

**THE INFLUENCE OF EDUCATIONAL AND SOCIOCULTURAL FACTORS ON  
THE LEARNING STYLES AND STRATEGIES OF FEMALE STUDENTS IN  
SAUDI ARABIA**

**THESIS SUBMITTED FOR THE DEGREE OF  
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**BY**

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## **Dedication**

To the living memory of my father.

To my children, who give my life a purpose.

To my husband, who has supported me in all my endeavours.

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## **Abstract**

This study investigates the learning styles and strategies of female university students in Saudi Arabia in relation to their educational and sociocultural backgrounds. Its main aim is to explore the implications of the findings for instructional design, student orientation and teacher training to help improve the cognitive skills and competencies of Saudi women and enhance their role in society.

A two-stage, sequential mixed methodology incorporating both quantitative and qualitative methods of collecting and analysing the data was used. The participants were 209 first-year female students at King Faisal University in Saudi Arabia, studying English as a foreign language. The data collection instruments consisted of questionnaires, focus groups and observations. Data analysis provided a description of the students' overall approaches to learning and revealed a number of educational and sociocultural variables that predicted a pattern of learning style and strategy use. In the students' educational experience, greater priority was given to memorising information than to self-expression, speculation, or analytical skills. Some similarities were identified between the students' educational experiences and their social activities that corresponded to a reduction in their active involvement in the learning process and influenced their thinking and behaviour.

Two major conclusions were drawn from the results. Firstly, cultural background has a strong effect on the students' preferred learning styles and strategies. Secondly, there is a need to pay more corrective attention to many educationally relevant variables in order to meet the changing and increasing demands of Saudi society.

Based on the findings and conclusions of the study, the obstacles that could possibly influence the successful application of a more communicative/collaborative approach to teaching, learning and personal development are discussed, along with implications for future research.

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# **Chapter One**

## **Introduction and Background Information**

### ***1.0. Introduction***

Research in the field of second and foreign language learning has increasingly examined a multitude of factors that account for the process by which learning occurs. This includes looking at a variety of student characteristics, such as general learning styles and strategies, as well as many social and cultural factors about particular students or about a whole cultural group.

Learning styles are the behaviours or actions that learners exhibit during learning. These learners' behaviours provide insights into how learners process and understand information and how they engage in the learning process (DeCaupa & Wintergerst, 2005). In second and foreign language learning, learning styles appear to reflect the types of learning strategies that the individual employs in acquiring a second language (Cohen, 2003). Learning styles are not the same as learning strategies. Learning strategies are the conscious actions taken by the students to improve their learning (Oxford et al, 1992). The importance of examining learning styles and strategies is to know those behavioural patterns that characterize the individual's approaches to learning. Such information can serve as a guide in designing instructional approaches that match or mismatch the student's learning processes. For example, if we believe that learning processes develop according to biologically driven cognitive styles, then the goal is to detect these styles in order to modify teaching procedures to students' cognitive capabilities. If, on the contrary, we believe that learning processes can be developed through teaching-and-learning, then the primary concern should be to construct new forms of teaching-and-learning that have a developmental impact on the minds of students.

Although much work has been done on learning styles and strategies (e.g., Reid, 1995; Leaver and Oxford 2001; Park, 2002; Cohen, 2003), a relatively modest body of literature has examined empirically the direct influence of culture on learning styles and strategies. Even rarer in the literature is the exploration of the implications that cultural influences

have on learning preferences for instructional approaches.

This study is structured to investigate the learning styles and strategies of Saudi female students in relation to their educational and sociocultural contexts. It comes in response to the current perceived need in Saudi Arabia to raise the standard of learning at all levels of education. The recent rapid economic growth in Saudi Arabia has contributed to an escalating demand for various competencies and skills for social and vocational purposes. In addition, more opportunities are likely to open for women. These increasing opportunities have not, however, been met by the recognition of the importance of preparing Saudi women for the global economy by developing their cognitive skills and competencies. This problem has been raised in the national media in the writings of Nora AlArafi (2001), and Samar Fatany (2004, 2006). These women call for training and educational programs at institutes and colleges to increase the expertise of Saudi women and project their role in society. The first step to address these concerns is through empirical research, such as the one reported in this thesis, that examines the factors that possibly influence the thinking, learning, and behaviour of the students and explores the implications of the findings for improving teaching and learning conditions in Saudi Arabia. It is hoped that the findings of this study will contribute uniquely to current educational, economical and individual challenges in the Saudi context and to current theory and research on culture and learning.

This chapter is devoted to discussing the background to the research. It is important to situate the present teaching and learning context within the larger historical and social context of Saudi Arabia in order to understand how these processes interact and inform one another. Hence, the first part of this chapter provides a short description and history of Saudi Arabian culture. The second part deals with the status of teaching, learning and development in the country, with reference to social and economic conditions. First, the objectives underlying the conduct of this study are discussed.

### ***1.1. Objectives of the Study***

This study has three main objectives:

1. To explore the range and variety of learning styles and strategies of female students, studying English at first-year college level at King Faisal University, in Saudi Arabia.

2. To examine the influence of educational and sociocultural factors on the reported learning styles and strategies of female students, studying English at first-year college level at King Faisal University, in Saudi Arabia.
3. To explore the implications of the findings of this study for the development of teaching and learning processes in the context of Saudi Arabia.

### ***1.2. Historical Background: Saudi Arabic Culture***

It is difficult to understand how cultural patterns can influence students' learning styles and strategies without considering what happens in the Saudi society at large. A three-dimensional view, that of cultural, social and educational aspects, is needed to establish such a link. Within this view, two major features define Saudi Arabic culture: Islam and Arabic language and literature. It is difficult to understand one without considering the other historically, culturally, and intellectually. That is because the overwhelming majority of Saudi Arabs attach immense historical, social, and spiritual significance to Islam.

#### ***1.2.1. Islam***

The name of the religion - al-Islam - in Arabic means '*submission*' to God and obedience to His order with uncompromising monotheism (Esposito, 1998: 7). The two sacred texts in Islam are the Holy *Qura'n* and the *Hadith*. The *Qura'n* is a collection of the scriptures as reportedly revealed to the Prophet Muhammad, and the *Hadith* is a collection of the sayings attributed to the Prophet Muhammad and his companions, passed down in the centuries following his death. Islamic law, called the *Shari'a*, was established after the death of the Prophet in order for Muslims to have a guide that would dictate to them how to live their life according to the *Qura'n* and the *Sunnah* (the tradition of the Prophet Muhammad).

Faith in Islam is based on six pillars: first, to believe in God and His Oneness as the sole Creator and in whose Hand is the disposal of all affairs; second, to believe in God's Angels; third, to believe in God's revealed books; fourth, to believe in God's messengers; fifth, to believe in the Last Day; and sixth, to believe in God's determination of affairs, good or bad - a reaffirmation of the concepts of divine fore-knowledge and fate. There are five obligations that are required of every Muslim:

**1. Shahadah:** The first and perhaps most important pillar of Islam is *shahadah*: [There is none worthy of worship except God and Muhammad is the messenger of God]. Every Muslim is expected to say the shahadah at least once in his or her life but most say it every day.

**2. Salat:** The second of the five pillars is *salat*: the prayers that each Muslim must recite five times each day and establish a sort of rhythm, which structures the day: morning prayer, early afternoon or noon prayer, late afternoon prayer, and late evening prayer. When saying their prayers, Muslims are required to face in the direction of Mecca, the city where Islam was born. Prayers make use of verses from the Qura'n which are said in Arabic.

**3. Zakat:** The third of the Five Pillars is *zakat*: the financial obligations that every Muslim has to the community. In Islam, everything essentially belongs to Allah, but Muslims must use their possessions wisely, which includes sharing with the less fortunate. In practice, each Muslim calculates their contribution individually, but it is supposed to amount to one-fortieth of their total capital. They can give more if they want, but preferably in secret.

**4. Sawm:** The fourth of the Five Pillars is *sawm*, which refers to self-purification through fasting. Traditionally every Muslim fasts from sunrise to sunset during Ramadan, the ninth month of the Muslim lunar calendar. Fasting means abstaining from all food, drink and sexual relations. Some are exempt from the fast, including people who are sick, the elderly, and those on a journey. Women who are pregnant, nursing, or menstruating are also exempted. But in each case, it is preferred if they try and make up the days at other times when they are able. Children do not usually start fasting until they reach puberty.

**5. Hajj:** The fifth of the Five Pillars is the *hajj*: a pilgrimage to Mecca which Muslims are supposed to make at least once in their lives, if they are physically and financially able. Pilgrims are supposed to wear simple clothing, which eliminates national, cultural and class differences. Islam is a religion that is supposed to create a community of believers within which there are no such divisions.

Islam, to the believers, is not only a system of values; it is a conceptual framework and a set of disciplines to include faith, to train in ethical conduct, and to encourage intellectual development. Some such values emphasized in the Islamic perspective are knowledge,



cooperation, compassion, faith, integrity, justice, equality, human dignity, and *shura* (consultative governance). This system of values is by no means exclusive to Islam. It is considered Islamic only in the sense that Islam has acknowledged and understood it as essential to the development of humankind.

### ***1.2.2. Arabic Language***

The term Arabic refers to the standard form of the language used in text books and heard on television and radio as well as in mosques. The diverse colloquial dialects of Arabic are closely interrelated but vary according to regional differences. These dialects differ from standard Arabic and from one another in pronunciation, vocabulary, and grammar.

The Arabs have a highly developed oral tradition, notably in poetry. Poetry was composed and committed to memory, and was passed on in this way from generation to generation. Rather than viewing language as a means of transmitting information, emotional resonance is stressed through the social channel of the language. With the stress always on style, the sounds of the phonetic combinations and plays on words in the recitation of Arabic prose and poetry have been linked to music (AlManey and AlWan, 1982). Shouby (1951) noted that Arabic had a powerful effect on the psychology of the Arab. Hitti (1958: 90) summed it up best when he stated, “Hardly any language seems capable of exercising over the minds of its users such irresistible influence as Arabic.”

Three socio-historical factors have influenced the role of Arabic for the Arabs: Arabic as an art form, as a religious phenomenon, and as a tool of Arab nationalism (Zaharna, 1995). These factors appear to have shaped the role of the Arabic language in different ways. As an art form, the early Muslim Arabs devoted their lives to producing elegantly handwritten copies of the *Qura’n*. Because the representation of human or animal forms has been discouraged in some sects of Islam, calligraphers found artistic expression in highly stylized complex patterns. Calligraphy remains a supreme art form in decorating palaces, mosques, clothing, carpets and some literary work. As a religious phenomenon, Arabic is considered sacred by Muslims, since it is the language through which the *Qura’n* was revealed. It is also the liturgical language of Muslims around the world.

In discussing the role of Arabic as a symbol of group identity, Suleiman (2003: 66) explains:

It {Arabic} is part of the linguistic thinking of the Arabs, the religious source and Islamic theology. It is also part of the historical and social discourse on what makes up a group and what keeps it apart from other groups, of the internal bond between its members and the external boundary between itself and other groups.

The focus on Arabic language as a source of identity provides an indication of the qualities of mental make-up of its speakers. It also suggests that “*the past lives on*” (Suleiman, 2003: 38). Suleiman describes how the past plays a role in fostering a feeling of intimacy and belonging between members of a nation. According to Suleiman, the past is seen as the building blocks of a modern nation anchored and attached to its cultural and religious heritage.

### ***1.3. General Background: Saudi Arabia***

#### ***1.3.1. People***

Saudi Arabia is known as the heartland of the Arab people and the birthplace of Islam. Its population is estimated to be 27.0 million, including about 5.6 million resident foreigners (Bureau of Near Eastern Affairs, 2006). Until the 1960s, much of the population was nomadic or semi nomadic; owing to rapid economic and urban growth, more than 95% of the population is now settled. Most Saudis are ethnically Arabs. Some are of mixed ethnic origin and are descended from Turks, Iranians, Indonesians, Indians, Africans, and others, most of whom immigrated as pilgrims and resided in the Hijaz region along the Red Sea coast. Many Arabs from nearby countries are employed in the kingdom. There are also significant numbers of Asian expatriates, mostly from India, Pakistan, Bangladesh, Indonesia, and the Philippines and a little fewer than 100,000 Westerners in Saudi Arabia. The Saudi population is almost entirely Wahhabi Sunni. Shi'ites, who adhere to the second major branch of Islam, make up somewhere under 10% of the population and are found mostly in the Eastern Province of Saudi Arabia (ibid).

