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**The Relationship among Learning Styles, Language  
Learning Strategies, and the Academic Achievement among  
the English Majors at Al-Aqsa University**

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### نتيجة الحكم على أطروحة ماجستير

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#### The Relationship among Learning Styles, Language Learning Strategies, and the Academic Achievement among the English Majors at Al-Aqsa University

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واللجنة إذ تمنحه هذه الدرجة فإنها توصيه بتقوى الله وازوم طاعته وأن يسفر علمه في خدمة دينه ووطنه.

والله ولي التوفيق ،،،

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د. زياد إبراهيم مقداد

## Dedication

To the soul of my father in his eternal existence.

To my mother the perpetual resort of care and sustenance.

To my beloved wife for her precious love ,support and patience .

To my kids ,my eye on the future , whose burden worths endurance.

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# **The Relationship among Learning Styles, Language Learning Strategies, and the Academic Achievement among the English Majors at Al-Aqsa University**

## **Abstract**

This thesis aims to identify the learning styles and learning strategies of students, to check whether there are significant differences in the learning style and strategy preferences between male and female learners, and investigate whether there is a relationship between students' learning style , strategy preferences and the academic achievement among the third year English majors at Al Aqsa University. A total of 60 students were asked to complete two questionnaires. One was used to identify students' perceptual learning style preferences and the other was used to identify students' learning strategies. In addition, an achievement test was held to determine the students' level, and then correlate results with the learning style preferences , language learning strategies and the academic achievement.

When the responses that the participants gave to the questionnaire mentioned above were analyzed, it seemed that only the mean scores of two learning style preference categories, kinesthetic being 22.567 with percent weight 90.27 and tactile learning, 20.567 with percent weight 82.27 respectively, fall into the major learning style preferences category . The third rank was occupied by the group learning style with percent weight 79.80 . The fourth rank was the visual style (minor learning style) with percent weigh 78.80. The fifth rank was for the auditory style (minor learning style) with percent weight 78.60. The sixth rank which is the (negligible learning style) preferences was for the individual learners with percent weight 54.73

Furthermore, there are statistically significant differences between male and female in visual, auditory and individual learning, towards female, and in Group learning towards male, and there are no statistically significant differences between male and female in kinaesthetic, tactile and the summation degree .

The analysis of the second questionnaire revealed that metacognitive strategies were favoured the most. The results showed that there are no statistically significant differences between male and female in all domains of strategy use , and the total degree of the domains, except Compensation Strategies towards male.

From the analysis of the results of the achievement test and their correlation with the students' learning styles , it was found that there are statistically significant correlation coefficient between achievement and auditory and total degree of style , but there are no statistically significant correlation coefficient between achievement and visual, kinaesthaetic, tactile, group learning, and individual learning.

When the students' achievement test results were correlated with their learning strategies, it was shown that there are statistically significant correlation coefficient between achievement and all strategies except Part C - compensation strategies.

The analysis with respect to the relationship between learning styles and learning strategies revealed that there are no statistically significant correlation coefficient between all strategies and all styles except part A - memory strategies with kinaesthetic style (positive relation) , and Part C- Compensation Strategies with visual style (negative relation) , and group learning style with part C- compensation strategies ( positive relation).

## العلاقة بين أنماط التعلم وإستراتيجيات تعلم اللغة والتحصيل الأكاديمي لدى طلاب اللغة

### الإنجليزية بجامعة الأقصى

#### ملخص الدراسة

يهدف هذا البحث للتعرف على أنماط واستراتيجيات التعلم لدى الطلاب والتعرف على ما إذا كان هناك اختلافات ذات دلالة إحصائية بين أنماط التعلم واستراتيجيات التعلم بين الذكور والإناث ، والتحقق إذا ما كان هناك علاقة بين أنماط التعلم ، واستراتيجيات التعلم والتحصيل الأكاديمي لدى طلبة اللغة الانجليزية السنة الثالثة في جامعة الأقصى . لقد طلب من 60 طالبا أن يجيبوا على استبانتين. استخدمت الأولى للتعرف على أنماط الطلبة في التعلم والأخرى للتعرف على استراتيجيات التعلم . بالإضافة إلى ذلك ، عقد اختبار تحصيلي للتعرف على مستوى الطلبة ، ومن ثم ربط النتائج مع أنماط التعلم واستراتيجيات التعلم و التحصيل الأكاديمي لدى الطلبة .

وعند تحليل النتائج وجد أن أعلى متوسط النتائج في استبانة الأنماط كان لصالح نمطي التعلم الحس حركي بنسبة 90.27 والتعلم الحسي المرتبة الثانية بنسبة 82.27 . المرتبة الثالثة احتلت من قبل نمط التعلم الجماعي بنسبة 79.80 و المرتبة الرابعة كانت لصالح النمط البصري بنسبة 78.80 وأما المرتبة الخامسة كانت لصالح النمط السمعي بنسبة 78.60 ، وأما المرتبة الأخيرة كانت لصالح النمط التعليمي الفردي بنسبة 54.73 .

ولقد وجدت فروق ذات دلالة احصائية بين الذكور والإناث في النمط التعليمي البصري والفردي والسمعي لصالح الإناث وفي التعلم الجماعي لصالح الذكور ، ولم يوجد هناك فروق بين الذكور والإناث في التعلم اللمسي والحس حركي والدرجة الكلية .

لقد كشف تحليل الاستبانة الثانية بأن استراتيجيات التعلم الفوق معرفية كانت المفضلة بالشكل الأكبر لدى الطلاب. وقد كشفت النتائج بأنه لم يكن هناك أي فروق ذات دلالة احصائية بين الذكور والإناث في كل مجالات الاستراتيجيات والدرجة الكلية لكل مجالات الاستبانة عدا الاستراتيجيات التعويضية لصالح الذكور .

ومن خلال تحليل نتائج الاختبار التحصيلي وارتباط علاقتها مع أنماط التعلم لدى الطلاب ، وجد بأنه هناك ارتباطات ذات علاقة احصائية بين التحصيل والنمط السمعي وكذلك الدرجة

الكلية للأنماط ، ولكنه لم يوجد أي علاقة ذات دلالة إحصائية بين التحصيل والنمط البصري والنفس حركي والمسي والجماعي والتعلم الفردي .

وعند إيجاد علاقة بين نتائج الاختبار التحصيلي ومع استراتيجيات التعلم وجد بأنه هناك علاقة ذات دلالة إحصائية بين التحصيل وكل الاستراتيجيات عدا الإستراتيجية التعويضية .

ومن خلال تحليل العلاقة بين أنماط التعلم واستراتيجيات التعلم لم يكن هناك أي علاقة ذات دلالة إحصائية بين كل الاستراتيجيات وكل الأنماط عدا وجود علاقة ايجابية بين إستراتيجية التذكر والنمط النفس حركي ، وعلاقة ايجابية بين التعلم الجماعي والاستراتيجيات التعويضية . وعلاقة سلبية بين الإستراتيجية التعويضية والنمط البصري .



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# Chapter I

## INTRODUCTION

## **Introduction**

### **INTRODUCTION**

This chapter presents a background to the study followed by the purpose and the significance of the study. The, research questions are stated and the limitations to the study are presented along with the definitions of terms.

#### **Background to the Study**

During the last couple of decades the world has been concerned with cultural, social, political and technological changes. In order to keep up with those changes, people have had to meet the needs created by all these changes. Language learning is one of the most important needs and it has become an essential component in people's lives. People all over the world are trying to learn a second, even a third language in order to cope with these changes.

Due to the immature development of in-depth research of learning styles and learning strategies in Palestine, and particularly in the Gaza Strip, there has always been poor or absence of information on the kind of learning styles and language learning strategies adopted by the Palestinian students particularly in learning a foreign language, hence, the efforts of the educational system to identify learners' styles and strategies and therefore to employ these information in developing these strategies, failed to create a basis for a solid learning styles and strategies among our students, and consequently, affecting their academic achievement .

In most of the research on language learning strategies, the primary concern has been on identifying what good language learners do to learn a second or foreign language. Like general learning strategies, English language learning strategies include those techniques that learners use to remember what they have learnt- their storage and retrieval of new

information (Rubin, 1987, p. 19). LLSs also include receptive strategies which deal with receiving the message and productive strategies which relate to communication (Brown, 1994; Chamot & Kupper, 1989). LLSs have been classified into several different ways. O'Malley et al (1985a, pp. 582-584) categorized strategies into metacognitive, cognitive and socioaffective. They found that most importance was given to the metacognitive strategies ,that is those that have planning, directing or monitoring). Oxford (1990a) indicated that LLSs, are steps taken by the learners in order to improve language training and develop language competence.

The researcher has been an English teacher at the Ministry of Education in the Gaza Strip since the coming of Palestinian National Authority. On reviewing the training plan which has been going on for the past 10 years at schools, there was no training courses directed to introduce the students to learning strategies in one hand, and on the other hand assist the students to identify their learning style preferences and link them to the appropriate learning strategies.

Research shows that if teachers can give students instructions relevant to their learning styles, the performances are usually better (Dunn and Price 1979; O'Brien 1989; Oxford and Ehrman 1993). When the learners' learning styles are matched congenial with the instructional styles, their motivation, performances, and attainments will be enhanced(Brown 1994). This evidently shows how the learning styles would correlate with the learning strategies provided there is a significant level of involvement of the teachers in Palestine into generating instructions relevant to the students' learning styles. This, therefore, explains why there is no correlation between learning styles and learning strategies on this research which is attributed to the lack of interventions from the teachers side into the developing the learning strategies of the students.

From the research to date, it is evident that all language learners use language learning strategies of some kind; however, the frequency and

variety of use vary between different learners and depend on a number of variables (Chamot & Kupper, 1989). In general, it is agreed that the use of language learning strategies is positively related to language proficiency. In the Palestinian case, the long occupation, the eruption of the two Intifadas and the ongoing political conflict particularly in the Gaza Strip has always negatively impacted on the learning process in general and on the learning of a foreign language in particular.

It appears that good language learners orchestrate and combine their use of particular types of strategies in effective ways (Chamot & Kupper, 1989; O'Malley and Chamot, 1990; Oxford, 1993). Research has indicated that more proficient learners seem to employ a variety of strategies in many situations than do less proficient learners. Rossi (1989) found that more proficient EFL students used self-management strategies such as planning, evaluation and formal practice significantly more often than less proficient students.

Investigations involving language learners often showed that the most successful learners tended to use learning strategies that are suitable to the task, material, self-objective, needs, motivation and stage of learning (Oxford, 1990b). Good language learners seemed to possess abilities to succeed while others lacked those abilities (Rubin & Thompson 1994). Good learners, according to them, can find their own way by taking charge of their learning, organizing their language information and making their own opportunities for practicing using the language. In addition, they use linguistic knowledge and contextual cues to help them in comprehension while learning a foreign language.

English as an international language has been taught in almost all countries in the world. Here in Palestine, English is a foreign language which is a compulsory subject to be taught in all schools from elementary to upper secondary schools. However, we have seen that the proficiency in English of secondary school as well as university graduates still creates disappointment among teachers themselves as well as parents. The unsatisfying quality of

English in Palestine in general and in the Gaza Strip in particular, of course is related to various different variables.

Researchers in the field have been trying to find out teaching methods, classroom techniques, and instructional materials that will promote better language learning. However, in spite of all these efforts there has been a growing concern that learners have not progressed as much as it was anticipated. Because there are considerable individual differences in language learning such as gender, age, social status, motivation, attitude, aptitude, culture, etc.; what works for one learner might not work for another. Therefore, none of the methods and techniques has proved that they can work all the time, in all classes, with all students. As a result, it might be appropriate to comply with Grenfell and Harris' (1999) statement that *"Methodology alone can never be a solution to language learning. Rather it is an aid and suggestion"* (p. 10).

Having reached this conclusion some other people in the field changed the focus from the language teaching methodology to the language learner and the variables that affect language learning. This shift of the focal point has led to an increase in the number of studies carried out regarding learner characteristics and foreign or second language learning. Language Learning Strategies (LLS) and learning styles have been two of the most popular aspects researchers have focused on. However, they have not been investigated on their own. Some other variables that affect them such as gender, achievement, motivation, career orientation, national origin, aptitude, etc. have also been taken into consideration while doing research in order to reveal whether there is any relationship between the language learning strategies choice , the preferred learning styles and variables.

Oxford (1989) offers a synthesis of the studies carried out regarding the LLS and the variables that affect strategy choice. She presents the results of studies carried out with respects to LLS choice and language being learned, duration, degree of awareness, age, and gender, affective variables such as attitudes, motivational level, personality characteristics, and general

personality type. Learning styles is another variable but Oxford asserts that “little research has been dedicated to the relationship between learning strategy use, learning style and academic achievement (p. 241). Furthermore, among the numerous recommendations resulting from the survey willing (1988) conducted with respect to the learning styles in adult migrant education, a similar recommendation was proposed. It is hoped that classroom practice will become geared to the developing of good and appropriate learning strategies (to a much greater degree than at present). This means:

- a) Exploration of strategies which learners are already making use of, which derive from their previous education and their own cognitive individuality; this exploration can be done through questionnaire and discussion.
- b) Exploration of the relation between individual learning style and the person’s existing strategies. (Willing, 1988, p. 172)

Therefore, this study aims at investigating the individual learning style preferences of learners, the language learning strategies they prefer to use, and to investigate whether a relationship amongst language learning strategies , learning styles and academic achievement exists.

### **Need for the study**

The idea of this study emerges from the immature development of in-depth research of learning styles and learning strategies in Palestine, and particularly in the Gaza Strip, there has always been poor or absence of information on the kind of learning strategies adopted by the Palestinian students particularly in learning a foreign language,

The absence of efforts of the educational system to identify learners' styles and strategies and therefore to employ these styles and strategies, and

correlate these with the students' academic achievement created the need of such a study.

Again, we need to address that the fact that there is very limited or even absence of continuing development training for students in self management strategies as planning, self evaluation and formal practice in order to make the achievement of the language learners higher .

### **The purpose of the study**

The purpose of this study is to investigate both the individual learning style preferences of learners and the language learning strategies they prefer to use, and to reveal whether there is a relationship amongst language learning strategies, learning styles and the academic achievement among the third year English majors at Al Aqsa University. In addition to these, this study aims at finding out whether there are significant differences in the perceptual learning style and language learning strategy preferences between male and female students.

### **Significance of the study:**

This study hopes to contribute to a comprehension of the relationship between learning styles, language learning strategies and the academic achievement among the third year English majors at Al Aqsa University. Though limited in number, the studies conducted with respect to the topic under discussion in the current study show that there is a strong relationship between an individual's learning styles , language learning strategies and the academic achievement among the English language learners. This study might prove useful to both language teachers and learners because it might raise teachers' awareness concerning their own learning and teaching styles.

It is known that most teachers tend to teach in the way they were taught or in the way they preferred to learn. Sometimes conflicts might arise because of a mismatch between the teacher's teaching style and learner's learning styles, which might have negative consequences both on the part of

the learner and teacher. For this reason, as Stebbins (1995) asserts teachers should know the general learning style profiles of the whole class, which will enable them to organize and employ instructional materials accordingly.

Raising students' awareness regarding their learning styles and strategies might make them not only more prepared for learning but also more analytic about their learning styles and the strategies they make use of. Reid (1995) states that developing an understanding of learning environments and styles "will enable students to take control of their learning and to maximize their potential for learning" (p. xiv).

This study might also prove useful to the curriculum developers and material producers. Because teachers need to have enough time in the curriculum dedicated to both the identification of learners' learning styles and strategies and learner training activities, curriculum developers will be able to allocate sufficient time for the training sessions. Similarly, knowing students' general preference tendencies might enable material developers to produce materials that both match students' learning styles and help them manipulate beneficial strategies. In other words, teachers may have enough time not only to identify their students' styles and strategies, they might become capable of integrating appropriate materials and activities that match the learners' learning styles and they can have better opportunities to assess and guide the learners with respect to learning strategies manipulated in various situations.

The conclusion which Kinsella (1995) reaches in her article is also valid for this study. She suggests that teachers should go far beyond the instructional modifications in their efforts "to create democratic learning environments"; they should also pursue and cooperate with other colleagues to provide practices that will aid learners find out the obstacles which limit their potentials in the academic life and society, and they should equip all of the students in their classes with the knowledge and strategies to take the appropriate actions against the things which restrict them.



## **Statement of the problem**

In this study the major research question is as follows:

Is there a relationship among learning styles , language learning strategy preferences and the academic achievement among the English majors at Al Aqsa University?

## **Research questions**

From this major question emerge other minor questions, and they are stated as follow:

1. What are the major, minor, and negligible perceptual modality preferences of the students – audio, visual, kinaesthetic, tactile, group learning, and individual learning of the participants?
2. Is there a difference in the perceptual modality preferences of the students based on their sex?
3. What are the language-learning strategies used by students as reported in the Strategy Inventory for Language Learning?
4. Is there a difference in the language learning strategy preferences of the students based on their sex?
5. Is there a relationship between the students' perceptual learning style preferences and their academic achievement?
6. Is there a relationship between the students' language learning strategies and their academic achievement?
7. Is there a relationship between the learning styles and language learning strategies among the English majors at Al Aqsa University?

## **Limitations of the study**

**The academic limit:** Third year English majors at Al Aqsa University.

**Time and place limit:** The study was conducted in the first semester in the academic year 2009-2010 at Al Aqsa University in Khan Yunis.

## **Definition of Terms:**

The researcher adapted the following terms in his study:

### **Language Learning Strategies**

*“Learning Strategies are specific actions taken by the learner to make learning easier, faster, more enjoyable, more self directed, more effective, and more transferable to new situations”* (Oxford, 1990, p. 8).

### **Learning Styles**

Dunn and Dunn (1979 as cited in Reid 1987) define learning styles as *“a term that describes the variations among learners in using one or more senses to understand, organize, and retain experience”* (p. 89).

### **Auditory Learners**

Auditory learners are *“students who enjoy the oral-aural learning channel. Thus they want to engage in discussions, conversations, and group work. These students typically require only oral directions”* (Oxford, 1995, p. 36).

### **Visual Learners**

Visual learners are learners who *“prefer to learn via the visual channel. Therefore they like to read a lot, which requires concentration and time spent alone. Visual students need the visual stimulation of bulletin boards, videos and movies. They must have written directions if they are to function well in the classroom”* (Oxford, 1995, p. 35).

### **Tactile Learners**

Tactile learning *“suggests learning with one’s hands through manipulation or resources, such as writing, drawing, building a model, or conducting a lab experiment”* (Kinsella, 1995, p. 172).

### **Kinaesthetic Learners**

Kinaesthetic learning *“implies total physical involvement with a learning environment such as taking a field trip, dramatizing, pantomiming, or interviewing”* (Kinsella, 1995, p. 172).

### **Group Learners**

A group learner is the one who *“learns more effectively through working with others”* (Reid, 1995, p. x).

### **Individual Learners**

An individual learner is someone who “*learns more effectively through working alone*” (Reid, 1995, p. x).

### **Achievement**

*"Final rating of students determined by teacher through point system, expressed by a letter grade"* (Brown et al, 1989)

### **Perceptual modality**

Perceptual modality refers to the primary way our bodies take in information. Commonly, researchers identify auditory, visual, kinesthetic, and tactile styles. They are defined as the biologically based reactions to our physical environment and represent the way we most efficiently adopt data.

### **Abbreviations**

PLSPQ :Perceptual Learning Style Preferences Questionnaire

PLSP : Perceptual Learning Style Preferences

SILL : Strategy Inventory for Language Learning

LLS :Language Learning Strategies

ESL :English as a Second Language

SBI : Strategy Based Instructions

SPSS: Statistical Package for Social Sciences

CLS : Cognitive Learning Strategies

MLS : Metacognitive Learning Strategies

# Chapter II

## LITERATURE REVIEW

## LITERATURE REVIEW

### Introduction

This chapter consists of two parts. The first part starts with the definition of learning styles and it deals with the various dimensions of learning styles. Then, literature relevant to learning styles is presented. The second part starts with the definition of language learning strategies and draws a distinction between learning strategies and styles. Then relevant aspects of literature on learning strategies, classification of learning strategies proposed by different scholars, and various methods for data collection with respect to LLS are presented.

### Definition of Learning Style

The definition of learning styles is a major concern among the scholars in the field. Dunn and Dunn (1979, as cited in Reid, 1987) define learning styles as “a term that describes the variations among learners in using one or more senses to understand, organize, and retain experience” (p. 89). Claxton and Ralston (1978) define the term as referring to a learner’s “consistent way of responding and using stimuli in the context of learning” (p. 7). Similarly, for Keefe (1979) learning styles are “cognitive, affective, and physiological traits that are relatively stable indicators of how learners perceive, interact with, and respond to the learning environment” (p.4). Dun et al (1989 as cited in Clenton, 2002) assert that learning styles include variables such as “individual responses to sound, light, temperature, design, perception, intake, chronological highs and lows, mobility needs, and persistence, ...motivation, responsibility (conformity) and need for structure...” (p. 56).

As it can be seen the definitions provided above vary in terms of scope and depth. The definition provided by Keefe (1979) besides taking into account the difference between learning styles and cognitive styles, it also includes the three dimensions of behaviour: cognitive, affective, and physiological. The last definition, particularly, is the broadest and deepest since it seems to be composed of environmental (light, sound, temperature),

emotional (motivation, responsibility, persistence) and sociological (pairs, groups) stimuli. The involvement of such wide repertoire of dimensions while defining learning styles leads to confusion because it is difficult to control and focus on all of them at the same time. Therefore, in this study, the definition provided by Dunn and Dunn (1979, as cited in Reid, 1987) will be taken as a basis.

### **Fundamentals of Learning Styles**

The researcher agrees with Reid (1995) when she asserts that learning styles have some fundamental characteristics, on which they are based. These are:

- Every person, student and teacher alike, has a learning style and learning strengths and weaknesses;
- Learning styles exist on wide continuums; although they are described as opposites;
- Learning styles are value-neutral; that is, no one style is better than others (although clearly some students with some learning styles function better in a US school system that values some learning styles over others);
- Students must be encouraged to “stretch” their learning styles so that they will be more empowered in a variety of learning situations;
- Often, students’ strategies are linked to their learning styles;
- Teachers should allow their students to become aware of their learning strengths and weaknesses. (Reid, 1995, p. xiii)

### **Learning Style Dimensions**

It was mentioned earlier nearly twenty different dimensions of learning styles have been identified so far. Table 1 provides a summary of the various dimensions identified together with their brief definitions. When the table is analysed carefully, it can be seen that though some of the dimensions are

given separately, they actually overlap. An example of such an overlap is the field independent – field dependent versus analytic and global learning styles.

**Table 1:** Overview of Some Learning Styles (Reid, 1998, p. x).

Verbal/Linguistic Musical Logical/Mathematical Spatial/Visual Bodily/Kinaesthetic Interpersonal Intrapersonal	<b>The Seven Multiple Intelligences</b> Ability with and sensitivity to oral and written words Sensitivity to rhythm, pitch, and melody. Ability to use numbers effectively and to reason well. Sensitivity to form, space, colour, line, and shape. Ability to use the body to express ideas and feelings. Ability to understand another person's moods and Intentions. Ability to understand oneself: one's own strengths and Weaknesses.
Visual	<b>Perceptual Learning Styles</b> Learns more effectively through the eyes (seeing).
Auditory Tactile Kinaesthetic Group Individual	Learns more effectively through the ear (hearing). Learns more effectively through touch (hands-on). Learns more effectively through complete body experience. Learns more effectively through working with others. Learns more effectively through working alone.
Field Independent Field Dependent	<b>Field Independent and Field Dependent (Sensitive) Learning Styles</b> Learns more effectively sequentially, analysing facts. Learns more effectively in context (holistically) and is sensitive to human relationships.
Analytic  Global	<b>Analytic and Global Learning Styles</b> Learns more effectively individually, sequentially, linearly.  Learns more effectively through concrete experience and through interaction with other people.
Reflective  Impulsive	<b>Reflective and Impulsive Learning Styles</b> Learns more effectively when given time to consider Options. Learns more effectively when able to respond immediately.
Converger	<b>Kolb Experiential Learning Model</b> Learns more effectively when able to perceive abstractly and to process actively.

Diverger	Learns more effectively when able to perceive concretely and to process reflectively.
Assimilator	Learns more effectively when able to perceive abstractly and to process reflectively.
Accommodator	Learns more effectively when able to perceive concretely and to process actively.
Extraverted	<b>Myers-Briggs Type Indicator (MBTI)</b> Learns more effectively through concrete experience, contacts with and relationships with others.
Introverted	
Sensing	Learns more effectively from reports of observable facts.
Intuition	Learns more effectively from meaningful experiences.
Thinking	Learns more effectively from impersonal and logical Circumstances.
Feeling	Learns more effectively from personalised circumstances.
Judging	Learns more effectively by reflection, deduction, analysis, and process that involve closure.
Perceiving	Learns more effectively through negotiation, feeling, and inductive processes that postpone closure.
Right-Brained	<b>Right – and Left brained Learning Styles</b> Learns more effectively through visual analytic, reflective, self-reliant learning.
Left-Brained	

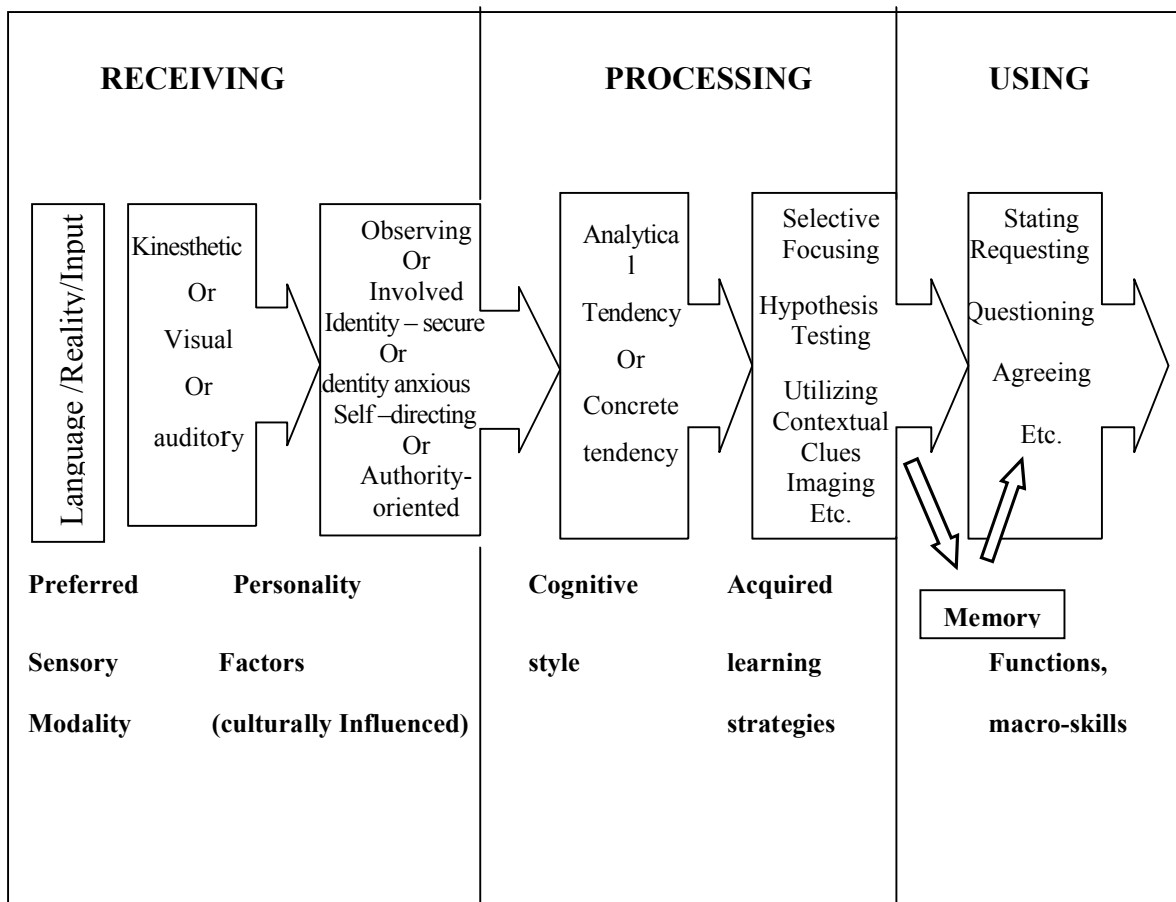
The scope and depth of learning styles vary because it seems impossible to limit a person's learning style only with a certain dimension, that is, it cannot be said that a person is only visual, audio or kinaesthetic. Ehrman and Oxford (1995) assert "*Naturally, not everyone fits neatly into one or another of these categories to the exclusion of the other, parallel categories (e.g. visual, auditory, kinaesthetic)*" (p. 69).

