983), focusing on grade school children, found that good and poor readers had different learning styles. Good learners favored visual and auditory learning while poor learners had a stronger

preference for tactile and kinesthetic learning. Price, Dunn and Sanders (cited in Carbo, 1984) had reached similar findings earlier.

In the field of second language acquisition (SLA) the concept of perceptual learning styles is new. The earliest study on perceptual learning styles in SLA was done by Reid (1987). Reid utilized Dunn's classification and definition of perceptual learning styles to develop her Perceptual Learning Style Preference Questionnaire. In this questionnaire Reid included two social learning styles, group and individual, taken from Dunn's (1983) learning style modal, in addition to Dunn's four perceptual learning styles: visual, auditory, kinesthetic, and tactile. In her study, Reid investigated the relationship of perceptual learning style preferences of non-native speakers learning English in the United States to such variables as level of education, age, and sex. Results of the study showed that the foreign language learners in the United States strongly preferred kinesthetic and tactile learning styles. Most subjects indicated a negative preference for group learning. Reid, however, like other SLA researchers, has not investigated the relationship between perceptual and social learning styles and achievement.

Statement of Purpose

Research with NSs has shown a relationship between perceptual learning styles and the student's academic

performance. However, such a relationship has not been investigated in language learning situations. English language learning situations can be classified in two groups: English as a second language (ESL), where the learner is provided with an acquisition-rich environment in English speaking countries, and English as a foreign language (EFL), where students learn the target language in non-English speaking countries. Students learning English in an ESL situation have an advantage over students of EFL because ESL situations can better accommodate students with various perceptual and social learning styles. For example, visual ESL students can be exposed to movies and television in the target language, and kinesthetic and group ESL learners can interact with NSs at social gatherings. Identifying students' perceptual and social learning styles becomes more important in EFL situations because input in the target language is usually received only in the classroom; students continue to communicate in their native language at home, in their social interactions with others in everyday life, and even during the breaks between English classes. Although EFL students can use English during group activities in language classes, teachers often complain that students use their native language to communicate when faced with difficulties, and therefore, do not benefit fully from group activities. EFL students admit having fun during group activities, but because of their tendency to use their native language,

they too recognize that they are not getting full benefit from group activities. As a result, EFL students tend to prefer individual learning to group learning in the language learning process. Furthermore, because research on perceptual and social learning style preferences of foreign language learners in EFL situations is lacking, research identifying perceptual and social learning styles in EFL situations in Turkey would be beneficial. Research indicates that students who are at risk of failing can be helped, and potential dropping out may be prevented by recognizing the role learning styles play in students' academic achievement (O'Neil, 1990). According to Reinert (1976), students are slow in learning only because they have not had a chance to learn in their preferred perceptual learning style.

The teaching situation at Bilkent University School of English Language (BUSEL) in Ankara, Turkey, is an example of an EFL situation. Each year a large number of students enroll to learn English at BUSEL, which prepares students for their academic study in various departments of Bilkent University by giving them intensive courses in English. These students first have to pass a highly competitive university entrance examination to be admitted to this institution. Yet, several students spend two or three years, sometimes even four years, at BUSEL. Why do students have so much difficulty in learning English? This question may be answered by investigating the perceptual,

group and individual learning style differences among students.

Classes in Turkish preparatory schools consist of students that share many similar characteristics. They come from Turkish high schools and Turkish families. They are in the same age range (17-20). They speak the same native language. They need to learn English for academic purposes. Therefore, at first glance classes seem to be homogeneous, but upon a more careful look, it becomes apparent that the students actually come from different backgrounds, which may be a source of differences in learning styles. It is assumed here that these differences are related basically to the type of high school students have graduated from.

Turkish students that enroll in preparatory schools have graduated from either a public or private high school. In public schools students are generally taught with traditional methods. The curriculum is in Turkish. There are only a few English language classes a week. Private schools, however, provide students with laboratories in science and language classes, where students are able to practice and experiment with what they are learning. Moreover, science and math classes are in English. Therefore, one might assume that students from public and private high schools would have different learning style preferences.

The purpose of this study is to investigate whether

students' learning style preferences have an effect on foreign language achievement in order to find a possible answer as to why some students at BUSEL have difficulties in learning English. To this end perceptual learning styles were chosen because research with NSs of English has shown that there is a relationship between perceptual learning styles and achievement. The social learning styles were chosen because it is the general opinion of teachers at BUSEL that students prefer individual learning to group learning. The learning style preferences of students in BUSEL were identified in relation to type of high school students graduated from to see if learning style preferences are affected by the educational background of students.

Research Questions

These questions are addressed in this thesis: Do good and poor language learners at BUSEL have different learning style preferences? If they do, is there a relationship between their learning style preferences and the type of high school (public or private) they have graduated from?

The perceptual and social learning styles investigated in this study are taken from Reid (1987). Four perceptual learning styles--auditory, visual, kinesthetic, and tactile--were chosen because research has shown that there is a relationship between perceptual learning styles and academic achievement. Two social learning styles--group

and individual--were chosen because it is the general opinion of teachers at BUSEL that students prefer individual learning to group learning.

In short, six different learning styles are investigated in this study: visual, auditory, kinesthetic, tactile, group and individual.

Definition of Terms

According to Reid (cited in Wenden 1991), visual learning is learning best through seeing words in books, on the chalkboard and in workbooks. Information and instructions are better understood and remembered if they are read by the learner. Auditory learning is learning best through hearing words spoken and from oral explanations. Students with this learning style preference benefit from listening to audio tapes, lectures, and class discussions. Kinesthetic learning is learning best by being involved physically in classroom experiences such as activities and role-plays. Tactile learning is learning best through touching. Tactile learners enjoy working with flash cards and manipulating objects. Group learning is learning best with peers, in pairs or in teams. Individual learning is learning best by working alone.

CHAPTER 2 LITERATURE REVIEW

Introduction

Attention to individual differences among learners has led to the investigation of learning styles employed by learners in a learning situation. Researchers have recognized learning styles based on their own investigations, and have named and described the characteristics they have observed. For this reason various models of learning style have been developed. Perceptual learning styles play an important role within these models. Research on perceptual learning styles of NSs has demonstrated that instruction in students' preferred perceptual learning style has a positive impact on students' academic performance (Dunn, 1988; James & Galbraith, 1985; Reinert, 1976), and that good and poor readers have different perceptual learning styles (Carbo, 1983, 1984). However, despite the growing interest in perceptual learning styles in language learning, the topic is relatively new in the field of SLA. Little information exists on the perceptual learning style preferences of students in ESL and EFL programs.