#### ***1.3.2. Society***

The transferability of Islamic law to the Saudi society is evident in the way the government employs the *Shari'a* as a guiding principle of rule. Consequently, Islamic tenets not only govern spirituality and religious practices, but also guide practices of law, business,

education, media, entertainment, and personal relationships and behaviour. The form of Islam practised in Saudi is socially and theologically conservative. Therefore, public worship and display of non-Muslim faiths is prohibited by law. While people may behave as they wish in private, they must observe many religious requirements while in public. These include appropriate Islamic clothing for men and women, segregation of the sexes when attending public events and in the work place, and mandatory daily prayers for Muslims. Observance of these rules is a duty of every religious Saudi citizen. A Committee to Prevent Vice and Promote Virtue (usually known as the *Mutawwa* or religious police) sends out official enforcers to ensure the observance of these rules.

Islamic laws remain in force in Saudi Arabia with little modification. For example, marriage is a civil contract, which has to be signed by witnesses, and a specified amount of money (*mehr*) has to be paid by the husband to the wife. It might further include an agreement for an additional amount of money to be paid in the event of divorce. The wife has the right to be provided all her living needs, including housing, clothing, food, kindness, good treatment and protection. The husband has a right to obedience by his wife. It is the duty of all members of the family to obey the head of the family in all general affairs according to the Shari`a. Polygamy in Islam allows Saudi men to marry up to four wives at the same time, but there are necessary conditions for this permission. Divorce is allowed in Islam. Muslims are, however, discouraged from using this permission by seeking divorce without good reasons. Women also have the right of divorce for the same reasons.

In Saudi society, the family, and not the individual, forms the most important unit of society. This is largely due to the tribal nature of Saudi society, where the individual's aspirations and status are typically subordinate to the group. Within the family structure, two characteristics of family dynamics stand out: patriarchy and gender roles. These two related themes are critical aspects of Saudi culture, because they shape the way daily life is lived in the family, as well as in the wider community. Patriarchal values, or the system of male dominance, hold strong positions on gender appropriate behaviours and gender segregation in public places, which goes beyond the confines of religious dogma. The patriarchal control imposed upon a woman is due to the strong belief in the woman's family honour and pride. Family honour and pride of a woman's family is directly related to her chastity. Saudi society is structured to keep a woman within defined roles to guard

her chastity, and the veiling and separation of women from unrelated men are considered mechanisms to ensure sexual modesty and chastity. Some families, however, adopt more liberal standards than others in defining the extent of veiling and separation, but such behaviours are the exception, and more predominant in the more liberal coastal regions and among more educated people.

In part, because women are obliged to be separate from unrelated men, women are not allowed to drive. This, however, is only one partial explanation for widespread opposition to allowing women to drive. The continuing practical dependence of women on men has maintained the Saudi family as a patriarchal unit. As such, men stand for status and as family providers, protectors, and managers. Women's role stands for morality and maintaining the Islamic structure of the family and therefore of society.

Raising children, especially girls, is very important in Islam, and is seen as a way to seek more rewards in the hereafter. Many Saudis, however, tend to favour boys. AlSaif (1997: 166) mentions how Saudi girls are always required to show obedience to males in their family. According to AlSaif, girl-rearing practices are still influenced by the fathers' attitude to preserving traditional heritage, and girls have to *adapt mentally* to the traditions of the family and society.

### ***1.3.3. Economy***

Oil was discovered in Saudi Arabia in the 1930s, although large-scale production did not begin until after World War II. Oil wealth made possible rapid economic development, which began in earnest in the 1960s and accelerated in the 1970s. Saudi oil reserves are the largest in the world, and Saudi Arabia is the world's leading oil producer and exporter. Oil accounts for more than 90% of the country's exports and nearly 75% of government revenues (Bureau of Near Eastern Affairs, 2006).

Through 5-year development plans, the Saudi government has sought to use its petroleum income to transform the oil-based economy into that of a modern industrial state while maintaining traditional Islamic values and customs. Although economic planners in Saudi Arabia have not achieved all their goals, the economy has progressed rapidly. Oil wealth has increased the standard of living of most Saudis. The population growth that rates among the highest in the world has, however, strained the government's resources. In

addition, the speed and extent of development have resulted in little time for reflection, consolidation, or adjustment in development plans.

Saudi Arabia joined the World Trade Organization (WTO) on 11 December 2005. Lengthy negotiations on its entry focused on the degree to which Saudi Arabia was willing to increase market access for foreign goods and services, and the timeframe for becoming fully compliant with WTO obligations (Bureau of Near Eastern Affairs, 2006).

A major obstacle to economic diversification and development in Saudi Arabia remains the mismatch between the job skills of Saudi graduates and the needs of the private sector at all levels. In the seventh development plan (2000-2004), the government set a target of creating 817,300 new jobs for Saudi nationals (Bureau of Near Eastern Affairs, 2006). Despite that fact, only 5.5 % of an estimated 4.7 million Saudi women of working age are in the work force (Samar Fatany, 2004). Samar Fatnay (2006) also believes that Saudi society appears to lack trust in the capacity of women to work. As a result, many still hold onto the restrictions imposed on women to safeguard the Muslim identity of women, as well as family values that they fear could be lost in the process of change.

#### ***1.3.4. Role of Women in Saudi Society***

The position of women in Saudi Arabian society is a complex issue. The regulations that ensure the stability of family life and the security of women in Saudi society differ markedly from those in Western societies. The separation of sexes in Islam starts at age six. Children at that age begin to associate and identify with their own sex. Girls are encouraged to be in the company of their mothers, and boys with their fathers. At the age of puberty, Islam has regulations dealing with a girl's femininity concerning her behaviour and religious duties. For example, Islam encourages a woman to avoid speaking to men, who are strangers to them in an affected tone, and to lower their gaze to guard their chastity and not to reveal their adornments. Therefore, the *Hijab*, which covers a woman, has become a sign of the observant Muslim woman.

Social and religious regulations also govern the Saudi woman's movement, education, and work. For example, a Saudi woman cannot leave the country without a written permission of a *mahram*- a husband or a male relative to whom marriage would not be permitted (e.g. father, brother, or uncle). Written permission from a *mahram* is also required if a Saudi

woman seeks to study or work. Nevertheless, the development of the Kingdom of Saudi Arabia has brought with it increasing opportunities for women in both education and employment. There has also been further encouragement for women to take a more active role in public as well as in private life.

Nora AlAraifi (2001), however, believes that there are barriers that impede Saudi females from being fully productive in society. She divides those barriers into two categories: external and internal. External barriers result from the traditional and cultural heritage imposed on females by society, while internal barriers are those which have been internalized by females through the socialization process. Yet the two interact, and the central barrier to development, as seen by AlArifi, is the stereotype of Saudi women. In general, Saudi women are perceived as emotional, passive, submissive, dependent, and non-assertive (ibid). Women who conform to their stereotype have been traditionally rewarded and valued. AlArifi thinks that the image of the female stereotype held by the Saudi society at large and by the women themselves tends to reinforce the traditional child-rearing practices adopted by parents.

Despite the rising number of educated Saudi women, the fall in polygamous marriages, and the rising tide of globalization, there have been no significant changes in the traditional place of women in Saudi society (ibid).

#### ***1.4. Education in Saudi Arabia***

Education has been a high priority for the Saudi government since the country's unification in 1932. Before that time, education took place in the *kuttab*- a class of *Qura'n* recitation for children usually attached to a mosque. *Kuttab* schools specializing in the memorization of *Qura'n* sometimes included arithmetic, foreign languages, and Arabic reading in the curriculum. Because the purpose of basic learning was to know the contents of the Holy Scripture, the ability to read Arabic texts was not a priority. Until recently, illiteracy remained widespread in the Arabian Peninsula.

With the discovery of oil in Saudi Arabia, there was an increase in the demand to open schools in the country. Formal primary education began in the 1930s. By 1945, King Abdulaziz had initiated an extensive program to establish schools in the Kingdom. Six years later, the country had 226 schools with 29,887 students. In 1954, the Ministry of

Education was established. The first university, now known as King Saud University, was founded in Riyadh in 1957. Today, Saudi Arabia's nationwide public educational system comprises nine universities, more than 24,000 schools, and a large number of colleges and other educational and training institutions (Ministry of Education, 2004).

The educational system in Saudi Arabia is divided into three main levels. The first level is the elementary stage, lasting six years. The second level is divided into two stages – intermediate and high- each lasting three years. In the last two years of high school, the curriculum has a basis for either Science or Humanities to prepare students for higher education. The third level is higher education, which includes a number of universities and colleges in different parts of the kingdom. Students, at university level, are encouraged to continue their education by receiving financial bursaries and free housing on campus.

The education system in Saudi Arabia is characterized by its uniformity. The curriculum for each level of basic education throughout the country in both government and private schools is exactly the same. The objectives of Saudi educational policy are to ensure that education becomes more efficient, to meet the religious, economic and social needs of the country, and to eradicate illiteracy among Saudi adults. All development plans have placed emphasis on inculcating these values in students and on imparting to them the knowledge and skills that will enable them to participate effectively in all social and cultural activities. The vision of the Ministry of Education at the end of year 1435H [2014] will be realized in:

The graduation of male and female students with Islamic values and the appropriate knowledge and practice. These students will have acquired practical knowledge, skills, and attitudes; they will be able to react positively to and face modern changes; they will be able to apply advanced technologies with efficiency and flexibility and to deal with international competition in scientific and practical fields. Their positive participation in an efficient educational system will allow them to develop appropriate abilities and attitudes and to spread the positive spirit of work at school environments that encourage learning and social education (Ministry of Education: The Executive Summary of the Ministry of Education Ten-Year Plan, 2004-2014: 12).

#### ***1.4.1. Women's Education in Saudi Arabia***

Publicly funded education for girls began in 1960. Initially, opening schools for girls met strong opposition in some parts of the Kingdom, where nonreligious education was viewed as useless for girls. Within a few years, however, public perceptions of the value of education for girls changed radically, and the general population became strongly supportive.

For a female, the goal of education, as stated in the Saudi official educational policy, is ideologically tied to religion:

The purpose of educating a girl is to bring her up in a proper Islamic way so as to perform her duty in life, be an ideal and successful housewife and a good mother, ready to do things which suit her nature such as teaching, nursing and medical treatment (Salloom, 1995:19-20).

The policy also recognized “women’s right to obtain suitable education on equal footing with men in light of Islamic laws” (ibid). In practice, educational options for girls at the pre-college level are almost identical to those for boys. One exception is that, at all levels of pre-college education, only boys take physical education and only girls study home economics.

Education in Saudi Arabia has never been separated from its Islamic roots. Much time is devoted to religious studies. High priority given to religious studies comes as a result of recommendations made by the Supreme Committee for Education Policy in 1980. Those recommendations cut English language classes from six to four hours a week, and cut mathematics classes from five to four hours a week, to allow for more religious studies within the timetable.

In all schools in Saudi Arabia, the morning assembly functions begin with collective worship and morning *du’a* (supplications). Noon prayer falls within the school day and is always performed as a group activity. The modest Islamic uniform for female students and staff is meant to help preserve the Islamic tradition and develop a sense of belonging.



#### ***1.4.2. Teaching of English in Saudi Arabia***

English in Saudi Arabia is taught as a foreign language. It is not a language of everyday communication. The input is therefore very limited, and motivation to learn it may be quite variable. Students in government schools start learning English at the intermediate level and continue studying it for six years through the high school level. In both levels, students have four English classes per week and each class lasts for forty-five minutes. During the 2004/ 2005 school year, a new decree on teaching English from grade six was implemented.

The English program is designed for Arab beginners and it takes into consideration the traditions, customs, beliefs, and values of the Saudi people and society. The main teaching materials are textbooks, which are issued by the Ministry of Education for Saudi schools. The English syllabus and textbooks are the same throughout the country. The teachers receive the syllabus and a statement of its objectives and they are responsible for its implementation and completion in the allotted time. The Ministry sends inspectors to ensure that the syllabus and objectives of the English course are met, and also to evaluate teachers' performance.

The focus in teaching English in Saudi schools is on reading and writing, which involves filling in blanks, reordering words to form sentences, handwriting, dictation, and elementary composition. Speaking and listening receive little attention and are limited to fixed drills. Language laboratories are not available in most schools. Where they exist, they are in a non-operative state, due to poor maintenance, lack of time in the curriculum and lack of trained teachers. Despite the fact that the Ministry of Education recommends the use of blackboards, pictures, flashcards, tape recorders, and educational films, the blackboard is the main and often exclusive means available to the teacher. The teacher is also required to devise her own teaching aids.