This view is also supported by Willing (1988) who asserts that "*At any period in the history of methodological fashions, there is usually the covert assumption of one particular learning style as basic. [However,] what makes the current interest in learning styles new is that several different ways of learning are now held to be equally valid*" (p. 6). Kroonenberg (1995) adds



another point why there is so much interest in learning styles currently by stating that all students ought to be given extensive opportunities to learn through their preferred style, but “they also need to open the idea of ‘style flex’ – that is students should be encouraged to diversify their style preferences” (p. 80).

Willing (1988) provides a diagram of the basic structure of the suppositions that underlie the representation of learning styles (see Figure I). As it can be seen, the diagram consists of the three phases of the learning context: perceiving, processing, and using. The very first stage is the “receiving” phase, when the language input is received through all the senses, that is, through kinaesthetic, visual, auditory or tactile sensory preferences. What the diagram emphasizes is that the reception of information will be accomplished through the sensory modality that is more relied on in a person’s general learning behaviour.



**Figure I:** Psychological Model of Language Learning Style Differences (Willing, 1988, p. 59)

Personality variables such as involved-observing, identity secure and identityinsecure, and self directing and authority-oriented, are presented in the area where receiving and processing overlap. This implies that personality does not only determine the way information is processed but also it determines how information is searched for and collected in the first place. The personality factors are said to be “formed by the individual’s cultural background” (Willing, 1988, p. 61).

The second phase is the “processing phase”, which is “the area of what happens inside the head” (Willing, 1988, p. 61). This phase includes the cognitive styles and ‘analytical’ and ‘concrete’ tendencies are differentiated. The following arrow demonstrates the ‘acquired learning strategies’, which are described by Willing as “the means by which a person assimilates or digests information and experience in general” (p. 62).

These strategies are not only the tools that prepare experience so that it is stored in the memory, but they also enable the retrieval of information from memory when it is required. The diagram indicates these strategies are active both in the second and in the third phase of the learning experience. The last phase is the “using” phase. At this stage, particular information stored in the memory is retrieved and put into action whenever the situation is appropriate. Among the most common examples of language functions are requesting, questioning, and agreeing.

When this diagram is taken into consideration this study focuses only on the perceiving phase – the preferred sensory modalities of learners. However, the personality factors are not taken into consideration because the participants in this study are from the same culture.

### **Understanding the ambiguous nature of learning styles**

Because of the disparity in how researchers categorize, define, group and measure learning styles, a number of researchers state that the study of

learning styles is both complicated and, at times, divided (Cassidy, 2004). Cassidy claims that *“to some extent, this can be considered a natural consequence of extensive empirical investigation and is to be expected with any continually developing concept which proves useful in gaining understanding of such a crucial and prevailing endeavor as learning”*(p 420). In an article where he presents a synthesis of the central themes and issues surrounding learning styles, Cassidy offers some further insight into the fragmented and disparate nature of learning styles. He attributes the construct’s ambiguity to the fact that research in learning styles is no longer limited to the domain of psychology, from which many of the central concepts and theories originated. Nowadays, learning-style research is spread across a variety of disciplines—medical and healthcare training, management, industry, vocational training and many settings and levels in the field of education. To some extent, this may explain the many variations in how learning styles are categorized, defined, grouped and measured.

A review of the literature not only shows that learning-style terminology can be ambiguous, but also at times definitions overlap. In other instances, as Reid (1995) points out, very different aspects of learning styles are contrasted. All of this is to say that learning styles are indeed analyzed and understood in a number of ways. The ambiguity is such that a number of authors/researchers have attempted (to varying degrees) to present an account of the central themes of the most influential or popular learning-style models, frameworks or typologies (Cassidy, 2004)

## **Understanding how we learn**

Bandler (1979) coined the term neuro-linguistic programming in the 1970’s to refer to the use of our primary senses or sensory channels (i.e. seeing, hearing, touching, smelling etc.) to process information. It is now well acknowledged that some experts attempt to understand learning through the primary senses involved (i.e. visual, auditory or tactile). For others, types of intelligence, hemispheric dominance, psychological aspects of perception and the manner in which information is processed are analyzed in the hope of

learning more about how we learn. Eliason (1995) presents an overview of what various learning-style experts' measure: Myers & Briggs (1987) measure personality traits; Kolb (1976) measures how we process information; Dunn, Dunn & Price (1975) include perceptual and physiological aspects of learning styles.

More recently, Hall and Moseley (2005), who carried out an overview of learning-style models, identified 71 models of learning styles published between 1902 and 2002. They went on to analyze in depth 13 learning-style models and to group 50 of them along a continuum based on the extent to which the developers of the models and instruments believe that learning styles are fixed.

The views contend that if learning styles are fixed, instructors could accommodate students more easily by tapping into their preferred learning style and teaching in a way that is compatible with each student's ability to process information. On the other hand, for those who believe that learning styles change and/or expand, Hall (2005) suggests that instructors should make students aware of how they are currently processing information and sensitize them to approaches and strategies that would help them expand their repertoire of styles.

Reid (1995) claims that three major categories of learning styles are widely recognized and relevant to the field of foreign language learning: sensory or perceptual learning styles, cognitive learning styles and affective/temperament learning styles. Sensory or perceptual learning style has to do with the physical environment in which we learn, and involves using our senses in order to perceive data. In studies on perceptual learning styles, Dunn (1990) has shown that learners whose preferred learning style is visual may have difficulty learning where the teaching mode is through lectures (auditory) as opposed to auditory learners who may prefer them. Reid purports that research generally refers to learning styles as being points along a continuum. In fact, learners may have more than one learning style and are able to switch or flex styles depending on the environment or task at hand.

Cognitive styles relate to thinking, problem solving abilities and the ability to organize information. One type of cognitive learning style research measures field independence and field dependence in learners, writes Reid. The field independent students prefer to learn in a context where rules, instructions, discrete-point tests and imitation are emphasized. The field dependent students, on the other hand, generally prefer cooperative and experiential learning environments. Affective learning/temperament learning style takes students' emotions, values and feelings into consideration. The focus is on the learner ( his or her motivation, level of engagement, interaction and reception to feedback) and how he or she reacts to learning opportunities.

### **Perceptual Learning Style**

Of particular interest to the researcher for the present study is the perceptual learning style defined as a preference for one of the following learning modalities - auditory, visual or tactile. According to Sarasin (1998), the perceptual perspective allows us to take into account aspects of several well-recognized learning-style theories by synthesizing their important characteristics into an approach that is based on behaviors and/or actions that can be easily perceived in a classroom situation. Sarasin claims that aspects of the learning style theories of Gregorc (1995), and Harb, Durrant & Terry (1993) reflect an approach based on the primary senses (visual, auditory or tactile) involved in learning.

As the name suggests, visual style refers to a preference for learning through vision, and visual learners rely on their sight to take in information. They organize knowledge in terms of spatial interrelationships among ideas and store it graphically (Nilson, 2003).

Learners who prefer the auditory style learn through hearing or listening to things. They learn best when they can hear themselves express an idea (Nilson, 2003).

Tactile learners prefer to learn by doing and by touching. They learn best by being active, and they often rely on physical interaction in order to master a concept (Sarasin, 1998).

### **Differences in learning-style components and measurement instruments**

Even within learning styles, again there are differences in the components that make up each one. For example, in the category of perceptual learning styles, Dunn, Dunn & Price (1975) include visual, tactile and kinesthetic. Keefe (1979) uses kinesthetic-psychomotor, visual-spatial and auditory-verbal. O'Brien's (1989) components are visual and haptic (a combination of tactile and kinesthetic), while James & Galbraith (1985) include print visual and interactive (verbalization and olfactory). Reid's (1995) perceptual learning style includes visual, auditory, tactile, kinesthetic, group and individual learning styles.

Consequently, the instruments chosen to measure a learning style vary from one researcher to another (Cassidy, 2004; Keefe, 1987; Kinsella, 1995, Reid, 1987, Sim & Sim, 1995) and are not without controversy since their statistical reliability and validity have, at times, been questioned. For example, of the thirteen models that Hall & Moseley (2005) reviewed, not one met the criteria of reliability and validity. Although this means that one cannot be 100% certain that all learning-style questionnaire items are measuring what they say they measure or that questionnaire results will be identical if the test were taken again, it does not mean that the tests have no value. In fact, DeCapua & Wintergerst (2005), who write about the issues of validity and reliability of learning-style questionnaires, claim that although any instrument using pencil and paper is subject to questions of validity, the constructs do explain certain differences between individuals and how they learn.

Although Reid's Perceptual Learning Style Preference Questionnaire generally has high reliability and validity and has been used as the norm on non-native speakers, a recent study (Isemonger & Sheppard, 2007) which examined the factor structure of a Korean version of Reid's questionnaire

showed reliability estimates were not good. Reid suggests that educators use learning-style instruments with caution and calls for multidimensional learning-style instruments, which can provide a profile of student learning styles.

## **Studies Pertaining to Learning Styles**

Because learning styles have a wide range of dimensions and since a lot of variables affect them, there are several problems proposed by Tyacke (1998) encountered while identifying learning styles. The first one is that learning styles are complex in nature and it might be difficult to analyse the overall learning profile of a learner. Another problem is that learners might tend to use different learning styles in various learning contexts. The third problem proposed is that the methodology used in the transfer of information can be biased. That is, it might be in favour of one kind of learner (analytic) over another (global). Yet, the researchers have worked on and identified the learning styles of learners in relation to some variables such as age, sex, length of time in the target culture, field of study, level of education, and culture. Reid (1987) conducted a research with respect to the learning style preferences of ESL learners. The overall results of the research indicated that ESL learners strongly preferred kinaesthetic and tactile learning styles when compared to audio and visual. In addition, most groups showed a negative preference for group learning.

The general findings offered by Reid (1987) are as follows:

1. The perceptual learning style preferences of ESL learners differed significantly in several ways from native speakers of English. For instance, native speakers of English were less tactile in their learning style preferences than all nonnative speakers and were significantly less kinaesthetic than Arabic, Chinese, Korean and Spanish speakers.
2. The learning style preferences of ESL learners from different language, different educational and cultural backgrounds sometimes differed significantly from each other. For instance,

the Korean students were found to be the most visual in their learning style preferences. They were significantly more visual than the US and Japanese learners. Japanese learners, on the other hand, appeared to be the least auditory of all learners and were significantly less auditory than Arabic and Chinese learners.

3. When some other factors such as sex, length of time spent in the United States, major field, and level of education were analysed, the results indicated that there were significant differences in their relationships to various learning style preferences. In the analysis of results with respect to level of education and gender, it was found that graduate students showed a significantly greater preference for visual and tactile learning than the undergraduates. The undergraduates were significantly more auditorily oriented than graduates. Both groups strongly preferred kinaesthetic and tactile learning. Males preferred visual and tactile learning significantly more often than females.
4. The data obtained from the study also indicated that as ESL learners adapt to the US academic environment, some changes and extensions of learning styles might take place. To illustrate, the longer the students had lived in the United States, the more auditory their preference became. Learners who had been in the US more than three years were significantly more auditory in their learning style preference than those who had been in the US for shorter periods of time. This finding indicates that learners adapt their learning style preferences to the learning environment they are involved.

Stebbins (1995) replicated Reid's (1987) study in order to obtain more information about the similarities and differences in learning styles between



ESL learners and Native English Speakers (NESs). Stebbins lists the areas in which the results paralleled with Reid's results.

- Kinaesthetic and tactile learning styles were strongly preferred by ESL students when compared to NESs.
- Group learning was again chosen as the least preferred mode by most NESs and ESL students; the only sample group in the current study to indicate a preference for the group learning mode were those ESL students with low (300-349) TOEFL scores.
- Spanish speakers repeated their strong preference for kinaesthetic mode.
- Arabic and Korean students showed stability in their choice of multiple learning styles.
- Japanese students again did not strongly identify any style preferences. (Stebbins, 1995, p. 110)

Ellis (1989) conducted a research with respect to the studial and experiential learning styles of two learners of German. Data with respect to these two learning styles were collected through a questionnaire, a cognitive style test, language aptitude test, attendance, participation, word order acquisition, speech rate, proficiency tests, and diary studies.

The data obtained from all these sources revealed that both learners were highly motivated learners of German and both of them had positive attitudes to the language. However, they significantly differed in their abilities and cognitive styles to the learning task. One of the learners was field dependent, she showed higher levels of aptitude in sound discrimination and she also rated her oral abilities to the other foreign languages she knew. This indicated that she was equipped to learn experimentally through the spoken medium. Her diary, on the other hand, revealed that she tried to learn studially, concentrating on linguistic accuracy and avoiding free expression. This further uncovers the fact that there might have been a conflict between the learning

style she is pleased with and that she actually adopts. That is, she abandoned her own preferred learning style so as to cope with the type of instruction provided. As a result it can be stated that there was a mismatch between her preferred learning style and the instruction.

The other learner, on the other hand, was field independent and he was good at analysing grammar and memorizing vocabulary. He had the skills necessary to carry on a studious approach to learning and his diary yielded enough evidence to support this claim. He was also a flexible learner, who enjoyed participating in class and engaging in real communication in the target language that is German.

Cheng and Banya (1998) conducted a research in which 140 male freshman learners at the Chinese Military academy completed seven questionnaires including PLSP. The questionnaire was also completed by Taiwanese teachers teaching at Taiwanese universities. The results obtained from the self reported surveys revealed that the Taiwanese military students did not have significantly different preferences for any single learning style. The teachers, on the other hand, reported being significantly less visual and more auditory than the learners.

Based on the data obtained from the perceptual learning style self-reports it was uncovered that both the teachers and the learners preferred the perceptual learning styles of auditory, tactile, and individual learning. A significant finding of this study was the difference between teachers' and learners' auditory preferences.

The teachers were markedly more auditory than the learners. The learners, on the other hand, showed significantly greater visual preference by reporting that they learned more by reading textbooks than by listening to lectures.

Cheng and Banya also provide further information revealed as a result of the statistical analysis of the perceptual learning style questionnaire. Their findings include the following:

- Students who preferred kinaesthetic learning have more confidence as well as more positive attitudes and beliefs about foreign language learning than students with other perceptual learning style preferences.
- Students with the Individual preference style use more language learning strategies, and they are less tolerant of ambiguity.
- Students who identified themselves as tactile learners seemed to be more anxious about learning English.
- Students with an auditory preference like to make friends with and speak with foreign language speakers (in this case, English speakers). (Cheng and Banya, 1998, p. 82)

Willing (1988) conducted a research with respect to the learning styles in adult migrant education. To serve the purposes of the survey a new questionnaire was developed because the already existing ones had some deficiencies such as having a too narrow focus or being complex in their format and wording. The questionnaire consisted of thirty items on the first page, the second page included fifteen learning strategies, and the third page included items regarding individual biographical results. 517 learners, from over thirty ethnic groups participated the study, but only five of the ethnic groups (Vietnamese, Chinese, Arabic speakers, South Americans, and Polish/Czech speakers) were large enough for statistical analysis.

Regarding the analysis of the results Willing (1988) stated that it was impossible to make “statistically valid cross-comparisons relating a question to more than one biographical variable at a time” (p. 122). For this reason, the individual characteristics of the participants were considered separately. The results indicated that there are cultural differences with respect to the learning style preferences of the learners. Though the mean of the item “I like to study grammar” was lower than expected, all learners from the distinct cultures reflected that they liked studying grammar. However, the Arabic learners were the ones who preferred grammar the most because 65 % of them ranked this item as the “best”.

The item related to the use of cassettes at home revealed that the Vietnamese were the only learners who preferred this method. Chinese, in contrast, seemed to “have little confidence in it” (Willing, 1988, p. 130). When the same question was considered with respect to the length of residence in Australia it was revealed that the variation was not big enough to be statistically meaningful. The results with regard to sex indicated that males tend to write everything in their notebooks more than females. In addition, though moderately both visual and kinaesthetic modalities were female preferences.

### **Studies that link learning styles to student success**

What has given rise to increasing interest in learning styles is that research points to the relationship between learning styles and teaching styles as being a factor in the success of postsecondary students (Dunn et al., 1995; Ellis, 1989; Griggs & Dunn 1996; Hall & Moseley, 2005). According to Cassidy (2004), the interest shown in the impact of learning styles on academic achievement demonstrates that research has made a move beyond investigating the traditional variables such as intelligence and motivation in an attempt to shed light on factors that affect academic success.

Entwistle (qtd. in Drysdale et al. p 272) has shown that academic success and failure in higher education is influenced by “the match between how material is presented and how students process it”. Nelson et al. (qtd. in Drysdale et al.) found a correlation between learning style and increased levels of academic achievement. Dunn et al. (qtd. in Drysdale et al.) found that making students aware of their learning style and helping them develop study skills compatible with their preferred learning style had a positive affect on academic performance. In a similar vein, O’Brien (1991), whose subjects represented a variety of majors including business, education, and arts and sciences, found that differences in learning styles were associated with academic achievement. Based on the results of a meta-analysis of 42 experimental studies, Dunn et al. (1995) claim that students who are taught by

an approach compatible with their learning do better than those whose learning styles are not matched to teaching approaches. In a similar vein, Griggs and Dunn (1996) claim that students who learn from an approach compatible with their preferred learning style experience greater academic achievement and have a more positive attitude towards learning.

Drysdale et al. (2001) carried out a study on the effect of learning style on the academic performance of 4,546 first-year students. Although they found academic performance based on learning style to be significant in 11 of the 19 courses, they found no significant differences between the learning style and academic performance of liberal arts and social sciences' students.

Castro and Peck (2005) carried out a study on learning styles and learning difficulties that foreign language students face at the college level and claim that a student's preferred learning style can help or hinder success in the foreign language classroom. However, when they analyzed the distribution of grades according to Kolb's learning style types, they found no significant correlation between learning style and grades. Similarly, Tight's (2007) study of English college students learning Spanish showed that students performed equally well on vocabulary tests regardless of perceptual learning style preference.

### **Field Dependency and Academic Achievement**

Cognitive style has been reported to be one of the significant factors that may impact students' achievement on various school subjects ( Murphy, Casey, Day, & Young, 1997; Cakan, 2000). In a research study, Dwyer and Moore (1995) investigated the effect of cognitive style on achievement with 179 students who enrolled in an introductory education course at two universities in the United States. They found the field independent learners to be superior to field dependent learners on tests measuring different educational objectives. The researchers concluded that cognitive style had a significant association with students' academic achievement.

Tinajero and Paramo (1997) investigated the relationship between cognitive styles and student achievement in several subject domains (English, mathematics, natural science, social science, Spanish, and Galician). With the sample of 408 middle school students, the researchers asserted that cognitive style was a significant source of variation in overall performance of students. That is, field independent subjects outperformed their field dependent counterparts.

In another study, Murphy, Casey, Day, & Young (1997) sought to determine the relationship between academic achievement and cognitive style of 63 undergraduate Canadian students in information management program. They found that field independent students performed better than field dependent subjects only on one of the technical courses. For the other three courses the two groups performed similarly.

Although considerable research has been conducted on the impact of field dependence/ independence and academic achievement, the relationships between FD/FI cognitive style and learning, including the ability to learn from social environments (Summerville, 1999), and the impact of cognitive styles on the use of learning strategies (Jonassen, 1988; Liu & Reed, 1994), few studies have considered affective variables and cognitive styles together in teacher training programs.

## **Definition of Language Learning Strategies**

Within the field of foreign/second language teaching, the term language learning strategies has been defined by key researchers in the field. Tarone (1983) defined a learning strategy as “*an attempt to develop linguistic and sociolinguistic competence in the target language – to incorporate these into one’s interlanguage competence*” (p. 67). Later Rubin (1987) stated that learning strategies “are strategies which contribute to the development of the language system which the learner constructs and affect learning directly” (p. 22). O’Malley and Chamot (1990) define learning strategies as “*the special thoughts or behaviours that individuals use to help them comprehend, learn,*

*or retain new information”* (p. 1). Oxford (1990) expands the definition of learning strategies and defines them as “*specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations*” (p. 8).

## **Differences between Language Learning Strategies and Styles**

Providing a wide range of definitions of LLS proposed by experts in the field does not solve the problem of understanding what LLS are because LLS have usually been confused with learning styles. Reid (1998) draws a distinction between learning styles and learning strategies by focusing in what way they are distinct from each other. She refers to learning styles as “internally based characteristics, often not perceived or consciously used by learners, for the intake and comprehension of new information” (p. ix), whereas learning strategies are defined as “external skills often used consciously by students to improve their learning” (p. ix).

What we can infer from these two definitions is that since learning styles are ‘internally based characteristics,’ they explain a learner’s preference to a learning situation. In addition, it can be said that they are relatively stable and not likely to change over time. This view is also supported by Oxford (1990) who states that some learner characteristics such as “learning styles and personality traits are difficult to change” (p. 12). Yet, as it will be discussed later, some studies such as Ellis’ (1989) revealed that learners abandoned their own learning styles and they adjusted themselves according to the teaching style they were exposed to.

The learning strategies, on the other hand, are said to be ‘external skills’, which indicates they are more problem oriented and conscious. This also implies that they are more liable to change over time and depending on the task and materials used in the learning environment. Oxford (1990) claims that “learning strategies are easier to teach and modify” (p. 12) through strategy training.

## **The Characteristics of Language Learning Strategies**

When analysing the learning strategies it can be seen that different writers use different terminology to refer to the strategies. For example, Wenden and Rubin (1987) use the term “learner strategies”, O’Malley and Chamot (1990) use the term “learning strategies”, and Oxford (1990) uses the term “language learning strategies.”

Even though the terminology used for language learning strategies is not uniform among the scholars in the field, there are a number of basic characteristics accepted by them.

Oxford (1990) summarizes her view of LLS by listing twelve key features below as they:

- Contribute to the main goal, communicative competence.
- Allow learners to become more self-directed.
- Expand the role of teachers.
- Are problem oriented.
- Are specific actions taken by the learner.
- Involve many aspects of the learner, not just the cognitive.
- Support learning both directly and indirectly.
- Are not always observable.
- Are often conscious.
- Can be taught.
- Are flexible.
- Are influenced by a variety of factors. (Oxford, 1990, p. 9)

## **Taxonomies of Language Learning Strategies**

Many scholars in the field such as Rubin (1987), O’Malley and Chamot (1990), Oxford (1990) have classified language-learning strategies. However, most of these attempts to classify LLS reflect more or less the same categorization without any drastic changes. Below Rubin’s (1987), O’Malley and Chamot’s (1990), Oxford’s (1990) taxonomies of LLS will be handled.



## Rubin's Taxonomy

Rubin (1987), who is the pioneer in the field of LLS, draws a distinction between strategies directly contributing to learning and those contributing indirectly. According to Rubin (1987), there are three types of strategies used by learners that contribute directly or indirectly to language learning.

The first category, Learning Strategies, consists of two main types Cognitive and Metacognitive Learning Strategies. They are thought to be strategies directly contributing to the language system constructed by the learner. Cognitive Learning Strategies (CLS) refer to the steps or processes used in learning or problem-solving tasks that require direct analysis, transformation, or synthesis of learning materials. Rubin (1987) identified six main CLS directly contributing to language learning: Clarification/Verification, Guessing/Inductive Inferencing, Deductive Reasoning, Practice, Memorization, and Monitoring.

Metacognitive Learning Strategies (MLS) are used to supervise, control or self-direct language learning. They involve a variety of processes as planning, prioritising, setting goals, and self-management.

The second category consists of Communication Strategies, which are less directly related to language learning because they focus on the process of participating in a conversation and getting meaning across or clarifying what the speaker intended. These strategies are used by speakers when they are confronted with misunderstanding by a co-speaker. Social Strategies comprise the last category, which are manipulated when the learners are engaged in tasks that afford them opportunities to be exposed to and practice their knowledge. Even though these strategies provide exposure to the target language, they contribute indirectly to the obtaining, storing, retrieving, and using of language (Rubin and Wenden, 1987, pp. 23-27).

## **O'Malley's Classification of Language Learning Strategies**

O'Malley et al (1985, pp. 582-584) divide language-learning strategies into three main subcategories: Metacognitive Strategies, Cognitive Strategies, and Socio affective Strategies. It can be stated that Metacognitive Strategy is a term which refers to the executive skills, strategies which require planning for learning, thinking about the learning processes that is taking place, monitoring of one's production or comprehension, and evaluating learning after an activity is completed. Strategies such as self-monitoring, self-evaluation, advance organizers, self-management, and selective attention can be placed among the main metacognitive strategies.

When compared to Metacognitive Strategies, it can be stated that Cognitive Strategies are not only more limited to specific learning tasks but they also involve more direct manipulation of the learning material itself. Among the most important cognitive strategies are repetition, elaboration, contextualization, auditory representation and transfer.