Learning styles have been a controversial issue both in first language (L1) and SLA research (Dolyle & Rutherford, 1984; Dunn, 1984; Hyman & Rosoff, 1984; James & Galbraith, 1985; Keefe & Ferrell, 1990). This chapter presents some of these controversies through a review of

the literature on learning styles and research on perceptual learning styles of NSs and foreign language learners.

Learning Styles

The topic of learning styles has drawn a great deal of attention and generated a wide variety of approaches to stylistic differences among learners. As a result, the concept of learning styles has been defined differently by researchers. Some researchers have viewed learning styles as "habitual mental functioning" (Ehrman & Oxford, 1990, p. 311); others have stated that it is a "biologically and developmentally imposed set of characteristics" (Dunn, Beaudry & Klavas, 1989, p. 50). Smith and Renzulli (1984) have closely related learning style to learning strategies in their definition: "learning styles are defined in terms of the range of instructional strategies through which students typically pursue the act of learning" (p. 45). Keefe and Ferrell (1990), however, have stated that cognitive style and learning style may overlap and that the two terms have been used interchangeably in the literature. Despite this, they make a clear distinction between the two concepts, stating that learning style is "the composite of characteristic cognitive, affective, and physiological factors that serve as relatively stable indicators of how a learner perceives, interacts with, and responds to the learning environment" (p. 59). The diversity in

definitions demonstrates that there is no consensus among researchers with regard to conceptualization of learning style.

The review of the literature on the development of learning style theory reveals the same diversity. Three approaches to learning style are summarized to give an indication of the development of learning style theory and to illustrate how perceptual learning styles are related to learning style theory in general.

Dunn's (1983) learning style model describes how an individual's learning is affected by five major internal or external stimuli: environmental, emotional, psychological, social and physical. Environmental elements refer to the physical surroundings of the individual: the learner's preference for sound or silence, bright or low light, warm or cool room temperatures, and formal or informal design (conventional classroom or casual settings). Emotional elements are assumed to include the degree of the learner's motivation, persistence (short or long attention spans), responsibility and the need for structure (detailed instructions) or choice of options before starting a task. Psychological elements consist of hemispheric preference (left- or right-brain dominance), impulsivity (fast but inaccurate learners) or reflectivity (slow but accurate learners), and analytic (focus on detail) or global (focus on the whole) learning styles. Social elements are the individual's preference for group or individual learning.

Physical elements involve the learner's preference for intake (learner's need to eat, drink or smoke during learning) or no intake, time of day or night (learners with high or low energy levels at different hours), mobility (learner's need for breaks) or passivity, and perceptual strength. In Dunn's (1983) learning style model there are four basic perceptual strengths: auditory, visual, tactile, and kinesthetic. Some people have a strong preference for only one perceptual learning style while others learn best using a combination of these perceptual styles. Based on this model, Dunn's definition of "learning style" is comprehensive and makes a clear distinction between learning style and learning strategies:

Learning style is the way individuals concentrate on, absorb, and retain new or difficult information or skills. It is not the materials, methods, or strategies that people use to learn; those are the resources that complement each person's style. Style comprises a combination of environmental, emotional, sociological, physical, and psychological elements that permit individuals to receive, store, and use knowledge or abilities. (p. 496)

While Dunn (1983) understands learning styles in terms of stimuli, James and Galbraith (1985) use the term modality to explain their approach to learning styles. According to them, learning style is made up of different modalities: cognitive, emotional, social, and perceptual. The cognitive modality refers to the way in which the individual processes information. The emotional modality consists of personal feelings and attitudes that influence learning and usage of knowledge, whereas the social

modality includes social conditions which may inhibit or reinforce the learning process for each individual. The perceptual modality relates to the way information is obtained from the environment through the senses. Although James and Galbraith's approach to learning style appears to have similarities with Dunn's model, they differ significantly. While James and Galbraith consider perceptual modality as one of the four major components in their learning style model, Dunn sees it as subcategory, one of many physical stimuli.

Making use of the extensive learning style research, Oxford, Hollaway, and Horton-Murillo (1992) developed an eclectic approach to learning style which makes distinctions between the terms learning style, cognitive style and learning strategies. According to Oxford et al., learning styles consist of four main components, which are inter-related: cognitive, affective, behavioral, and physiological. The cognitive component involves preferred or habitual patterns of mental functioning, which are sometimes referred to as cognitive style. Examples for this style are analytic or global, field dependent or field independent (the degree of ability to separate insignificant background details from truly significant details), and impulsive or reflective. The affective component includes "patterns of attitudes and interests that influence what an individual will pay most attention to in a learning situation (including all environmental

distractions and physical comfort)" (p. 440). The behavioral component is related to the techniques learners use to improve or enhance their learning; these often conscious behaviors or actions are called learning strategies. The physiological component involves the perceptual preference of the learner. According to Oxford et al., there are three basic perceptual strengths: visual, auditory, and hands-on (tactile-kinesthetic), which are considered to be partly determined by the individual's heredity and partly by cultural influence. Reid (1987) has also advocated the view that perceptual learning style preference is influenced by culture. In short, Oxford et al. use the term learning styles as an umbrella term which comprises learning strategies and cognitive style. Similar to James and Galbraith (1985), Oxford et al. consider perceptual learning styles a major aspect of learning style, and contradictory to Dunn's (1983) learning style model, Oxford et al. view analytic or global, field dependent or field independent, and impulsive or reflective as cognitive rather than psychological aspects of learning style.

The diversity of the definitions and approaches to learning style also reflects on application of learning style theory in the classroom. Some researchers strongly advocate that it is necessary for students to receive instruction in their preferred learning style (Carbo, 1984; Dunn, 1983, 1984, 1990; Oxford, Ehrman & Lavine, 1991).

Others are more flexible in their approach and suggest that although there is a need to match the student's learning style with the teacher's style preference, students should be trained so they can improve in the styles they are weak in (Friedman & Alley, 1984; Reinert, 1976). Doyle and Rutherford (1984) argue that most students, irrespective of their preference for learning style, are able to adapt to a variety of instructional styles, and that matching teaching style with learning style is not always necessary.

In conclusion, in spite of the diversity in conceptual definitions of learning style, there is a consensus in the literature that all learners possess a unique style, and that further research is needed to understand the stylistic differences among learners by focusing on the various aspects which make up the individual's learning style. Perceptual preference is one of these aspects that has been investigated widely by L1 researchers.

Perceptual Learning Styles

Researchers have different views as to what perceptual learning styles consist of. The diversity of opinions is reflected in the various instruments developed to identify the perceptual preferences of learners (Dunn, 1983; James & Galbraith, 1985; O'Brien, 1990; Reid, 1987; Reinert, 1976). These instruments are in the form of self-reporting questionnaires that measure the learners' perceptual strengths and weaknesses.