The minimum requirement set by the Ministry for teachers of English is a degree in English. Previous training and experience and higher qualifications, though taken into consideration, are not required, and no regular in-service programmes are provided for English language teachers.

The teaching atmosphere in classes in Saudi Arabia reflects the traditional practice. The

teacher spends a lot of time explaining and illustrating new language items and writing on the board, while the students sit and listen, read, or copy from the board when they are told to do so. Although this method assists learners in gaining grammatical competence, it does not adequately apply recent teaching approaches and is not able to meet the students' communicative and educational needs. In addition, the tremendous increase in the number of students created serious problems for the Ministry of Education, because there were not enough schools. This forced the Ministry to rent houses and buildings which were not designed as schools. They lacked such facilities as laboratories, workshops, libraries, theatres, and play areas. Due to the shortage of suitable school buildings and adequately qualified teachers, the classrooms in most schools are small and overcrowded. Since these classes are not designed for teaching language, students, at all stages of learning from primary to university level, including the classrooms where this study was conducted, are seated in rows facing the teacher and the blackboard.

In private schools, the teaching of English starts from the first grade as an extra curricular activity of one period a day. Textbooks are designed for bilingual children with a wide variety of topics and activities. Teachers are mostly non-Saudis, either native English speakers or other Arabs. In middle and high schools, students take the school curriculum in addition to the national curriculum for English. It is noticeable that most students who come from private schools are more proficient in general English skills than those from government schools.

Promotion of students from one grade to another is based only on a final written examination. English examinations in Saudi schools are restricted to two skills: reading comprehension, and writing. These examinations are intended to test students on the work of the whole semester. This creates considerable pressure on both teachers and students. For teachers, the main concerns are to prepare the students for examinations and cover the syllabus in the time allotted. The main focus of the students is on what is covered in the final exams.

Syed (2003: 337) comments on aspects of English language teaching in the Arabian Gulf region. He says:

One does not have to talk for long with English language teachers in the

Arabian Gulf to get a picture of the challenges they are constantly dealing with. EFL teachers in this region have identified student motivation, literacy, underachievement, reliance on rote learning and memorization, and dependence on high-stakes testing. These issues coupled with outdated curricula and methodologies, insufficient support systems, and not enough qualified teachers, paint a very unflattering picture of education in the region.

#### ***1.4.3. Research in English Language Teaching in Saudi Arabia***

The issue of low standard of skill and achievement in English among students has been a topic of concern and research among many educators and researchers in Saudi Arabia. This problem has been brought into the public domain and raised by Saudi educators in major newspapers. Different views have been expressed regarding the reasons behind this problem, and different techniques have been suggested to solve it. Some researches blame it on the teaching method adopted by teachers in schools and on their preferences for using the traditional approach in teaching; therefore, suggestions were made to vary the teaching techniques (AlKamookh, 1981). Others believe that students are not motivated or encouraged by teachers, and recommended a revision and re-evaluation of the teaching materials and activity (AlTwajiri (1982). The four periods per week were thought not to be enough for learning English; therefore, there was a suggestion for the need for more classes per week (Dhafer, 1986). Students' participation in class activities was found to be deficient, due to the dominant role of the teacher and the emphasis on memorization (AlHaidib, 1986). In-service training programmes were suggested to help teachers in the areas of methodology, testing, and language skills. AlMazroou (1988) suggested that the textbooks should be revised in order to meet students' needs, and that the examination system should be revised and new methods of testing and grading should be introduced.

The above mentioned studies discussed the methodology of the English language program: teacher training, methods of teaching, and attitudes and motivation of students toward learning English and teaching materials. They describe the current provision and shortcomings of English teaching in Saudi Arabia, and point to the need for change in the current system. Since no attempt has been made by these studies, to investigate the influence of educational and sociocultural factors on the processes of teaching, learning, and development, the researcher was encouraged to undertake this study.

### ***1.5. Purpose of the Study***

The rapid economic growth in Saudi Arabia has brought with it the influx of foreign companies, technological transfers, joint business ventures, English-speaking expatriates and tourists. All these changes have contributed to an escalating demand for various competencies and skills for social and vocational purposes. It is important to prepare Saudi students for the global economy by developing their cognitive and strategic skills, and competencies in order to deal with change throughout their lives. While this problem affects both male and female students at different levels of intensity, the socialization patterns in Saudi Arabia confront females with an additional set of barriers that may impede their learning and development. These barriers are exemplified in the image of the female stereotype held by Saudi society at large and by the women themselves.

The purpose of this study is to explore the current learning styles and strategies of the students and examine the factors that possibly influence their thinking, learning, and behaviour. Such information can be used to improve the teaching and learning conditions in English classes in Saudi Arabia.

### ***1.6. Rationale***

Beside a personal interest that originates from working in the context where this study was conducted, this research has both theoretical and pedagogical significance:

1. The current perceived need in Saudi Arabia is to raise the standard of learning at all levels of education, and, ultimately, to improve the quality of human resources and the ability to respond to the changing and increasing demands of society in a globalized world. The importance of addressing language learning styles and strategies in the Saudi context is that it can bring to the surface issues related to the roles of educational and social institutions and their influence on the students' approaches to learning. This first step is essential if we want to create a new structure of learning and behaviour so that the students' experiences can help them discover aspects of learning, thinking, and behaviours not previously developed. In addition, empirical research that contributes to raising the standard of learning is not only scarce but also badly needed in the Saudi context.

2. A review of related literature on culture and learning, including the learning of a second or foreign language, uncovered no studies on the influence of educational and sociocultural factors on the learning styles and strategies of Saudi female students. This study aims to fill this gap in the literature by providing a detailed analysis of the learning approaches of Saudi female students. In doing so, the study will have a cultural specific value and contribute to the development of language teaching and learning in Saudi Arabia. In addition, the results obtained and the conclusions reached through this study may add to the body of research done in the areas of learning and culture in the global context.

### ***1.7. Summary***

The purpose of this chapter was to provide the background information of the present study by giving a profile on the educational, social, and cultural aspects in Saudi Arabia and the role of women in Saudi society. It also highlighted the current provision and shortcomings of the teaching of English language in Saudi Arabia. The motivation for conducting this study and the objectives described show the need for the present research. The next chapter is devoted to the literature review on culture, learning styles and strategies, and other related issues.

## **Chapter Two**

### **Literature Review**

#### ***2.0. Introduction***

Literature on learning style preferences among learners of a second or foreign language is growing (Reid, 1995; Leaver and Oxford 2001; Park, 2002; Cohen, 2003) as is that on language learning strategies (Oxford 2001; Cohen, 2003). Literature on the importance of the cultural context in influencing both the learning styles and strategies of learners is also becoming more influential (Nelson, 1995; Reid, 1998; Nieto, 2000; Park, 2002; Griffiths, 2003).

This chapter is organized into three sections. In the first section, I discuss the concept of culture and trace the relationship between teaching, learning and cognitive development. In section two, I discuss the concept of learning styles, describe the first model that I used in this study to identify the learning styles of the students, and show how culture and learning styles can be related. Section three deals with language learning strategies. Here, I describe the second model selected, outline the factors that possibly influence the selection of strategies, and provide an overview of previous studies done on learning styles and strategies in different cultures. This chapter ends with a discussion of the need for this research study and the basis for its two main research questions.

#### ***2.1. Teaching, Learning and Development***

The relationship between teaching, learning, and development has been characterized more by a shift of attention and priority between these processes than by a focus on their inter-relationships. Major theories of learning such as behaviourism, cognitivism and constructivism tried to address this relationship based on their respective views of how learning occurs and how it can be facilitated. Systematic investigation of human behaviour, aspects of human consciousness and how people learn, date back to the late 19th century (Wenden, 1986, 1987). The work of some researchers, such as Wilhelm Wundt (1832-

1920), involved the study of the human mind through introspection. Wundt recognised two types of psychologies. The first was an experimental science for the study of the lower mental processes, and the second, a cultural science, which studied the products of the mind rather than the mind itself.

With the rise of behaviourism, psychology as a cultural science became a marginal interest to an academic psychology dominated by attempts to specify the learning mechanism behind change in behaviour. The behaviourists focused on what can be observed and excluded mental processes from their analyses and thus provided little insight into how teaching and learning affect cognitive development. The theoretical principle of behaviourism to learning environments is based on a simple relationship, yet a central notion of a reaction to particular stimuli (Pritchard, 2005). An example of the behaviourist model of learning is the concept of directed instruction, whereby a teacher provides information to the students through instructional procedures, such as modelling, demonstration and reinforcement, to achieve the targeted response. The use of examinations to measure observable behaviour of learning, the use of rewards and punishments in school systems, and the controlled pace, sequence and content of the lesson are all further examples of behaviourist influence (Baumann, 1988). Speck (2002) criticizes this learning mode because it centres upon surface learning, promotes traditional methods of assessment and disregards the use of higher-level thinking processes, such as analysis, synthesis, and evaluation.

The popularity of behaviourism began to decrease, as the cognitive theory evolved around the seventies. Interest in teaching was replaced by an interest in the discovery of deep universal laws of mind that underlie cognitive ability regardless of any external influences (Stevenson, 1983). Interest in the study of thinking, personality, intelligence and learning led to an emphasis on the identification of the cognitive characteristics that affected how children and adults learn. This interest in learner characteristics was the result of a significant shift of emphasis from methods of teaching to learning processes. The sort of processes investigated in cognitive psychology include the information-acquisition and information-processing mechanisms underlying cognitive abilities like perception, recognition, information storage and information retrieval in memory, language acquisition, language comprehension and production, problem solving, and reasoning. The literature on cognitive psychology has contributed to the emergence of such concepts as

cognitive styles, learning styles, personality type and learning strategies. The field of cognitive psychology has provided the theoretical impetus for examining how students learn and explained differences among learners, based on their cognitive abilities. The contribution of cognitive psychology to educational practices has not, however, been supported by explicit strategies for implementing them in schools and there has been no debate for the mechanisms that underlie and possibly link teaching, learning and cognitive development (Richardson, 1992).

The gradual development of research in cognitive psychology, under the scope of several, distinct sciences<sup>1</sup>, had made cognitive science an inter-disciplinary approach, aimed at providing a deeper understanding of the mental processes that underlie cognitive abilities. Renewed interest in psychology as a cultural science came with the rise of constructivism. Constructivism combines behaviourist principles of learning with a cognitive theory and seeks to improve on what behaviourist learning theory had already established. As a theory of learning, constructivism focuses on the learners' ability to construct meaning from their own environment and create their own learning. As a teaching practice, constructivists believe that all normal humans have the ability to construct knowledge through a process of discovery and problem solving. The defining factor amongst those who advocate theories of cognitive development is the extent to which this discovery learning process can take place. Piaget (1972), for example, observed that cognitive development occurs in progressive stages from concrete thinking, which begins at infancy, into abstract, symbolic thought at adulthood. Piaget attributed this development to the child's own independent experiences and discoveries. Thus, the complex role of teaching and-learning in mental development has essentially been ignored.

Derived from theories of cognitive development, Vygotsky's (1978) sociocultural approach made the link between teaching, learning, and development both possible and necessary by placing culture in a central position in psychology. The sociocultural approach is built on the premise that individual intellectual processes cannot be understood without reference to the social context in which they are embedded. For Vygotsky and cultural-historical theorists more generally (e.g., Wertsch, 1991; Wells, 1999; Lantolf, 2000; and Ranter, 2002), social phenomena provide a way of explaining individual processes, because society

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<sup>1</sup> These disciplines are psychology, artificial intelligence, philosophy, linguistics neuroscience and anthropology.



is the bearer of the cultural heritage without which the development of mind is impossible. Therefore, to understand the development of learning processes of individuals we must understand the culture's history and origins of such activities. This view is in contrast to both behaviourists' approaches which focus on external, observable behaviour, and those cognitive approaches which focus solely on internal mental processes, such as input processing, attentional operations, or universal features of the mind. Within a socio-cultural framework, learning, including the learning of a second language, is a socially mediated activity. Individual intellectual processes, in this sense, arise from practical activity as individuals interact with others or with the cultural artifacts of others. Such a close relationship between culture and cognitive development entails a brief definition of the term culture itself.