Regarding the Socio affective Strategies, it can be stated that they involve interaction with another person. They are generally considered to be applicable to various tasks. Questioning for clarification, cooperation with others to solve a problem, rephrasing, and self-talk are some examples of socio affective strategies.

## **Oxford's Classification of Language Learning Strategies**

Among all the existing learning strategy taxonomies Oxford (1990) provides the most extensive classification of LLS developed so far. However, when analysed, her classification is not something completely different from the previously discussed ones. On the contrary, Oxford's taxonomy overlaps with O'Malley's (1985) taxonomy to a great extent. For instance, the Cognitive Strategies category in O'Malley's classification seems to cover both the Cognitive and Memory Strategies in Oxford's taxonomy. Moreover, while O'Malley puts socio affective strategies in one category, Oxford deals with them as two separate categories. Yet, a significant difference in Oxford's

classification is the addition of the compensation strategies, which have not been treated in any of the major classification systems earlier.

Generally speaking, Oxford's taxonomy consists of two major LLS categories, the Direct and Indirect Strategies (see Figure II). Direct strategies are those behaviours that directly involve the use of the target language, which directly facilitates language learning. Oxford (1990) resembles the direct strategies to the performers in a stage play, whereas she takes after the indirect strategies to the director of the same play. While the performers work with the language itself, they also work with the director who is responsible for the organization, guidance, checking, corrections, and encouragement of the performers. These two groups work hand in hand with each other and they are inseparable. Direct strategies are divided into three subcategories: Memory, Cognitive and compensation Strategies.

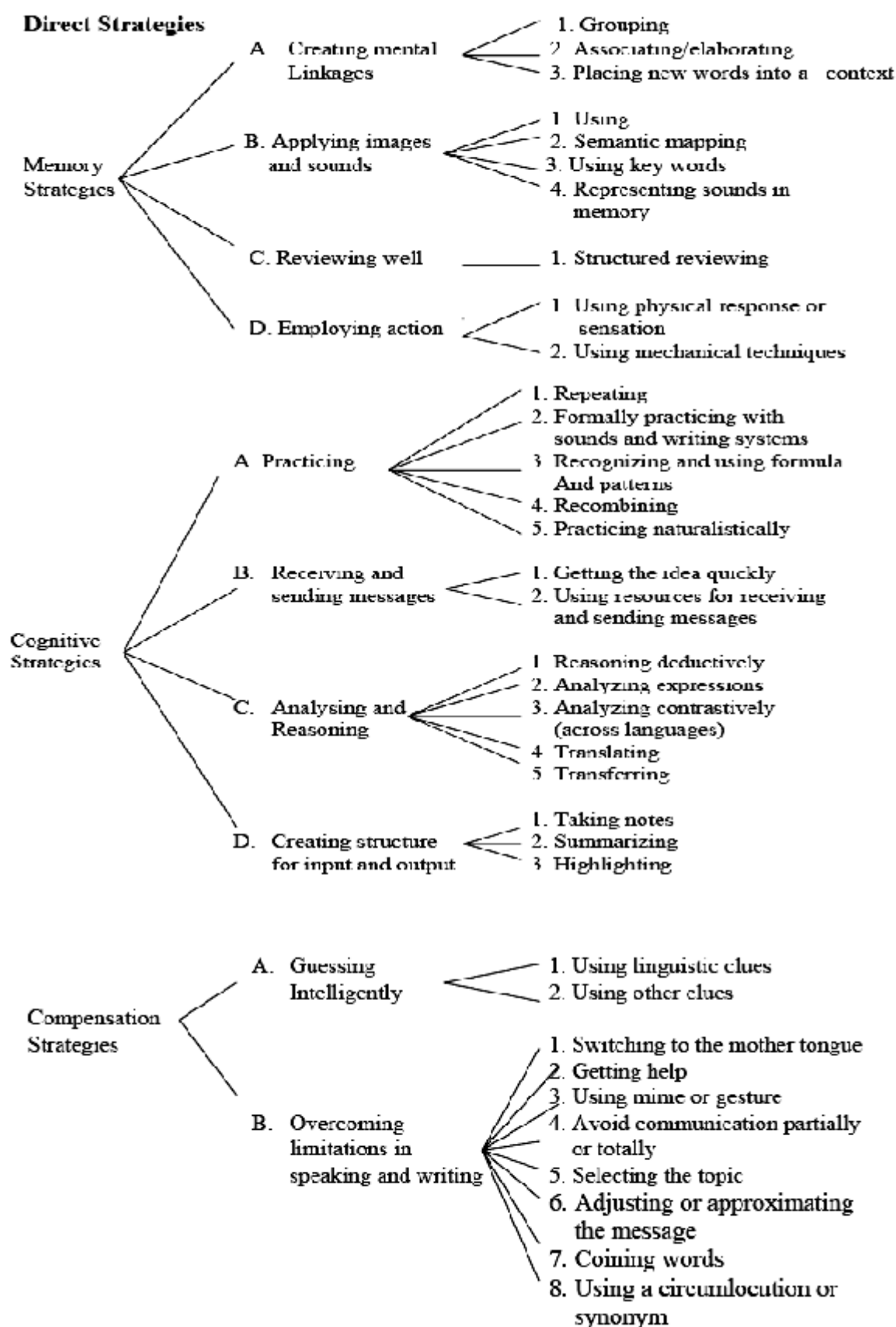
Memory Strategies: Oxford and Crookall (1989) define them as "techniques specifically tailored to help the learner store new information in memory and retrieve it later" (p. 404). They are particularly said to be useful in vocabulary learning which is "the most seizable and unmanageable component in the learning of any language" (Oxford, 1990, p. 39). Memory strategies are usually used to link the verbal with the visual, which is useful for four reasons:

1. The mind's capacity for storage of visual information exceeds its capacity for verbal material.
  2. The most efficiently packaged chunks of information are transferred to long-term memory through visual images.
  3. Visual images might be the most effective mean to aid recall of verbal material.
  4. Visual learning is preferred by a large proportion of learners.
- (Oxford, 1990, p. 40)

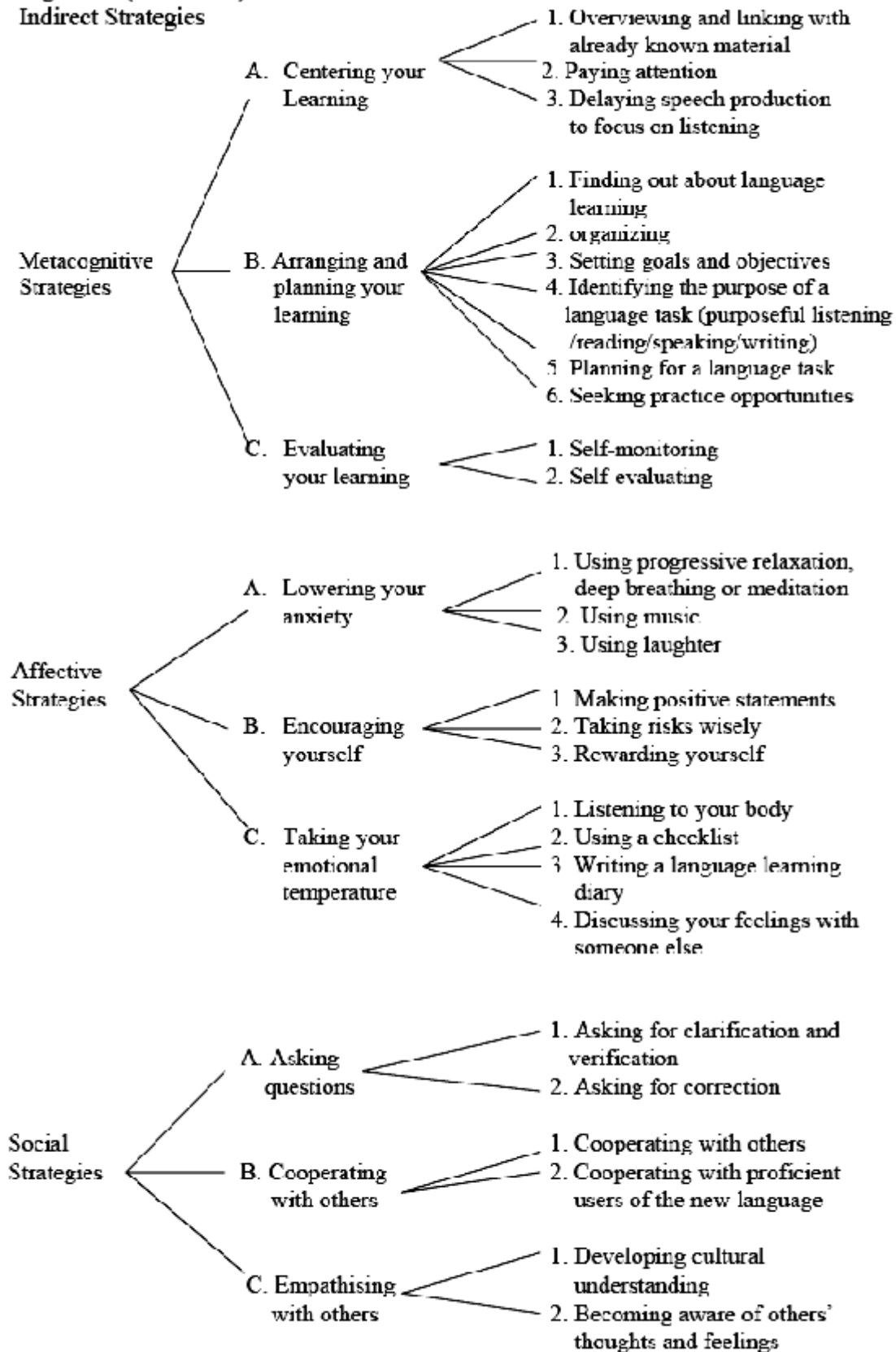
Cognitive Strategies: The second group of direct strategies are the cognitive strategies, which are defined as "skills that involve manipulation and transformation of the language in some direct way, e.g. through reasoning, analysis, note taking, functional practices in naturalistic settings, formal

practice with structures and sounds .” (Oxford and Crookall, 1989, p. 404). Cognitive strategies are not only used for mentally processing the language to receive and send messages, they are also used for analysing and reasoning. What is more, they are used for structuring input and output. However, if learners overuse the cognitive strategies, this might cause them to make mistakes when they generalise the rules they have learned without questioning them, (that is, when they overgeneralise them) or when they transfer expressions from one language to another, generally from the mother tongue to the target language (that is, when negative transfer occurs). (Oxford, 1990)

**Figure II:** Diagram of Oxford's Strategy Classification System adapted from (Oxford, 1990, pp. 18-21)



**Figure II (Continued)**  
Indirect Strategies



**Compensation Strategies:** Compensation strategies help learners to use the target language for either comprehension or production in spite of the limitations in knowledge. They aim to make up for a limited repertoire of grammar and, particularly vocabulary. When learners are confronted with unknown expressions, they make use of guessing strategies, which are also known as inferencing. When learners do not know all the words, they make use of a variety of clues either linguistic or non-linguistic so as to guess the meaning. Compensation strategies are not only manipulated in the comprehension of the target language, but they are used in producing it. They enable learners to produce spoken or written expressions in the target language without complete knowledge of it.

The second group of strategies, that is, indirect strategies, consist of three subcategories as well: Metacognitive, Affective, and Social Strategies.

**Metacognitive Strategies:** Metacognitive strategies are defined as “behaviours used for centring, arranging, planning, and evaluating one’s learning. These ‘beyond the cognitive’ strategies are used to provide ‘executive control over the learning process’ ” (Oxford and Crookall, 1989, p. 404). Metacognitive strategies go beyond the cognitive devices and provide a way for learners to coordinate with their own learning process. They provide guidance for the learners who are usually “overwhelmed by too much ‘newness’ – unfamiliar vocabulary, confusing rules, different writing systems, seemingly inexplicable social customs, and (in enlightened language classes) non-traditional instructional approaches” (Oxford, 1990, p. 136). Having encountered so much novelty, many learners lose their focus, which can be regained through the conscious use of metacognitive strategies.

**Affective Strategies:** Oxford and Crookall (1989) define affective strategies as “techniques like self-reinforcement and positive self-talk which help learners gain better control over their emotions, attitudes, and motivations related to the language learning (p. 404). Knowing how to control one’s emotions and attitudes about learning may influence the language learning process positively since it will make the learning more effective and enjoyable. It is also known that negative feelings can hinder progress. The

control over such factors is gained through the manipulation of affective strategies.

**Social Strategies:** Since language is a form of social behaviour, it involves communication between and among people. They enable language learners to learn with others by making use of strategies such as asking questions, cooperating with others, and empathising with others. Yet, their appropriate use is extremely important since they determine the nature of communication in a learning context. Based on the classification system described above, Oxford (1990) developed an inventory called the Strategy Inventory for Language Learning (SILL) (see Appendix) to collect data regarding language-learning strategies.

## **Studies on Language Learning Strategies**

In the 1970s a shift of focus from teaching methods, classroom techniques, and instructional materials to the language learner and his/her characteristics took place as a result of the disappointing research results which revealed that any single method, instruction or material could not guarantee effectiveness on its own in foreign language learning. Scholars in the field noticed that there were learners who were successful no matter what teaching method or classroom instruction was used. Therefore, the primary concern of most research in the field has been on “identifying what good language learners report they do to learn a second or foreign language, or in some cases, are observed doing while learning a second or foreign language” (Wenden and Rubin, 1987, p. 19).

Rubin (1975) started doing research focusing on strategies of successful learners and stated that, once identified; such strategies could be made available to less successful learners so that they could increase their success rate. Based on her findings, she suggested that “the good language learner” is a willing and accurate guesser; has a strong persevering drive to communicate; is often uninhibited and willing to make mistakes in order to learn or communicate; focuses on form by looking at patterns; takes



advantage of all practice opportunities; monitors his or her own speech as well as that of others; and pays attention to meaning.

After the findings of Rubin, many studies have been conducted regarding the strategies employed by good language learners. Oxford (1989) states that she based her classification of the LLS on the synthesis of the results obtained from all these studies. Yet, not all language learners use the same LLS even if they study the same material, in the same classroom, under the same conditions. That is, some other variables influence the choice of strategies.

Motivation is among the variables that have been reported to influence the choice of LLS. In their research, Oxford and Nyikos (1989) found that of all the variables measured in their study, the level of motivation had the most powerful influence on reported use of LLS. The level of motivation considerably influenced the tendency of language students to use or not to use strategies in four out of five factors: formal-rule related practice strategies, functional practice strategies, general study strategies, and conversational input elicitation strategies. The results indicate that the more motivated learners used these types of strategies significantly more often than did the less motivated learners.

Gender, a variable which is also taken into account while identifying the LLSs of the participants in this study, is another factor that has taken the constant attention of research in the field. A vast number of studies have been conducted with respect to gender-related differences in LLS use. In a study of adult language learners, Ehrman and Oxford (1989) found that when compared with males, females reported significantly greater use of language learning strategies in four categories: general study strategies, functional practice strategies, strategies for searching for and communicating meaning, and self-management strategies. In another study, Oxford and Nyikos (1989) found that females, when contrasted with males, used language-learning strategies significantly more often in three of five strategy factors: formal rule-based practice strategies, general study strategies, and conversational input

elicitation strategies. Ehrman and Nyikos (1989) state that the results obtained from their study fully support the findings of other studies concerning the effect of sex on second language learning. They assert that some other variables such as female superiority in verbal aptitude and social orientation, and possible sex differences in integrative motivation, in addition to psychological type play a role in these sex differences.

Kaylani (1996) also reports significant differences in strategy use between males and females. For the main sample of 255 students, there were significant differences at the  $p < .001$  level for MANOVA results with a main effect of sex on the SILL. Among the strategy categories used in the SILL, female students used significantly more memory, cognitive, compensation, and affective strategies than male students. There was no significant difference in the use of metacognitive and social strategies between the two genders.

The findings of Green and Oxford (1995) also indicated higher levels of strategy use by females than by males. Fourteen strategies, some of which are the use flashcards to remember words, reviewing English lessons often, connecting words and locations, skimming and reading carefully, seeking L1 words similar to L2 words, making summaries of information, etc., were used significantly more often by females in that study, although only one (watching TV programs and video movies in English) was used significantly more often by males.

Oxford and Nyikos (1989) also reported that in their study, besides the conversational input elicitation strategies reflecting social interaction, two more types of strategies – general study strategies and formal rule-related practice strategies- were used significantly more often by females rather than by males. The researchers relate this result to factors such as the females' desire for good grades, a need for social approval, their verbal superiority to males, and females' greater willingness to conform to conventional norms.

Not all studies that examined learning strategy use between the two sexes found significant differences. Grace (2000) investigated the gender differences in vocabulary retention and access to translations for beginning language learners in Computer Assisted Language Learning (CALL). The analyses of the results revealed that when students were given bilingual multiple-choice tests, there were no significant differences between males and females on their short-term and long-term retention scores. Moreover, there were no significant differences in the amount of time males and females spent looking up translations. It was also reported that the findings of the survey suggested that males and females could equally benefit from a CALL environment. Ehrman and Oxford (1990) also reported that the number and kind of strategies used by females were similar to those used by males.

Another variable that has been investigated in the field is the proficiency level of the learners. Taking this into account Oxford and Crookall (1989) assert that students at higher course level tend to use strategies somewhat differently from students at lower course levels. This claim, however, is not only limited to various course levels but it can be generalised to more proficient and less proficient students within a given level. Oxford and Crookall point out that many different strategies could be used by good learners: techniques for organizing, for handling emotions and attitudes, for cooperating with others in the learning process, for linking new information with existing schemata, and for directly engaging in learning use.

Here, the main focus is not on the number of strategies employed but on the appropriacy of the strategies with respect to the nature of the task, to the learning material and goals. That is, the learner's 'orchestration of the strategies' is far more important than the number of strategies used. This view can be supported with Vann and Abraham's (1990) findings. In their study, the learners were asked to complete four tasks: an interview, a verb exercise, a close passage, and a composition. After the completion of the tasks, they compared the strategies used by their unsuccessful learners with the ones used by the successful learners. They found that their unsuccessful learners were very similar to their successful learners in their range of strategies.

Furthermore, when the unsuccessful learners were compared to the successful learners with respect to the task demand model used in the study, the unsuccessful learners were found to be active strategy users, yet they often failed to utilize the strategies appropriate to the task they were required to fulfill. It appears that, they are deficient in certain essential higher-order processes, which are called metacognitive strategies.

Anderson (1991) examined the individual differences in strategy use by adult second language learners while engaged in two reading tasks: taking a standardized reading comprehension test and reading academic texts. Anderson points out that the most important of the results indicated that there was not any single set of processing strategies that contributed to a large extent to the success of the two reading measures mentioned above. Readers who scored high and those who scored low seemed to be using the same kind of strategies while reading and answering the comprehension questions in the tests. Anderson concludes that “strategic reading is not only a matter of knowing what strategy to use, but also the reader must know how to use a strategy successfully and orchestrate its use with other strategies” (pp. 468-469).

A fourth variable investigated in relation to LLS is age. Ehrman and Oxford (1989) maintain that in their study age did not seem to be the key point to understanding language learning performance though this view contradicted with the view of many experts in the field that language-learning ability declines with age. Rather the motivational orientation of the adult learners, who were learning the language for immediate career purposes, might have had a greater factor than age.

Generally, the studies conducted in the field with respect to learning strategies have focused on either the strategies manipulated by adults or by children. Such studies focus on the strategies employed by the effective and less effective students. Chamot and El-Dinary (1999) conducted research with respect to children’s learning strategies in immersion classrooms. Their findings are similar in temperament with the results reported by Vann and

Abraham's (1990). That is, the effective young learners were more flexible with their repertoire of strategies and more effective at monitoring and adapting their strategies than their less effective counterparts. The less effective learners, on the other hand, were more likely to cling to ineffective strategies either because of unawareness of their ineffectiveness or incapability to adapt strategies to the demands of the task. The good young learners in the study reported a variety of strategies they tried for a particular task, indicating that they recognised the need for flexibility in their use of strategies to achieve the language learning tasks. Chamot and El-Dinary (1999) assert that across age levels, effective language learners appear to be capable of examining and adjusting strategies.

Another variable that has been investigated is career orientation. Ehrman and Oxford (1989), in their exploratory study examined the relationships between learner characteristics and language learning performance. Foreign Service Officers (FSO), military officers, FSO language instructors and professional language trainers with graduate degrees in linguistics participated in their study. The results of their study indicate that the professional linguists used a wider variety of LLS than the adult language learners and the language teachers. The professional language trainers reported more frequent use of four learning strategies: authentic language use, searching for communicative meaning, model building, and affective strategies.

Language teachers reported greater use of only one strategy (authentic language use) than students. When compared with professional language trainers or teachers, students reported less use of all strategy types. Oxford and Ehrman (1989) concluded that career orientation has a strong influence on strategy use. Oxford and Nyikos (1989) also conducted a similar survey, in which career orientation was one of the variables investigated. The participants in this study were undergraduate students majoring in technical fields (engineering, computer, or physical sciences), social sciences (education or humanities), and business or other subjects. They found out that university major had a strong effect in the choice of LLS. Students with different career orientations appeared to use different LLS. In the study, the

students majoring in social sciences used two of the strategies – functional practice and resourceful independent strategies significantly more often than did students with other majors.

A final factor, though scarcely investigated, is learning styles. As it was stated earlier, Oxford (1989) claims “it is likely that a strong relationship exists between the individual’s use of learning strategies and the individual’s learning style. Sadly little research has been dedicated to the relationship between learning strategy use and learning style. ” (p. 241). Ehrman and Oxford (1990) claim that so far nearly twenty different dimensions of learning styles have been identified.

Among these dimensions are the Seven Multiple Intelligences, the Perceptual Learning Styles, Field-Dependent and Field-Independent, Myers-Briggs Type Indicator, and Left and Right Brained Learning Style. One of the studies conducted with respect to perceptual learning styles was conducted by Rossi-Le (1989 as cited in Oxford and Burry-Stock, 1995), who “found a significant relationship ( $p < .0005$ ) between sensory preference (visual, auditory, tactile, and kinaesthetic) and overall strategy use on the ESL/EFL SILL through a MANOVA, and she also found significant predictive relationships through multiple regression” (p. 11). The results Rossi Le obtained from the MANOVA indicated that the visual learners tended to use visualization strategies and that auditory learners used memory strategies more frequently than did the other learners. When compared to their counterparts, tactile learners showed significant use of strategies for searching for communicating and meaning and self-management/metacognitive strategies. Kinaesthetic learners did not make use of general study strategies or selfmanagement/ metacognitive strategies as frequently as the others did.

Rossi-Le (1995) conducted another study in which she focused on the perceptual learning styles of adult immigrant learners and she investigated the relationship between preferred learning styles and strategy preference in an ESL context. Her findings showed that the major learning style preferences of

the majority of the participants were the tactile and kinaesthetic learning styles, which require a practical and experiential approach to learning. Moreover, all the language groups in her study seemed to prefer group learning, while individual learning showed to be a minor learning style. She also found that the perceptual learning style preferences were based on the learners' native language backgrounds. For instance, in her study, the major learning style preference of the Spanish learners was auditory learning. On the other hand, Chinese and Vietnamese students showed a major learning style preference for visual learning.

The findings with respect to the learning strategies indicated that the learning style preference of an individual affected the strategies a learner might use. In her study social strategies were the most favoured ones. The results also revealed important relationships between learning styles and strategies. Interactive strategies were used by learners who favoured group learning. The students who preferred the kinaesthetic and tactile group preferred authentic language use. The learners who preferred the visual styles chose visualisations a strategy. Though limited in number, the individual learners preferred model building. Finally the least selected strategy groups were searching for and communicating meaning and independent strategies.

Another study which is similar to the one mentioned above was conducted by Oxford et al. (1991 as cited in Oxford, 1995). Its results also indicated strong relationship between LLS use and the sensory preferences of the learners, which are regarded as a dimension of learning styles. Their findings indicate that visual learners had the tendency to use strategies involving reading alone, in a quiet place or paying attention to blackboards, movies, computer screens, and other forms of visual stimulation. The auditory learners were found to be at ease without visual input and often manipulated strategies that encouraged conversation in a noisy, social environment with numerous sources of aural stimulation. The kinaesthetic students were found to be in need of movement strategies and the tactile ones needed strategies that required the manipulation of real objects in the learning environment. Yet,

both kinaesthetic and tactile learners were found to need to use the strategy of taking frequent breaks.

Ehrman and Oxford (1989) conducted a study regarding overall personality type as measured by Myers-Briggs Type indicator (MBTI), which deals with Extraversion – Introversion, Sensing – Perception, Thinking – Feeling, and Judging – Perceiving. In the study, the extroverts were found to use significantly greater affective strategies and visualization strategies than did introverts. However, introverts reported more frequent manipulation of strategies requiring searching for and communicating meaning. When compared to sensing learners, intuitive learners used more strategies in four categories: affective, formal model – building, functional practice and searching for and communicating meaning. Feeling-type learners, when compared with their counterparts the thinkers, displayed greater use of general study strategies. Perceivers made use of more strategies for searching for and communicating meaning than did judgers. However, judgers demonstrated more frequent use of general study strategies than did perceivers.

Shih and Gamon (2003) also conducted a research to reveal the relationship among student learning styles, motivation, learning strategies, and achievement in Web-based courses. The participants of the study were the 99 students taking two Web-based courses. They were asked to respond to the on-line questionnaire prepared by the researchers. Besides the items with respect to motivation, learning styles, and learning strategies, there were some demographic variables such as gender; Web-based courses they were taking, types of students as off-campus, on campus, or adult students were also taken into account in the analysis of the data obtained from the questionnaire.

The results showed that the learning styles of the students and their demographic characteristics did not influence their achievement in the Web-based courses. Furthermore, the field-independent students were similar to the field dependent students with respect to their motivation, learning



strategies, and achievement in Web-based courses. At the end of the research the researchers draw two important conclusions. The first one is that the achievement of student with different learning styles and backgrounds in Web-based courses was equally well. The other conclusion was that learning styles did not have an impact on student motivation and use of learning strategies.

### **Previous studies on language learning strategies and good learners**

Researchers in the field of language learning strategies (LLS) indicated that more proficient learners seem to employ a variety of strategies in many situations than to less proficient learners. It has been repeatedly shown that there is a strong relationship between (LLS) and language performance. Russi (1989) found that more proficient (ESL) students use self- management strategies like planning, evaluation, and formal practice significantly more often than less proficient (ESL ) students. Chamut & Kupper (1989) added that learners might not be fully aware of the strategies they use to the most beneficial strategies to use. Further more, they noticed that weaker students lack a critical self – awareness (i.e. the strategies of self – monitoring and self evaluation), while successful students have adopted these in addition to skills to benefit from any learning situation. Moreover, successful learners , use all available and choose suitable follow- up activities to tackle their problems. (Halbach , 1999).