Dunn (1983) and Reid (1987) base their Perceptual Learning Style Inventory on four basic perceptual strengths: visual, auditory, tactile, and kinesthetic. O'Brien (1990) utilizes three perceptual strengths in his Learning Channel Preference Checklist (LCPC): visual, auditory, and haptic (learning best through moving, experiencing, and experimenting). James & Galbraith (1985), however, define haptic as learning best through touch, using the entire hand, and describe seven perceptual strengths in their Perceptual Learning Style Inventory: haptic, visual, auditory, kinesthetic, interactive (learning best through group interaction), print (learning best through reading and writing), and olfactory (learning best through the senses of smell and taste). In developing the Edmond's Learning Style Identification Exercise (ELSIE), Reinert (1976) focuses on the terms visualization (mental image of an object or activity), written word (mental image of the word spelled out), activity (kinesthetic reaction), and listening (receiving meaning from sound of the word without any visualization).

Learners may either have a strong preference for only one perceptual strength, may prefer a combination of perceptual strengths, or may not show a preference for any of the perceptual learning styles (Dunn, 1984; James, 1985; O'Brien, 1990; Reid, 1987). O'Brien (1990) states that individuals who do not express a preference for only one perceptual strength are often seen among the gifted and

learning disabled. With the former group, all three perceptual strengths (visual, auditory, and haptic) are developed and the perceptual strength which best matches the task is used. There is a tendency to see this kind of combination with gifted learners who are above 16 years of age. Among the learning disabled, however, preference for an individual perceptual style has not yet been neurologically established; they do not have a clearly defined method for processing information (O'Brien, 1990).

Researchers investigating perceptual learning style preferences have made use of the above-mentioned instruments to identify learners' perceptual strengths and weaknesses.

Research on Perceptual Learning Styles

Conducted with Native Speakers

Literature related to perceptual learning styles is largely dominated by research conducted with NSs of English. Researchers investigating the perceptual learning styles of NSs have been widely concerned with academic performance.

After identifying the perceptual learning styles of 200,000 individuals in the United States, Dunn (1983, 1984, 1988, 1990) repeatedly reported that students who received instruction according to their preferred learning style showed an increase in academic performance as well as improved attitudes towards school. When new information

was introduced through the individual's strongest preference, their test scores were significantly better. When the information was also reinforced through secondary preferences, achievement was further increased. Domino (cited in Reid, 1987) had reached similar findings while investigating the relationship between learning styles and academic performance of 100 college students. Students received higher scores on tests when they were taught in ways that matched their preferred learning style than students taught in instructional styles that did not match their own.

Carbo (1983, 1984), using Dunn's Perceptual Learning Style Inventory, identified the learning style preferences of grade school children, grades 1-6, in relation to their reading achievement. The purpose of the study was to investigate whether differences in perceptual learning style preferences existed among good and poor readers and whether reading achievement increased when students were instructed in their preferred learning style. Results showed that reading scores were significantly higher when students were taught to read through their preferred perceptual strength and that good and poor readers differed significantly in their preference for perceptual learning styles. Good readers preferred to learn through their visual and auditory senses. Poor readers, however, demonstrated learning style preferences through their tactile and kinesthetic senses. The study further

indicated that different perceptual preferences developed sequentially with age. The youngest children were mostly tactile and kinesthetic learners. Visual learning was the next perceptual strength to develop. Second grade students were significantly more tactile/kinesthetic and less visual/auditory than fourth, sixth, and eighth graders. The development of auditory strength, however, was not observed until grades five and six. These results imply that, at the age of 6 or 7, children who are at the beginning of reading instruction are basically tactile/kinesthetic/visual learners and do not appear to learn through their auditory senses. As students mature, however, they tend to be more successful in developing their reading skills if they utilize their auditory strengths.

Ginter, Brown, Scalise, and Ripley, (1989), using James and Galbraith's (1985) Perceptual Learning Style Inventory, identified the perceptual learning style preferences of college students. Their study aimed to ascertain whether students' perceptual learning style preferences affected their performance in remedial courses. In addition, they focused on whether perceptual learning styles varied by age, sex, and year in college (e.g., first, second). Results showed that type of learning style significantly influenced grade point average (GPA) in remedial classes. Students who preferred an interactive style received a higher GPA than those who preferred a combination of two styles. The findings also revealed that

learning style did not differ with respect to year in college or sex, but did vary significantly according to age. Younger students preferred a visual style.

In their investigation of learning style preferences of students with learning disabilities and students who are gifted, Young and McIntyre (1992), using Dunn's Learning Style Inventory, found that these two groups of students differed significantly on 8 of the 22 learning style variables. Students with learning disabilities tended to prefer a conventional classroom environment, auditory learning style, and studying in the late morning; they tended to be less motivated, persistent and responsible than their peers who were gifted. Students who were gifted preferred bright light and kinesthetic learning, which seems to be somewhat contradictory to Carbo's (1984) findings that poor readers prefer tactile and kinesthetic learning.

All of the studies discussed above confirm that utilization of perceptual learning styles is closely related to academic success, and that good learners and poor learners have different perceptual learning style preferences. Research on perceptual learning styles in SLA does not focus on these issues.

Perceptual Learning Styles and
Second Language Acquisition

The concept of perceptual learning styles is relatively new in the field of SLA. Oxford, Ehrman, and Lavine (1991) describe the importance of perceptual preference as tremendous in the field of language learning because methodologies in language teaching are strongly related to perceptual preference. For example, the grammar-translation method provides an advantage to the visual learner, the audiolingual method to the auditory learner, the kinesthetic learner may benefit strongly from TPR, and the communicative approach is likely to accommodate learners of various styles. The limited number of studies which have been carried out have focused on the relationship between perceptual learning styles and teaching techniques used in instruction or background variables, such as nationality and major field of study; they have not concentrated on academic achievement.

The earliest study in the field of SLA was done by Reid (1987), who identified learning style preferences of 1,234 ESL learners and 154 native speakers of English in relation to the following variables: language background, major field of study, level of education, TOEFL score, age, sex, and length of time spent in the United States. Six different learning styles were investigated: visual, auditory, kinesthetic, tactile, group, and individual learning. Reid found that ESL students strongly preferred

tactile and kinesthetic learning styles and that most subjects did not favor group learning. Reid also investigated the perceptual learning style preferences of ESL students in six major fields: engineering, medicine, business, computer sciences, humanities, and hard sciences, such as physics and chemistry. In general, kinesthetic learning was chosen as a major learning style preference by students studying in all six fields. Students in humanities were the least visual. Majors in computer science and engineering were significantly more tactile than humanities majors. Students in all six major fields favored individual learning to group learning. The study further indicated that the longer the students had lived in the United States, the more auditory their preference became, resembling the preference of American students (Reid, 1987). However, Reid did not investigate the academic achievement of these ESL learners or whether type of perceptual learning style influenced these students' achievement in foreign language learning.