### ***2.1.1. Concept of Culture***

Although sociologists, anthropologists and psychologists alike have offered numerous definitions for culture, the concept of culture remains complex, elusive, and ambiguous (Lessard-Clouston, 1997; Ball & Farr, 2003). Two opposing views have dominated most definitions of culture: that culture lies outside of and apart from the individual, and that culture resides within the individual (Price-William, 1999; Shweder, 2001; Ball & Farr, 2003). According to the first view, culture is seen as a system of symbols "where behaviour is enacted and understood according to shared understandings" (Ball & Farr, 2003: 436). Triandis (1972: 4) took this view when he defined the subjective elements of culture as "a cultural group's characteristic way of perceiving the man-made part of its environment". Researchers concerned with cross-cultural comparisons often take the stance that there is a descriptive system which is equally valid for all cultures and which permits the representation of similarities as well as differences between individual cultures (Helfrich, 1999). Usually, the objects of comparison are operationalized as variables under investigation using scales which represent the individual levels of the variable under study. Comparisons serve to examine susceptibility to cultural influences in individual actions and thinking rather than explain the phenomenon of culture. Culture is viewed as a factor of influence which should be able to explain differences in cognition, learning and behaviour (ibid). In this sense, culture is regarded as outside the person and the realm of psychological inquiry (Kashima, 2000).

According to the second view, culture is “a cognitive system of knowledge that both gives rise to behaviour and is used to interpret experience” (Ball & Farr, 2003: 436). The interpretivists advanced this conception of culture in order to interpret and understand human experiences and actions within the sociocultural-historical context of their happenings, rather than explain human action by causal laws (Kashima, 2000). In other words, universal laws of the mind are replaced by the search for an understanding of human experiences within a particular context. Following this proposition, Ranter (1998) stresses that cognitive processes are acquired according to one’s exposure to social means and practices rather than upon a specific biological capability. Individual differences in intellectual capabilities are, therefore, due to differences in exposure to social practices that provide the social means for performing certain cognitive processes. To explain the influence of culture in learning, Nieto (2000: 13-140) makes it more specific by defining culture as,

...[V]alues, traditions, social and political relationships, and worldview treated, shared, and transformed by a group of people bound together by a common history, geographic location, language, social class, and/or religion...culture includes not only tangibles such as foods, holidays, dress, and artistic expression, but also less tangible manifestations such as communication style, attitudes, values, and family relationships.

This study is framed by the above-mentioned definition and will focus on identifying the more intangible features of culture, i.e., learning styles and strategies.

## ***2.2. Learning Styles***

The concept underlying learning styles is that learners prefer one way or style of learning over another (Dunn, 1997). These styles are influenced by such factors as subject matter, context, age, prior knowledge, gender, motivation, and ethnicity (Reid, 1987; Oxford and Ehrman, 1995). Biggs (2001: 79) asserts that, “preferences are a matter of degree, not of category, so that individuals may have a profile of styles, with one or more dominant.” In relation to these views, Silver, Strong, and Perini (2000) stress that every learner develops a flexible mixture of styles that he or she adapts to cope with the demands of a learning activity.

Learning styles are not the same as learning ability. With respect to this, Sternberg (1997: 8) writes that ability “refers to how well someone can do something. A style refers to how someone likes to do something.” Riding and Rayner (1998: 109) affirm that “performance on all tasks will improve as ability increases, whereas the effect of style on performance for an individual can either be positive or negative depending on the nature of the task.” Learning styles are also often confused with learning strategies. Even though closely related, they are not the same and cannot be used synonymously. Whereas learning styles represent unintentional, or automatic individual characteristics, learning strategies are actions chosen consciously by students during the learning process (Reid, 1998). Thus, the difference between learning styles and learning strategies is the level of intentionality and awareness of their use (Spolsky, 1989).

### ***2.2.1. Definitions of Learning Styles***

Learning style is a broad orientation toward learning that attempts to bridge the gap between cognition and personality (Sternberg, 1997). Learning styles have been broadly defined as “characteristic cognitive, affective, and physiological behaviours that serve as relatively stable indicators of how learners perceive, interact with, and respond to the learning environment” (Keefe, 1979: 4). Included in this comprehensive definition are cognitive styles or “the information processing habits of an individual”, which represent modes of perceiving, thinking, remembering, and problem solving (Messick et al., 1976 cited in Keefe, 1987: 7). The affective side of learning styles relates to attention, emotion, personality and motivation type. The physiological dimension of styles represents the perceptual learning channels with which learners are most comfortable. These are broken down into areas of visual, auditory, and hands-on (Oxford, 1993). Different theorists have defined learning styles in diverse ways depending on the dimension being addressed, i.e., cognitive, physiological, instructional, environmental, conceptual, emotional, and social. The following are some other definitions of learning styles in the literature:

- “Consistency in the behaviour of a person or a group that tends to be habitual” (Hilliard, 1989: 67)

- “Biological and developmental set of personal characteristics that make the identical instruction effective for some students and ineffective for others” (Dunn and Dunn, 1993:5).
- “Unconscious preferred ways of learning that distinguish one learner from the other” (Reid, 1998: ix).

### ***2.2.2. Background to Learning Styles***

According to Keefe (1987), different elements of learning styles began to reappear in research literature around 1892. Most of that early research focused on the relationship between memory and oral or visual teaching methods. In the 1960s, attention to personality, intelligence and learning led to an emphasis on the identification of characteristics that affected how children and adults learn. These came to be called cognitive styles which later spawned the concept of individual learning styles (Claxton & Murrell, 1987; Jonassen & Grabowaski, 1993).

From a historical point of view, research on cognitive styles preceded learning style research. Some examples of cognitive styles that have been identified in the literature include reflectiveness versus impulsiveness, cognitive complexity versus simplicity, tolerance for unrealistic experiences, and field independence/dependence (see Keef, 1987). Field independence/dependence, a concept originally developed by Witkin et al (1962), has been the subject of more research than any other cognitive style (McCrone, 1999; Wyss, 2002). Field independence versus dependence (FI / FD) measures a continuum of an analytic as opposed to non-analytic way of experiencing the environment. Field independents see things set apart from the background, but dependents are influenced by the overall organization of the background field, seeing its parts as fused. Moreover, field independents differentiate among experiences while dependents see them as integrated. The FI learner is thought to be highly analytic and systematic, while the FD learner more holistic (Oxford and Anderson, 1995; Kinsella, 1995).

Early research into individual characteristics of learning styles was carried out by Dunn & Dunn (1972), who designed and implemented the Learning Style Inventory (LSI). The LSI is a self-report questionnaire which focuses on conditions external and internal to the learner. Gregorc & Ward (1977) looked at internal perception and ordering of language

intake in the Gregorc's Learning Style Delineator. Kolb (1981) described four adaptive learning modes constituting a natural learning sequence of cyclical stages: concrete experience, reflective observation, abstract conceptualisation and active experimentation. Cognitive Style Mapping (CSM) was developed by Hill (1976) to provide information on how students receive and process information to derive meaning from their environment and personal experiences. Witkin's et al (1962) model, Group Embedded Figures Test (GEFT), describes two basic styles: field-independent and field-dependent or analytical as opposed to non-analytical ways of experiencing the environment. These models seek to understand why learners are different, what these differences may mean to the learner, and how individuals can reach levels of achievement which initially may seem beyond them. Some of these models are multidimensional, encompassing cognitive, affective, psychological, and physiological characteristics, and others are limited to a single variable, most frequently from the cognitive or psychological domain (DeBello, 1990).

Motivated by pedagogy, ESL/ EFL teachers made some attempts in the 1980's to research the learning styles of their students to improve the language-learning environment (Reid, 1987, 1995; Leaver, 1986; Oxford et al, 1992; Eliason, 1995; Nelson, 1995; Rossi-Le, 1995; Bailey et al. 2000; Park, 2002). This resulted in a new line of research that examined the learning styles of students in different cultural contexts in an attempt to meet the needs of diverse individual students as well as cultural groups.

Three major issues arise from the notion of learning styles as outlined above. The first relates to the way researchers have identified aspects of learning styles and created new terms and instruments to describe and measure them. This has resulted in what is undoubtedly a rich yet fragmented theoretical field. Jonassen & Grabowaski (1993), as well as Reid (1995) believe that the proliferation of labels is due to the lack of agreement among researchers of what factors really constitute learning styles and how to name them. As a result of this, more labels on learning styles have been reported in the literature. The second issue concerns the purpose of identifying the learning styles of students and whether the information should be used to teach according to the student's learning preferences or attempts should be made to change a student's learning style for effective learning to occur. The third issue surrounds the notion of individual versus cultural learning styles. This is because the notion of learning style implies individual differences, whereas culture refers, not to what is individual but what is common to members of a

group (Nelson, 1995).

The next part of this section is a description of some learning style typologies used in second language learning research, as well as the different views of learning styles. Then follows a discussion of how culture can influence learning styles.

### ***2.2.3. Language Learning Style Typologies***

The theory of learning styles has been applied to language learning in a number of ways. Skehan (1986) proposes two related dimensions for categorising learning styles- degree of analysis, and amount of memory- based on evidence that there are analysis-oriented learners and memory-oriented learners. Willing (1988) characterises language learners as active/passive and analytic/holistic, interpreting Kolb's (1976) abstract-concrete dimensions as Field Independent/Dependent, and his four basic learning styles (divergers, assimilators, convergers, and accommodators) as variables in personality.

To be discussed now are three typologies of learning styles that are commonly used to identify the learning style of non-native speakers of English. The first is Reid's (1995) perceptual learning style model. This is followed by an outline of the Myers-Briggs Type Indicator (1980), and finally a description of Oxford's (1993) Style Analysis Survey. These instruments are among the better-known of the learning style assessment instruments normed in the ESL/EFL field (Wintergerst et al, 2003). A normed assessment instrument gives the researcher the opportunity to interpret a student's performance on an instrument compared to other students who took the assessment test (Gay and Airasian, 2000; cited in Wintergerst et al, 2003).

#### ***i. Reid's Perceptual Learning Style Preference Typology (PLSP)***

Reid (1987, 1995) classifies the existing body of literature on learning styles into 'perceptual' and 'sociological' learning style preferences. The perceptual dimension measures a learner's preference for one of the sensor modes of experiencing learning: visual, auditory, kinesthetic and tactile. The visual mode encompasses reading or studying from texts and notes, requiring less oral explanation in comparison to the auditory mode which includes listening to lectures, oral explanations, audio tapes, and discussions in class. The kinesthetic mode focuses on experiential learning and physical involvement in

learning activities. The tactile mode emphasizes hands-on experiences in classroom learning.

The sociological dimension refers to students' preferences to work in a variety of patterns that include working alone, with one or two friends, with a small group or as part of a team, with an adult, or a variation of these contexts. This suggests that there will be students who prefer to study alone but in close proximity with friends, or those who prefer to use a variety of learning styles, at times studying alone and at other times preferring to study in a group. Reid's model has been widely used in a number of studies to identify the learning styles of second language learners (e.g., Rossi-Le, 1995; Peacock, 2001). One problem with this model is that it does not give enough concrete examples of activities for each learning style (Peacock, 2001).

## ***ii. The Myers–Briggs Type Indicator (MBTI)***

Personality also plays an important part in determining learning styles. Lawrence (1995) argues that understanding personality type is fundamental to understanding students' motivation and learning styles. Personality Type is a term most commonly associated with the model of personality developed by Myers-Briggs (1980) and is mostly based on Carl Jung's (1971) theory of psychological types. The model developed by Myers-Briggs classifies people according to their preferences on four different pairs of opposite preference scales:

1. Extroversion/Introversion (E/I)
2. Sensing/Intuition (S/N)
3. Thinking/ Feeling (T/F)
4. Judging/ Perceiving (J/P)

'Extroversion' versus 'introversion' indicates whether a person prefers to direct attention toward the external world of people and things or toward the inner world of concepts and ideas. The 'sensing/intuition' dimension describes the way individuals process information, either through immediate and practical experiences (sensing) or through inspiration and imagination (intuition). People make decisions based on their perception either by logical, impersonal analysis (thinking), or on personal, subjective values (feeling). These two personality dimensions indicate the preferred style of 'perceiving' (i.e., sensing or

intuition) and the preferred style of 'judging' (i.e., thinking or feeling), and when combined are referred to as personality functions (Lawrence, 1995). These preferences can be combined to form 16 different types that involve a combination of these preferences (EI, SN, TF, and JP). By taking one preference from each pair, a four-letter code is established that defines an individual's personality type. For example, one student may be an ESTP (extrovert, sensor, thinker, and perceiver) while another, an INFJ (introvert, intuitor, feeler, judger). Lawrence (1995) believes that from childhood, individuals rely on one process more than the others and use it more. The more they use that process, the more mature and reliable it becomes. That one mental process becomes dominant, and becomes the core of the personality.