Another study was conducted by Kang (1990) entitled " Modeling relationships between the use of English as a second language and the test performance of Asian students". The study found only weak relationships between language learning strategies and language proficiency. Only 13%-15%) of variance of the listening , grammar an reading factors were explained by the language learning strategies. The model of the relationship among the metacognitive ,cognitive and language proficient level groups .The social and affective strategies were found not to be included in the model of high level group.

Mahlobo (1999) conducted a study about "Contextual and learner factors in the development of English as second language proficiency ".With its focus on English language (LLS) ,the investigation found a significant relationship between the learner's level of (ESL) –proficiency and the use of indirect strategies. Several contextual and learners' factors were found to influence the relationship between the learners' strategies and the development of (ESL) proficiency.

Investigations with language learners often showed that the most successful students tend to use learning strategies that are suitable to the task , material, self-objectives, needs, motivations and stage learning (Oxford ,(1990) . Rubin (1975) observed that certain learners seemed to possess abilities to succeed while others lacked those abilities. This observation led (Rubin and Thompson ,(1982) to summarize 14 characteristics of "good language learners "

### **Good language learners**

1. Find their own way and take charge of their learning.
2. Organize information about language.
3. Are actively developing a feel for the language by experimenting with its grammar and words.
4. Make their own opportunities for practice in using the language inside and outside the classroom.
5. Learn to live with uncertainty by not getting flustered and by continuing to talk or listen without understanding every word.
6. Use mnemonics and other memory strategies to recall what have been learned.
7. Make errors work for them and not against them.
8. Use linguistic knowledge, including knowledge of their own first language, in learning a second language.
9. Use contextual cues to help them in comprehension.
10. Learn to make intelligent guesses.

11. Learn chunks of language as a whole and formalize routines to help them perform " beyond their competence"
12. Learn certain tricks to keep conversation going.
13. Learn certain production strategies to fill in gaps in their own competence.
14. Learn different styles of speech and writing and vary their language according to formality of the situation.

Early researches in language learning strategies have emphasized strategies that good language learners used (Rubin, 1975; Stern, 1975; Wenden, 1987). They indicate that good language learners used more and better learning strategies than did poor language learners. Rubin (1975), one of the pioneer researchers in the field, suggests some characteristics of good language learners. She indicates that good language learners have a strong desire to communicate with a target language, and they are willing to guess even though they make mistakes. In addition, they are willing to find more practice opportunities to expose the language and enable to monitor their conversations with others. However, early studies (Rubin, 1975; Stern, 1975; Wenden, 1987) have limited to strategies used by learners. They did not state the connections between strategy use and success in language learning.

From this viewpoint, current studies have shifted interest to the connections between strategy use and language proficiency (Ehrman & Oxford, 1995; Green & Oxford, 1995; Park, 1997; Wharton, 2000; Vidal, 2002; Griffiths, 2003; Kaotsombut, 2003; Shmais, 2003;). The findings from these studies indicated that language learning strategies could influence performance in language learning, and using different strategies led to different learning performance. In addition, the results found that the proficient language learners used language learning strategies more greatly and frequently than did the less proficient learners. Nevertheless, researchers (Ehrman & Oxford, 1989; Oxford, 1989; Oxford & Nyikos, 1989) have not restricted to language proficiency. They examined other factors contributing to success in learning a language such as age (Oxford, 1989), gender (Ehrman

& Oxford, 1989; Green & Oxford, 1995; Sheorey, 1999), number of years of language study (Oxford & Nyikos, 1989), level of course (Green & Oxford, 1995; Wharton, 2000; Griffiths, 2003; Magogwe & Oliver, 2007), field of study (Satta-Udom, 2007), and motivation (Ehrman & Oxford, 1989; Wharton, 2000).

For instance, compared with males, females are more frequent users of strategies (Ehrman & Oxford, 1989; Green & Oxford, 1995; Sheorey, 1999). Advanced learners use strategies more often and more effectively than beginning learners (Green & Oxford, 1995; Wharton, 2000; Griffiths, 2003; Magogwe & Oliver, 2007). Griffiths (2003) discovered the positive relationship between course level and reported frequency of language learning strategies use by private language school students in New Zealand. She indicated that the advanced learners used strategies more frequently and widely than did the elementary learners. Griffiths (2003),

Magogwe and Oliver (2007) examined the different pattern of strategy use by three groups of students: primary, secondary, and tertiary students in Botswana, South Africa. They reported that the more proficient learners used language learning strategies more often than did the less proficient learners. The primary students preferred using social strategies, whereas both secondary and tertiary students preferred using metacognitive strategies.

However, among those factors, national origin or ethnicity has a strong influence on the strategy types that language learners used (Oxford, 1989), and the types of strategies used by language learners depend on the kinds of learners and settings in which the learning occurred (Wharton, 2000).

For that reason, studies on language learning strategies in different Asian contexts were addressed in this study. First of all, Takeuchi (2003) conducted the use of strategy types in Japanese contexts through analyzing the strategy use reported in 67 books on “How I have learned a foreign language. He reported that metacognitive strategies were most preferred strategies among Japanese.

Like Takeuchi (2003), Shmais (2003) studied the strategy use of Arab EFL English majors in Palestine. His study showed that the participants were moderate strategy users. The most frequent used strategies were metacognitive strategies, but the least frequent used strategies were compensation strategies. Moreover, Riazi and Rahimi (2005) investigated the pattern of language learning strategy use by Iranian learners. Their findings were similar to Takeuchi (2003) and Shmais (2003) in that Iranian learners were moderate strategy users, and they used metacognitive strategies at the highest level.

Cognitive, compensation and affective strategies were found at a medium level; while memory and social strategies were used at a low level. These results were repeated by Nisbet, Tindall, and Arroyo (2005) and Xuan (2005). Nisbet, Tindall, and Arroyo (2005) discovered that metacognitive strategies were the most frequently used strategies among learners. Social and cognitive strategies were used at the medium level, while memory strategies were used the least.

Xuan (2005) found that the Chinese graduate students of science at Qingdao Technical University were medium strategy users. They used metacognitive strategies most often and social strategies least often. Furthermore, Hong-Nam and Leavell (2006) found that 55 ESL students preferred using metacognitive strategies most, followed by social, compensation, and cognitive strategies. The least preferred strategies were affective and memory strategies.

Unlike those findings, Peacock and Ho (2003) examined the strategy use of 1006 Hong Kong university students. They reported that students were medium strategy users with compensation category as the most frequently used strategies followed by cognitive, metacognitive, social, memory and affective strategies respectively. Similarly to Ok (2003), Ho investigated the strategy use of Korean secondary school students. He found that compensation strategies were used most frequently among students, whereas affective strategies were used the least.

Finally, Kaotsombut (2003) and Satta-Udom (2007) studied the strategy use among Thai learners. Kaotsombut (2003) conducted the strategy use of Thai graduate science students and found that students used compensation strategies at the highest level, followed by metacognitive, cognitive, social, affective, and memory strategies. Similarly to Satta-Udom (2007), he studied the strategy use of first year students at Mahidol University. He found that compensation strategies were most frequently used, while social strategies were least frequently used.

From these studies, it can conclude that different cultural groups used different strategy categories. For Asian students, the results revealed that most of them were medium strategy users, and metacognitive and compensation strategies were reported as the most frequently used strategies.

### **Studies involving successful and unsuccessful language learners**

An important piece of early research, which has had a considerable influence on the field of language learning strategies in the years since, was the “good language learner” study by Rubin (1975) . By means of observing students in classrooms, observing herself, talking to good language learners and eliciting observations from teachers, Rubin isolated seven characteristics of good language learners, namely, they have a strong desire to communicate, they are not inhibited, they attend to form, they practise, they monitor their own and the speech of others and they attend to meaning.

In a later article, Rubin (1981) translated these characteristics into what good language learners do, which falls more precisely into Rigney’s (1978) definition of learning strategies. The stated aim for Rubin’s (1975) research was to enhance the success record of the less successful students by teaching them the strategies of the more successful learners. Rubin noted that the employment of these strategies depended on a number of variables

such as target language proficiency, age, situation, cultural differences and learning style.

At around the same time as Rubin published her “good learner” study, Stern (1975) produced a list of ten language learning strategies used by good language learners. He believed that the good language learner is characterised by positive learning strategies, among which he included experimentation, planning, developing the new language into an ordered system, revising progressively, searching for meaning, practising, using the language in real communication, self-monitoring, developing the target language into a separate reference system and learning to think in the target language. Although these strategies were listed in a rather confused mixture with “characteristics”, such as “active”, “tolerant”, “outgoing” (p.316), Stern’s work was an important addition to the developing body of research on what can be learnt from the good language learner.

In another pioneering piece of research, Naiman and his colleagues (1978) also tried to find out what people known to be good at languages had in common. Identified as “essential for successful language learning” (p.225) were strategies for coming to grips with the language as a system, for using the language in real communication, for monitoring the interlanguage, for coming to terms with the affective demands of language learning and for coping with ambiguity. In spite of identifying these behaviours as typical of good language learners, Naiman et al (1978, p.224) caution: “The study as a whole suggests that the successful or good language learner, with predetermined overall characteristics does not exist. There are many individual ways of learning a language successfully”. This important issue of individual variation in language learning strategy use will be taken up at various points later in the thesis.

Various other studies which have attempted to investigate the relationship between language learning strategies and success in language development by speakers of other languages have produced mixed results. Wong Fillmore (1982) discovered the importance of social strategies (although

she did not use this term) employed by good language learners. She reported that the good language learners “spent more time than they should have during class time socialising and minding everyone else’s business they were constantly involved in the affairs of their classmates” (p.163).

O’Malley et al (1985) discovered that, although students at all levels reported the use of an extensive variety of learning strategies, higher level students reported greater use of metacognitive strategies (that is strategies used by students to manage their own learning), leading the researchers to conclude that the more successful students are probably able to exercise greater metacognitive control over their learning. This conclusion, however, is somewhat at variance with the results of research by Bialystok (1981) and by Huang and Van (1987) which indicated that strategies related to functional practice were associated with proficiency, while Ehrman and Oxford (1995) discovered that cognitive strategies such as looking for patterns and reading for pleasure in the target language were the strategies used by successful students in their study.

In contrast to the above-mentioned studies which identified one or other type of strategy as being more responsible than others for success in language learning, Green and Oxford (1995) discovered that higher level students report using language learning strategies of all kinds more frequently than do lower level students. Researchers have also been aware that there is a lot to be learnt by observation of what unsuccessful language learners do and, perhaps therefore, by implication, what learners should try to avoid. In their study of two unsuccessful learners, Vann and Abraham (1990, p.191) concluded that, although their students appeared to be active strategy users, they “failed to apply strategies appropriately to the task at hand”.

Writing about her own less than totally successful efforts to become literate in Chinese, Sinclair(1995) reported that she found the experience immensely stressful. One of the reasons for her difficulties, she believed, was that she used the same strategies to approach literacy in Chinese as she had used in her first language.



A similar observation was made by Porte (1988), who interviewed 15 under-achieving learners in private language schools in London. He commented that the majority of the unsuccessful learners in his study, while reporting frequent use of language learning strategies, reported using strategies which were the same as, or very similar to, those they had used at schools in their native countries.

Although the research into language learning strategies used by successful and unsuccessful language learners and the context of their use has produced some interesting insights, the picture which emerges is far from unified. Possible reasons for this lack of unity might include the different contexts of the studies, the differing research methods used, or the varying nature of the language learners themselves.

### **Studies of the effects of strategy instruction**

An important component of language learning strategy theory is the belief that language learning strategies are “teachable” (Oxford and Nyikos, 1989, p.291, and that learners can benefit from coaching in learning strategies (for instance, Cook 1991; Larsen-Freeman, 1991). Research in this area is still, however, “relatively uncommon, and results are rather mixed” (Nunan, 1995, p.1). Nevertheless, Nunan goes on to say that, although the effectiveness of strategy training remains uncertain, there is enough evidence of a positive relationship between language learning strategies and proficiency to suggest that further research is warranted.

In an attempt to investigate the effectiveness of language learning strategy instruction on language learning, O'Malley (1987) and his colleagues randomly assigned 75 students to one of three instructional groups where they received training in (1) metacognitive, cognitive and socioaffective strategies, (2) cognitive and socioaffective strategies or (3) no special instruction in language learning strategies (control group) for listening, speaking and vocabulary acquisition skills. They discovered a significant

difference in favour of the treatment groups for speaking, but not for listening, while the control group for vocabulary actually scored slightly higher than the treatment groups. O'Malley explains this unexpected finding as being due to the persistence of familiar strategies among certain students, who continued to use rote repetitive strategies and were unwilling to adopt the strategies presented in training, especially when they knew they would be tested within only a few minutes.

Wenden (1987) describes an intensive English programme which included a language learning strategy component at an American university. The students were described as “very advanced” (p.164), of various cultural backgrounds and with varied reasons for learning. A questionnaire revealed that less than fifty percent of the students thought that the strategy training had been useful. Wenden concluded that “learner training was not considered relevant in its own right” (p.164). In fact, some of the students were so resistant that one of the classes was discontinued after only three weeks.

This result supports Naiman et al's (1978) belief that “long lectures on strategies, or even lengthy discussions on the subject, would [not] be particularly profitable” (p.225). Three adults recently immigrated to New Zealand were included by Tang and Moore (1992) in a study of the effects of the teaching of cognitive and metacognitive strategies on reading comprehension in the classroom. They concluded that, while cognitive strategy instruction (title discussion, pre-teaching vocabulary) improved comprehension scores, the gains were not maintained upon the withdrawal of the treatment. Metacognitive strategy instruction, on the other hand, involving the teaching of self-monitoring strategies, appeared to lead to improvements in comprehension ability which were maintained beyond the end of the treatment.

Carrell, Pharis and Liberto (1989) also discovered that, in the context of their study, metacognitive strategy training was effective in enhancing reading ability by speakers of other languages. These results accord with O'Malley et al's (1985) conclusions regarding the importance of metacognitive strategies.

In a classroom-based study in Hong Kong which aimed to research whether learner strategy training makes a difference in terms of knowledge, skills and attitudes, Nunan (1995) involved 60 students in a 12 week programme “designed to help them reflect on their own learning, to develop their knowledge of, and ability to apply learning strategies, to assess their own progress, and to apply their language skills beyond the classroom”(p.3). The programme was based on a bank of tasks which belonged to four categories: general aspects of learning, different modes of learning, developing macroskills (reading, writing, listening, speaking) and language systems (pronunciation, vocabulary, grammar, discourse). Students also kept journals, from which Nunan (1995, p.8) concluded that “strategy training, plus systematic provision of opportunities for learners to reflect on the learning process, did seem to lead to greater sensitivity to the learning process over time”. Nunan recommended that language classrooms should have a dual focus, teaching both content and an awareness of language learning processes.

A study of strategy use by four independent learners, carried out by Simmons (1996) over a period of six weeks at an Australian university, consisted of a series of intensive individual training sessions aimed at raising awareness of cognitive and metacognitive strategies. At the end of the period, Simmons concluded that students had increased the number and variety of their strategy use and were more aware of the strategies which suited themselves as individuals. Simmons suggests that “making the learning process more transparent” (p.75) is important in the interests of empowering students to direct their own learning.

After studying a group of language students who were participants in a strategies based instructional programme at the University of Minnesota, Cohen (1998; 1999) concluded that the programme had made a positive difference in speaking performance. Cohen summed up the pedagogical implications of his findings as indicating that language learning strategies should be both explicitly taught in the classroom and embedded in daily tasks.

Such a mixed bag of results relating to the effectiveness of language learning strategy instruction and how best to go about it is difficult even to summarise. These results seem to indicate successful instruction for some types of strategies (for instance metacognitive strategies) but not for others; success for strategies relating to some skills (for instance speaking, reading) but not for others; success for some students but not for others; and success for some situations (for instance individual training sessions) but not for others.

### **International studies on the variables which affect strategy use**

The study of language learning strategies began with the pioneering article of Joan Rubin entitled "What the 'good language learner' can teach us" (1975, pp. 41-51). It was followed by a series of articles calling for action research in this new field (Wenden, 1986, cited in Flaitz et al., 1995; Oxford and Crookall, 1987; Oxford et al., 1988). The publication of Oxford's *What Every Teacher Should Know* (1990) and O'Malley and Chamot's *Learning Strategies in Second Language Acquisition* (1990) ignited a series of empirical studies on LLSs in the international research community which has lasted for nearly two decades. Many of these studies have relied on quantitative analysis and have used the SILL as the instrument for data collection.

Quite a number of these empirical studies focused on the effects of language proficiency on strategy use (Watanabe, 1990; Chang, 1991; Green, 1991; Phillips, 1991; Wen and Johnson, 1991; Mullins, 1992; Bedell and Oxford, 1996; Dreyer and Oxford, 1996; Cohen, 1998; Chamot et al., 1999; Riding, 2005). Some of these international studies considered the effects of motivation on strategy use (Oxford and Nyikos, 1989; Oxford et al., 1993; Kaylani, 1996; Salem, 2006). Some studies have looked at the effects of language learning styles on the selection of strategies (Reid, 1987; Ehrman and Oxford, 1989; Rossi-Le, 1989; Ko, 2002). In one study conducted at a

Japanese university, class size and the effects of learning environments on the use of strategies (Locastro, 1994) was examined.

Other studies have compared the differences between EFL and ESL students in their strategy use (Oh, 1992; Oxford, 1992; Kojic-Sabo and Lightbrown, 1999). Some studies have looked at differences between beginners and advanced language learners (Oxford and Nyikos, 1989; Green and Oxford, 1995; Wharton, 2000; Griffiths, 2003). Interesting enough, only two studies have been published on academic major and strategy use (Politzer and McGroarty, 1985; Hashim and Sahil, 1994). More recently, many researchers around the world have been considering the effects of self-regulation on strategy use (Nota et al., 2004; Cleary, 2006; Tseng et al., 2006).

It must be pointed out, however - of all the international studies dealing with LLSs - probably the most often tested variable is that of gender and how it affects strategy use. In fact, gender was tested as a second independent variable in a majority of the studies mentioned above and has been the focus of much attention in the field of strategy research ever since the publication of "Vive la Difference? Reflections on Sex Differences in Use of Language Learning Strategies" (Oxford et al., 1988). Since Oxford's call for more research in the area of gender and LLSs, a number of studies have been conducted worldwide - most reporting higher strategy use among females. Studies reporting greater strategy use by female participants include observations from the US (Ehrman and Oxford, 1989; Oxford and Nyikos, 1989; Zoubir-Shaw and Oxford, 1995 cited in Klee, 1994), from Japan (Watanabe, 1990), from Taiwan (Wang, 2002), from China (Sy, 1994), and from Puerto Rico (Green and Oxford, 1995).

In recent years, a number of SILL-based studies have also surprisingly revealed no significant gender differences in strategy use. For example, a study conducted in Malaysia (Hashim and Sahil, 1994) showed no significant differences between male and female students in overall strategy use, although it did indicate a slightly higher use of affective strategies by females. Similarly, no significant gender differences were found in overall strategy use

in a study coming out of Lebanon. However, the females there did score higher in certain individual strategy categories (Salem, 2006). Likewise, no significant gender differences were found in a strategy study in Palestine (Shmais, 2003) or in what was probably the first strategy study conducted in Saudi Arabia (Al-Otaibi, 2004). Similar studies from Taiwan, (Luo, 1998; Peng, 2001) have also reported no significant gender differences, but were later disputed by Wang's (2002) study. In another Thai study (Phakiti, 2003), no differences were found between male and female respondents in the use of cognitive studies.

Interesting enough, a study published in Turkey has reported higher use among males in overall strategy use. However, the researcher in that study cites cultural reasons which might explain over-reporting on the part of the male subjects and under-reporting by females. According to the researcher, a possible explanation for higher male scores could have less to do with actual strategy use and more to do with low female self-esteem and over- confidence of the men in a "male-dominated Turkish society" (Tercanlioglu, 2004, p. 8). Similarly, in the afore- mentioned 2003 Phakiti study, male Thai students reported higher use of metacognitive strategies. Perhaps Tercanlioglu's explanation of a "male-dominated" society could also be given for studies emanating from Taiwan, Saudi Arabia, Palestine, and Lebanon which unlike the majority of international studies - do not report higher strategy use by females. However, before drawing more definite conclusions, more specific research needs to be conducted to show the correlations between gender, culture, and strategy use around the world.

### **Strategy Based Instruction (SBI) and its Frameworks**

SBI has been defined as a "learner-centered approach to teaching that focuses on explicit and implicit inclusion of language learning and language use strategies in the second language classroom" (Cohen and Weaver, 1998, p. 1 cited in Renandya and Jacobs, 1998). Ever since researchers realized the importance of LLSs, there has been a growing call for the teaching of strategies in language learning classrooms across the world. As one leading researcher has said, "unlike most other characteristics of the learner, such as

aptitude, attitude, motivation, personality, and general cognitive style, learning strategies are readily teachable" (Oxford and Nyikos, 1989, p. 291). Most researchers around the world now agree, there are specific ways to teach those who struggle with language acquisition to consciously implement strategies which can make a difference in language learning and language use.

Several frameworks have been developed over the years for providing SBI training, including Pearson and Dole's framework (1987) cited in Cohen (2003, p. 1), Oxford's framework (1990, p. 204), Chamot and O'Malley's framework (1994) cited in Cohen (2003, p. 1), Nyikos' framework (1991), Grenfell and Harris' framework (1999) cited in Griffiths (2008, p. 270), and Cohen and Weaver's framework (2006, p. 4). Regardless of which of these frameworks are chosen, Cohen (2003, p. 1) explains the goals of any strategy training program should be to provide learners with the tools to:

- Self-diagnose their strengths and weaknesses in language learning
- Become aware of what helps them to learn the L2 most efficiently
- Develop a broad range of problem-solving skills
- Experiment with familiar and unfamiliar learning strategies
- Make decisions about how to approach a language task
- Monitor and self-evaluate their performance
- Transfer successful strategies to new learning contexts.

Many enthusiasts of SBI have pointed out the striking benefits that strategy use holds in store for SLA (Griffiths, 2008, p. 3). SBI enables learners to find which strategies work best for them and how to use them in a variety of language learning and language use situations. In short, as Cohen so aptly states, SBI empowers the learners in so many ways and at so many levels (1998, p. 71).

## **Data Collection Techniques for Language Learning Strategies**

In the body of research on language learning strategies, various researchers have made use of numerous methods for the identification of the patterns of strategy use among language learners ranging from questionnaires to computer tracking. The main reason for utilizing such a wide span of data collection techniques is that not all assessment techniques are appropriate for the identification of every type of strategy. Therefore, researchers must consider this point carefully while designing the data collection methodology of their research studies.

### **Observation**

Observation is one way of gathering data regarding learning strategies. However, it shouldn't be forgotten that most of the learning strategies take place mentally and they are difficult to observe. For this reason, while designing an observational study some important key features need to be considered carefully. Cohen and Scott (1996) point out some factors need to be taken into consideration while planning an observational study such as the number of observers and observed, the frequency and duration of observations, and how the observational data are collected, tabulated and analysed. In addition to these suggestions, Oxford (1990) stresses the importance of the level of detail a researcher is planning to observe and the focus of the observations. The researcher may aim to observe the learning strategies used by the whole group, by a small group, or by one student. She also suggests the video recording of observation sessions since this will provide a permanent record of the sessions.

### **Diary Writing**

Another way of collecting data concerning learning strategies is diary writing. It is a way of reporting the thoughts, feelings, achievements, and problems the learners report as well as their notions of teachers, friends or native speakers. Diaries are self-reports that are usually subjective. Oxford



(1990) asserts that sometimes diary writing may require some training on the part of the learners since they may not know what to report, how to report it, and to what extent to report it. If a researcher is planning to read students' diaries s/he should inform learners in advance since they are mostly considered private. Some teachers have used diaries as a stimulus to class discussions of strategy use.

## **Interviews**

A third way of collecting data regarding learning strategies is interviews. Their types range from unstructured to structured interviews. Since there is no particular questioning technique in unstructured interviews the data obtained from such an interview is difficult to interpret and categorise. Whereas the data gathered from a structured interview are “uniformly organised for all respondents and lend themselves to statistical analysis” (Cohen and Scott, 1996). O'Malley, Chamot and their colleagues (1985), have developed a Student Interview Guide, which asks learners to think about what they generally do when faced with a similar language task. Students are not required to do the task during the interview but they are asked to think about how they typically handle or do the task (O'Malley et al, 1985). Oxford (1990) also adds that “such interviews work well in small groups or with individuals” (p. 197).

## **Think Aloud Protocols**

Think aloud protocols are obtained by having participants report verbally what their thoughts are while performing a task. However, they are not expected to analyse their behavior as in introspection (Cohen, 1987). Pressley and Afflerbach (1995, as cited in Cohen, 1996) refer to the think aloud protocols as “a maturing methodology with much interesting work already accomplished and considerable work to be done” (p. 1), which implies that they have been used in many recent studies and they will be used in studies that will be carried out in the future.

As the other data collection methods, the think aloud protocols have their potential strengths and weaknesses as well. Olson, Duffy, and Mack (1984, p. 256 as cited in Katalin 2002) regard ‘think-out-aloud’ as a tool for collecting “systematic observation about the thinking that occurs during reading”, in other words, for obtaining data about the otherwise unseen, unobservable processes, such as inferencing or the use of prior knowledge. Another strength of the method is that it is the closest way to get to the cognitive processes of learners. Nevertheless, only the conscious processes are available for verbalisation, the rest of the unconscious thoughts flowing in the mind might remain hidden. Another weakness of the method is that the “respondents may differ with respect to their verbal skills” (Cohen and Scott, 1996, p. 97). Some might be more competent than the others at contributing the appropriate amount of data at the appropriate level of explicitness.

When all the points regarding think aloud protocols are taken into consideration, it can be stated that they require careful setting up and preparation on the part of the researcher. Katalin (2002) emphasizes that the purpose of the research should be in harmony with what can be retrieved with the think aloud protocol. Another point is the instructions that will be given to the participants. They need to be neatly worded and focused to the research aims. The selection and training of participants for the experiment also need to be carefully considered by the researcher. An important issue that needs to be taken into account is training participants with respect to the purpose of the study. Rankin (1988, p. 127 as cited in Katalin 2002) states that participants should be, first of all, familiarised with the purpose of the study and they should be shown what they are expected to do. A second practice session can be arranged just before the experiment to remind students the nature of the task.