Pouwels (1992) investigated the effectiveness of vocabulary visual aides for auditory and visual high-school students studying Spanish in the United States. The purpose of the study was to determine whether visual and auditory students would receive differential scores on a vocabulary test after a presentation of vocabulary items using visual aids, which consisted of the picture, written word, and a combination of both picture and written word of

the vocabulary items. Findings showed that auditory students received the lowest scores on the vocabulary test. Visual students and the students who had a preference for both visual and auditory strengths received high scores.

Oxford, Park-Oh, Ito, and Sumrall (1993) investigated the learning style preference of 107 high school students learning Japanese through the medium of satellite television in the United States. The purpose of the study was to investigate the factors that influenced students' achievement in learning Japanese through television. One of these factors was the perceptual learning style preference of students. Results showed that visual students performed significantly better than auditory, tactile and kinesthetic students in achievement. Motivation was directly influenced by perceptual learning styles. Auditory students were the most motivated group followed by visual learners. Students who preferred tactile, kinesthetic or a combination of styles were less motivated.

It seems clear from these studies that when there is a correspondence between teaching technique and learning style preference, achievement is higher. As Oxford et al. (1993) and Pouwels (1992) have demonstrated, visual learners are most successful at learning a foreign language through visual stimuli (television and visual aids). In other words, these studies are only concerned with the relationship between the teaching technique used in

presentation of material and perceptual learning styles. They do not provide insights into the relationship between perceptual learning styles and the learners' achievement in learning English in EFL situations, where students are exposed to a variety of teaching techniques. In addition, these studies have not focused on the relationship between academic achievement and preferences for group and individual learning. Therefore, the purpose of this study is to investigate whether good and poor EFL learners vary in their preferences for perceptual, group, and individual learning styles and how their preferences are related to the type of high school students have graduated from.

CHAPTER 3 METHODOLOGY

Introduction

This study investigated whether there is a difference in perceptual and social learning style preferences of good and poor EFL language learners with relation to type of high school students have graduated from. The learning style preferences of students were identified by means of a questionnaire. Good and poor language learners were determined by the end-of-term assessment scores.

In this chapter the subjects, instruments, procedure, and analytical procedure of the study are discussed in detail.

Subjects

This study was carried out at BUSEL, the preparatory school which prepares students for their academic study in the various departments of Bilkent University, where all the courses are in English. At the beginning of each academic year both the new students and the students who failed the proficiency examination at the end of the previous year take a proficiency exam which is designed by the testing unit at BUSEL. Students who pass this examination go directly into their freshman year in the faculties of the university. Students who fail the examination take a placement test. According to the scores they receive on the placement test, their levels at BUSEL

are determined as foundation, intermediate, upper-intermediate or pre-faculty. Only students at pre-faculty level who have successfully completed their course requirements and passed the pre-faculty end-of-course exam are eligible to take the proficiency test at the end of the year, the passing of which enables them to enter their faculty at Bilkent.

At the end of each eight-week term, students at all levels must receive adequate scores from continuous assessment and an achievement test in order to proceed into the next level. The continuous assessment consists of classroom assessment (a total of five tests on reading, listening, writing, integrated skills, and speaking), an independent study component (a total of six assignments), and teacher assessment (students' class participation and attitude towards learning). The achievement test includes four sections: listening, reading, use of English, and writing. The weight of continuous assessment is 60%, and the weight of the achievement test is 40%. Students must receive a minimum of 60% of the combined scores received from the achievement test and continuous assessment in order to be considered successful. Students who fail do not repeat the level; they are allowed to move up into the next level, but they have to take an intensive course. For example, if a student fails at the intermediate level, the student moves up to upper-intermediate intensive (not upper-intermediate), where the student receives extra hours

of class to catch up with the upper intermediate level.

The subjects for this study were chosen in intact class groups from the upper-intermediate, upper-intermediate intensive, and pre-faculty levels. The higher levels were chosen because the learning style questionnaire was to be administered in English. Thirteen classes were selected by random cluster sampling (Fink & Kosecoff, 1985) out of 84 classes. The learning style questionnaire was administered to the 202 students present in these 13 classes. After inspecting the end-of-term assessment scores of the 202 students, the good and poor language learners were determined. Students who received scores higher than 70% were considered to be good language learners and students receiving scores lower than 55% were taken as poor language learners. As a result, 100 subjects were included in the study.

Instruments

The instruments used in this study include a demographic questionnaire to collect background information, a learning style questionnaire to identify students' learning style preferences (see Appendix A), and the end-of-term assessment scores to determine good and poor language learners. The demographic questionnaire was administered in Turkish, because it was considered preferable to use Turkish words to obtain information about the educational background of students.

The learning style questionnaire, which was taken from Reid (1987), consists of 30 statements on six different learning style preferences, four of which are perceptual learning styles: visual, auditory, tactile, and kinesthetic. The last two learning styles are group learning and individual learning, which belong to the social aspects of learning styles. There are five items referring to each learning style. The subjects were instructed to indicate their degree of preference on a five point Likert Scale: strongly agree, agree, undecided, disagree, strongly disagree. The questionnaire was administered in English so that the validity of the items would not be affected.

This questionnaire was chosen because it had been constructed and validated for non-native English speakers. The validation was done by the split-half method (Reid, 1987). However, Reid (1990) stated that the construct correlation coefficient for the visual items was found to be low and that the validation of the visual items was not re-tested after the problematic visual items were removed. The questionnaire was piloted with a total of 31 students in two different classes to test if the visual items presented any difficulties. Students did not report any problems with these, or any of the other items.

The end-of-term assessment scores for the upper-intermediate, upper-intermediate intensive and pre-faculty levels consist of the achievement test results (weight 40%)

and class assessment scores (weight 60%). The achievement tests of each level were prepared by the testing unit at BUSEL and scored by BUSEL teachers.

Procedure

Permission to administer the demographic and learning style questionnaires was received on April 8. Both questionnaires and a detailed instruction sheet (see Appendix B) on how to carry out the administration of the questionnaires were given to the class teachers of the 13 different classes on April 14, 1994. The teachers were instructed to administer the questionnaires at the beginning of the class hour to the students who were present in the class on that date. The questionnaires were administered at either 8:40 a.m. or 12:40 p.m. Students were informed by their class teachers that taking part in the study was voluntary and that any information would be kept confidential. After students finished filling in personal information on the demographic questionnaire, the directions for the learning style questionnaire were read to them by their class teacher as they followed from their copy. The class teacher insured that they understood how to mark their preferences on the Likert Scale. Students worked on the questionnaire items alone. The administration of both questionnaires together took 20-25 minutes. The questionnaires were collected by the class teachers, put into their envelopes and handed in to the

administrative secretary, who returned them to the researcher.