### *iii. Oxford's Style Analysis Survey (SAS)*

Oxford (1993) proposed six main categories of learning styles that are likely to be strongly associated with second language learning. These are: cognitive, executive, affective, social, physiological, and behavioural. Cognitive elements include preferred or habitual patterns of mental functioning. These are sometimes called cognitive styles. The executive aspect deals with the degree to which the person seeks order, organization, and closure and manages their own learning processes. The affective factors reflect patterns of attitudes and interests that influence to what an individual will pay most attention in a learning situation. The social aspect concerns the preferred extent of involvement with other people while learning. The physiological factors involve perceptual tendencies of the person. The behavioural factors indicate a tendency to seek situations compatible with one's own learning patterns. The dimensions of learning styles associated with Oxford's model are: sensory preferences, personality types; global/ analytic; and biological differences (Oxford and Ehrman, 1993).

**Sensory Preferences** refer to the physical, perceptual learning channels with which the students are most comfortable. These are broken down into three main areas: visual, auditory, and hands-on (Oxford, 1993). Visual students rely more on the sense of sight, and learn best through visual means (books, video, charts, pictures), but they do not like to learn through lectures, conversations, role-plays and oral directions, which are favoured by auditory students. Hands-on students like active games and working with objects and flashcards, doing projects, and movement (games, building models, conducting



experiments); however, sitting still at a desk for very long is not comfortable for them (Oxford & Ehrman, 1993).

**Personality Type**, as discussed by Oxford and Ehrman, includes three dimensions: extroversion/ introversion, intuitive/ concrete, and closure/open orientation. Extroverted learners enjoy learning in groups through L2 conversation, role-plays, and other interactive activities. They also enjoy a wide range of social, interactive learning tasks (games, conversations, discussions, debates, and simulations). Introverted learners, on the other hand, like working on their own or in a pair with someone they know well, and like to do more independent work (studying or reading by themselves or learning with the computer) (Oxford et al., 1992).

Intuitive/random vs. concrete/sequential. While random students enjoy abstract thinking, avoid step-by-step instruction, and tend to find their own learning sequence and speculate about possibilities, sequential students prefer to focus on concrete facts and like to learn step by step, following a logical order (Oxford et al, 1992; Oxford and Ehrman, 1993).

Orientation to closure, i.e. open vs. closure-orientation, is related to tolerance of ambiguity. Closure-oriented students are organized, and need clarity. They need lesson directions and grammar rules clearly explained and focus carefully on all learning tasks, meet deadlines, and want explicit directions. Open learners, on the other hand, treat language learning like a game to be enjoyed. They prefer spontaneous conversations, language games, enjoy learning by discovering and prefer to relax and enjoy learning without concern for deadlines or rules. (Oxford et al., 1992; Oxford and Ehrman, 1993).

Analytic versus Global is a dimension that is related to Field independence/ dependence. Analytic learners tend to concentrate on grammatical details and avoid communicative activities, whereas global learners prefer communicative activities, dislike grammatical details, and like guessing and paraphrasing. This division is also closely tied to theories of brain hemisphericity. Language learners who are left brain dominant use analysis and abstraction to process language, while right brain dominant learners perceive language in terms of auditory or visual patterns (ibid).

I will use Oxford's model rather than the other ones in my study for several reasons. Firstly, Oxford's model represents a comprehensive assessment technique that indicates the

individual's overall style preferences. By looking at cognitive, executive, affective, social, physiological, and behavioural characteristics, the model is considered a multidimensional construct that reflects many of the style dimensions discussed in the literature on learning styles. Secondly, the model is operationalized using concrete activities that are familiar to students from different cultural backgrounds. Thirdly, there is an equal representation of learning style dimensions in the model (Appendix Two).

#### ***2.2.4. Views of Learning Styles***

One purpose of examining learning styles is to get to know those behavioural patterns that characterize individual approaches to learning. Such information can serve as a guide in designing learning experiences that match or mismatch students' learning styles. Matching refers to the practice of linking learning styles with teaching styles, whereas, deliberate mismatching is a way of encouraging students to develop a range of styles (Grasha, 1990; Vermunt, 1998). In the field of learning styles today, there is debate over whether or not attempts should be made to change a student's learning style. Dunn et al (1989) represent one view that students should be taught initially through their preferred learning styles, and that learning style assessments should serve only as diagnostic tools toward that end. Felder (1995) represents the middle ground, recognizing each learner's individuality, yet striving for a balance of instructional methods. Letteri (1980) is at the opposite extreme, not simply calling for adaptation or flexibility, but advocating training to change the students' cognitive profile.

Proponents of matching learning styles to teaching styles concentrate on various innovative ways of changing the teaching/learning environment to accommodate the needs of different types of learners (e.g. Dunn and Griggs, 1995; Sadler-Smith & Riding, 1999). They believe in modifying the learning environment, rather than training the student. Hypothesizing that learning styles and cognitive skills are stable, these researchers advocate greater variety in learning settings, resources, and instructional methodologies. Thus, if a student has a problem in task-analysis skills, instructional settings should be modified.

Cognitive researchers who argue against matching and individualizing instructional settings (e.g. Letteri, 1980), accept the premise that some cognitive styles, such as analytical learning style, communicative learning style, and reflective processing are more

productive of school achievement than others (Ellis, 1994). They suggest building on the skills the learner already has and training the more adaptive skills for transfer to other school learning situations. For example, if a student has difficulty in task analysis skills, these researchers would suggest training the students to strengthen these skills.

A middle ground for reconciling the opposing views of learning and cognitive theorists is offered by some other researchers. Oxford et al (2003) believe that by providing a wide range of classroom activities that cater to different learning styles, teachers can help L2 students develop beyond their style preferences. Ehrman (1996: 124) suggests, "...gradually building an increased array of options" for class and homework. Kinsella (1995: 175) proposes "a deliberate multisensory approach". Felder (1995) argues that the teaching style, which learners like, may not be the best for learning. Kinsella adds that students may stick with familiar styles even when they are inappropriate, and Ehrman states that while some students can switch styles, others cannot. Eliason (1995) thinks that it is the less proficient students who cannot easily adapt their styles to the teachers' style.

While learning styles are generally viewed as relatively stable (Keefe, 1987), there is evidence that they can change as learners gain proficiency, or in response to pedagogical intervention in the form of strategy training (O'Malley & Chamot, 1995; Skehan, 1991; Cohen, 2003; and Oxford et al, 2003). Some of the conscious strategies classified as metacognitive – planning, monitoring, and evaluating - are of particular importance to language learners because of their role in self-regulation and the development of strategic and life-long learning. Claxton and Murrell (1987), as well as Oxford et al (2003) believe that some deliberate mismatching may be appropriate to help students to learn in new ways and to discover new aspects of learning and thinking.

#### ***2.2.5. Cultural Learning Styles***

The assumption that there is a relationship between culture and learning styles is not new and has been discussed in scholarly research for a few decades. This relationship finds support in how culture influences the way individuals perceive, organize and process information (Samovar et al, 1981). Culture also influences the way individuals communicate, interact with others and solve problems (Terpstra and David, 1985). This link between cultural background and the development of learning styles led Grasha

(1990:26) to define learning styles with reference to student learning as “the preferences students have for thinking, relating to others, and particular types of classroom environments and experiences.”

Hayes and Allinson (1988) also thought that the culture of a country might be one of the powerful socialization agents that have a great impact upon the development of learning styles. Hofstede (1986) describes differences in learning styles directly based on cultural needs and values. He argues that in China, the nature of the script develops children’s ability to recognize patterns and that imposes a need for rote learning. Oxford (1996c) reported that Japanese students use approaches to learning aimed at precision and accuracy. Rather than working in groups, they prefer to work alone and base their judgments on reason rather than on personal interactions through group work. In contrast to Japanese students, Hispanics rely on such learning approaches as predicting, inferring, and working in groups rather than reasoning. This led Oxford to assert that culture has a strong influence on learning. According to her:

Cultures that encourage concrete-sequential learning styles (such as those of Korea or some Arabic-speaking countries) often produce widespread use of rote memorizing strategies, while more flexible strategies (though not always higher order thinking strategies)...are found among North Americans (Oxford, 1996c: ix).

Looking specifically at the Arabian Peninsula, Wilkins (2001: 20) describes the influence of Arabic culture on learning.

Religion and family loyalty heavily influence the national culture. Children are taught to respect their parents, other elders in their family and people with authority. This includes teachers, hence explaining the preference of students for didactic, teacher-centred learning. This encourages rote learning and passive unresponsive attitude in class, whereby teachers are rarely questioned or challenged. Many Arab students in higher education still believe that it is the job of the lecturer to impart knowledge and that they themselves have a minimal role in the learning process.

This idea of certain learning traits associated with specific cultures is what Heredia (1999)

refers to as ‘cultural learning styles’. Cultural learning styles incorporate the idea that cultural upbringing and background play a major role in determining a student’s learning style. Nelson (1995) points out that the concepts of learning style and culture may seem to be contradictory on the surface. This is because the notion of learning style implies individual differences whereas culture refers not to what is individual, but what is common to members of a group. According to Nelson, this does not imply that members of the same culture will all learn in the same way; it implies that individuals within a culture tend to have a common pattern of learning and perception when members of their culture are compared to members of another culture. Nelson believes that the nature of these differences can be attributed to the fact that each culture has its own cultural learning styles and that they are transmitted to learners through family and social interaction.

### ***2.3. Learning Strategies***

Closely related to language learning styles are language-learning strategies. The basic assumption underlying language learning strategies is that expanding the roles of students and teachers in the language learning process will contribute to the main goal of learning strategies-that of communicative competence (Oxford, 1990). In second language learning, strategies are generally defined 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” (Oxford, 1990: 8).

In most of the early research on language learning strategies, the primary concern was to determine what distinguished successful from less successful language learners (Rubin, 1975). This led to the identification of how good language learners process new information and the kinds of strategies they employ to understand, remember and communicate the new language, in the hope that such information could be passed on to less successful learners, in the form of strategy training, so as to improve their learning efficiency.

#### ***2.3.1. Definitions of Learning Strategies***

Learning strategies are generally defined as a series of conscious operations or procedures a student uses to facilitate the completion of a learning task (O’Malley & Chamot, 1995; Riding & Rayner, 1998; Sternberg & Zhang, 2001). Scarcella and Oxford (1992: 63) state

that learning strategies are “specific actions, behaviours, steps, and techniques used by students to enhance their own learning.” To Cohen (2003: 280), “language learning strategies are the conscious or semi-conscious thoughts and behaviours used by learners with the explicit goal of improving their knowledge and understanding of a target language.”

Cohen further distinguishes between language learning strategies and language use strategies. He describes language-learning strategies as including cognitive, metacognitive, affective, and social strategies. These strategies are used with the explicit goal of improving the learner’s knowledge of the target language. Language use strategies, on the other hand, help learners utilize the language they have already learned with varying degrees. These include strategies for retrieving information already stored in the memory, strategies for rehearsing target language structures, cover strategies for not looking unprepared in the language classroom, and strategies for communicating in the language despite gaps in the knowledge of the target language.

Although some similarities exist between these definitions, there is no agreement among researchers on the nature of learning strategies, how many exist, and how they should be defined. However, a number of basic characteristics are generally accepted of language learning strategies. Firstly, they are learner generated. Secondly, they enhance language learning and help develop language competence in general second or foreign language skills. Thirdly, they may be visible (behaviours, steps, techniques, etc.) or unseen (thoughts, mental processes). The fact that learners can choose strategies leads Cohen (2003) to argue for the addition of a further dimension to a definition of language learning strategies: that of consciousness.

### ***2.3.2. Classification of Learning Strategies***

Different researchers have classified their lists of strategies according to various criteria, such as whether they contribute directly or indirectly to learning (Rubin 1987, Oxford, 1990); whether they are cognitive or metacognitive (O’Malley et al. 1985) and whether they are practised in the classroom individually or during interaction with others (Politzer, 1983; Politzer and McGroarty, 1985).

Rubin (1987), proposed a classification scheme that subsumes learning strategies under

two primary groupings and a number of subgroups. Rubin's first primary category, consisting of strategies that directly affect learning, includes clarification/verification, monitoring, memorisation, guessing, inductive reasoning, deductive reasoning, and practicing. The second primary category that consists of strategies, which contribute indirectly to learning, includes creating practice opportunities and using communication strategies.

Oxford (1990) based her work on an extensive list of strategies identified in studies by Naiman et al (1978), Rubin (1987), and Chamot et al (1987), among others. She developed a detailed list of Language Learning Strategies (LLS) in her taxonomy (Figure 1). Firstly, Oxford distinguishes between direct LLS, which directly involve second or foreign language learning, and indirect LLS, which are essential to language learning. Secondly, each of these broad kinds of LLS is further divided into LLS subgroups.