Another issue, which is extensively discussed with respect to think aloud protocols, is the language of verbalisation. During the preparation stage the researcher should decide what language the participants will use when doing the think aloud. If the participants are asked to read in the target language and report in the native language some problems may arise. Katalin

(2002) cites an argument raised by Rankin (1988, pp. 122-123) that “Requiring the subjects to switch back and forth between languages while reading and verbalising would seem to encourage translation...”. On the other hand, if participants are asked to use the target language while performing the task, the participants might worry more about speaking and concentrate less on the task itself. Furthermore, their target language oral production skills might be limited as well. In order to avoid these complications, Katalin (2002) suggests that “subjects should be instructed to verbalise in their mother tongue”. Another alternative is to “let the participants decide which language they would feel comfortable with when doing verbalization” (Katalin, 2002, p. 4).

## **Questionnaires**

Making use of questionnaires in a research study is one of the most commonly used techniques to collect data since they “can be objectively scored and analysed” (Oxford, 1990, p. 199). Similar to interviews, they vary from more structured, in which the items can range from “yes or no” answers or indications of frequency, to less structured questions asking respondents to depict or explain the language learning strategy in a detailed way. The data obtained from highly structured questionnaires are uniformly organized because of the standardized categories provided for all respondents and they lend themselves to statistical analysis (Cohen and Scott, 1996). A major benefit of large-scale questionnaires pointed out by Cohen and Scott (1996) is that they have the potential to generate and test hypotheses because of the large number of respondents. Oxford (1990), on the other hand, asserts that the more structured questionnaires “might miss the richness and spontaneity of less structured formats” (p. 199).

A good example of a structured learning strategy questionnaire is the SILL developed by Oxford and has been used in many parts of the world with the learners of many different languages such as Chinese, French, German, Spanish, Japanese, and Turkish. The SILL has 50 items grouped under 6 sections. Its 5-point scale ranges from “never or almost never” to “always or

almost always.” Oxford (1990) points out that the overall average shows how often the learner are inclined to use learning strategies in general, while the means for each section of the SILL stand for which strategy groups the learner is liable to use most frequently.

## **Computer Tracking**

Though the computer tracking technology has been applied in only limited way to research strategies, researchers are now trying to find out its potential with regard to assessing language learning strategies. Computer tracking “programs can be used to collect information either with or without the learner’s awareness”(Cohen and Scott, 1996, p. 103). Such tracking might be used to identify the language learning strategies associated with the use of resource functions such as a dictionary, a thesaurus, tutorials on how to complete given language tasks, etc., belonging to word processing programs, the sequence of processing of elements in reading text for comprehension or in producing written text, and the choice of speed for reading and writing tasks. Cohen and Scott (1996) assert that there might be some problems with the results of other assessment methods such as interviews, diaries, etc. for various reasons. However, by recording a learner’s use of a resource function, the computer eliminates the problem of distortion because of human inaccuracy or unawareness.

The computer tracking method has certain disadvantages as well. A major limitation of the method pointed out by Cohen and Scott (1996) is its inability to describe language learning use strategies or use strategies which do not result in the use of a resource function on the computer. For instance, if a learner uses inferencing to understand the meaning of a word, the computer would not be able to report this.

Another limitation is that the use of computer tracking may not be practical since some participants may not feel comfortable working with a computer.

## Multiple Approaches to Data Collection

O'Malley and Chamot (1990) point out that making use of different types of data collection methods may lead to different results since every assessment method has its own advantages and disadvantages. Therefore, some researchers have made use of multiple approaches to data collection.

Cohen and Scott (1996) suggest some major issues that should be taken into account while choosing the best data collection method(s). According to them in order to determine the most appropriate data collection method, a researcher should bear in mind issues such as “the purpose of the study, the number of learners and researchers, the resources available, the strategies to be studied, the types of the language tasks for which the strategies are used, and the context in which the language learning takes place” (p. 104).

## Comments on the literature

The literature on learning styles and learning strategies is full of unresolved issues, both theoretical and practical. In the light of recent research suggesting links between learning styles , learning strategies and the academic achievement it can be seen that there is a strong relationship between them and they have a remarkable effect on each other each in turn.

The review of the literature looked also at the various definitions of learning styles and learning strategies, reviewed a framework for categorizing the types of instruments to assess them and explored the literature on learning styles and strategies among diverse factors. The literature also reviewed the relationship between learning styles and strategies and other factors such as gender , culture, national origin, age and teaching styles .

There was a consensus among the studies reviewed in the literature that it is agreed that making students aware of their learning style and helping them develop study skills compatible with their preferred learning style had a positive affect on academic performance.

Most of the Literature review indicated that Investigations with language learners often showed that the most successful students tend to use learning strategies that are suitable to the task , material, self-objectives, needs, motivations and stage learning.

From reviewing the literature it must be pointed out, however - of all the international studies dealing with LLSs - probably the most often tested variable is that of gender and how it affects strategy use. In fact, gender was tested as a second independent variable in a majority of the studies mentioned in the literature and has been the focus of much attention in the field of strategy research.

It appeared from reviewing the literature that there were little research done to correlate learning styles , language learning strategies and the

academic achievement ,especially in Palestine. Hence, this study ,unlike the other studies, will address the question whether there is a relationship between learning styles , language learning strategies and the academic achievement among the English majors at Al Aqsa University.

# Chapter III

## **METHODOLOGY OF THE STUDY**



## **The Methodology**

This chapter first focuses on the overall design of the study. Then it presents the research questions and some information about the participants. After that the data collection instruments along with the data collection procedures are explained. Finally, information with respect to the analysis of data is provided.

### **Research Design**

This is a descriptive study based on a survey research conducted for the purpose of making descriptive assertions about some population. This study aims at finding out the major, minor, and negligible perceptual modalities, the learning strategies, and to investigate the relationship between the learning style and language learning strategies of the third year English majors at Al Aqsa University. Furthermore, to find if a correlation between the learning styles, language learning strategies and the academic achievement exists among the English majors at Al Aqsa University .

In this study data was collected through two questionnaires, one of which aimed to identify students' learning style preferences and the other aimed to find out what strategies students seemed to prefer. The student's level of language achievement was determined by an achievement test designed by the researcher.

### **Research Questions**

In this study the major research question is as follows:

Is there a relationship among students' learning styles, language learning strategy preferences and the academic achievement among the English majors at Al Aqsa University?

From this major question emerge other minor questions, and they are stated as follows :

1. What are the major, minor, and negligible perceptual modality preferences of the students – audio, visual, kinaesthetic, tactile, group learning, and individual learning of the participants?
2. Is there a difference in the perceptual modality preferences of the students based on their sex?
3. What are the language learning strategies used by students as reported in the Strategy Inventory for Language Learning?
4. Is there a difference in the language learning strategy preferences of the students based on their sex?
5. Is there a relationship between the students' perceptual learning style preferences and their academic achievement?
6. Is there a relationship between the students' language learning strategies and their academic achievement?
7. Is there a relationship between the learning styles and the language learning strategies among the English majors at Al Aqsa University?

### **Population**

The data sources in this study were the third year English majors at Al Aqsa University. There were total of (220) students. The proportion of male and female students was equal. Students had similar educational backgrounds.

In this study, however, other variables such as the students' age, secondary school stream and others. variables influence learning styles and strategies will not be taken into account. Not all of the third year level students

took part in the study. A simple random sampling technique was used to choose 60 participants for this study.

Since gender was one of the variables that were taken into consideration, it is worth mentioning the number of male and female participants. Of all the 60 participants, 30 of them were male and 30 were female.

## **Data Collection Instruments**

In this study, two instruments were used with the purpose of collecting quantitative data. The Perceptual Learning Style Preference Questionnaire was used to identify the major, minor, and the negligible learning style preferences of the students. The Strategy Inventory for Language Learning, on the other hand, was used to identify the language learning strategy preferences of the participants. Qualitative data was obtained through an achievement test, which was designed to find out the students' achievement in reading, structure, synonyms and writing. (See Appendix)

## **Perceptual Learning Style Preference Questionnaire**

The first instrument that was used in the current study is the Perceptual Learning Style Preference Questionnaire (PLSPQ) developed by Reid (1987). It is a self-reporting questionnaire developed on the basis of existing learning style instruments with some changes suggested by non-native speaker informants and US consultants in the field of linguistics. The questionnaire, which was designed and validated for non-native speakers, consists of five statements on each of the six learning style preferences to be measured: visual, auditory, kinaesthetic, tactile, group learning, and individual learning. The first four categories constitute the perceptual learning style categories and the remaining two make up the social category. The participants responded on the basis of a five point Likert scale, ranging from strongly agree to strongly disagree.

While answering the statements in the questionnaire the students were asked to decide whether they strongly agree, agree, are undecided, disagree,

and strongly disagree and mark the item that best applies to their study of English. The participants were also asked to respond to each statement quickly, without thinking about the statements too much and they were asked not to change their responses after they mark them.

Reid (1987) stated that the validation of the questionnaire was done by the split half method. Correlation analysis of an original set of 60 statements (10 per learning style) determined which 5 statements should remain within each subset.

In this study , it was piloted with 20% of the students before it was administered to the participants of this study. During the piloting of the test the concerns, such as students' claims that they have difficulty in differentiating two items from one another and even misunderstanding an item, raised by the students were taken into consideration and the statements in the questionnaire were improved accordingly.

The piloting of the questionnaire also helped to determine the time that would be given to students during the actual administration of the questionnaire. The students were able to complete the questionnaire in 15 minutes time. Depending on the timing during the piloting, it was decided that 15 minutes were ideal for students to respond to the questions, and transfer responses to the questionnaire, the reliability coefficient, Cronbach alpha of the questionnaire was found to be .82.

## **Strategy Inventory for Language Learning**

The second instrument used in this study is the Strategy Inventory for Language Learning developed by Oxford (1990). It is a self-report, paper and pencil survey. The SILL was originally designed to assess the frequency of use of language learning strategies by students at the Defence Language Institute in California. Two versions of the SILL are available in Oxford's (1990) language learning strategy book for language teachers. The first one is used with foreign language learners whose native language is English and it

consists of 80 items. The second one is used with learners of English as a second or foreign language. It contains 50 items. The latter version was used in this study. Oxford and Burry-Stock (1995) assert that the results of the studies regarding the reliability of the ESL/EFL SILL have shown that it is a highly reliable instrument. “With ESL/EFL SILL, Cronbach alphas have been .94 using the Chinese translation with a sample of 590 Taiwanese University EFL learners” (p. 6). They also add that when the instrument is administered in its English version, though slightly lower, the reliabilities were still acceptable.

Oxford and Burry-Stock (1995) reports the results of various studies with respect to this; for example, Oxford et al (1989) reported a reliability of .86 with 156 students. The reliability coefficient, Cronbach alpha of the instrument used in this study was found .90, which can also be accepted as highly reliable. Concerning the content validity of the inventory Oxford and Burry-Stock (1995) state that the content validity of the instrument was determined by professional judgment and it was found to be very high. “Two strategy experts matched the SILL items with agreement at .99 against entries in a comprehensive language learning strategy taxonomy, which itself was built from a detailed blueprint of a range of over 200 possible strategy types” (p. 7).

The SILL (Version 7.0) consists of six subsections and each section represents one of the six categories of LLS, which the learners do not know at the time of taking the inventory. The 50 statements in the inventory follow the general format ‘I do such and such’ and students respond on 5 point Likert scale ranging from 1 ‘Never or almost never true of me’ to 5 ‘always or almost always true of me’.

After all the answers are completed, the values assigned to each item in each section are added and then divided into the number of items in each section. The same procedures are repeated for each section and values ranging between 1 and 5 are obtained. These values show the profile of a

learner, in other words, the strategy groups employed by the learner and their frequency.

The SILL has been translated into many languages such as Chinese, Japanese, and Spanish (Oxford 1995).

The questionnaire was not only proofread by some other language instructors, but it was also piloted with 20 % of other students in order to find out any potential problems with the inventory that may arise during the data collection. It took students around 15 minutes to respond to the question. Based on this result, the time for the actual administration of the questionnaire was decided to be no more than 20 minutes as some students were not as quick as their peers. A reliability analysis was conducted to determine the reliability of the of the questionnaire. The reliability coefficient Cronbach alpha was found to 90, which showed that it was highly reliable.

### **Data Collection Procedures**

First of all, the researcher took permission from Al Aqsa University administration to conduct his study tools on the third year English language students, and performs the achievement test in a lecture time with the help of the instructors. The instructors helped the researcher conduct the test during a lecture time. The students were informed to read the instruction paper before doing the test, and then make sure they answer the four parts of the test in the given tables for each part within the allotted time.

After having finished the test, the answer sheets were gathered, marked and entered into the computer for data analyses. To increase the credibility of the responses to the questionnaires, the English language instructors were informed to remind students that they should be sincere in their answers, and it was agreed that for getting more valid results, the students were given the opportunity to respond to the questionnaires at home and the students should handle the two questionnaires the coming day. The 60 students were also asked to give an immediate response and that they shouldn't hesitate and change their answers. The questionnaires were

collected the other day and the responses were entered into the computer for data analyses.

## **Data Analyses**

This study aims at identifying students' learning styles and language learning strategies in order to determine whether there is a relationship between them and the students' academic achievement. Another aim of the study is to identify whether there are gender differences in the preferences of learning styles and language learning strategies. Data with respect to students' learning styles were collected through the Perceptual Learning Style Preference Questionnaire. Another questionnaire, the Strategy Inventory for Language Learning was administrated with the purpose of identifying students' language learning strategies.(See Appendix).The statistical analyses were conducted by using the Statistical Package for Social Sciences (SPSS)

Regarding the analysis of the results obtained from the PLSPQ, descriptive statistics was used to group the students according to their major, minor, and negligible learning style preference categories. A t-test was conducted to identify whether there was significant difference in the learning style preference between males and females. Similar statistical procedures were used to analyze the data obtained from the SILL. Descriptive statistics were used to rank order the strategy categories from the most preferred to the least preferred category. A t-test was also conducted to find whether there was difference in the preference of learning strategies between males and females.

In order to reveal whether there was a significant relationship between the learning styles and the language learning strategies the Pearson correlation was used. The data obtained from the achievement test were analyzed by making use of a content analysis.

## The sample of the study

### a- Pilot study:

The pilot sample of the study consisted of (20) students with (44%) from the population of the study. The purpose of the pilot study was to ensure the reliability and the stability of the instrument of the study .

### b- Sample of the study:

The sample of the study consisted of (60) students with (27.3%) were stratified and randomly chosen from a purposive sample from of the third year English majors at Al Aqsa University (2009\_2010). Tables (1) shows the distribution of the sample.

**Table (1)**

**The distribution of the sample according to Student's gender**

Classification	No.	%
male	30	50
female	30	50
Total	60	100

## The instrumentations

### Perceptual language learning preferences questionnaire

**Table (2)**

**The number of the items of each scope in the learning style questionnaire**

Scopes	No. of items
VISUAL	5
AUDITORY	5
KINAESTH	5
TACTILE	5
GROUPLEA	5
INDIVIDU	5
total	30

### Internal consistency:

Al Agha & Al Ostaz (2004: 110) refers that the internal consistency indicates the correlation of the degree of each item with the total of learning



style questionnaire. The internal validity coefficient was computed by using Pearson formula.

The following tables show the data analysis of the correlation coefficient of each item in the LSP questionnaire with the scope it belongs to by using the SPSS. Each table contains statements that belong to the similar learning style.

**Table (3)**

**Pearson Correlation coefficient for every item from the first scope with the total degree of this scope**

Item	Pearson Correlation	Sig. level
6. I learn better by reading what the teacher writes on the chalkboard.	0.864	sig. at 0.01
10. When I read instructions, I remember them better	0.957	sig. at 0.01
12. I understand better when I read instructions.	0.453	sig. at 0.05
24. I learn better by reading than listening to someone.	0.909	sig. at 0.01
29. I learn more by reading textbooks than by listening to a lecture.	0.961	sig. at 0.01

**r table value at df (18) and sig. level (0.05) = 0.444**

**r table value at df (18) and sig. level (0.01) = 0.561**

**Table (4)**

**Pearson Correlation coefficient for every item from the second scope with the total degree of this scope**

Item	Pearson Correlation	Sig. level
1. When the teacher tells me the, instructions I understand better.	0.776	sig. at 0.01
7. When someone tells me how to do something in class, I learn it better.	0.747	sig. at 0.01
9. I remember things I have learned in class better than things I have read.	0.446	sig. at 0.05
17. I learn better in class when the teacher gives a lecture.	0.877	sig. at 0.01
20. I learn better in class when I listen to someone.	0.655	sig. at 0.01

**r table value at df (18) and sig. level (0.05) = 0.444**

**r table value at df (18) and sig. level (0.01) = 0.561**

**Table (5)**

**Pearson Correlation coefficient for every item from the third scope with the total degree of this scope**

Item	Pearson Correlation	Sig. level
2. I prefer to learn by doing something in class.	0.578	sig. at 0.01
8. When I do things in class, I learn better.	0.680	sig. at 0.01
15. I enjoy learning in class by doing experiments.	0.451	sig. at 0.05
19. I understand things better in class when I participate in role-playing.	0.839	sig. at 0.01
26. I learn best in class when I participate in related activities.	0.687	sig. at 0.01

r table value at df (18) and sig. level (0.05) = 0.444

r table value at df (18) and sig. level (0.01) = 0.561

**Table (6)**

**Pearson Correlation coefficient for every item from the fourth scope with the total degree of this scope**

Item	Pearson Correlation	Sig. level
11. I learn more when I can make a model of something.	0.927	sig. at 0.01
14. I learn more when I make something for a class project.	0.871	sig. at 0.01
16. I learn better when I make drawings as I study.	0.905	sig. at 0.01
22. When I build something, I remember what I learned better.	0.538	sig. at 0.05
25. I enjoy making something for a class project.	0.745	sig. at 0.01

r table value at df (18) and sig. level (0.05) = 0.444

r table value at df (18) and sig. level (0.01) = 0.561

**Table (7)**

**Pearson Correlation coefficient for every item from the fifth scope with the total degree of this scope**

Item	Pearson Correlation	Sig. level
3. I get more work done when I work with others.	0.632	sig. at 0.01
4. I learn more when I study with a group.	0.752	sig. at 0.01
5. In class, I learn best when I work with others.	0.576	sig. at 0.01
21. I enjoy working on an assignment with two or three classmates.	0.772	sig. at 0.01
23. I prefer to study with others	0.804	sig. at 0.01

r table value at df (18) and sig. level (0.05) = 0.444

r table value at df (18) and sig. level (0.01) = 0.561

**Table (8)**  
**Pearson Correlation coefficient for every item from the sixth scope with the total degree of this scope**

Item	Pearson Correlation	Sig. level
13. When I study alone, I remember things better.	0.467	sig. at 0.05
18. When I work alone, I learn better.	0.676	sig. at 0.01
27. In class, I work better when I work alone	0.853	sig. at 0.01
28. I prefer working on projects by myself.	0.919	sig. at 0.01
30. I prefer to work by myself.	0.984	sig. at 0.01

**r table value at df (18) and sig. level (0.05) = 0.444**

**r table value at df (18) and sig. level (0.01) = 0.561**

The results of tables (8) show that the value of these items was suitable and highly consistent and valid for conducting this study.

The researcher also made sure of the correlation between the six scopes with the total degree of the learning styles questionnaire, and the six scopes with others as shown in table (9).

**Table (9)**  
**Pearson Correlation coefficient for every scope from the questionnaire with the total degree of the questionnaire and the scopes with others scopes**

	SUMB	VISUAL	AUDITORY	KINAESTH	TACTILE	GROUPLEA	INDIVIDU
VISUAL	0.469	1					
AUDITORY	0.648	0.473	1				
KINAESTH	0.531	0.542	0.468	1			
TACTILE	0.549	0.484	0.445	0.348	1		
GROUPLEA	0.513	0.538	0.589	0.351	0.517	1	
INDIVIDU	0.474	0.524	0.681	0.462	0.551	0.620	1

**r table value at df (18) and sig. level (0.05) = 0.444**

**r table value at df (18) and sig. level (0.01) = 0.561**

As shown in the table ( 9 ), there is a relation correlation between the scopes and the total degree and each scope with the other scopes at sig. level (0.01) that shows a high internal consistency of the perceptual learning style questionnaire which reinforces the validity of the questionnaire.

**Reliability:**

The test is reliable when it gives the same results if it is reapplied in the same conditions (Al Agha & Al Ostaz, 2004: 108). The researcher used the pilot study to

calculate the reliability of the questionnaire which was measured by Alpha Cronbck and split-half methods.

The researchers calculated the correlation between the first and the second half of each domain of the learning style questionnaire and the whole of the questionnaire. Then, the researcher used Spearman Brown Formula to modify the length of the questionnaire to find out the reliability coefficient as shown in table (10).

**(Table 10)**  
**Correlation coefficient between the two halves of each domain before modification and the reliability after modification**

Scope	No. of items	Correlation between two parts	Reliability after modifying
VISUAL	*5	0.904	0.922
AUDITORY	*5	0.642	0.652
KINAESTH	*5	0.597	0.604
TACTILE	*5	0.579	0.673
GROUPLEA	*5	0.866	0.883
INDIVIDU	*5	0.928	0.938
Total	30	0.370	0.540

\* The researchers used Gutman coefficient for unequal halves .

The table shows that the reliability coefficient by using split- half after modification more than (0.540) and this indicates that the questionnaire is reliable and the researcher is satisfied to apply it on the sample of the study.

A total sample of 20 students participated in testing the reliability of the learning style questionnaire, Alpha formula was used to determine the reliability of the questionnaire as shown in table (11).

**Table (11)**  
**Alpha Correlation Coefficient of the PLSQ Reliability**

Scope	Number of Items	Alpha kronbach
VISUAL	5	0.888
AUDITORY	5	0.736
KINAESTH	5	0.620
TACTILE	5	0.860
GROUPLEA	5	0.738
INDIVIDU	5	0.833
Total	30	0.688

The results of table ( 11 ) showed that the ranges of reliability of the two domains were above 0.688. that results indicates that the questionnaire was suitable for

conducting such study. The reliability of the questionnaire was measured by Alpha Cronbach and the split-half methods.

**Table ( 12 )**  
**The number of items in each scope in the language learning strategy questionnaire**

Scopes	No. of items
Part A: Memory Strategies	9
Part B: Cognitive Strategies	14
Part C : Compensation Strategies	6
Part D: Metacognitive Strategies	10
Part E :Affective Strategies	5
Part F : Social Strategies	6
total	50

#### **Internal consistency for Strategy Inventory for Language Learning (SILL)**

Al Agha & Al Ostaz (2004: 110) refers that the internal consistency indicates the correlation of the degree of each item with the total of the (SILL). The internal validity coefficient was computed by using Pearson formula. The following tables show the data analysis of the correlation coefficient of each item with the scope it belongs to compare the whole degree of the questionnaire of (SILL). by using the SPSS.

**Table (13)**  
**Pearson Correlation coefficient for every item from the first scope with the total degree of this scope**

Item	Pearson Correlation	Sig. level
I think of relationships between what I already know and new things I learn in English.	0.931	sig. at 0.01
I use key English words in sentences so that I can remember them.	0.910	sig. at 0.01
I associate the sound of a new English word with its image or picture to help me remember it .	0.890	sig. at 0.01
I remember a new English word by making a mental picture of a situation or context in which the word might be used.	0.877	sig. at 0.01
I use rhymes to remember new English words	0.912	sig. at 0.01
I use flash cards to remember new English words.	0.547	sig. at 0.05
I physically act out English words.	0.706	sig. at 0.01

I often review English lessons.	0.724	sig. at 0.01
I remember new English words or phrases by remembering their locations on the page, the board ,or on a street sign.	0.712	sig. at 0.01

r table value at df (18) and sig. level (0.05) = 0.444

r table value at df (18) and sig. level (0.01) = 0.561

**Table (14)**

**Pearson Correlation coefficient for every item from the second scope with the total degree of this scope**

Item	Pearson Correlation	Sig. level
I say or write new English words several times.	0.496	sig. at 0.05
I try to talk like a native English speaker.	0.562	sig. at 0.01
I practice the sounds of English.	0.545	sig. at 0.05
I use the English words I know in different ways.	0.945	sig. at 0.01
I initiate conversations in English.	0.528	sig. at 0.05
I write notes, messages, letters or reports in English.	0.879	sig. at 0.01
I first skim an English passage the go back and read carefully.	0.932	sig. at 0.01
I read for pleasure un English.	0.837	sig. at 0.01
I look for words in my own language that are similar to new English words.	0.932	sig. at 0.01
I try to find study methods that improve my performance in English.	0.524	sig. at 0.05
I find the meaning of an English word by dividing it into parts that I understand.	0.837	sig. at 0.01
I try not to translate word for word when I am studying English.	0.915	sig. at 0.01
I make summaries of information that I hear or read in English.	0.932	sig. at 0.01
I use the English words I know in different ways.	0.879	sig. at 0.01

r table value at df (18) and sig. level (0.05) = 0.444

r table value at df (18) and sig. level (0.01) = 0.561

**Table (15)**

**Pearson Correlation coefficient for every item from the third scope with the total degree of this scope**

Item	Pearson Correlation	Sig. level
To understand unfamiliar English words , I use guesses.	0.659	sig. at 0.01
When I can't think of a word during a conversation in English, I use gestures.	0.743	sig. at 0.01
I make up new words if I don't know the right ones in English.	0.674	sig. at 0.01
I read English without looking up every new word.	0.847	sig. at 0.01
I try to guess what the other person will say next in English.	0.473	sig. at 0.05
If I can't think of an English word ,I use a word or a phrase that means the same thing.	0.657	sig. at 0.01

r table value at df (18) and sig. level (0.05) = 0.444

r table value at df (18) and sig. level (0.01) = 0.561

**Table (16)**  
**Pearson Correlation coefficient for every item from the fourth scope with the total degree of this scope**

Item	Pearson Correlation	Sig. level
I try to find as many ways as I can to use my English.	0.553	sig. at 0.05
I notice my English mistakes and use that information to help me do better/improve my performance.	0.742	sig. at 0.01
I pay attention when someone is speaking English.	0.603	sig. at 0.01
I try to find out how to be a better learner of English.	0.573	sig. at 0.01
I plan my schedule so I will have enough time to study English.	0.644	sig. at 0.01
I look for people I can talk to in English.	0.621	sig. at 0.01
I look for opportunities to read as much as possible in English.	0.584	sig. at 0.01
I have a strong motivation to read what I can in English.	0.435	sig. at 0.05
I think of ways to further my progress in learning English.	0.645	sig. at 0.01
I try to relax whenever I feel afraid of using English.	0.491	sig. at 0.05

r table value at df (18) and sig. level (0.05) = 0.444

r table value at df (18) and sig. level (0.01) = 0.561

**Table (17)**  
**Pearson Correlation coefficient for every item from the fifth scope with the total degree of this scope**

Item	Pearson Correlation	Sig. level
I encourage my self to speak English even when I am afraid of making a mistake.	0.717	sig. at 0.01
I give myself a reward or treat when I do well in English.	0.785	sig. at 0.01
I notice if I am tense or nervous when I am studying or using English.	0.647	sig. at 0.01
I write my own feelings in a language learning diary.	0.576	sig. at 0.01
I talk to someone else about how I feel when I am learning English.	0.567	sig. at 0.01

r table value at df (18) and sig. level (0.05) = 0.444

r table value at df (18) and sig. level (0.01) = 0.561

**Table (18)**  
**Pearson Correlation coefficient for every item from the sixth scope with the total degree of this scope**

Item	Pearson Correlation	Sig. level
If I do not understand something in English, I ask the other person to slow down or say it again.	0.461	sig. at 0.05
I ask English speakers to correct me when I speak.	0.756	sig. at 0.01
I practice English with my classmates.	0.464	sig. at 0.05
I ask for help from English speakers.	0.792	sig. at 0.01
I ask questions in English for an explanation.	0.467	sig. at 0.05
I try to learn about the culture of English speakers.	0.665	sig. at 0.01

r table value at df (18) and sig. level (0.05) = 0.444

r table value at df (18) and sig. level (0.01) = 0.561

The results of tables (12,13,14,15,16,17,18) show that the value of these items were suitable and highly consistent and valid for conducting this study.