Analytical Procedure

The data analysis began by determining good and poor language learners according to their end-of-term assessment scores. An item-by-item analysis was carried out to identify the learning style preferences of good and poor language learners. As stated earlier, the learning style questionnaire consists of six sets of five items, each set measuring one of the six learning styles. In order to determine each subject's learning style preference, the five items for each learning style were grouped together and the scores for the five items in each set were added separately. As a result, each subject received a total of six scores, one for each set representing one of the six learning styles. Subjects marked their preferences on a five point Likert Scale (5 points for strongly agree, 4 for agree, 3 for undecided, 2 for disagree, 1 for strongly disagree). Since the highest possible score for a learning style was 25, subjects who received scores from 20 to 25 (80%-100%) for a particular learning style were considered to have a strong preference for that style. Students receiving scores from 20 to 25 for two or more styles were considered to have a strong preference for a combination of styles. Students who did not indicate a strong preference for any of the learning styles were considered to have no

strong preference. The next step was to categorize the subjects into one of six groups for the perceptual learning styles: auditory, visual, kinesthetic, tactile, combination, and no preference, and into one of the three groups for the social learning styles: group, individual, and no preference.

In order to analyze the relationship between type of high school and learning style preferences of good and poor language learners, first, the number of subjects from public and private schools were determined for both good language learners and poor language learners separately. The subjects in each group were, then, categorized according to their learning style preferences.

The Chi-square was used for the statistical analysis of the data to see if there was a significant difference between the learning style preferences of good and poor language learners.

In conclusion, the analysis for this study was carried out in four steps: First, good and poor language learners were determined. Next, an item-by-item analysis of the learning style questionnaire was done to identify the learning style preferences of each subject. Then, the relationship between type of high school and learning style preferences of good and poor language learners was analyzed. Finally, a statistical test was used to find out whether there was a significant difference between the groups.

CHAPTER 4 RESULTS

Introduction

This study aimed at identifying the perceptual learning style preferences of EFL students at BUSEL as well as their preferences for social learning styles. The purpose was to find out whether good and poor language learners have different learning style preferences, and whether there is a relationship between their preferences and the type of high school they graduated from.

The students were first separated into two groups (good language learners and poor language learners) according to their end-of-term assessment scores. Next, the learning style preferences of learners in each group were analyzed. Then, the learning style preferences of both groups were sub-categorized into one of six groups for the perceptual learning styles: auditory, kinesthetic, visual, tactile, combination, and no preference, and into one of three groups for the social learning styles: group, individual, and no preference, depending on each student's learning style preferences. Finally, the relationship between learning style preference and type of high school was analyzed. The Chi-square was used to find out if there was a significant difference in learning style preference between the two groups. In addition, means of the scores given to each learning style were calculated to provide an overview of how the learning style preferences of good and

poor learners ranked. The results of the analysis will be reported and discussed in this chapter.

Data Analysis

Learning Style Preferences of Good and Poor Language Learners

As described in the previous chapter, the learning style questionnaire consists of six sets of five items. Each set measures one of the six learning styles. Students marked their preferences for each item on a five point Likert Scale: strongly agree, agree, undecided, disagree, and strongly disagree. The learning style preferences of students were determined by adding the scores for each of the five items in each set. Thus, students received a total of six scores, one from each set, each score representing one of the six learning styles. The highest total score for each learning style is 25, which is only possible when students mark strongly agree for each of the five items measuring a particular learning style. Students receiving scores from 20 to 25 for a learning style were considered to have a strong preference for that style, because the range from 20 to 25 is 80%-100% of the total score. Students who received scores from 20 to 25 for two or more learning styles were considered to have a strong preference for a combination of styles. A score of below 20 represented no strong preference for any of the learning styles. Because this study is concerned with only strong

preferences, scores below 20 were not taken into consideration.

This study was concerned with two groups: good language learners and poor language learners. After determining the learning style preferences of students in each group, students were placed into one of six sub-groups for the perceptual learning styles: auditory, visual, kinesthetic, tactile, combination, and no preference, and into one of three sub-groups for the social learning styles: group, individual and no preference, according to the scores they had received from the learning style analysis. The results of the Chi-square test showed a significant difference between good and poor language learners for perceptual learning styles $\chi^2(5, N = 100) = 13.06122$, $p < .02281$, and for social learning styles $\chi^2((2, N = 100) = 5.899235$, $p < .05254$.

Table 1 shows the preferences of good and poor language learners for perceptual learning styles. Of the 70 good language learners, more than half (51.4%) of the students indicated a strong preference for a combination of two or more perceptual learning styles. The number of good students who showed a preference for only one perceptual learning style was low ($n = 20$)(see Table 1). Only one fifth (20%) of the good language learners had no strong preference for any of the perceptual learning styles. On the other hand, of the 30 poor language learners, almost half (46.7%) of the students showed no strong preference

for any of the perceptual learning styles. Thirty percent of the poor students indicated a preference for a combination of perceptual learning styles. Although strong preference for any one perceptual style was low ($n = 7$), poor learners seemed to prefer auditory learning the most (13.3%).

Table 1

Perceptual Learning Style Preferences of Good and Poor Language Learners

Styles	Good LL $N = 70$		Poor LL $N = 30$	
	f	$\%$	f	$\%$
Auditory	4	5.7	4	13.3
Kinesthetic	7	10.0	0	00.0
Visual	6	8.6	1	3.3
Tactile	3	4.3	2	6.7
Combination	36	51.4	9	30.0
No preference	14	20.0	14	46.7

Note. LL = Language Learner

Good language learners tended to prefer kinesthetic (10%) and visual (8.6%) the most, whereas poor language learners

did not strongly prefer these styles. Preferences for tactile learning were low for both groups (see Table 1).

Table 2 shows the preferences of good and poor language learners for group and individual learning styles.

Table 2

Social Learning Style Preferences of Good and Poor Language Learners

Styles	Good LL N = 70		Poor LL N = 30	
	f	%	f	%
Group	13	18.6	11	33.3
Individual	34	48.6	6	23.3
No preference	23	32.9	13	43.3

Note. LL = Language Learner.

Almost half (48.6%) of the good language learners had a strong preference for individual learning, whereas preferences for group learning was less than one fifth (18.6%) of the good language learners. The poor language learners, however, indicated a high percentage (43.3%) of no preference for group and individual learning. Group learning was favored by more poor learners than individual

learning (33.3% to 23.3% respectively).

In order to calculate the mean score for each learning style, the scores for each subject were calculated. As a result, each student received a total of six scores: one for each learning style. All the scores for each learning style were then added and divided by the total number of subjects. Table 3 shows the mean scores for learning style preferences of good and poor language learners.