Oxford outlines three main types of direct LLS. For example, memory strategies, such as grouping or using imagery, "help students store and retrieve new information"; cognitive strategies, such as summarizing or reasoning deductively, "enable learners to understand and produce new language by many different means"; compensation strategies, like guessing and using synonyms, "allow learners to use the language despite their often large gaps in knowledge" (Oxford, 1990: 37).

Oxford also describes three types of indirect LLS: metacognitive strategies which help learners "to control their own cognition" through planning, arranging, focusing, and evaluating their own learning; affective strategies which "enable learners to regulate emotions, motivations, and attitudes" related to language learning; and social strategies which "help students learn through interaction with others", often in a discourse situation (Oxford, 1990: 135).

Oxford's (1990) model seems to be the most adequate for the purposes of my study. Firstly, Oxford's learning strategy classification is based on studies with second language learners. Secondly, Oxford's model is more detailed and elaborate compared with other models. Thirdly, the classification of learning strategies by Oxford can facilitate the examination of the underlying relationship with learning styles.

**Figure 1: Language Learning Strategies Model**

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<b><u>DIRECT STRATEGIES</u></b>	<b><u>INDIRECT STRATEGIES</u></b>
<b>A. Memory Strategies:</b> <ul style="list-style-type: none"><li>a. creating mental linkages</li><li>b. applying images and sounds</li><li>c. reviewing well</li><li>d. employing action</li></ul>	<b>D. Metacognitive Strategies</b> <ul style="list-style-type: none"><li>a. centring learning</li><li>b. arranging and planning</li><li>c. evaluating learning</li></ul>
<b>B. Cognitive Strategies:</b> <ul style="list-style-type: none"><li>a. practising</li><li>b. receiving and sending messages</li><li>c. analyzing and reasoning</li><li>d. creating structure for input and output</li></ul>	<b>E. Affective Strategies</b> <ul style="list-style-type: none"><li>a. lowering anxiety</li><li>b. encouraging oneself</li><li>c. taking emotional temperature</li></ul>
<b>C. Compensation Strategies:</b> <ul style="list-style-type: none"><li>a. guessing intelligently</li><li>b. overcoming difficulties in speaking and writing.</li></ul>	<b>F. Social Strategies</b> <ul style="list-style-type: none"><li>a. asking questions</li><li>b. cooperating with others</li><li>c. empathizing with others</li></ul>

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Adapted from Oxford (1990)

### ***2.3.3. Factors Influencing the Selection of Learning Strategies***

The range and variety of use of learning strategies are influenced by many factors. These factors relate to motivation, sex differences, age and L2 stage, type of task, learning style and cultural background (Oxford & Ehrman, 1993).

**Motivation.** In relation to education, motivation is often labelled extrinsic or intrinsic “depending on whether the stimulus for the behaviour originated outside or inside the individual” (Van-Lier 1996:101). Although some researchers (e.g, Gardner, 1985) see the motivational source as unimportant, others propose that different sources of motivation (vocational, academic, personal, or social) lead to different kinds of motivation. According to Williams & Burden (1997:121) “decision to act” is a central component of motivation which is influenced by a number of causes- attaching a high value to the outcome of an activity is one of them. Motivation is seen by Oxford & Shearin (1996:122) as “crucial for L2 learning”. Oxford and Nyikos (1989) believe that motivation often leads language learners to develop greater skills. It was also found that more motivated students tended to



use more strategies than less motivated students, and the particular reason for studying the language was important in the choice of strategies (Oxford, 1996b). Attitudes and beliefs are seen as directly affecting motivation, with negative attitudes and beliefs often causing poor strategy use or lack of coordination of strategies (Oxford and Ehrman, 1993).

**Sex Differences.** According to several studies, the gender of the student makes a significant difference in the learning of a second or foreign language (Ehrman and Oxford, 1989; Politzer, 1983; Oxford, 1995). Ehrman and Oxford (1989), for example, found that females reported significantly greater use of language learning strategies compared to males in four areas: general study strategies, functional practice strategies, strategies for searching for and communicating meaning, and self-management strategies. Politzer (1983: 62) reported that females used social learning strategies significantly more than males. His only comment about sex differences was, "Variance due to the sex of learners seems relatively minor, but does exist with regard to such variables as social interaction."

**Second Language Stage.** It has been observed that students of different ages and at different stages of L2 learning used different strategies. Certain strategies were often more employed by older or more advanced students (O'Malley and Chamot 1995; Oxford et al., 1992). Several studies have suggested that language course level influenced students' choice of learning strategies. Lee (2003), for example, found that course level influenced the choice of learning strategies of foreign language learners. Lee observed that higher-level students used more student-directed, communicative, or functional strategies. Chamot et al (1987) discovered that the use of cognitive strategies decreased and that of metacognitive (planning, organizing, and evaluating) strategies increased as foreign language course level increased. However, the use of social-affective strategies remained low across all course levels.

**Type of Task:** The relationship between task and the use of strategies has long been recognized in the literature, although it has not been explored very much. The most important role of a language task is to confront students with certain language problems in completing the task. When students notice gaps in their language, they use learning strategies to overcome their lack of knowledge (Long, 1985).

Oxford et al (2004) list some key task types found in the literature, such as: problem

solving; decision making; opinion gap or opinion exchange; information gap; comprehension-based; comparing and matching; question and answer; and structured and semi-structured dialogues. Task types may also include picture stories, puzzles and games, discussions, interviews, debates, telephone conversations and practice with learning strategies, communicative strategies and conversational strategies.

**Learning Styles.** Oxford et al (1992) as well as Cohen (2003) believe that the use of language learning strategies by a learner is influenced by the individual's learning style. Oxford and Anderson also stress the link between learning strategies, learning style, and culture by stating that "Particular strategies are often chosen because they are compatible with a student's culturally-influenced learning style" (Oxford and Anderson 1995:203). Oxford et al (1992) showed how learning styles and learning strategies go together by discussing three influential components of learning styles: global versus analytic; impulsive versus reflective; and intuitive-random versus concrete-sequential. Global learners use strategies that involve the larger context, such as predicting or guessing from the context, avoiding details, and basing judgments on personal relationships rather than logic. Analytic learners like strategies that are aimed at attaining precision and accuracy, searching for details or contrasts, and using logic.

Another dimension of learning styles discussed by Oxford and colleagues is intuitive-random versus concrete-sequential. An intuitive-random learner enjoys using strategies that allow many possibilities or choices and prefers abstract presentations to concrete ones. In contrast, a concrete-sequential student prefers step-by-step, systematic lessons, and likes a concrete presentation of material that involves various modes. Oxford et al (1992) conclude that learning styles are associated with learning strategies and both affect learning outcomes.

**Cultural Background.** The overriding effect of the cultural context on all aspects of the L2 learning process has led some researchers to examine the influence of culture and contextual factors on the selection of learning strategies (Politzer, 1983; Rossi-Le, 1995; Oxford et al, 1992; Oxford, 1996c; Chamot, 2004; and Keatley et al., 2004). Chamot (2004) believes that finding out what learning strategies students are already using can help teachers understand cultural and contextual factors that may be influencing their students. This can lead to clarification of the task's demands and motivate students to try new

strategies to complete it.

While it would seem inappropriate to discuss a finite set of elements that constitute culture, educational and sociocultural elements that may influence the cognitive and behavioural aspects of learning are nonetheless relevant to this study.

#### **2.3.4. Cultural Elements**

**Education:** Every culture has its own formal learning system. The social and cultural needs and requirements in societies are addressed by means of educational policies and plans. In some societies, the education system is based on a transmission approach to learning where teachers transmit knowledge and students absorb. Such a system breeds students who are passive in their orientation and who expect teachers *to deliver the education goods* to them (Nunan, 1998: 147).

Each particular culture also has its own view of the nature of knowledge which tends to be linked to the key values of the culture. Beliefs about knowledge are revealed in the way the curriculum is organized, instruction is conducted, and assessment occurs. These values influence the way knowledge is derived, validated, transmitted and used (Ninnes, 1991). Informal education also varies from one society to another. In some societies, children have relatively limited home literacy experiences, which affect their knowledge and skills. In other societies, children are exposed to meaningful, age-appropriate learning experiences which encourage them to develop their learning skills.

**Ethnicity:** Ethnicity is not the same as race. According to Bedell and Oxford (1996) race refers to physical or biological characteristics, and ethnicity refers to the cultural characteristics of a specific community. They further explain that in any particular ethnic group, people are bound together by a common culture and hence the term ethnicity can be used as an equivalent of culture.

According to theories from social psychology and social identification, identity entails a set of dynamic, complex processes by which individuals define, redefine and construct their own and others' ethnicity (Ward et al., 2001). In principle, otherness can range from others just outside the immediate circle to the totally strange and foreign. Howard (1996) argues that ethnic identities are usually marked by religious differences. This may be true to a

degree in the Eastern region of Saudi Arabia. As stated in chapter one, the population in Saudi Arabia comprise both Sunni and Shia't Muslims, and tribal and non-tribal families. Within each group, marriage and social relations and support are usually between families with similar cultural characteristics.

**Religion:** Religions and belief systems are powerful shapers of cultures and many habits, customs, folktales, stereotypes, hopes and fears of a community arise from the religious beliefs of that community. In some societies, religion is separated from secular matters and considered as something private. In other societies, such as in Saudi Arabia, religion transcends cultural institutions, such as, family, marriage, and law, shaping the operational structure of these institutions. The fusion of religion and culture can sometimes be so strong that some researchers emphasize they are one and the same. For example, Vernon (1962: 39) asserted that, "We do not talk of religion and culture...but rather emphasize that religion is culture."

Religious activities and beliefs form psychological processes in various ways: On one hand, religious concepts find expressions in human behaviour, morals, ethics, and value systems articulating the manner in which humans perceive the outer world and interact with one another. On the other hand, these concepts call into play supporting perceptions, emotions, motives, imagination, personality traits, forms of reasoning and memory, self-concept, and language.

**The Role of the Family:** Socio-cultural values, beliefs, and traditions significantly affect family life. They dictate roles and responsibilities of the family members toward one another, how they relate to one another, how decisions are made within the family, how resources are distributed, and how problems are defined and solved. Parents also uniquely possess the authority and responsibility to direct the upbringing of their children. They control the way they want their children to behave or respond to behaviour (encourage, discourage, or imitate); direct their attention toward certain things and away from other ideas, perceptions and emotions; and control the kinds and intensity of emotion that they wish their children to develop. Children attach meaning to their experiences which are reflected in their cognitive strategies, derived in part from their culturally patterned environment, language, and from socially ordered ways of parenting.

**Social conventions and Discourses:** People from different cultural backgrounds are exposed to different conversational rules, conventions for displaying respect, questioning, and other patterns of social interaction. Conversational rules and discourse patterns vary widely across cultures (Rogoff et al, 1993). In some cultures, children are treated by adults as conversational partners; in others, children adopt the role of observer, and still in other societies information is communicated through directive and didactic methods in which children are required to play a passive role and cooperate with what they are told.

Questioning behaviour appears to be heavily imbued with cultural meaning and related to patterns of respect and authority which, in turn, vary across cultures (Greenfield and Cocking, 1994). In some cultures, such as in Saudi Arabia, students are hesitant to ask and question their teachers; other cultures tend to value students' willingness to engage in verbal exchanges with their teachers and classmates (Delpit, 1988). The amount of eye contact varies with each culture. Members of some cultures are brought up to look people straight in the eye and misinterpret broken eye contact by an interlocutor as disinterest; other cultures consider maintaining eye contact with an interlocutor as an impolite behaviour.

### ***2.3.5. Views of Learning Strategies***

Central to the concept of learning strategies, as maintained earlier, is the assumption that strategies are necessary to the development of communicative competence (Oxford, 1990). Communicative competence is the ability to use a language to communicate. Learning strategies can lead to the development of communicative competence in that it focuses on authentic and meaningful communication, fluency, interpersonal relationships, and creative construction of learning that involves trial and error. For instance, affective strategies develop the self-confidence and reduce anxiety for learners to involve themselves actively in language learning; social strategies encourage more interaction and more empathetic understanding. A broad set of assumptions underlying learning strategies and communicative competence can be summarized as follows:

1. Learning strategies encourage learners to be more self-directed. Self-direction is a gradual process that aims to increase learners' responsibility for their own learning, as well as their confidence, involvement and proficiency. Self-direction is of particular importance

for language learners as it leads to the active development of ability in a new language. Moreover, teachers will not always guide language learners as they use the language outside the classroom.