The researcher also made sure of the correlation between the six scopes with the total degree of the questionnaire of (SILL) , and the six scopes with others as shown in table (19).

**Table (19)**

**Pearson Correlation coefficient for every scope from the questionnaire of (SILL) with the total degree of the questionnaire and the scopes with others scopes**

Strategies	SUMA	Part A: Memory Strategies	Part B: Cognitive Strategies	Part C : Compensation Strategies	Part D: Metacognitive Strategies	Part E :Affective Strategies	Part F : Social Strategies
Part A: Memory Strategies	0.594	1					
Part B: Cognitive Strategies	0.545	0.604	1				
Part C : Compensation Strategies	0.587	0.518	0.630	1			
Part D: Metacognitive Strategies	0.694	0.685	0.646	0.528	1		
Part E :Affective Strategies	0.526	0.607	0.512	-0.447	0.491	1	
Part F : Social Strategies	0.665	0.563	0.549	0.655	0.470	0.539	1

**r table value at df (18) and sig. level (0.05) = 0.444**

**r table value at df (18) and sig. level (0.01) = 0.561**

As shown in the table (19), there is a relation correlation between the scopes and the total degree and each scope with the other scopes at sig. level (0.01) that shows a high internal consistency of the questionnaire of (SILL). which reinforces the validity of the questionnaire.

#### **Reliability:**

The test is reliable when it gives the same results if it is reapplied in the same conditions (Al Agha & Al Ostaz, 2004: 108). The researcher used the pilot study to calculate the reliability of the questionnaire of (SILL) which was measured by Alpha Cronbck and split-half methods.



The researchers calculated the correlation between the first and the second half of each domain of the questionnaire of (SILL) and the whole of the questionnaire. Then, the researcher used Spearman Brown Formula to modify the length of the questionnaire to find out the reliability coefficient as shown in table (20).

(Table 20)

**Correlation coefficient between the two halves of each domain before modification and the reliability after modification**

Scope	No. of items	Correlation between two parts	Reliability after modifying
Part A: Memory Strategies	*9	0.680	0.708
Part B: Cognitive Strategies	14	0.899	0.947
Part C : Compensation Strategies	6	0.540	0.702
Part D: Metacognitive Strategies	10	0.562	0.719
Part E :Affective Strategies	*5	0.441	0.463
Part F : Social Strategies	6	0.574	0.729
Total	50	0.340	0.508

\* The researchers used Gutman coefficient for unequal halves.

The table shows that the reliability coefficient by using split- half after modification more than (0.508) and this indicates that the questionnaire is reliable and the research is satisfied to apply it on the sample of the study.

A total sample of 20 students participated in testing the reliability of the questionnaire, Alpha formula was used to determine the reliability of the questionnaire as shown in table (20).

Table (21)

**Alpha Correlation Coefficient of the questionnaire of (SILL)**

Scope	Number of Items	Alpha kronbach
Part A: Memory Strategies	9	0.927
Part B: Cognitive Strategies	14	0.951
Part C : Compensation Strategies	6	0.697
Part D: Metacognitive Strategies	10	0.759
Part E :Affective Strategies	5	0.657
Part F : Social Strategies	6	0.605
Total	50	0.902

The results of table ( 21 ) showed that the ranges of reliability of the two domains were above 0.902 that results indicates that the questionnaire was suitable for conducting such study. The reliability of the questionnaire was measured by Alpha Cronback and the split-half methods.

### The validity and reliability of the Achievement Test

**Table (22)**  
**The number of questions in each item of the achievement test**

Scopes	No. of items
READING	10/15
GRAMMAR	35
SYNONYMS	35
WRITING	15
Total	100

### Internal consistency:

Al Agha & Al Ostaz (2004: 110) refers that the internal consistency indicates the correlation of the degree of each item with the total of the achievement test. The internal validity coefficient was computed by using Pearson formula. The following tables show the data analysis of the correlation coefficient of each item with the scope it belongs to compare the whole degree of the achievement test by using the SPSS.

The results of tables show that the value of these items was suitable and highly consistent and valid for conducting this study. The researcher also made sure of the correlation between the scopes with the total degree of the achievement test, and the six scopes with others as shown in table (23).

**Table (23)**  
**Pearson Correlation coefficient for every scope from the achievement test with the total degree of the achievement test and the scopes with others scopes**

	ACHEVEME	READING	GRAMMAR	SYNONYMS	WRITING
ACHEVEME	1.000				
READING	0.912	1.000			
GRAMMAR	0.992	0.861	1.000		
SYNONYMS	0.987	0.853	0.992	1.000	
WRITING	0.951	0.931	0.915	0.895	1.000

r table value at df (18) and sig. level (0.05) = 0.444

r table value at df (18) and sig. level (0.01) = 0.561

As shown in the table (23), there is a relation correlation between the scopes and the total degree and each scope with the other scopes at sig. level (0.01) that shows a high internal consistency of the achievement test which reinforces the validity of the test.

### **Reliability:**

The test is reliable when it gives the same results if it is reapplied in the same conditions (Al Agha & Al Ostaz, 2004: 108). The researcher used the pilot study to calculate the reliability of the questionnaire which was measured by Alpha Cronbck and split-half methods.

The researchers calculated the correlation between the first and the second half of each domain of the achievement test and the whole of the test. Then, the researcher used Spearman Brown Formula to modify the length of the test to find out the reliability coefficient as shown in table (24).

**(Table 24)**  
**Correlation coefficient between the two halves of each domain before modification and the reliability after modification**

Scope	No. of items	Correlation between two parts	Reliability after modifying
READING	10/15	0.532	0.694
GRAMMAR	35	0.813	0.842
SYNONYMS	35	0.806	0.831
WRITING	15	0.727	0.729
Total	100	0.977	0.988

**\* The researchers used Gutman coefficient for unequal halves .**

The table shows that the reliability coefficient by using split- half after modification was more than (0.508) and this indicates that the achievement test is reliable and the researcher is ready to apply it on the sample of the study.

A total sample of 20 students participated in testing the reliability of the test, Alpha formula was used to determine the reliability of the test as shown in table (25).

**Table (25)**  
**Alpha Correlation Coefficient of the achievement test Reliability**

Scope	No. of items	Alpha Cronbach
READING	10/15	0.519
GRAMMAR	35	0.792
SYNONYMS	35	0.782
WRITING	15	0.634
Total	100	0.926

The results of table (25) showed that the ranges of reliability of the two domains were above 0.902 that results indicate that the test was suitable for conducting such a study. The reliability of the achievement test was measured by Alpha Cronbach and the split-half methods.

### Table of specification

The researcher made the table of specifications before conducting his exam.. literal, interpretive, critical and creative levels in reading comprehension, synonyms, grammar and writing were considered and included in the test.

**Table (26) Reading Test**

Questions of the test	Levels of reading comprehension skills				Test items & percentage	
	Literal	interpretive	Critical	Creative	Items & marks	Percent %
Question 1				10% 1Q – 1.5M.	1.5Ms 1Q	10%
Question 2		10% 1Q – 1.5M.			1.5Ms 1Q	10%
Question 3		10% 1Q – 1.5M.			1.5Ms 1Q	10%
Question 4	10% 1Q – 1.5M.				1.5Ms 1Q	10%
Question 5		10% 1Q – 1.5M.			1.5Ms 1Q	10%
Question 6	10%				1.5Ms 1Q	10%

	1Q – 1.5M.					
Question 7			10%		1.5Ms 1Q	10%
Question 8	10%				1.5Ms 1Q	10%
Question 9			10%		1.5Ms 1Q	10%
Question 10				10%	1.5Ms 1Q	10%
<b>Total</b>	30%	30%	20%	20%	10Qs 15 Ms	100%
	3 Qs -4.5 Ms	3 Qs -4.5 Ms	2 Qs - 3 Ms	2 Qs -3 Ms		

**Table (27) table of specifications**

Subjects of test	Grammar test				Test items & percentage	
	knowledge	comprehension	application	Higher levels	Items & marks	Percent %
Tenses		2%	13%	5%.	7Ms 7Qs	20%
		1Q – 1 M.	4 Qs – 4 M.	2Qs – 2 M.		
Conditionals	2.5%	2.5%	7 %	2.5%	5 Ms 5 Q	14.5%
	1 Q – 1 M	1 Q – 1M	2 Qs – 2 M	1 Q – 1 M		
Passive	2%	2%	11%	5%.	7 Ms 7 Qs	20%
	1Q – 1 M.	1Q – 1 M.	3 Qs –3 M.	2Qs – 2 M.		
Reported speech	2.5%	3 %	3 %	3 %	4 Ms 4 Qs	11.5%
	1 Q – 1M	1 Q – 1 M	1 Q – 1 M	1 Q – 1 M		
Clauses	2.5%	2.5%	7 %	2.5%	5 Ms 5 Q	14.5%
	1 Q – 1 M	1 Q – 1M	2 Qs – 2 M	1 Q – 1 M		
Modals	3%	2 %	3.5 %	3 %	4 Ms 4 Qs	11%
	1 Q – 1M	1 Q – 1 M	1 Q – 1 M	1 Q – 1 M		
articles	2.5%	3 %	3 %		3 Ms 3 Q	8.5%
	1 Q – 1 M	1 Q – 1M	1 Q – 1 M			
<b>Total</b>	15%	17%	47%	21%	35Qs 35 Ms	100%
	6 Qs -6 Ms	7 Qs -7 Ms	14 Qs - 14 Ms	8 Qs -8 Ms		

**Table (28)**  
**table of specification of writing**

Subjects of test	Writing test				Test items & percentage	
	knowledge	comprehension	application	Higher levels	Items & marks	Percent %
punctuation		6.6 % 1 Q – 1 M.	6.6 % 1 Q – 1 M.	6.6%. 1Qs – 1 M.	3Ms 3Qs	20%
structure		6.5% 1 Q – 1M	13% 2 Qs – 2 M	6.5% 1 Q – 1 M	4 Ms 4 Q	26%
Subject -verb agreement	6.7% 1 Q – 1M		6.6% 1 Q – 1M		2 Ms 2 Qs	13.3%
relatives		6.5% 1 Q – 1M		6.5% 1 Q – 1M	2 Ms 2 Qs	13.2%
comparatives	7 % 1 Q – 1M		7.5% 1 Q – 1M		2 Ms 2 Q	14.5%
Word order		6.5% 1 Q – 1M		6.5% 1 Q – 1M	2 Ms 2 Q	13%
<b>Total</b>	13.5% 2 Qs -2 Ms	26.5% 4 Qs -4 Ms	33.5% 5 Qs -5 Ms	26.5% 4 Qs -4Ms	15Qs 15 Ms	100%

After making the table of specifications ,the researcher could apply his test on the students .The purpose of the table of specifications was to balance the number of questions according to Bloom's taxonomy in each of the four questions included in the test .

As what can be seen from the chapter above, the researcher used various techniques to make his tools valid and reliable. He used the Person correlations ,Alpha Cronbach , split- half methods ,Spearman Brown formula.

The following chapter will deal with the results of the current study based on the tools presented .

# Chapter IV

## **RESULTS OF THE STUDY**

### Introduction :

In this chapter, statistical information based on the analyses of students' responses to the Perceptual Learning Style Questionnaire and the Strategy Inventory for Language Learning will be explained. Furthermore, the results obtained from the achievement test will be correlated with the results of the two questionnaires. Finally, the relationship between learning styles and language learning strategies will be examined and reported.

### The answer of the first Question:

The first question is: What are the major, minor, and negligible perceptual modality preferences of the students – audio, visual, kinaesthetic, tactile, group learning, and individual learning of the participants?

To answer this question the researcher used the frequencies, the sum of responses, means, standard deviation, and the % weight and the rank of each item in the Learning Style Questionnaire.

### First: visual:

Table (1)

The sum of responses, means, std. deviation, the % weight and the rank of each item from of the visual domain

No.	strategies	Sum	Mean	Std. Deviation	% weight	rank in the scope	General rank
6	I learn better by reading what the teacher writes on the chalkboard.	255	4.250	0.628	85.00	2	11
10	When I read instructions, I remember them better	232	3.867	0.747	77.33	3	19
12	I understand better when I read instructions.	256	4.267	0.841	85.33	1	10
24	I learn better by reading than listening to someone.	220	3.667	0.877	73.33	4	22
29	I learn more by reading textbooks	219	3.650	1.071	73.00	5	23



	than by listening to a lecture.						
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**From table (1) we can see that:**

- Item no. (12) " I understand better when I read instructions" occupied the first rank with percent weight (%85.33).
- Item no. (29) " I learn more by reading textbooks than by listening to a lecture" occupied the fifth rank with percentage weight (%73).

## **Second: Auditory:**

**Table (2)**

**The sum of responses, means, std. deviation, the % weight and the rank of each item from of the auditory scope**

<b>No.</b>	<b>strategies</b>	<b>Sum</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>% weight</b>	<b>rank in the scope</b>
1	When the teacher tells me the, instructions I understand better.	260	4.333	0.601	86.67	2
7	When someone tells me how to do something in class, I learn it better.	242	4.033	0.736	80.67	3
9	I remember things I have learned in class better than things I have read.	270	4.500	0.770	90.00	1
17	I learn better in class when the teacher gives a lecture.	225	3.750	0.985	75.00	4
20	I learn better in class when I listen to someone.	182	3.033	1.089	60.67	5

**From table (2 ) we can see that :**

- Item no. (9) " I remember things I have learned in class better than things I have read." occupied the first rank with percent weight (%90).
- Item no. (20) " I learn better in class when I listen to someone" occupied the fifth rank with percent weight (%60.67).

### Third: kinaesthetic:

Table (3)

The sum of responses, means, std. deviation, the % weight and the rank of each item from of the kinesthetic scope

No.	Strategies	Sum	Mean	Std. Deviation	% weight	rank in the scope	General rank
2	I prefer to learn by doing something in class.	280	4.667	0.510	93.33	1	1
8	When I do things in class, I learn better.	274	4.567	0.698	91.33	2	2
15	I enjoy learning in class by doing experiments.	262	4.367	0.551	87.33	5	6
19	I understand things better in class when I participate in role-playing.	271	4.517	0.813	90.33	3	3
26	I learn best in class when I participate in related activities.	267	4.450	0.769	89.00	4	5

From table (3) we can see that:

- Item no. (2) " I prefer to learn by doing something in class." occupied the first rank with percent weight (%93.33).
- Item no. (15) " I enjoy learning in class by doing experiments " occupied the fifth rank with percent weight (%87.33).

### Fourth: Tactile:

Table (4)

The sum of responses, means, std. deviation, the % weight and the rank of each item from of the tactile scope

No.	Strategies	Sum	Mean	Std. Deviation	% weight	rank in the scope	General rank
11	I learn more when I can make a model of something.	261	4.350	0.777	87.00	2	8
14	I learn more when I make something for a class project.	244	4.067	0.710	81.33	3	14

16	I learn better when I make drawings as I study.	223	3.717	0.904	74.33	5	21
22	When I build something, I remember what I learned better.	262	4.367	0.802	87.33	1	7
25	I enjoy making something for a class project.	244	4.067	1.006	81.33	3	15

**From table (4) we can see that:**

- Item no (22) " When I build something, I remember what I learned better. " occupied the first rank with percent weight (%87.33).
- Item no (16) " I learn better when I make drawings as I study " occupied the fifth rank with percent weight (%74.33).

#### **Fifth: Group learning:**

**Table (5)**

**The sum of responses, means, std. deviation, the % weight and the rank of each item from of the group learning scope**

No.	Strategies	Sum	Mean	Std. Deviation	% weight	rank in the scope	General rank
3	I get more work done when I work with others.	250	4.167	1.011	83.33	1	12
4	I learn more when I study with a group.	249	4.150	1.102	83.00	2	13
5	In class, I learn best when I work with others.	240	4.000	0.823	80.00	4	18
21	I enjoy working on an assignment with two or three classmates.	241	4.017	1.142	80.33	3	17
23	I prefer to study with others.	217	3.617	1.166	72.33	5	24

**From table (5) we can see that :**

- Item no. (3) " I get more work done when I work with others." occupied the first rank with percent weight (%83.33).

- Item no. (23) " I prefer to study with others." occupied the fifth rank with percent weight (%72.33).

### Sixth: individual:

Table ( 6 )

The sum of responses, means, std. deviation , the % weight and the rank of each item from of the individual scope

No.	Strategies	Sum	Mean	Std. Deviation	% weight	rank in the scope	General rank
13	When I study alone, I remember things better.	214	3.567	0.998	71.33	1	25
18	When I work alone, I learn better.	160	2.667	1.481	53.33	2	27
27	In class, I work better when I work alone.	157	2.617	1.563	52.33	3	28
28	I prefer working on projects by myself.	142	2.367	1.327	47.33	5	30
30	I prefer to work by myself.	148	2.467	1.455	49.33	4	29

From table (6) we can see that :

- Item no (13) " When I study alone, I remember things better " occupied the first rank with percent weight (%71.33).
- Item no. (28) " I prefer working on projects by myself." occupied the fifth rank with percent weight (%47.33).

### The Analysis of the Perceptual Learning Style Questionnaire Results:

The Perceptual Learning Style Questionnaire was used to assess the students' learning style preferences. The questionnaire consisted of 30 questions designed to diagnose the major, minor and negligible learning style preferences of students.

### The answer of the first question :

When the responses that the participants gave to the questionnaire mentioned above were analyzed, it seemed that only the mean scores of two learning style preference categories, (kinesthetic and tactile learning, being 22.567 and 20.567 respectively, fall into the major learning style preferences category (see Table 7). The third rank was occupied by the group learning style with percent weigh 79.80 The fourth rank was the visual style (minor learning style) with percent weigh 78.80. The

fifth rank was for the auditory style (minor learning style) with percent weigh 78.60. The sixth rank which is the (negligible learning style) preferences was for the individual learners with percent weight 54.73

### Descriptive Statistics Concerning Learning Style Preferences

Table ( 7 )

The sum of responses, means, std. deviation and the % weight and rank of each scope from and all questionnaire

strategies	No. of items	Sum	Mean	Std. Deviation	% weight	rank in the scope
VISUAL	5	1182	19.700	2.028	78.80	4
AUDITORY	5	1179	19.650	2.328	78.60	5
KINAESTH	5	1354	22.567	2.053	90.27	1
TACTILE	5	1234	20.567	2.061	82.27	2
GROUPLEA	5	1197	19.950	3.495	79.80	3
INDIVIDU	5	821	13.683	5.193	54.73	6
SUMB	30	6967	116.117	7.497	77.41	

#### The answer of the second Question:

Are there any statistically significant differences in the perceptual modality preferences of the students based on their sex?

To answer this question the researcher used T.Test for gender differences

Table (8)

Means, std. div, t value, sig. value and sig. level

variable	SEX	N	Mean	Std. Deviation	t	Sig. value	sig. level
VISUAL	male	30	19.167	1.206	2.095	0.041	sig. at 0.05
	female	30	20.233	2.515			
AUDITORY	male	30	18.900	2.398	2.617	0.011	sig. at 0.05
	female	30	20.400	2.027			
KINAESTHETIC	male	30	22.833	2.019	1.006	0.319	not sig.
	female	30	22.300	2.087			
TACTILE	male	30	20.900	1.989	1.259	0.213	not sig.
	female	30	20.233	2.112			
GROUPLEA	male	30	21.500	2.596	3.808	0.000	sig. at 0.01
	female	30	18.400	3.626			
INDIVIDU	male	30	11.733	4.934	3.116	0.003	sig. at 0.01
	female	30	15.633	4.760			
SUMB	male	30	115.033	7.586	1.122	0.267	not sig.
	female	30	117.200	7.374			

t table value at df (58) and sig. level (0.05) = 2.00

t table value at df (58) and sig. level (0.05) = 2.66

From table (8 ) we can see there are statistically significant differences between male and female in visual, auditory, individual learning, towards female, and in Group learning towards male, and there are no statistically significant differences between male and female in kinaesthetic, tactile and summation degree .

### **The answer of the third Question:**

What are the language learning strategies used by students as reported in the Strategy Inventory for Language Learning?

To answer this question the researcher presented each domain of strategies used with frequencies, the sum of responses, means, std. deviation the % weight and rank of each item from the Language Learning Strategies Questionnaire (LLSQ).

### **Part A : memory Strategies:**

**Table (9)**

**Shows the frequencies, the sum of responses, means, std. deviation, the % weight and ranks of each item from part A memory strategies**

No.	strategies	N	Sum	Mean	Std. Deviation	% weight	rank in the scope	General rank
1	I think of relationships between what I already know and new things I learn in English.	60	228	3.800	0.819	76.00	3	16
2	I use key English words in sentences so that I can remember them.	60	224	3.733	0.660	74.67	4	23
3	I associate the sound of a new English word with its image or picture to help me remember it .	60	218	3.633	0.863	72.67	6	30
4	I remember a new English word by making a mental picture of a situation or context in which the word might be	60	243	4.050	0.964	81.00	2	8

	used.							
5	I use rhymes to remember new English words	60	180	3.000	1.179	60.00	8	46
6	I use flash cards to remember new English words.	60	155	2.583	1.331	51.67	9	48
7	I physically act out English words.	60	183	3.050	1.080	61.00	7	45
8	I often review English lessons.	60	222	3.700	0.850	74.00	5	26
9	I remember new English words or phrases by remembering their locations on the page, the board, or on a street sign.	60	247	4.117	0.885	82.33	1	6

Table (9) shows that memory strategies used by the English majors at Al Aqsa University were very high on item no.( 9 )

"I remember new English words or phrases by remembering their locations on the page, the board, or on a street sign" occupied the first rank with percent weight (82.33%).

- Item no. (4)" I remember a new English word by making a mental picture of a situation or context in which the word might be used "occupied the second rank with percentage weight (74.67%).
- No. (5) " I use rhymes to remember new English words." occupied the eight ranks with percentage weight (60%).
- Item no. (6) "I use flash cards to remember new English words." occupied the last rank with percentage weight (%51.67).

## Part B : Cognitive strategies:

Table ( 10 )

Shows the frequencies, the sum of responses, means, std. deviation, the % weight and rank of each item from part B cognitive strategies

Table ( 10 )

No.	strategies	N	Sum	Mean	Std. Deviation	% weight	rank in the scope	General rank
10	I say or write new English words several times.	60	240	4.000	1.008	80.00	2	10
11	I try to talk like a native English speaker.	60	224	3.733	0.880	74.67	5	24
12	I practice the sounds of English.	60	213	3.550	0.891	71.00	10	33
13	I use the English words I know in different ways.	60	198	3.300	1.013	66.00	13	42
14	I initiate conversations in English.	60	176	2.933	1.087	58.67	14	47
15	I watch TV programs in English or go to movies spoken in English	60	220	3.667	1.003	73.33	7	28
16	I write notes, messages ,letters or reports in English.	60	206	3.433	0.963	68.67	11	35
17	I first skim an English passage the go back and read carefully.	60	235	3.917	0.962	78.33	3	12
18	I read for pleasure un English.	60	202	3.367	1.041	67.33	12	38
19	I look for words in my own language that are similar to new English words.	60	219	3.650	0.880	73.00	8	29
20	I try to find study methods that improve my performance in English.	60	214	3.567	1.064	71.33	9	32
21	I find the meaning of an English word by dividing it into parts that I understand.	60	224	3.733	0.880	74.67	5	22
22	I try not to translate word for word when I am studying English.	60	226	3.767	1.198	75.33	4	20
23	I make summaries of information that I hear or read in English.	60	249	4.150	1.071	83.00	1	4

From table (10) we can see that the cognitive strategies used by the students were very high in item no. (23) " I make summaries of information that I hear or read in English" occupied the first rank with percent weight (%83).



- Item no (10)"I say or write new English words several times" occupied the second rank with percentage weight (%80.00).
- Item no. (13) " I use the English words I know in different ways." occupied the thirteen ranks with percentage weight (%66).
- Item no. (14) " I initiate conversations in English." occupied the last rank with percentage weight (%58.67).

### Part C: Compensation strategy :

Table ( 11 )

Shows the frequencies, the sum of responses, means, std. deviation , the % weight and rank of each item from part C compensation strategies

No.	strategies	N	Sum	Mean	Std. Deviation	% weight	rank in the scope	General rank
24	To understand unfamiliar English words , I use guesses.	60	244	4.067	0.861	81.33	2	7
25	When I can't think of a word during a conversation in English, I use gestures.	60	235	3.917	0.787	78.33	3	11
26	I make up new words if I don't know the right ones in English.	60	228	3.800	1.038	76.00	4	17
27	I read English without looking up every new word.	60	190	3.167	1.210	63.33	6	43
28	I try to guess what the other person will say next in English.	60	226	3.767	1.125	75.33	5	19
29	If I can't think of an English word ,I use a word or a phrase that means the same thing.	60	269	4.483	0.725	89.67	1	1

From table ( 11 ) we can see that the compensation strategies used by the students were very high in item no. (29) " If I can't think of an English word ,I use a word or a phrase that means the same thing. " occupied the first rank with percentage weight (%89.67).

- Item no (27) "I read English without looking up every new word." occupied the last rank with percentage weight (%63.33).