Table 3

Mean Scores for Learning Style Preferences of Good and Poor Language Learners

Styles	Good LL	Poor LL	
	<u>N</u> = 70	<u>N</u> = 30	
	<u>M</u>		<u>M</u>
Auditory	18.93	Auditory	19.00
Kinesthetic	18.80	Kinesthetic	18.41
Individual	18.77	Group	17.21
Visual	18.40	Visual	17.20
Tactile	18.31	Tactile	17.13
Group	15.07	Individual	16.93

Note: LL = Language Learner

The mean scores for the perceptual learning style

preferences of good language learners are high and very close, which indicates that many good language learners had a high level of preference for perceptual learning styles, with auditory learning slightly more favored than the other perceptual learning styles. However, the great difference between group ($\bar{M} = 15.07$) and individual ($\bar{M} = 18.77$) learning is striking, which indicates that group learning is a much less favored style for good language learners. The mean scores for poor language learners indicate that they preferred auditory and kinesthetic learning more than visual and tactile learning: auditory ($\bar{M} = 19.00$) and kinesthetic ($\bar{M} = 18.41$). Individual learning is the least favored learning style ($\bar{M} = 16.93$). However, it is interesting that the scores for perceptual learning styles fall into the same rank order for both good and poor language learners. The only difference is for group and individual learning (see Table 3). For good language learners individual learning was the third most preferred style of all, and group learning was, by a wide margin, the least favored. In contrast, for poor language learners group learning was the third most favored style, and individual learning the least preferred.

In conclusion, good and poor language learners do show differences in their preferences for perceptual and social learning styles. Good language learners have a strong preference for individual learning and a combination of perceptual learning styles, whereas poor language learners

favor group learning to individual learning and usually do not have a strong preference for any perceptual learning style. However, it has not been determined whether each good language learner with a preference for a combination of perceptual learning styles also favored individual learning, or the reverse, or whether each poor language learner that indicated no strong preference for any perceptual style also favored group learning, or the reverse.

Relationship Between Type of High School and Learning Style Preferences of Good and Poor Learners

In order to find out whether good and poor language learners' preferences for learning styles were affected by type of high school, students in each of the two main groups (i.e., good and poor language learners) were categorized according to the type of high school (i.e., public or private) they had graduated from. In the good language learner group there were 32 public school graduates and 38 private school graduates. The poor language learner group consisted of 13 public school graduates and 17 private school graduates. The learning style preferences of these four groups are shown in Table 4, Table 5, Table 6, and Table 7.

The Chi-square test for the relationship between type of high school and perceptual learning style preferences of good and poor language learners was not significant. For good language learners $\chi^2(5, N = 70) = 9.42800, p < .09317$

and for poor language learners $\chi^2(4, N = 30) = 2.76988$, $p < .59704$. This may have been due to the small sample size of poor language learners. However, there were some interesting results. Most of the good language learners that preferred a combination of perceptual learning styles (68.8%) came from public schools, whereas only 36.8% of the good learners from private schools had a preference for a combination of perceptual learning styles.

Table 4

Type of High School and Perceptual Learning Style
Preferences of Good Language Learners

Styles	Public School N = 32		Private School N = 38	
	f	%	f	%
Auditory	2	6.3	2	5.3
Kinesthetic	2	6.3	5	13.2
Visual	1	3.1	5	13.2
Tactile	0	0.0	3	7.9
Combination	22	68.8	14	36.8
No preference	5	15.6	9	23.7

More good learners with no strong preference for any perceptual learning style were from private schools (23.7%) than public schools (15.6%). Public school graduates had a very low preference for only one perceptual learning style ($n = 5$). Private school graduates, however, seemed to prefer kinesthetic, visual, and tactile learning more than public school graduates (see Table 4).

Table 5

Type of High School and the Perceptual Learning Style Preferences of Poor Language Learners

Styles	Public School $N = 13$		Private School $N = 17$	
	f	$\%$	f	$\%$
Auditory	1	7.7	3	17.6
Kinesthetic	0	00.0	0	00.0
Visual	1	7.7	0	00.0
Tactile	1	7.7	1	5.9
Combination	5	38.5	4	23.5
No Preference	5	38.5	9	52.9

More than half (52.9%) of the poor language learners from private schools demonstrated no strong preference for

any of the perceptual learning styles. In contrast, an equal number of poor learners from public schools had a preference for both a combination of styles and no preference for any perceptual style. Preferences for only one perceptual style were low for both public and private school graduates (see Table 5).

Table 6

Type of High School and Social Learning Style Preferences of Good Language Learners

Styles	Public School N = 32		Private school N = 38	
	f	%	f	%
Group	4	12.5	9	23.7
Individual	17	53.1	17	44.7
No Preference	11	34.4	12	31.6

The Chi-square test for the relationship between type of high school and group and individual learning style preferences of good and poor language learners was not significant. For good language learners $\chi^2(2, N = 70) = 1.46302, p < .48118$ and for poor language learners $\chi^2(2, N = 30) = 3.97245, p < .13721$. Good language learners from

both public and private schools had a preference for individual learning, but public school graduates (53.1%) had a higher percentage than private school graduates (44.7%) (see Table 6). Private school graduates exhibited a higher preference for group learning than public school graduates. No strong preference for either group or individual learning was almost the same for both public and private school graduates (see Table 6).

Table 7

Type of High School and Social Learning Style Preferences of Poor Language Learners

Styles	Public School N = 13		Private School N = 17	
	f	%	f	%
Group	2	15.4	8	47.1
Individual	3	23.1	4	23.5
No Preference	8	61.5	5	29.4

The majority of the poor language learners from public schools indicated no strong preference (61.5%) for group or individual learning, and there was a slight tendency for individual learning (see Table 7). Poor language learners

from private schools, however, favored group learning (47.1%).

Table 8 shows the mean scores for learning style preferences of good language learners from public and private high schools. The mean scores for good language learners show that students who came from public schools had a preference for a combination of auditory, kinesthetic, and visual learning with auditory learning the most favored (\bar{M} = 19.40). Individual learning (\bar{M} = 18.73) ranked second after auditory learning, and group learning was the least favored style.

Table 8

Mean Scores for Type of High School and Learning Style Preferences of Good Language Learners

Styles	Public School	Styles	Private School
	\bar{M}		\bar{M}
Auditory	19.40	Kinesthetic	18.97
Individual	18.73	Tactile	18.76
Visual	18.69	Auditory	18.51
Kinesthetic	18.59	Visual	18.16
Tactile	17.77	Individual	18.00
Group	14.12	Group	15.96

Mean scores for private school students show that preferences for all the perceptual styles were almost the same, with kinesthetic learning slightly the most favored. Students from private school were more tactile than public school students. The mean score indicates that private school preference for individual learning was high, although it ranked fifth compared to the other learning styles. For good language learners from both public and private schools, group learning was the least favored style; the mean scores for group learning were much lower for both groups than the other style preferences (see Table 8).