**2.** Learning strategies expand the roles of teachers. Traditionally, the teacher is viewed as a figure of authority whose role is to instruct, direct, manage, lead, and control. In the language classroom, these roles are believed to suppress communication, because they force the initiation of communication by and through the teacher. The role of the teacher in the communicative classroom is that of facilitator, advisor, helper, coordinator, or consultant (Oxford, 1990). Therefore, in order for teachers to carry out their new roles successfully, they should be trained and exposed to the theoretical, as well as practical methods of second language pedagogy. They should also identify students' learning strategies, conduct training on learning strategies, and help learners become more independent. In this process, teachers do not need to abandon all their old instructional tasks (i.e. their customary teaching methods), but these elements become less central. The teacher, in this approach, should create a variety of communication opportunities and situations that stimulate learners to communicate and experiment with the language themselves.

**3.** Learning strategies are “tools” which are used to solve a problem, complete a task, meet an objective, or attain a goal (Oxford, 1990: 11; Oxford et al, 2004). For example, to understand a written text in the foreign language, a learner uses one of the guessing or the reasoning strategies. When something must be remembered, a learner uses memory strategies. Affective strategies make the learner more relaxed and confident, and social strategies help the learner to develop cultural understanding of the target language and its speakers.

**4.** Language learning strategies imply intentionality and consciousness. Some researchers suggest that these strategies are always conscious actions taken by the learner (i.e., Chamot et al, 1987). Paradoxically, Cohen (2003) mentions that if an individual learner employs a learning strategy so long that it becomes, through practice, automatic, it is no longer a strategy but an unconscious process. Oxford (1990: 12) believes that “making appropriate learning strategies fully automatic- that is unconscious- is often a very desirable thing.” She also believes that through strategy assessment and training, learners may become more

aware of the utility of the strategies they are using.

5. Learning strategies can be taught and modified. Language learners can improve their strategy use through training, which is an essential part of language learning and communication. The first step in strategy training is the identification and diagnosis of the learners' strategies. Strategy assessment procedures include self-report surveys, think-aloud procedures, interviews, observations, note-taking, and diaries or journals (Oxford, 1990). Dickinson (1992:17) states, "Students must be given both psychological and methodological preparation before taking on learner-training." Psychological preparation is done by encouraging learners to change their attitude to learning and adjusting their role in the learning process. Dickinson sees this as a learning goal in its own right, to be realised through methodological preparation: "teaching learners techniques which facilitate more active and independent involvement in language learning" (Dickinson, 1992:18). Weaver & Cohen (1998: 71) report that "no empirical evidence has yet been provided to determine the best overall method for conducting strategy training." However, a number of guidelines for strategy training have been proposed (e.g. Wenden 1987; Huang & Van Naerssen 1987; Oxford, 1990; Dickinson 1992; Weaver & Cohen 1998).

Some of the key features of the communicative language approach summarized above share a similar basic set of principles with the theory of cognitive development advocated by Vygotsky (1978). In his theory, Vygotsky postulates that learners possess two distinct kinds of abilities: 'actual and potential'. The learner's ability to perform a task independently is his/her actual developmental level. The level of potential development is the extent to which the learner can perform tasks with help. The difference between the two levels is what Vygotsky termed the 'Zone of Proximal Development' (ZPD). Vygotsky described the ZPD as a zone of current learner's capabilities with the potential for development and improvement, where a learning task can be initially done with the help of others but can later be done alone. The task of teachers is to arrange for educational activities that lie within this zone— neither too difficult nor too simple and that, therefore, leads to continued growth. An effective teaching method takes into consideration individual differences and, therefore, needs to be varied across a class. Tasks within the ZPD require scaffolding, defined as the many different methods educators use to provide support for students as they learn through direction, guidance, support, which they gradually withdraw as the learner begins to build on previous learning by gradually

mastering how to learn. Scaffolding is essentially learning through gradual increments as a result of an interactive process of collaboration between teacher and learner (Nassaji and Swain, 2000; Kinginger, 2001). The concept of learning and development as conceived by Vygotsky is drastically different from traditional views in psychology and education. The aim of the following section is to explore this radical position, and its practical implications.

### ***2.3.6. Zone of Proximal Development***

The implications Vygotsky's perspectives to second language learning began to emerge about two decades ago in the writings of John-Steiner (1988), Rogoff (1990), Lantolf & Appel (1994), Wells (1999), Donato (2000), and Lantolf (2000), among many others. In addition to scaffolding, other contemporary themes stemming from applications of Vygotsky's theories to education include guided participation, collaboration, and peer interaction (Omrod, 2000). These themes are based on the hypothesis that what the child is capable of doing in collaboration today he will be able to do independently tomorrow (Vygotsky, 1978). This indicates that the ZPD is not a fixed attribute of the learner (Wells, 1999). Rather, it is a place where learning and development come together. Dunn & Lantolf (1998: 422) call it a dialectic unity of "learning-leading-development" - a unity in which learning facilitates development and which in turn prepares groundwork for further learning. Viewed from the sociocultural perspective, the most salient features of this expanded interpretation of this zone of proximal development are the following:

**Firstly**, the ZPD constitutes a potential for learning that is created in the interaction between learners as they engage in a particular activity together. As participants jointly resolve problems and construct solutions, the potential for further development is expanded through meaningful social interaction (Van-Lier, 1996; Donato, 2000; Ohta, 2000). The ZPD potentially applies to all participants, adults and children, with various degrees of expertise and not simply to the less skilful or knowledgeable (Wells, 1999). Vygotsky (1989: 61) asserted, "Social interaction actually produces new, elaborate, advanced psychological processes that are unavailable to the organism working in isolation."

**Secondly**, social interaction is more than the action of one person delivering information to another; rather, it shapes and constructs learning through scaffolding in expert and novice



interaction (Kinginger, 2001). In second and foreign language learning (ESL/EFL), one kind of scaffolding involves adjusting teachers' instructional style when students are not receiving what is necessary for effective learning and development. Oxford (2003) maintains that by providing a wide range of classroom activities that cater to different learning styles, teachers can help L2 students develop beyond their preferred learning styles. An important aspect of scaffolding is the provision of learning strategies or "tools" which can lead students to active development of ability in a new language (Oxford, 1990:11). Strategy training may represent the application of Vygotsky's concepts of scaffolding and the ZPD in L2 development in that it conceptualizes learning as a process that transforms learners' cognition and communication ability.

Instructional conversations have also been increasingly recognized in the sociocultural literature as a tool for language development (Tharp and Gallimore, 1988). They can be instrumental to cognitive development in that they reconstruct informal conversations within a formal educational setting. Donato (2000) thinks that a classroom can be conversational in its attention to coherence, distributed turn taking, spontaneity and unpredictability, and its focus on new information. These conversations can be instructional because teachers can shape the discussion toward a goal of the curricula, activate background knowledge in students, engage the students in direct instruction or modelling, and promote more complex language and expressions by using questions to help students elaborate and expand their participation.

**Thirdly**, the sources of guidance and assistance for learning in the ZPD are not limited to human participants. Brown and colleagues (1993:191) suggest that the ZPD "can also include artifacts, such as books, videos, wall displays, scientific equipment, and a computer environment intended to support intentional learning." Vygotsky posits that the development of individual minds depends on the tools individuals select from the available 'cultural tools', and the way in which these tools are used and reshaped in action. What is thus significant about various tools such as computers, writing, or language itself is not their abstract properties, but rather, how they fundamentally transform human action and alter the entire flow and structure of mental functions (Vygotsky 1981, Wertsch, Ed.). For example, computer-mediated communication represents a mediational tool so powerful as to have revolutionary effects on human cognition and communication.

**Finally**, the concept of the zone of proximal development is important in assessment. The aims include the categorization of individual students in their appropriate placement in educational programs, in remedial programs, and to enable the provision of appropriate instruction after identifying the students' abilities to cope with specific tasks, and the nature of the difficulties that the students are experiencing (Wells, 1999). It is this latter aim of assessment that Allal and Ducrey (2000) consider best fulfils Vygotsky's concern for the use of assessment as a guide to instruction.

Vygotsky first envisioned the zone of proximal development as an alternative to traditional intelligence and achievement testing and the view of development and education that emerged from the use of such tests. Instead of measuring previously acquired abilities (what the learner already knows or can do independently), he suggested that what we should be measuring is the dynamic, future-oriented side of human cognition (Wells, 1999).

Cobb and Bowers (1999), talk about assessment within the group, using the term 'evaluation'. Cobb and Bowers believe that performance is socially situated. Therefore, the teacher should evaluate the group's changing beliefs and reasoning, and the individual should be evaluated in relation to the group. They treat academic success and failure in the classroom as the property neither of individual students nor of the instruction they receive. Instead, they see it as a relation between individual students and the practices that they and the teacher construct.

Wells (1999) argues that the ZPD has more to offer than a transformation of the process alone. First, there is a transformation in the individual in terms of his or her capacity to participate more effectively in future actions of a related kind. Second, the invention of new tools and practices or the modification of existing ones transforms the culture's 'toolkit' and its repertoire for problem solving. Third, within alternative measures of assessment there is an emphasis on diversity, initiative, and creativity where individual aspirations and styles of learning are not ignored. Fourth, there is the transformation in the activity setting in the form of problem solving actions which, in turn, opens up further possibilities for action. Finally, since individuals and the social world are mutually constitutive of each other, transformation of one also involves transformation of the other and of the joint activities in which they engage.

## ***2.4. An Overview of Studies on Learning Styles and Strategies***

### ***2.4.1. Studies on Learning Styles***

Learning styles research is drawn out of studies about the psychological (cognitive, affective, and behavioural), physiological and social dimensions of the educational process. The scholarly literature, discussed earlier, provided a range of working models that can help in studying and comparing these dimensions of styles.

The six research studies on learning styles reviewed in this section have been arranged into two types. The first is a report on studies that focus on the relationship between culture and learning styles, and the second is a review of studies that focus on the relationship between learning styles and other variables.

Benedict et al (2003) conducted a study to compare the learning styles of 68 students educated in the United States, with that of 56 international students. The International students were educated in New Zealand and Pacific Islands, Korea, Japan, Singapore, Ecuador, Mexico, and China. The hypothesis tested was that learners from different homogeneous populations have different learning styles because of different educational backgrounds. The test instrument employed for this comparison was the Learning Orientation Questionnaire developed by Martinez (1996). The results of the study indicated that there was sufficient evidence to show that the two samples came from different populations, suggesting that educational background is a determining factor in test results and that culture did have an effect on learning style preferences of students. For example, students with a non-US educational background tended to be more conforming in their learning orientation compared to students with a US educational background.

Reid (1987) found in her study with ESL/EFL subjects from many different countries that learning style patterns were similar within the same cultural groups, whereas they differed across the groups. Reid administered the PLSP self-reporting questionnaire to 1,234 ESL students in 39 intensive English language programs and 154 native-speaking university students to explore their learning styles. Other variables in addition to learning styles, such as age, sex, length of residence in the U.S., and TOEFL score were also explored. The results of the questionnaire prepared to measure learning style preferences revealed that ESL students showed a general tendency for kinesthetic and tactile learning, and for

individual rather than group learning. Moreover, ESL students from different language/cultural backgrounds often differed significantly from native speakers in their learning style preferences. For example, Korean students were the most visual in their learning style preferences, Arabic and Chinese language groups coming next, whereas for native speakers of English, visual learning was a minor, rather than a major, preference.

Another finding was that the learning preferences had relationships with variables such as sex, length of residence in the U.S., major field, and level of education. For example, graduate students were inclined to visual and tactile learning significantly more than undergraduate students. The study finally showed that the learning style preferences of ESL students were modified or extended according to their stay in the U.S. For example, the longer students had lived in the United States, the more auditory their preferences became.

Ehrman and Oxford (1990) conducted a study with 20 ESL students in the US using Myers-Briggs Type Indicator (MBTI) and the SILL. Their primary aim was to study the learning strategies and teaching approaches preferred by sensors and intuitors. They found that sensors used a variety of memorization strategies like internal drills and flash cards and liked highly structured and well-organized classes with clear goals. Intuitors preferred teaching approaches that involved a variety of activities. They tended to be bored with drills, and were better able than sensors to learn independently of the instructor's teaching style. The researchers also found that introverts, intuitives, feelers, and perceivers appeared to have a learning advantage in the classroom over their counterparts, i.e. extroverts, sensing types, thinkers, and judgers.