### Part D: Meta-cognitive Strategies:

Table (12)

Shows the frequencies, the sum of responses, means, std. deviation, the % weight and the rank of each item from part D meta-cognitive strategies

No.	strategies	N	Sum	Mean	Std. Deviation	% weight	rank in the scope	General rank
30	I try to find as many ways as I can to use my English.	60	230	3.833	0.924	76.67	4	15
31	I notice my English mistakes and use that information to help me do better/improve my performance.	60	248	4.133	0.833	82.67	3	5
32	I pay attention when someone is speaking English.	60	261	4.350	0.799	87.00	1	2
33	I try to find out how to be a better learner of English.	60	255	4.250	0.950	85.00	2	3
34	I plan my schedule so I will have enough time to study English.	60	221	3.683	0.930	73.67	9	27
35	I look for people I can talk to in English.	60	228	3.800	0.988	76.00	6	18
36	I look for opportunities to read as much as possible in English.	60	216	3.600	0.807	72.00	10	31
37	I have a strong motivation to read what I can in English.	60	230	3.833	0.867	76.67	4	14
38	I think of ways to further my progress in learning English.	60	222	3.700	0.944	74.00	8	25
39	I try to relax whenever I feel afraid of using English.	60	225	3.750	1.083	75.00	7	21

From table (12) we can see that the meta-cognitive strategies used by the students were very high in item no. (32) " I pay attention when someone is speaking English." occupied the first rank with percentage weight (%87).

- Item no (36) "I look for opportunities to read as much as possible in English." occupied the last rank with percentage weight (%72).

### Part E : Affective Strategies :

Table (13)

Shows the frequencies, the sum of responses, means, std. deviation, the % weight and the rank of each item from part E affective strategies

No.	strategies	N	Sum	Mean	Std. Deviation	% weight	rank in the scope	General rank
40	I encourage my self to speak English even when I am afraid of making a mistake.	60	241	4.017	1.000	80.33	1	9
41	I give myself a reward or treat when I do well in English.	60	198	3.300	1.212	66.00	2	41
42	I notice if I am tense or nervous when I am studying or using English.	60	186	3.100	1.003	62.00	3	44
43	I write my own feelings in a language learning diary.	60	137	2.283	1.250	45.67	5	50
44	I talk to someone else about how I feel when I am learning English.	60	155	2.583	1.154	51.67	4	49

From table (13) we can see that the meta-cognitive strategies used by the students were very high in item no. (40) " I encourage my self to speak English even when I am afraid of making a mistake." occupied the first rank with percentage weight (%80.33).

- Item no (43) "I write my own feelings in a language learning diary" occupied the last rank with percentage weight (%45.67).

## Part F : Social Strategies:

Table (14)

Shows the frequencies, the sum of responses, means, std. deviation. And the % weight and rank of each item from part b strategies

No.	strategies	N	Sum	Mean	Std. Deviation	% weight	rank in the scope	General rank
45	If I do not understand something in English, I ask the other person to slow down or say it again.	60	213	3.550	1.080	71.00	2	34
46	I ask English speakers to correct me when I speak.	60	200	3.333	1.174	66.67	5	39
47	I practice English with my classmates.	60	202	3.367	1.041	67.33	4	37
48	I ask for help from English speakers.	60	204	3.400	1.196	68.00	3	36
49	I ask questions in English for an explanation.	60	232	3.867	0.929	77.33	1	13
50	I try to learn about the culture of English speakers.	60	199	3.317	1.066	66.33	6	40

From table (14 ) we can see that the social strategies used by the students were very high in item no. (49) " I ask questions in English for an explanation" occupied the first rank with percentage weight (%77.33).

- Item no (50) "I try to learn about the culture of English speakers" occupied the last rank with percentage weight (%66.33).

### The Analysis of the Strategy Inventory for Learning Strategies

The purpose of using the Strategy Inventory for Learning Strategies was to identify the language learning strategy preferences of the students who participated in this study. The questionnaire consisted of 50 items, which identified the strategy

preferences of the respondents. The strategies were grouped under the main six categories: cognitive, memory, compensation, metacognitive, affective, and social strategies.

**Table (15): Descriptive Statistics Concerning Language Learning Strategies**

Table ( 15 )

Ranks of domains and total scores of (LLS)

strategies	N.	Sum	Mean	Std. Deviation	% weight	Rank
Part A: Memory Strategies	9	1900	31.667	4.181	70.37	4
Part B: Cognitive Strategies	14	3046	50.767	5.956	72.52	3
Part C : Compensation Strategies	6	1392	23.200	3.598	77.33	2
Part D: Metacognitive Strategies	10	2336	38.933	5.638	77.87	1
Part E :Affective Strategies	5	917	15.283	3.923	61.13	6
Part F : Social Strategies	6	1250	20.833	4.109	69.44	5
SUMA	50	10841	180.683	19.152	72.27	

The results of the descriptive statistics conducted to identify the general tendency of strategy preferences of the participants in this study, indicated that the most preferred strategy category of all, with a mean score of 38.933 was the one related to metacognitive strategies. compensation strategies ranked the second with an average of 23.200 The third place in the ranking order was taken by the cognitive strategies with a mean score The fourth place in the ranking order was taken by the memory strategies with a mean score 31.667. The fifth rank was taken by the social strategies with a mean score 20.833. Finally, the least preferred strategies were the affective ones as their score was 15.283

**The answer of the fourth Question:**

Are there statistically significant differences in the language learning strategy preferences of the students based on their sex?

To answer this question the researcher used T.Test as in table (16) which shows the difference between students' use of (LLS) based on their sex.

**Table ( 16 )**

T.Test as in table (16) which shows the difference between students' use of (LLS) based on their sex.

**Means, std. div, t value, sig. value and sig. level**

variable	SEX	N	Mean	Std. Deviation	t	Sig. value	sig. level
Part A: Memory Strategies	male	30	32.367	3.819	1.305	0.197	not sig.
	female	30	30.967	4.468			
Part B: Cognitive Strategies	male	30	51.433	3.821	0.865	0.390	not sig.
	female	30	50.100	7.526			
Part C : Compensation Strategies	male	30	24.633	3.189	3.341	0.001	sig. at 0.01
	female	30	21.767	3.451			
Part D: Metacognitive Strategies	male	30	38.600	3.616	0.455	0.651	not sig.
	female	30	39.267	7.168			
Part E :Affective Strategies	male	30	14.667	3.698	1.223	0.226	not sig.
	female	30	15.900	4.105			
Part F : Social Strategies	male	30	20.867	3.954	0.062	0.951	not sig.
	female	30	20.800	4.326			
SUMA	male	30	182.567	13.146	0.759	0.451	not sig.
	female	30	178.800	23.793			

**t table value at df (58) and sig. level (0.05) = 2.00**

**t table value at df (58) and sig. level (0.05) = 2.66**

From table (16) we can see that there are no statistically significant differences between male and female students in all domains, and the total degree of the domains, except Part C- Compensation Strategies towards male.

**The answer of the fifth Question:**

Is there a relationship between students' language learning strategy preferences and the student's academic achievement?

To answer this question the researcher used person correlation . Table (17) shows the Correlation between students' language learning strategy preferences and the academic achievement among the English majors at Al Aqsa University.

Table ( 17 )

	READING	GRAMMAR	SYNONYMS	WRITING	ACHEVEMENT
Part A: Memory Strategies	0.097	0.173	0.282*	0.257*	0.279*
Part B: Cognitive Strategies	0.379**	0.328**	0.425**	0.313*	0.487**
Part C : Compensation Strategies	-0.031	-0.035	0.085	0.164	0.055
Part D: Metacognitive Strategies	0.236	0.353**	0.267*	0.213	0.367**
Part E :Affective Strategies	0.268*	0.281*	0.436**	0.333**	0.451**
Part F : Social Strategies	0.231	0.237	0.353**	0.285*	0.376**
SUMA	0.307*	0.345**	0.453**	0.376**	0.503**

r table value at df (58) and sig. level (0.05) = 0.250

r table value at df (58) and sig. level (0.05) = 0.325

From table (17) we can see that there are statistically significant correlation coefficient between achievement and all strategies except Part C compensation strategies.

#### The answer of the sixth Question:

Is there a relationship between the students' learning style and the students' academic achievement?

To answer this question the researcher used person correlation.

Table ( 18 )

Shows the Correlation between students' learning style and the academic achievement among the English majors at Al Aqsa University.

	READING	GRAMMAR	SYNONYMS	WRITING	ACHEVEMENT
VISUAL	0.228	0.055	0.142	-0.043	0.132
AUDITORY	0.167	0.374**	0.317*	-0.022	0.327**
KINAESTHETIC	0.138	0.148	0.237	0.163	0.237

TACTILE	0.090	0.092	0.225	0.141	0.193
GROUPLEA	-0.208	-0.152	-0.027	0.113	-0.097
INDIVIDU	0.047	0.244	0.253*	0.026	0.229
SUMB	0.112	0.295*	0.426**	0.135	0.369**

r table value at df (58) and sig. level (0.05) = 0.250

r table value at df (58) and sig. level (0.05) = 0.325

From table ( 18 ) we can see that there are statistically significant correlation coefficient between achievement and auditory and total degree of style.

And there are no statistically significant correlation coefficient between achievement and visual, kinaesthaetic, tactile, group learning, and individual learning.

#### The answer of the last question:

Is there a relationship between the students' learning styles , and the students' language learning strategy preferences?

To answer this question the researcher used person correlation.

Table ( 19 )

Shows the Correlation between students' learning style and the language learning strategy preferences among the English majors at Al Aqsa University.

	Part A: Memory Strategies	Part B: Cognitive Strategies	Part C : Compensation Strategies	Part D: Metacognitive Strategies	Part E :Affective Strategies	Part F : Social Strategies	SUMA
VISUAL	-0.196	-0.129	-0.270*	-0.147	0.079	0.059	-0.148
AUDITORY	-0.014	-0.098	-0.168	0.001	0.145	0.173	0.002
KINAESTH	0.275*	0.123	0.097	0.157	-0.001	-0.049	0.152
TACTILE	0.099	0.196	0.133	0.170	-0.031	0.039	0.160
GROUPLEA	0.126	0.069	0.312*	0.015	-0.066	-0.129	0.071
INDIVIDU	0.059	0.096	-0.196	0.085	0.248	0.186	0.122
SUMB	0.145	0.121	-0.052	0.116	0.199	0.135	0.164

r table value at df (58) and sig. level (0.05) = 0.250

r table value at df (58) and sig. level (0.05) = 0.325

From table ( 19 ) we can see there are no statistically significant correlation coefficient between all strategies and all styles except :



- Part A memory strategies with kinaesthetic positive relation .
- Part C- Compensation Strategies with visual negative relation .
- Group learning with part C- compensation strategies positive relation .

# Chapter V

## **DISCUSSION, CONCLUSION, PEDGOGICAL IMPLICATIONS, SUGGESTIONS AND RECOMMENDATIONS**

**Introduction :**

In this chapter, first a brief summary of the study is presented. Then, the results obtained from the study are reviewed and discussed. Next, the assessment of the study is given. Finally the implications for further research and for teaching are presented

### **Summary of the Study**

This was a descriptive study based on a survey research. The study aimed to identify students' perceptual learning styles, language learning strategies, to find out whether there were any differences between male and female students with respect to their learning style and learning strategy preferences, and most importantly to investigate the relationship between the learning style, language learning strategies and the academic achievement among the English majors at Al Aqsa University.

Two kinds of instruments were used for data collection. The quantitative data were collected through two questionnaires, the Perceptual Learning Style Preference Questionnaire and the Strategy Inventory for Language Learning. The qualitative data was collected through an achievement test.

The Perceptual Learning Style Preference Questionnaire was used for the purpose of identifying students' major, minor, and negligible perceptual modalities and the Strategy Inventory for Language Learning was used to find out the language learning strategies students preferred to use. In order to know the students, achievement in the English language the researcher designed an achievement test for this reason.

Firstly, the students were asked to complete the learning style questionnaire to find out their learning style preferences and they were asked to complete the strategy questionnaire. Having collected the quantitative data, based on the results obtained from the questionnaires students were asked to do the achievement test to correlate their results with their learning styles and learning strategies.

## Discussion of Results

In this study the major research question is as follows:

Is there a relationship between learning styles, language learning strategy preferences and the academic achievement among the English majors at AL Aqsa University?

From this major question emerge other minor questions, and they are stated as follow:

1. What are the major, minor, and negligible perceptual modality preferences of the students – audio, visual, kinaesthetic, tactile, group learning, and individual learning of the participants?
2. Is there a difference in the perceptual modality preferences of the students based on their sex?
3. What are the language learning strategies used by students as reported in the Strategy Inventory for Language Learning?
4. Is there a difference in the language learning strategy preferences of the students based on their sex?
5. Is there a relationship between the students' perceptual learning style preferences and their academic achievement?
6. Is there a relationship between the students' language learning strategies and their academic achievement?
7. Is there a relationship between students' learning styles and learning strategies?

## Findings

In order to answer the first research question, the data obtained from the learning styles questionnaire mentioned above were analyzed. Based on the cut off points stated in the scoring sheet of the questionnaire, it was found that it seemed that only the mean scores of two learning style preference categories, (kinesthetic and tactile learning, being 22.567 and 20.567 respectively, fall into the major learning style preferences category The third rank was occupied by the group learning style with percent weigh 79.80 . The fourth rank was the visual style.( minor learning style) with percent weigh 78.80 .The fifth rank was for the

auditory style.(minor learning style) with percent weigh 78.60. The sixth rank which is the (negligible learning style) preferences was for the individual learners. with percent weight 54.73

When the findings of some other studies in the field with the purpose of identifying learning style preferences are compared with the finding of this study, it can be stated that they seem to be partly relevant. Cheng and Banya (1995) found that the participants in their study preferred the perceptual learning styles of kinaesthetic and Tactile, and. The findings of the study seem to be compatible with the ones identified by Cheng and Banya, except for the individual learner learning, which was placed into the negligible learning category in this study.

Another parallelism was found with one of Reid's (1987) findings. She stated that most groups in her study showed a negative preference for individual learner learning. Similarly, the participants of this study also showed a congruous result.

Rossi (1995) conducted another study in which she focused on the perceptual learning styles of adult immigrant learners and she investigated the relationship between preferred learning styles and strategy preference in an ESL context. Her findings showed that the major learning style preferences of the majority of the participants were the tactile and kinaesthetic learning styles, which require a practical and experiential approach to learning. Another parallelism in her study was found with individual learning which showed to be a minor learning style.

Concerning the second research question we can see there are statistically significant differences between male and female in visual, auditory, individual learning, towards female, and in Group learning towards male, and there are no statistically significant differences between male and female in kinaesthetic, tactile and summation degree .

Referring back to the findings of the studies in the literature, it was found that the results of this study are parallel the Reid's (1987) results. She concluded that there was difference in the use of the visual auditory and individual learning style category between males and females, but contrasted with her results that males being more tactile than females.

Descriptive statistics was used to identify the general tendency of strategy preferences of the participants in this study. The results of the descriptive statistics conducted to identify the general tendency of strategy preferences of the participants in this study, indicated that the most preferred strategy category of all, with a mean score of 38.933 was the one related to metacognitive strategies. compensation strategies ranked the second with an average of 23.200 The third place in the ranking order was taken by the cognitive strategies with a mean score The fourth place in the ranking order was taken by the memory strategies with a mean score 31.667. The fifth rank was taken by the social strategies with a mean score 20.833. Finally, the least preferred strategies were the affective ones as their score was 15.283

This study showed similar results with Takeuchi (2003) who conducted the use of strategy types in Japanese contexts through analyzing the strategy use reported in 67 books on "How I have learned a foreign language. He reported that metacognitive strategies were most preferred strategies among Japanese.

Like Takeuchi (2003), Shmais (2003) studied the strategy use of Arab EFL English majors in Palestine. His study showed that the participants were moderate strategy users. The most frequent used strategies were metacognitive strategies, but the least frequent used strategies were affective strategies.

This current study is also similar to Xuan's (2005) who found that the Chinese graduate students of science at Qingdao Technical University were medium strategy users. They used metacognitive strategies most often and affective strategies least often.

In order to find an answer for the fourth research question an independent samples t-test was conducted. The results showed that there are no statistically significant differences between male and female in all domains, and the total degree of the domains, except Part C: Compensation Strategies towards male. This is because compensation strategies equip male students, who are less achiever than females, with the necessary techniques to comprehend and produce the language in spite of their limitations in their knowledge of the language.

Not all studies that examined learning strategy use between the two sexes found significant differences. Grace (2000) investigated the gender differences in vocabulary retention and access to translations for beginning language learners in Computer Assisted Language Learning (CALL). The analyses of the results revealed that when students were given bilingual multiple-choice tests, there were no significant differences between males and females on their short-term and long-term retention scores. Moreover, there were no significant differences in the amount of time males and females spent looking up translations. It was also reported that the findings of the survey suggested that males and females could equally benefit from a CALL environment. Ehrman and Oxford (1990) also reported that the number and kind of strategies used by females were similar to those used by males.

The finding of this research contradicts with the findings of Ehrman and Oxford (1989), Oxford and Nykos (1989), Kaylani (1996), and Green and Oxford (1995), all of whom claim that there are differences in the use of strategies between male and female learners. On the other hand, the result seems to support the findings of Ehrman and Oxford (1990) who reported that the number and kind of strategies used by females were similar to those used by males.

Concerning the fifth question, the researcher used person correlation. The results showed the presence of correlation between students' learning style and the academic achievement .It was found that there are statistically

significant correlation coefficient between the academic achievement and auditory learners. This result matches with Cheng and Banya (1998) who conducted a study on their students and the results showed that the students with the Individual preference style use more language learning strategies, and they are less tolerant of ambiguity, and this leads to more academic achievement.

What has given to the increasing interest in learning styles is that research points to the relationship between learning styles and teaching styles as being a factor in the success of postsecondary students (Dunn et al., 1995; Ellis, 1989; Griggs & Dunn 1996; Hall & Moseley, 2005).

The findings also showed that there are no statistically significant correlation coefficient between achievement, visual, kinaesthetic, tactile, group learning, and individual learning.

The researcher used Pearson correlation in order to answer the sixth question. The results showed the Correlation between students' language learning strategy preferences and the academic achievement among the English majors at Al Aqsa University. It was found that there is a statistically significant correlation coefficient between achievement and all strategies except Part C compensation strategies.

Researchers in the field of language learning strategies (LLS) indicated that more proficient learners seem to employ a variety of strategies in many situations than to less proficient learners. It has been repeatedly shown that there is a strong relationship between (LLS) and language performance. Russi (1989) found that more proficient (ESL) students use self- management strategies like planning, evaluation, and formal practice significantly more often than less proficient (ESL) students. Chamut & Kupper (1989) added that learners might not be fully aware of the strategies they use to the most beneficial strategies to use. Further more, they noticed that weaker students lack a critical self – awareness (i.e. the strategies of self – monitoring and self evaluation), while successful students have adopted these in addition to skills



to benefit from any learning situation. Moreover, successful learners, use all available and choose suitable follow-up activities to tackle their problems. (Halbach, 1999).

The findings of this research is congruent with the study carried out by Shmais (2003) who studied the strategy use of Arab EFL English majors in Palestine. His study showed that the participants were moderate strategy users. The most frequent used strategies were metacognitive strategies, but the least frequent used strategies were compensation strategies. Moreover, Riazi and Rahimi (2005) investigated the pattern of language learning strategy use by Iranian learners. Their findings were similar to Takeuchi (2003) and Shmais (2003) in that Iranians learners were moderate strategy users, and they used metacognitive strategies at the highest level.

The results obtained from analyzing the data for this question have touched the connections between strategy use and language proficiency . Its results have matched the results obtained from (Ehrman & Oxford, 1995; Green & Oxford, 1995; Park, 1997). The findings from these studies indicated that language learning strategies could influence performance in language learning, and using different strategies led to different learning performance. In addition, the results found that the proficient language learners used language learning strategies more greatly and frequently than did the less proficient learners.

The findings of this research doesn't match with the results of Peacock and Ho (2003) who examined the strategy use of 1006 Hong Kong university students. They reported that students were medium strategy users with compensation category as the most frequently used strategies followed by cognitive, metacognitive, social, memory and affective strategies respectively. Similarly to Ok (2003), he investigated the strategy use of Korean secondary school students. He found that compensation strategies were used most frequently among students, whereas affective strategies were used the least.

The results also contradict with Kaotsombut (2003) and Satta-Udom (2007) who studied the strategy use among Thai learners. Kaotsombut (2003) conducted the strategy use of Thai graduate science students and found that students used compensation strategies at the highest level, followed by metacognitive, cognitive, social, affective, and memory strategies. Similarly to Satta-Udom (2007), he studied the strategy use of first year students at Mahidol University. He found that compensation strategies were most frequently used, while social strategies were least frequently used.

To answer the last research question, the Pearson correlation was used to find whether there was a statistically meaningful relationship between the learning style preferences and the language learning strategy preferences of the students. The results revealed that there are no statistically significant correlation coefficient between all strategies and all style except part A memory strategies with kinaesthetic style positive relation, and Part C: Compensation Strategies with visual negative relation, and group learning with part C: compensation strategies positive relation.

Compensation strategies are said to equip students with the necessary techniques to understand and produce the language despite the limitations in their knowledge of the language. This means that, learners are capable of guessing intelligently by making use of linguistic or other clues. They can effectively make use of strategies such as using mimes and gestures, using a synonym or a circumlocution, switching to mother tongue, or getting help from others.

The results also indicated that none of the learning styles had a statistically significant relationship with the metacognitive strategies. This means that the students are not aware of the importance of the metacognitive strategies and they are not using them along with the other strategies.

With respect to the results of the studies mentioned earlier, the results obtained from this study seem to be partly contradicting with the findings of the studies conducted by Oxford (1991 as cited in Oxford, 1995), Rossi-Le (1989 as cited in Oxford, 1995), and Rossi-Le (1995), in which it was revealed

that there was a strong relationship between language learning strategies use and the sensory preferences of the learners. However, the findings of this study is congruent with the results obtained by Shih and Gamon (2003) who concluded that learning styles did not have an impact on the use of learning strategies.

The results of this question also contradict with another study which is similar to the one mentioned above was conducted by Oxford et al. (1991 as cited in Oxford, 1995). Its results also indicated strong relationship between LLS use and the sensory preferences of the learners, which are regarded as a dimension of learning styles. Their findings indicate that visual learners had the tendency to use strategies involving reading alone, in a quiet place or paying attention to blackboards, movies, and computer screens, and other forms of visual stimulation. The auditory learners were found to be at ease without visual input and often manipulated strategies that encouraged conversation in a noisy, social environment with numerous sources of aural stimulation. The kinaesthetic students were found to be in need of movement strategies and the tactile ones needed strategies that required the manipulation of real objects in the learning environment. Yet, both kinaesthetic and tactile learners were found to need to use the strategy of taking frequent breaks.

A reasonable justification behind this absence of strong correlation between language learning strategies and learning styles could be due to the immature development of in-depth research of learning styles and learning strategies in Palestine, and particularly in the Gaza Strip, there has always been poor or absence of information on the kind of learning strategies adopted by the Palestinian students particularly in learning a foreign language, hence, the efforts of the education system to identify learners strategies and therefore to employ these information in developing these strategies, failed to create a basis for a solid learning strategies among our students, and consequently, the research failed to identify any correlations between learning styles and learning strategies.

Again, we need to address that the fact that there is very limited or even absence of continuing development training for students in self management strategies as planning, self evaluation and formal practice, and this explains once more the absence of correlation between the students' learning styles and learning strategies because there are obviously a set of learning strategies which were worked on and emphasized by the education system

### **Implications for Teaching**

The findings of this study revealed that there are no strong relationship exists between learning styles and language learning strategies. This conclusion has some implications. First of all, besides being a teacher in the classroom, teachers should take over the responsibility of a researcher as well in order to identify not only their students' individual differences, but they should also know how to cater the needs of their learners. What is meant here is not administrating some questionnaires haphazardly, but being aware of each step taken and having a rationale for taking it. In other words, teachers should choose the right tools to identify their students' learning styles and strategies and then the findings should not be put aside. On the contrary, teachers should make use of such findings to adopt the most appropriate teaching style. Of course, adopting teaching techniques that will cater the needs of all the students might be difficult but if teachers become sensitive to their students learning style and balance their instruction by making use of a wide variety of tasks in the classroom, they will have treated the students equally. Besides using instruments, teachers should constantly observe students very closely so that s/he can diagnose any changes in the learning profiles of the students.

In addition to all these, teachers should be equipped with a lot of strategies that they will be able to propose to students so that they can deal with difficult academic tasks. If, for instance, one strategy does not work they should be able to suggest another alternative. What is more, teachers should design activities that will require them to make use of a variety of strategies and after the completion of the task they should held a discussion session

with students talking about the strategies they make use, whether these strategies proved to be useful or not. In this way, while the teachers will have the opportunity to see to what extent each of the students is successful in the orchestration of the strategies, the students will be able to hear or see what strategies their peers use. Thus, they will be given the opportunity to make self-evaluations, decide which is better for them, or learn an alternative way of doing a particular task.

## Conclusions

On the basis of this study ,the researcher concluded the following:

- 1)The results obtained from analyzing the PLSQ showed that the students had major ,minor and negligible learning styles.
- 2) There were statistically significant differences between male and female in visual, auditory, individual learning, towards female, and in Group learning towards male, and there are no statistically significant differences between male and female in kinaesthetic, tactile and summation degree .
- 3) The participants in this study, indicated that the most preferred strategy category of all, with a mean score of 38.933 was the one related to metacognitive strategies. compensation strategies ranked the second with an average of 23.200 The third place in the ranking order was taken by the cognitive strategies with a mean score The fourth place in the ranking order was taken by the memory strategies with a mean score 31.667. The fifth rank was taken by the social strategies with a mean score 20.833. Finally, the least preferred strategies were the affective ones as their score was 15.283
- 4) There were no statistically significant differences between male and female students in all domains, and the total degree of the domains, except Part C- Compensation Strategies towards male.
- 5) There were statistically significant correlation coefficient between achievement and all strategies except Part C -compensation strategies.
- 6) There were statistically significant correlation coefficient between achievement and auditory and total degree of style. and there were no statistically significant correlation coefficient between achievement ,and

visual, kinaesthaetic, tactile, group learning, and individual learning among the students.

7) there are no statistically significant correlation coefficient between all strategies and all styles except :

Part A memory strategies with kinaesthetic positive relation .

Part C- Compensation Strategies with visual negative relation .

Group learning with part C- compensation strategies positive relation .