Table 9 shows the mean scores for learning style preferences of poor language learners from public and private high schools. Poor language learners from public schools favored auditory learning the most ($\bar{M} = 19.23$), followed by kinesthetic learning ($\bar{M} = 18.33$). Individual learning ($\bar{M} = 16.38$) was the least favored style. Private school students also showed a preference for auditory and kinesthetic learning, with auditory learning only slightly more favored. Visual learning ($\bar{M} = 16.88$) was the least favored style. Group learning ranked third, just before individual learning.

Table 9

Mean Scores for Type of High School and Learning Style Preferences of Poor Language Learners

Styles	Public School <u>M</u>	Styles	Private School <u>M</u>
Auditory	19.23	Auditory	18.83
Kinesthetic	18.33	Kinesthetic	18.47
Visual	17.62	Group	17.35
Tactile	17.25	Individual	17.31
Group	17.08	Tactile	17.06
Individual	16.38	Visual	16.88

To conclude, results of the analysis showed that good language learners from public schools had a preference for a combination of perceptual styles and favored individual learning while good learners from private schools indicated only half as much preference for a combination of perceptual learning styles and tended to have no preference for a particular perceptual style more frequently than good public school graduates. Good language learners from private schools also favored individual learning, but not as much as good public school graduates. Poor language learners from public schools had no strong preference for group or individual learning. Poor learners from private

schools had no strong preference for any one of the perceptual learning styles and favored group learning.

CHAPTER 5 DISCUSSION OF FINDINGS AND CONCLUSIONS

Summary of the Study

This study identified the perceptual and social learning style preferences of good and poor language learners studying at BUSEL. The learning style preferences of students were analyzed in four stages. First, good and poor language learners were determined. Then, the learning style preferences of learners in these two groups were analyzed. Next, the relationship between students' learning style preferences and type of high school were analyzed. Finally, a statistical test was run to find out if there was a statistically significant difference between the learning style preferences of good and poor language learners.

The first question addressed in this study was whether good and poor language learners have different learning style preferences. The results of the study showed significant differences between the learning style preferences of these two groups of learners. The second question was whether there was a relationship between learning style preferences of good and poor language learners and the type of high school they had graduated from. Results of the study did not support any relationship between type of high school and learning style preferences of good and poor language learners.

Discussion and Implications

The purpose of this study was to investigate whether students' learning style preferences had an effect on foreign language achievement in order to find a possible answer as to why some students at BUSEL have difficulties in learning English.

The results of the study indicated that good and poor language learners have different learning style preferences. The analysis revealed that successful students preferred a combination of perceptual learning styles while poor language learners tended not to have a strong preference for any of the perceptual learning styles. O'Brien (1990) reported similar characteristics among the gifted and the learning disabled: with the gifted group all three perceptual strengths (i.e., auditory, visual, and haptic) are developed, and the gifted learner uses the appropriate one to accomplish the particular learning task. On the other hand, with the learning disabled preferences for perceptual style have not yet been developed. As a result, the learning disabled do not seem to have a clearly defined style for processing information. In other words, good language learners use multiple styles to learn. The teaching of English in EFL situations requires students to perform a number of skills and activities (e.g., listening, reading, role-plays), good language learners are able to use the perceptual strength that best suits the task. Poor language learners, however,

are not able to switch from one style to another because they do not have a clear preference for any perceptual style. It is no wonder poor learners often complain that they do not know how to study. In order to help slow learners, results of this study may raise awareness of teachers in considering the role of perceptual learning styles in foreign language learning/teaching. For example, teachers may choose to use the white board more often or make use of the OHP for visual learners, or elements of TPR may be used for kinesthetic learners. In addition, student counsellors may help slow learners by explaining to the learner how their own learning style relates to their way of studying. For example, the auditory learner may be advised to read out loud while studying. Moreover, action may be taken to strengthen a style the learner is weak in by providing the learner with activities to experiment with that particular style.

This study further indicated that good language learners strongly preferred individual learning while poor language learners favored group learning. In other words, good language learners claim they learn best when they work alone, which implies that these learners are able to organize their study; they have a fairly good idea of what they know, and what areas they need further studying in. Moreover, they are generally confident of the way they learn. Many language teachers may not approve of individual learning in the class-room. However, this

preference provides advantages to the learner in terms of self-directed learning. Research in this direction has already indicated that students become better learners when they are given autonomy in the language learning process (Wenden, 1991).

At first glance, the poor language learners' preference for group learning may seem to be an indication that these learners like to interact with peers, and that it is a good characteristic since many teachers favor group activities in the foreign language class. However, from the poor language learners' point of view what seems to be a good trait does not actually seem to have helped them to increase their achievement. This may mean that these students do not necessarily prefer group learning to enhance the learning process, but have come to rely on quick and easy information which they can get from peers in the group. Another problem for this group of language learners may be that they do not know how to make use of the information obtained from group interactions since they may also need to develop skills in how to organize and direct their study.

Implications for language school administrators might be to work towards self-directed learning and focus on how to help the learner become a better learner. In this direction learner autonomy can be recommended as an objective in language programs, where teachers help students learn how to learn.

Although the statistical analysis showed there is no significant relationship between type of high school and learning style preferences of good and poor language learners, findings of the study showed that good language learners from public schools preferred a combination of perceptual learning styles and favored individual learning more than private school graduates, and that poor language learners from private schools indicated no style preference for perceptual learning and seemed to prefer group learning more frequently than public school graduates. The reason for this may be due to the differences in methodologies employed in public and private schools. Students are usually taught with more traditional methods in public schools. Students who came from public schools may have only had a chance to develop individual learning since exposure to group activities in these schools might be rare due to crowded classes. In contrast, private school graduates may have been exposed to group activities during their language classes throughout their high school years, thus developing an awareness of and a preference for group learning. Implications for teachers may be to help students strengthen the style they are weak in since both group and individual learning play an important role in foreign language learning.

In conclusion, the results of the study may help raise awareness of learning styles. This should lead teachers to consider planning activities and materials to accommodate

classes consisting of students with various learning styles.

Limitations of the Study

The analysis of the learning style questionnaire revealed that some students had given conflicting answers to some of the items in the questionnaire. For example, in a few cases students marked strongly agree for most of the items in the questionnaire. These rare cases were excluded from the study. Nevertheless, these incidents raised the question of how seriously the students had taken the study. In addition, a questionnaire in the students' native language would have eliminated any consideration of the language barrier.