## **Recommendations**

The researcher, at the end of his study, agrees with Stebbins (1995) when she offers two recommendations in her article, which are in away a brief summary of what was stated above:

1. Teacher identification of student learning-style preferences can guide the selection of appropriate instructional methods and materials to maximize student learning. Knowledge of student learning-style profiles can be used to guide instructional organisation for individuals or for groups of students with the same style preferences.

2. Teachers' identification of their own style preferences may facilitate students' learning by more closely matching student preferences with teacher practices. Because teachers often unknowingly favour the style(s) hat matches their own, students with a different modality preference(s) than the teacher can be at disadvantage both in task orientation and in interaction with the teacher. By being aware of their own preferences, teachers can ensure that they are addressing all relevant student modalities and not favouring their own style inclinations. (Stebbins, 1995, p. 116)

Concerning the recommendations related to curriculum developers and material producers it can be stated that they should definitely work in cooperation with both teachers and students. Together with teachers, they should decide what aspect of learning styles they need to identify, what

learning style instrument will be used to identify students' language learning strategies. It should be the curriculum developers' responsibility to allocate enough time in the curriculum for teachers to conduct styles and strategies research in their classes.

With respect to material producers, they should produce materials that teachers will use throughout their class research. That is, the staging of the lessons should be well designed starting with a warmer session and ending with an appropriate follow up task related to the topic dealt with. What is more, the materials they produce should be matching with students' learning styles and they should be appealing to students' needs and interests.

This process requires continuous evaluation of every single stage or material used. For this reason, curriculum developers and material producers should collect feedback from teachers and students in order to identify the weaknesses and strengths of their products. This will enable them not only to produce better materials but also to develop them. All in all, curriculum developers and material producers should work cooperatively with teachers and students so that they can design a better program, appropriate materials and tasks that will promote a more efficient and a more effective language learning atmosphere.

The steps to be taken by the learners must, at the first place, be supported by a national learning plan adopted by the Ministry of Education in Palestine . On reviewing the training plan which has been going on for the past 10 years at schools, there was no training course directed to introduce the students to learning strategies in one hand, and on the other hand assist the students to identify their learning style preferences and link them to the appropriate learning strategies.

Again, we need to address that the fact that there is very limited or even absence of continuing development training for students in self management strategies as planning, self evaluation and formal practice .

## **Recommendations for Further Research**

The further research on the relationship between learning styles and strategies might focus on the factors such as motivation, career orientation, performance, and the length of exposure to the language which might influence the perceptual learning styles and the language learning strategy use of the language learners. What is more, strategy-training sessions might be designed to assess whether designing such training sessions has an impact on the achievement of the students.

The result of this study is hopefully planned to be the spark for the Education system in Palestine to start an orientation courses for the teachers on learning styles, teaching styles and learning strategies. The Ministry of Education is kindly requested to integrate a development courses on formulating the right learning strategies for the their students through regular learning sessions at schools, this will help the students to link their learning styles to the learning strategies they are introduced to through the regular learning sessions. Furthermore, more researchers must be encouraged to study in depth why there is no correlation between learning style and learning strategies among students in the Gaza strip.

As a result teachers will be able to help their students become better language learners by training them in using the appropriate strategies. The results of the study will contribute to this field by giving information on the strategies that Arab learners use and how they use them to understand information.

There are, of course, important pedagogical implications for such findings. For example, the identification of a relationship between strategy preference and cultural background and also finding out the relationship between strategies and their effect on language sub skills may have important implications for the development of teaching strategies and for training learners in strategy use .



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## Appendices

A : Perceptual Learning Style Preference Questionnaire

B : Strategy Inventory for Language Learning Questionnaire

C : Achievement test

D : The request from the deanship of post graduate studies of the Islamic University to Al Aqsa University for facilitating the researcher's mission to distribute the two questionnaires and conduct the achievement test .

E : The reply of the academic deanship of Al Aqsa University with approval

F : Referee list

## Appendix A

### Perceptual Learning Style Preference Questionnaire

Name, Surname \_\_\_\_\_  
Sex: F M

Date:

*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 (kinaesthetic or tactile learners); some people learn better when they work alone, while others prefer to learn 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:

Strongly agree	Agree	Undecided	Disagree	Strongly disagree
X				

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	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
1. When the teacher tells me the, instructions I understand better.					
2. I prefer to learn by doing something in class.					
3. I get more work done when I work with others.					
4. I learn more when I study with a group.					
5. In class, I learn best when I work with others.					
6. I learn better by reading what the teacher writes on the chalkboard.					
7. When someone tells me how to do something in class, I learn it better.					
8. When I do things in class, I learn better.					
9. I remember things I have learned in class better than things I have read.					
10. When I read instructions, I remember them better					
11. I learn more when I can make a model of something.					
12. I understand better when I read instructions.					
13. When I study alone, I remember things better.					
14. I learn more when I make something for a class project.					
15. I enjoy learning in class by doing experiments.					
16. I learn better when I make drawings as I study.					
17. I learn better in class when the teacher gives a lecture.					
18. When I work alone, I learn better.					

<b>Questionnaire Statement</b>	<b>Strongly agree</b>	<b>Agree</b>	<b>Undecided</b>	<b>disagree</b>	<b>Strongly disagree</b>
19. I understand things better in class when I participate in role-playing.					
20. I learn better in class when I listen to someone.					
21. I enjoy working on an assignment with two or three classmates.					
22. When I build something, I remember what I learned better.					
23. I prefer to study with others.					
24. I learn better by reading than listening to someone.					
25. I enjoy making something for a class project.					
26. I learn best in class when I participate in related activities.					
27. In class, I work better when I work alone.					
28. I prefer working on projects by myself.					
29. I learn more by reading textbooks than by listening to a lecture.					
30. I prefer to work by myself.					

## Appendix B

### *STRATEGY INVENTORY FOR LANGUAGE LEARNING QUESTIONNAIRS*

Name: \_\_\_\_\_

Date:

Sex: F M

### **Strategy Inventory for Language Learning Version for Speakers of Other Languages Learning English**

#### **Directions**

This form of the Strategy Inventory for Language Learning (SILL) is for students of English as a second or foreign language. You will find statements about learning English. Please read each statement and mark how true of you the statement is.

**Never or almost never true of me**

**Usually not true of me**

**Sometimes true of me**

**Usually true of me**

**Always or almost always true of me.**

- ✓ Never or almost never true of me means that the statement is very rarely true of you.
- ✓ Usually not true of me means that the statement is true less than half the time.
- ✓ Sometimes true of me means that the statement is true of you about half the time.
- ✓ Usually true of me means that the statement is true more than half the time.
- ✓ Always or almost always true of me means that the statement is true of you almost always.

Mark how well the statement describes you. Do not answer how you think you should be, or what other people do. There are no right or wrong answers to these statements. Work as quickly as you can without being careless. This usually takes 20-30 minutes

to complete. If you have any questions, let the researcher know immediately.

### Part A: Memory Strategies

#	Strategies	Always	Usually	Sometimes	Rarely	Never
1	I think of relationships between what I already know and new things I learn in English.					
2	I use key English words in sentences so that I can remember them.					
3	I associate the sound of a new English word with its image or picture to help me remember it .					
4	I remember a new English word by making a mental picture of a situation or context in which the word might be used.					
5	I use rhymes to remember new English words					
6	I use flash cards to remember new English words.					
7	I physically act out English words.					
8	I often review English lessons.					
9	I remember new English words or phrases by remembering their locations on the page, the board ,or on a street sign.					

### Part B: Cognitive Strategies

#	Strategy	Always	Usually	Sometimes	Rarely	Never
10	I say or write new English words several times.					
11	I try to talk like a native English speaker.					
12	I practice the sounds of English.					
13	I use the English words I know in different ways.					
14	I initiate conversations in English.					
15	I watch TV programs in English or go to movies spoken in English.					
16	I write notes, messages ,letters or reports in English.					

17	I first skim an English passage then go back and read carefully.					
#	<b>Strategy</b>	<b>Always</b>	<b>Usually</b>	<b>Sometimes</b>	<b>Rarely</b>	<b>Never</b>
18	I read for pleasure in English.					
19	I look for words in my own language that are similar to new English words.					
20	I try to find study methods that improve my performance in English.					
21	I find the meaning of an English word by dividing it into parts that I understand.					
22	I try not to translate word for word when I am studying English.					
23	I make summaries of information that I hear or read in English.					

### Part C : Compensation Strategies

#	Strategies	Always	Usually	Sometimes	Rarely	Never
24	To understand unfamiliar English words, I use guesses.					
25	When I can't think of a word during a conversation in English, I use gestures.					
26	I make up new words if I don't know the right ones in English.					
27	I read English without looking up every new word.					
28	I try to guess what the other person will say next in English.					
29	If I can't think of an English word, I use a word or a phrase that means the same thing.					

### Part D: Metacognitive Strategies

#	Strategies	Always	Usually	Sometimes	Rarely	Never
30	I try to find as many ways as I can to use my English.					
31	I notice my English mistakes and use that information to help me do better/improve my performance.					
32	I pay attention when someone is speaking English.					
33	I try to find out how to be a better learner of English.					
34	I plan my schedule so I will have enough time to study					

	English.					
#	Strategies	Always	Usually	Sometimes	Rarely	Never
35	I look for people I can talk to in English.					
36	I look for opportunities to read as much as possible in English.					
37	I have a strong motivation to read what I can in English.					
38	I think of ways to further my progress in learning English.					
39	I try to relax whenever I feel afraid of using English.					

### Part E :Affective Strategies

40	I encourage my self to speak English even when I am afraid of making a mistake.					
41	I give myself a reward or treat when I do well in English.					
42	I notice if I am tense or nervous when I am studying or using English.					
43	I write my own feelings in a language learning diary.					
44	I talk to someone else about how I feel when I am learning English.					

### Part F : Social Strategies

	Strategy	Always	Usually	Sometimes	Rarely	Never
45	If I do not understand something in English , I ask the other person to slow down or say it again.					
46	I ask English speakers to correct me when I speak.					
47	I practice English with my classmates.					
48	I ask for help from English speakers.					
49	I ask questions in English for an explanation.					
50	I try to learn about the culture of English speakers.					

## Appendix C

### Achievement test

**Student Name:**.....

**Level:** .....

**Time: 2 hours**

**Total: 100 marks.**

**Dear student ,**

This test is designed as a data collection tool for academic research purpose. It is intended to be applied on the second level English language majors at Al Aqsa University. Students are expected to follow the test instructions and show seriousness in dealing with the test items.

#### **Test instructions:**

1. All questions are **mandatory** " Obligatory".
2. The number of questions is **"4" Four.**
3. The number of pages is **12 Twelve.** This page is included.
4. Student must follow the lecturer's instructions when starting the exam.
5. The exam is timed and graded.
6. Each student must fill her \his name and level in the space provided in the cover page.

***Thank you for cooperation.***

**Researcher:**

**Mohammed A. Jhaish**

## I . Reading Comprehension

15 M.

*Dear student, read the following passage and answer the questions below:*

One of the most dangerous drugs for pregnant women to consume is alcohol. Because alcohol is delivered quickly into the blood and passes quickly into the tissues and membranes, the human fetus is particularly vulnerable to its effects. In fact, the negative effects on a fetus are so pronounced that babies born after exposure to alcohol are said to be 5

suffering from fetal alcohol syndrome.

As a pregnant woman drinks alcohol, the alcohol is passed into her her bloodstream almost simultaneously. Moreover, because the bloodstream of the fetus is inextricably tied to that of the mother, the alcohol passes directly into the bloodstream of the fetus as well. 10  
And, what is more, the concentration of alcohol in the fetus is exactly the same as in the mother.

For the mother, this concentration is not a problem because her liver can remove one ounce of alcohol from her system per hour. However, the fetus's liver is not completely developed (how developed it is depends on its stage of development). The rate at which it is able to eliminate the alcohol from the blood of the fetus is much slower. 20  
Eventually, the alcohol will be returned to the mother's system by passing across the placenta, but this process is slow. By the time this takes place, major neurological damage may have already occurred. Research has shown that as little as one drink of alcohol can produce significant, irreversible damage to the fetus.

Babies born after exposure to alcohol generally exhibit facial distortion, inability to concentrate, and difficulty in remembering. 25  
Simply speaking, it is imperative that pregnant women avoid alcohol.

1. **What is the main topic of this reading?**
  - A. Women and drugs
  - B. The dangers of pregnancy
  - C. The fetus and alcohol
  - D. Drinking and the human body
2. **In line 4 the word "its" refers to**
  - A. the fetus
  - B. the blood
  - C. the tissue
  - D. the alcohol
3. **In line 5, the word "pronounced" most closely means**
  - A. evident
  - B. spoken
  - C. described
  - D. unfortunate



4. **How much time can it be inferred that it takes alcohol to enter a woman's bloodstream after she takes a drink?**
  - A. about one hour
  - B. a few seconds
  - C. several minutes
  - D. at least 24 hours
5. **In line 9 the word "inextricably" most nearly means**
  - A. unexplainedly
  - B. formerly
  - C. forcefully
  - D. inseparably
6. **According to the passage, how does the concentration of alcohol in a fetus compare to that in the mother?**
  - A. The concentration is more.
  - B. The concentration is less.
  - C. The concentration is equivalent.
  - D. The concentration cannot be measured.
7. **It can be inferred that the development of a fetal liver depends on**
  - A. how many months pregnant the mother is
  - B. how much alcohol the mother has consumed
  - C. how large the fetus is
  - D. how well the mother has taken care of the fetus
8. **According to the passage, how is alcohol finally returned to the mother's system?**
  - A. it is carried through the bloodstream
  - B. it is transferred across the placenta
  - C. it is expelled by the fetus's liver
  - D. it is not completely returned
9. **Which one of the following was NOT mentioned as a sign of fetal alcohol syndrome?**
  - A. disfigurement of the face
  - B. concentration difficulties
  - C. increased aggression
  - D. memory problems
10. **At what place in the passage does the author discuss the quantity of alcohol necessary to produce negative results?**
  - A. Lines 2-3
  - B. Lines 11-13
  - C. Lines 21-22
  - D. Lines 24-25

## II . GRAMMAR

35 M.

**Choose the correct answer from A,B,C or D ,and insert your answers in the table below:**

**1. There is a law in France, which says that only the family has the right to decide what \_\_\_\_\_ or not known about the health of a patient."**

- A. must be known                      B. must have known  
C. must have been known          D. must have being known

**2. "the cabinet is beautiful. Did you make it Yourself? "**  
**"No, I had \_\_\_\_\_"**

- A. to build it                      B. it built  
C. it to build                      D. built it

**3. Can you please tell me \_\_\_\_\_ ?**

- A. what time the next bus arrives      B. what time does the next bus arrive  
C. when arrives the next bus              D. when does the next bus arrive?

**4. \_\_\_\_\_ is a mystery. I wish that I could ask him.**

- A. How did he                      B. What he did it  
C. How he did it                      D. When did it

**5. I think Jane deserved to be fired for her \_\_\_\_\_ .**

- (A) totally behavior irresponsible      (B) behavior totally irresponsible  
(C) irresponsible totally behavior      (D) totally irresponsible behavior

**6. \_\_\_\_\_ appeared to be coming from the science lab next door.**

- A. The pungent unpleasant odor of burning plastic  
B. The unpleasant pungent odor of burning plastic  
C. The pungent unpleasant odor of plastic burning  
D. The unpleasant odor pungent of burning plastic

**7. As soon as he \_\_\_\_\_,tell him that I want to see him.**

- A. has arrived                      B . will arrive  
C. is arriving                      D. arrives

**8. The archaeologists were astonished to find such \_\_\_\_\_ at that particular site.**

- A. an incredibly rare beautiful artifact      B. a rare incredibly beautiful artifact  
C. a beautiful artifact incredibly rare      D. an incredibly beautiful rare artifact

**9. \_\_\_\_\_ getting the highest result in the class, John still had problems with the teacher.**

- (A) Despite of                      (B) In spite of  
(C) Even though                      (D) Nonetheless

**10. \_\_\_\_\_ air is composed of about 78 percent nitrogen and only about 21 percent oxygen is a little known fact on the streets.**

- A. How that                      B. That  
C. When                      D. However

**11. \_\_\_\_\_ he was seen to be an aggressive politician, he was a quiet and loving family man at home.**

- A. Although                      B. Despite  
C. In spite                      D. Nevertheless

**12. \_\_\_\_\_ the variable drops by a unit of 1, the rank drops by X amount.**

- A. Why                      B. Whenever  
C. How                      D. Whatever

13. This method is widely used \_\_\_\_\_ algorithm is not only effective but also very simple.

- A. because its                      B. because  
C. it is because                      D. because of its

14. \_\_\_\_\_ in history caused as much shock and grief worldwide as the 2004 tsunami disaster in Asia.

- A. None natural disaster                      B. That natural disaster  
C. No natural disaster                      D. The only natural disaster

15. That the legal drinking age \_\_\_\_\_ lowered is a hot topic for debate in many states.

- A. should have                      B. which should  
C. should be                      D. should have been

16. Despite the simplicity of their construction, the ancient systems \_\_\_\_\_ exhibit very complicated behavior.

- A. finding to                      B. found to  
C. are found to                      D. were found to

17. Over time the young students will perfect the art of piano playing.

After all, such \_\_\_\_\_ needs delicate handling.

- A. a tuned instrument finely                      B. an instrument tuned finely  
C. a finely instrument tuned                      D. a finely tuned instrument

18. The tenants were asked to throw all recyclable trash into \_\_\_\_\_.

- A. the green big plastic bag                      B. the big plastic green bag  
C. the big green plastic bag                      D. the green plastic big bag

19. Once You \_\_\_\_\_ the examination, You'll be able to relax.

- A. had taken                      B. have taken  
C. took                      D. will have taken

20. By May, I \_\_\_\_\_ this car for five years

- A. will have                      B. will be having  
C. will have had                      D. have had

21. You are making a lot of noise. I wish You \_\_\_\_\_ quiet for a while.

- A. will keep                      B. keep  
C. have kept                      D. would keep

22. \_\_\_\_\_ American families have more than five children

- A. Few of the                      B. Few  
C. A little of                      D. A few of the

23. \_\_\_\_\_ smog is a problem in big Cities

- A. The                      B. A  
C. Many                      D. No article

24. \_\_\_\_\_ Plaza hotel is on the corner of 59th Street.

- A. A                      B. The  
C. No article                      D. An

25. \_\_\_\_\_ he was ,he went on with his work.

- A. How tired                      B. Despite being tired  
C. Though tired                      D. Tired as

26. I think you should be tolerant \_\_\_\_\_ criticism.

- A. on                      B. of  
C. for                      D. with

27. He is \_\_\_\_\_ known as an artist. Not many people know him.

- A. little                      B. a little  
C. much                        D. a few

28. I can't give you an answer yet. I'd Like \_\_\_\_\_ more time to consider my decision.

- A. quite                        B. fairly  
C. hardly                      D. rather

29. You \_\_\_\_\_ to eat if you don't feel like it.

- A. needn't                      B. don't have  
C. mustn't                      D. haven't

30. \_\_\_\_\_ you be so kind as to deliver this message to my roommate?

- A. Should                      B. Can  
C. Would                        D. Might

31. Listen, Dennis is playing \_\_\_\_\_ trumpet.

- A. a                                B. some  
C. the                              D. no article

32. It was 4 o'clock when the ambulance finally arrived, by then the severely injured man \_\_\_\_\_

- A. had died                      B. died  
C. has died                      D. dies

33. Supposing I \_\_\_\_\_ to agree to your request how do you think the other students would feel?

- A. would                        B. am  
C. were                          D. could

34. Ali plays the piano beautifully and \_\_\_\_\_ does his brother.

- A. also                            B. even  
C. as well as                    D. so

35. \_\_\_\_\_ his extra ordinary performance, the audience applauded him enthusiastically

- A. It was impressed by            B. Impressing  
C. Impressed by                    D. Since it impressed

**Please, insert your answers in the table:**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

31	32	33	34	35

### III General test on synonyms

35 M.

**Choose the word or phrase which is closest to meaning to the underlined word or phrase.**

1. As an architect, I believe that a building should be designed to fit its function and location.  
a) enhance    b) decorate    c) conform with    d) alternate with
2. Strawberries grow best in a cool ,moist climate.  
a) dry    b) chilly    c) damp    d) tropical
3. Fish have lived on earth longer than any other backboned animal and show great diversity in their way of life.  
a) variation    b) evolution    c) adaptation    d) satisfaction
4. The most recent evidence indicate that dinosaurs were warm blooded animals  
a) admits    b) insists    c) suggests    d) concludes
5. His conscience compelled him to admit his part in the affair.  
a) induced    b) forced    c) led    d) enabled
6. Newton performed experiments to confirm what Galileo had proposes about motion.  
a) verify    b) improve    c) disprove    d) expand
7. He will abide by his promise if he gives it.  
a) stick to    b) renew    c) allow for    d) go back on
8. I'd like to look over this report.  
a) write    b) correct    c) examine    d) prepare
9. The defendant seemed to be devoid of feelings as the sentence was read by the judge .  
a) overcome    b) without    c) devastated by    d) wrestling by
10. Scientist are expected to carry out thoroughgoing studies to back up claims made concerning new drugs.  
a) support    b) eliminate    c) Investigate    d) challenge[
- 11.. The students listened to the dean's speech with growing scepticisms.  
a) anger    b) confidence    c) enthusiasm    d) doubt
12. Man is prone to errors ,even though he'd like to think he is infallible.  
a) apathetic    b) averse    c) disposed    d) indifferent
13. He had reached the zenith of his career when he became president of the university.  
a) ambition    b) happiest moment    c) summit    d) zeal

14. His physical condition was no impediment to his career as a violinist.  
a) help      b) hindrance      c) impossibility      d) detriment
15. The politician's convictions for tax fraud jeopardized his future in public life.  
a) penalized      b) rejuvenated      c) enhanced      d) endangered
16. He reads periodicals that are pertinent to his profession.  
a) appropriate      b) apparent      c) perceptive      d) discriminating
17. A series of ingenious inventions in Britain provided the impetus for the Industrial Revolution.  
a) clever      b) minor      c) mechanical      d) intricate
18. My grandparents always talk about their ailments whenever I go to visit them.  
a) pleasures      b) illness      c) achievements      d) hobbies
19. Attitudes on the two sides in the Revolutionary war precluded the possibility of a peaceful solution.  
a) promoted      b) prevented      c) anticipated      d) prejudiced
20. Please make every endeavor to arrive punctually.  
a) effort      b) commitment      c) promise      d) assessment
21. We must do all we can to alleviate the suffering of these poor people.  
a) stop      b) get rid of      c) compensate for      d) lessen
22. In your remarks you allude to certain sinister development.  
a) object      b) ascribe      c) attribute      d) refer
23. Although he knew she had work to do ,he tried to entice her to go to the beach.  
a) trace      b) enervate      c) tempt      d) thrice
24. He is acquitted of all the charges made against him.  
a) cleared      b) convicted      c) accused      d) convinced
25. The school bus driver admonished the noisy children.  
a) admitted      b) drove      c) rebuked      d) punished
26. George was baffled by Harriet's reaction.  
a) very pleased      b) greatly confused      c) disappointed      d) insulted
27. Tennis wear has become a very lucrative business for both manufacturers and tennis players.  
a) circumstantial      b) expansive      c) profitable      d) extensive
28. The soldier rashly agreed to lead the dangerous expedition .  
a) dutifully      b) heroically      c) recklessly      d) reluctantly
29. He responded to her advances ardently.  
a) expertly      b) zealously      c) entirely      d) arduously

30. They have stated unequivocally what they stand for .  
 a) ambiguously      b) clearly              c) astonishingly              d) doubtfully
31. The intricate directions were difficult to understand.  
 a) vague              b) obvious              c) complicated              d) unusual
32. Double agents live in a perpetual state of fear.  
 a) total              b) perpetrated              c) constant              d) ceasing
33. Corn is the most prevalent crop in the Black sea region.  
 a) common              b) traditional              c) frequent              d) growing
34. He has become quite adept at netting birds.  
 a) skillful in              b) enthusiastic about      c) fond of              d) keen on
35. Monkeys have many human traits .  
 a) needs              b) characteristics              c) tendencies              d) behaviors

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35

#### IV WRITING

**15 M.**

Place an X in the answer space if you think a mistake appears in the sentence below. Place a C in the answer space if you think the sentence is correct.

1. My friends and I love to eat pizza ,especially pizza with toppings.( )  
\_\_\_\_\_
2. Adam is always losing things, he misplaces his house keys at least once a week.( )  
\_\_\_\_\_
- 3.The new television game show interests my whole family.( )  
\_\_\_\_\_
- 4.A large box of tissues lasts more than twice as long as a small one. ( )  
\_\_\_\_\_
5. Before the temperature dropped any further ,Rita tried to start her car and then calls her father. ( )  
\_\_\_\_\_
- 6.After being on my feet all day, the chair in front of the television set was a welcome sight, ( )  
\_\_\_\_\_
7. We sent the present to my sister that was wrapped. ( )  
\_\_\_\_\_
- 8.To become a licensed driver, Vicki had to study her instructions manual, pass a written test, and a driving test was required. ( )  
\_\_\_\_\_
9. Good managers are friendly ,understanding ,and show confidence.( )  
\_\_\_\_\_
10. I practice more than often, but Bruce types faster than me.( )  
\_\_\_\_\_
11. The living room is the most sunniest room in the house. ( )  
\_\_\_\_\_
12. I have been eating Kellogg's cereals since I was four years old .( )  
\_\_\_\_\_
- 13.In the winter my grandparents' walking club does its walking in a shopping mall.( )  
\_\_\_\_\_
14. Savita is less than five ft. tall, but her sister is much taller.( )  
\_\_\_\_\_
15. Both my brothers' moved to Chicago.( )  
\_\_\_\_\_

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15



In the Name of Allah. Most Gracious, Most Merciful

Dear sir/madam : .....

Peace be upon you,,

**Subject: Refereeing the language learning strategies and perceptual learning style questionnaires as well as an achievement test**

First of all, I highly appreciate being a post-graduate student working under the valuable guide of your excellency. Referring to the above subject, I am doing an investigation through a master degree thesis entitled :

**THE RELATIONSHIP BETWEEN LEARNING STYLES ,LANGUAGE LEARNING STRATEGIES AND THE ACADEMIC ACHEIVEMENT AMONG THE ENGLISH MAJORS AT AL AQSA YNIVERSITY**

For conducting my research , I adopted the oxford's (1990) (SILL) questionnaire as well as Reid's (1989) perceptual learning style questionnaire.

I also designed an achievement test to check the students' academic achievement in the reading skill, writing skill, synonyms and grammar.

I would be very grateful if you would referee my research tools to be fit for conducting my research.

Kind regards,,

**Researcher: Mohammed A. Jhaish**