The number of subjects involved in the study may not make it possible to generalize the results. However, the study provides a good base as a pilot indicating that further investigation with a large number of subjects would contribute valuable information.

Implications for Further Research

Results for the relationship between type of high school and learning style preferences of good and poor language learners were not significant. Nevertheless, the study suggests that there is a possible difference between public and private school graduates. Further investigation might provide interesting results as to the individual

differences of students in both groups. Other areas that might provide useful information are whether learning style preferences change according to the level of students or whether there is a relationship between learning style preferences and family background. Furthermore, case studies may provide valuable information on whether there is a relationship between perceptual learning styles and group and individual learning.

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Appendix A

Perceptual Learning Style Preference Questionnaire

ADI SOYADI: _____

MEZUN OLDUĞU LİSE TİPİ:

devlet lisesi Anadolu Lisesi veya kolej diğer _____

ANNENİN EĞİTİM DURUMU:

ilk orta lise yüksek diğer _____

BABANIN EĞİTİM DURUMU:

ilk orta lise yüksek diğer _____

İDMYO' DA KAÇINCI YILINIZ:

birinci ikinci üçüncü diğer _____

KAYITLI OLDUĞUNUZ FAKÜLTE VEYA YÜKSEK OKUL:

DIRECTIONS

People learn in many different ways. For example, some people learn primarily with their eyes (visual learners) or with their ears (auditory learners); some people prefer to learn by experience and / or by "hands-on" tasks (kinesthetic or tactile learners); some people learn better when they work alone, while others prefer to work in groups.

This questionnaire has been designed to help you identify the way(s) you learn best - the way(s) you prefer to learn.

Read each statement on the following pages. Please respond to the statements as they apply to your study of English. Decide whether you agree or disagree with each statement. For example, if you strongly agree, mark:

a- strongly agree b- agree c- undecided d- disagree f- strongly disagree

Please respond to each statement quickly, without too much thought. Try not to change your responses after you choose them. Please use a pen to mark your choices.

QUESTIONNAIRE STATEMENTS

- 1) When the teacher tells me the instructions, I understand better.
a- strongly agree b- agree c- undecided d- disagree f- strongly disagree
- 2) I prefer to learn by doing something in class.
a- strongly agree b- agree c- undecided d- disagree f- strongly disagree
- 3) I get more work done when I work with others.
a- strongly agree b- agree c- undecided d- disagree f- strongly disagree
- 4) I learn better in class when the teacher gives a lecture.
a- strongly agree b- agree c- undecided d- disagree f- strongly disagree
- 5) In class, I learn best when I work with others.
a- strongly agree b- agree c- undecided d- disagree f- strongly disagree
- 6) I learn better by reading what the teacher writes on the blackboard.
a- strongly agree b- agree c- undecided d- disagree f- strongly disagree
- 7) When someone tells me how to do something in class, I learn it better.
a- strongly agree b- agree c- undecided d- disagree f- strongly disagree
- 8) When I do things in class, I learn better.
a- strongly agree b- agree c- undecided d- disagree f- strongly disagree
- 9) I remember things I have heard in class better than things I have read.
a- strongly agree b- agree c- undecided d- disagree f- strongly disagree
- 10) When I read instructions, I remember them better.
a- strongly agree b- agree c- undecided d- disagree f- strongly disagree
- 11) I learn more when I can make a model of something.
a- strongly agree b- agree c- undecided d- disagree f- strongly disagree
- 12) I understand better when I read instructions.
a- strongly agree b- agree c- undecided d- disagree f- strongly disagree
- 13) When I study alone, I remember things better,
a- strongly agree b- agree c- undecided d- disagree f- strongly disagree
- 14) I learn more when I make something for a class project.
a- strongly agree b- agree c- undecided d- disagree f- strongly disagree
- 15) I enjoy learning in class by doing experiments.
a- strongly agree b- agree c- undecided d- disagree f- strongly disagree

- 16) I learn better when I make drawings as I study.
a- strongly agree b- agree c- undecided d- disagree f- strongly disagree
- 17) I learn more when I study with a group.
a- strongly agree b- agree c- undecided d- disagree f- strongly disagree
- 18) When I work alone, I learn better.
a- strongly agree b- agree c- undecided d- disagree f- strongly disagree
- 19) I understand things better in class when I participate in role playing.
a- strongly agree b- agree c- undecided d- disagree f- strongly disagree
- 20) I learn better in class when I listen to someone.
a- strongly agree b- agree c- undecided d- disagree f- strongly disagree
- 21) I enjoy working on an assignment with two or three classmates.
a- strongly agree b- agree c- undecided d- disagree f- strongly disagree
- 22) When I build something I remember what I have learned better.
a- strongly agree b- agree c- undecided d- disagree f- strongly disagree
- 23) I prefer to study with others.
a- strongly agree b- agree c- undecided d- disagree f- strongly disagree
- 24) I learn better by reading than by listening to someone.
a- strongly agree b- agree c- undecided d- disagree f- strongly disagree
- 25) I enjoy making something for a class project.
a- strongly agree b- agree c- undecided d- disagree f- strongly disagree
- 26) I learn best in class when I can participate in related activities.
a- strongly agree b- agree c- undecided d- disagree f- strongly disagree
- 27) In class, I work better when I work alone.
a- strongly agree b- agree c- undecided d- disagree f- strongly disagree
- 28) I prefer working on projects by myself.
a- strongly agree b- agree c- undecided d- disagree f- strongly disagree
- 29) I learn more by reading textbooks than by listening to lectures.
a- strongly agree b- agree c- undecided d- disagree f- strongly disagree
- 30) I prefer to work by myself.
a- strongly agree b- agree c- undecided d- disagree f- strongly disagree

Appendix B

Instructions for the Administration of
Perceptual Learning Style Preference Questionnaire

To the teacher:

- 1- Please read/tell the information below to the students.
- 2- Hand out the questionnaire.
- 3- Tell students to fill in personal information, which is on the front page of the questionnaire.
- 4- Read the DIRECTIONS to the students. Let students follow from their copy as you read. Answer questions if they do not understand how to complete the questionnaire.
- 5- Students should answer Questionnaire Statements alone.
- 6- Please make notes of any problems and / or questions the students have asked you on the back of this page.

Thank you for your cooperation.

By way of information, my name is Isik Tezic and I am a student in the Master's of Arts in the Teaching of English as a Foreign Language Program at Bilkent University. I am doing research on Learning Styles.

Let me assure you that any information given to me is confidential. None of it will be released in any way that will permit the identification of individuals who participate. Cooperation is, of course, voluntary. However, I hope you will

seriously consider taking part in this study.

If you have any questions, please call the M.A. TEFL Program at Bilkent University, 266 40 40 ext. 1561.

Sincerely,

Isik Tezic