Gallin (1999) looked at the relationship between learning styles and specific strategies on a given reading comprehension task. The sample comprised four Taiwanese students and one Saudi from two high intermediate ESL classes at a U.S. University. The participants provided demographic and background language information. The instruments used were Oxford's *SILL* and *SAS*. One general finding was that those with a visual learning style preference had a higher frequency of reading strategy use. The study also showed a relationship between being more intuitive and the inclination to use the strategy of inferencing while reading. In other words, the ESL readers who were better at inferring the gist of their reading were also more intuitive in terms of their style preference. Gallin

(1999) concluded that learners' preferences for either intuitive or concrete-sequential might affect the strategies they used in reading in a second language.

Sadler-Smith and Riding (1999) investigated the relationship between the cognitive styles and learning preferences of 240 participants from a business program in the United Kingdom. The investigators used the Cognitive Styles Analysis (developed by Riding, 1991, 2001) and assessed the students' learning preferences according to three different criteria: instructional method, instructional media, and assessment method. There was no indication of the presence of second language learners in the study. However, the study's relevance to my research is that it focused on the relationship between cognitive styles and learning preferences. Overall, the statistical analysis showed that participants in the study preferred traditional teaching practices, the printed material, and informal assessment procedures. The different elements of each construct were also correlated.

Bailey et al. (2000) conducted a study to investigate the correlation between learning styles and foreign language achievement at the college level. The Productivity Environmental Preference Survey, developed by Dunn and Dunn (1993), was used to measure learning styles of 100 university students enrolled in either French or Spanish first and second semester courses. The results revealed that more successful learners tended to like informal classroom designs but preferred not to receive information via the kinesthetic mode (i.e., hands-on).

The six research studies described above addressed different aspects of learning styles using different cognitive and learning style models. These studies are distinguished for primarily utilizing quantitative methods of data collection and analysis and the use of surveys and questionnaires as a main source of data collection as well as achievement tests.

#### ***2.4.2. Studies on Learning Strategies***

As said earlier, most studies on learning strategies have focused on identifying the strategies used by successful language learners with the idea that they might be transferred to less successful learners. Noteworthy among this body of work in applied research are those done by O'Malley et al (1985), Vann and Abraham (1990), Green and Oxford (1995), and Griffiths (2003).

Studies which have attempted to investigate the relationship between language learning strategies and success in language have produced mixed results. 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. O'Malley and colleagues therefore, concluded that the more successful students were probably able to exercise greater metacognitive control over their learning. Ehrman (1996) 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. Green and Oxford (1995) discovered that higher-level students reported using language-learning strategies of all kinds more frequently than did lower level students. Griffiths (2003) compared the strategies favoured by lower and higher course-level students. It emerged that the strategies typical of higher-level students were more sophisticated and more interactive. This lead Griffiths to conclude that there may be qualitative as well as quantitative differences in the strategies used by higher and lower level students.

In their study of unsuccessful learners, Vann & Abraham (1990: 191) concluded that although their students appeared to be active strategy users, they “failed to apply strategies appropriately to the task at hand”. Porte (1988) also interviewed 15 under-achieving learners in private language schools in London. He commented that, while reporting frequent use of language learning strategies, the majority of the unsuccessful learners studied still used strategies which were the same as, or very similar to, those they had used at schools in their native countries. Lee (2003) reported that secondary school students with less school years employed learning strategies more often than students with more school years.

There are two views in the studies on the strategies used by less effective second language learners. The first is that less effective L2 learners use fewer strategies than more successful learners, and often use non-communicative or rather mundane strategies such as translation, rote memorization, and repetition (Porte, 1988; Griffiths, 2003). The second viewpoint is that many ineffective L2 learners are aware of their strategies and use just as many as the more effective learners. However, less skilled learners apply these strategies in a random manner, without targeting the strategies to the task. They also do not demonstrate the careful orchestration and creativity shown by the more effective learners (Vann & Abraham 1990; Lee, 2003).

In view of the fact that the mixed results in the studies described above may be due to differences among learners, researchers have used a different approach. This has been to study other variables that possibly influence students in their choice of learning strategies. A number of studies were carried out by different researchers on the frequency of strategy use in relation to various variables: English proficiency, foreign versus second language environments, career interest, prestige of the institution, gender, and culture.

Sheorey (1999) reports on the language learning strategies of 1261 Indian college students studying English. Results indicated that Indian college students used learning strategies with high to moderate frequency, with metacognitive strategies used more frequently. The study also reported that cultural and educational backgrounds influenced some of the strategies Indian students used. For example, the student's ability to respond to questions related to the content of prescribed textbooks with memorized answers was an indication that the Indian university examination system did not reward functional language proficiency. The researcher concluded that Indian students used strategies that ensured their getting high marks in the examinations, whether or not there was any improvement in their mastery of English.

Levine et al (1996) investigated the extent to which language-learning strategies are related to educational background of two groups of learners: recent immigrants to Israel from the former Soviet Union and long-term Israeli residents. The researchers observed a clear difference in the use of learning strategies. Immigrant students showed a preference for traditional strategies, such as memorizing, grammatical rules, rote learning, and verbatim translation. Long-term Israeli residents used strategies aiming towards approaches that were more communicative. The researcher concluded that the differences in the application of strategies between the two groups were the result of different learning habits caused by different instructional systems.

Merrifield (1996) used the *SILL* as the research instrument to study how the use of learning strategies is linked to and influenced by both the learning style and culture of four French adult learners. Findings revealed that the French learners studying English as a foreign language were visually oriented, relatively low in the affective and social areas compared to high results in cognitive strategies, and aimed their use of strategies at attaining precision and accuracy.

In a study of more than 300 university students learning several different languages (German, Russian, and French), Wildner-Bassett (1992) found that students who often used cognitive strategies as measured by the *SILL*, significantly preferred a low-mobility learning style. The researcher found that students who reported not using strategies to compensate for limited knowledge in English showed a preference for emotive-kinesthetic style. *SILL* metacognitive strategy use negatively predicted spatial processing and verbal risk taking styles, which led Wildner-Bassett to conclude that spatial processors and risk-takers tended not to use highly structured, organized metacognitive strategies.

In a study with 520 students, 273 males and 247 females in an intensive foreign language program in the United States, Oxford and Ehrman (1995) showed that the use of metacognitive strategies for language learning is linked to an orderly, closure-oriented personality. Cognitive strategy users and the users of metacognitive strategies for language learning, as measured by the *SILL*, tended to be internally motivated, self-confident and emotionally energized. The use of compensation strategies positively correlated with the desire to use the language outside of class and negatively related to anxiety about outcomes. Memory strategies did not have much impact on the study and was negatively correlated with anxiety about self-esteem. The study concluded that the use of language learning strategies was associated with many cognitive, affective, and social aspects of the individual.

Lee (2003) investigated the use of language learning strategies of 325 Korean secondary school students of English as a foreign language (163 boys and 162 girls) using a Korean translation of the *SILL*. The major findings were that the reported overall frequency of strategy use by Korean students was moderate, with the students reporting compensation strategies as the most frequently used and affective strategies the least used. It was revealed that the students' sex, school year, and English proficiency had a significant relationship on their use of learning strategies. Girls showed a more frequent use of all six-strategy categories than boys did and students with more school years employed compensation and memory strategies more often, whereas students with fewer school years employed metacognitive, cognitive, affective, and social strategies more often. Cognitive strategies showed the highest correlation with metacognitive and memory strategies.

As said before, frequency of strategy use might sometimes be related to the prestige of the



institution, and the kinds of students who are accepted by the institution. Watanabe (1990), investigating the strategies of 316 EFL students in Japan, found that the sample which came from a prestigious school, used language learning strategies more frequently than the other sample, from a less prestigious school. The former sample used compensation and affective strategies at a high level, with other strategy categories at a medium level. The latter sample used all strategy groups at a medium level.

Griffiths (2003) conducted a study in a private English language school for international students in New Zealand to examine differences in reported frequency of learning strategy use and course level according to the variables of sex, age, and nationality. The study involved 348 students from 21 different countries: Japan, Korea, Taiwan, Hong Kong, China, Thailand, Switzerland, Germany, Russia, Czechoslovakia, Indonesia, Malaysia, Tahiti, Portugal, Argentina, France, Brazil, Spain, Italy, Denmark, and Poland. The majority of the students were from Japan and other Asian countries (91%). The study comprised 114 male students and 234 females, the majority of whom (74%) were in their twenties. The socioeconomic status of these students was generally high. The main instrument for measuring the frequency of the use of learning strategies was Oxford's *SILL*. The results of the study indicated that statistically significant differences were found according to nationality, as European students reported using learning strategies significantly more frequently (mean=3.5) than other students (mean=3.2). Higher-level students also frequently used strategies relating to: interaction with others, vocabulary, reading, tolerance of ambiguity, language systems, the management of feelings, the management of learning, and utilisation of available resources. In comparison with the strategies favoured by lower level students, those typical of higher-level students were more sophisticated (involving manipulation rather than memorisation) and more interactive.

### ***2.5. Gaps in the Literature on Culture and Learning Styles and Strategies***

Some of the research studies on learning styles and learning strategies reviewed in the previous section recognized the cultural effects on the development of learning styles and strategies. However, the question arises about which particular culture is associated with which learning styles and strategies and why. The result of one cross-cultural, learning-style analysis, however, may not be comparable with that of another cross-cultural,

learning-style study because of different demographic characteristics of the learners, or because of the different ways of describing results of learning styles and strategies measured by different constructs. Yet, the results of the past comparative learning-style and strategies studies across cultures have provided valuable insights into how certain learning styles and strategies within one country tended to be developed in learning environments influenced by its particular culture.

The studies reviewed in the previous section left a number of questions unanswered. First, these studies are rarely concerned with investigating the relationship between learning styles, strategies, and culture at the same time. Secondly, much of the emphasis in these studies is on the cognitive side of learning while such other dimensions of learning as the affective, social, and behavioural were given less attention. Thirdly, these studies focused on studying limited aspects of culture, primarily from the educational side and neglected the wider aspects of culture in which these educational practices are embedded. Fourthly, when the cultural aspects of learning are examined, culture is often equated with nation or ethnicity and the learners' use of styles and strategies is expected to show the way this reflects the influence of culture. None of the reviewed studies has ventured farther out to include the operative forces that form specific cultural contexts. Fifthly, most of the studies reported in this section focused mainly on using quantitative approaches to collect and analyse data.

Taking all these points into account, my mixed methods design study aimed at bridging these gaps by examining the learning styles and strategies of Saudi students, a student population that has not been included in any of the published studies previously mentioned. The scarcity of research on the learning styles and strategies of students learning English in Saudi Arabia was one of the primary reasons for conducting the study reported here. In addition, whereas other studies focused on studying a limited aspect of processes either internal or external to the learner, this study used three broad views of learning styles, strategies, and background factors to study this relationship. Furthermore, unlike other studies that focused on either quantitative or qualitative approaches to collecting and analysing the data, the present study employed a mixed methods methodology that included three sources of data: questionnaires, focus groups, and observations. By doing so, it was my hope to contribute to better insights into the effects of educational and cultural factors on teaching, learning, and development in the Saudi context and possibly

other cultural contexts.

## ***2.6. Research Questions***

Two main research questions guided this research inquiry:

1. What is the range and variety of language learning styles and strategies of female students, studying English at first-year college level at King Faisal University, in Saudi Arabia?
2. What is the relationship between the learning styles, language learning strategies, previous learning experience, and sociocultural factors of female students, studying English at first-year college level at King Faisal University, in Saudi Arabia?

## ***2.7. Summary***

In this chapter, I reviewed the literature related to the concepts of learning styles, strategies, and culture that led to the development of the two research questions outlined above. Section One started with the tracing of the relationship between teaching, learning and development and the place of culture in that development. Section Two provided a detailed description of the characteristics of learning styles, how they were classified and measured, and views of learning styles. Section Three dealt with learning strategies, ways of measuring them, and factors influencing their selection and use. In the subsequent sections, some key features of communicative and developmental approaches were described. This was followed by a review of some of the related studies on learning styles and strategies. The next chapter will discuss the research design and methodology adopted in this study.

## **Chapter Three**

### **Research Design and Methodology**

#### ***3.0. Introduction***

The purpose of this study was to explore the language learning styles and strategies used by students in relation to their educational and sociocultural contexts. More specifically, the primary tasks of this study were: (a) to explore the range and variety of the students' learning styles and strategies; (b) to examine the relationship between the students' reported learning styles and strategies, their previous learning experiences and their sociocultural characteristics; and (c) to explore the implications of the findings for the learning and teaching of English in the Saudi context.

To shed some light on the issues raised in this thesis, a two-phase, sequential mixed methods design guided my investigation. In stage one, quantitative research questions and hypotheses addressed learning styles and strategies and their relation to background factors of 209 Saudi female students. In the second stage, a qualitative inquiry was used to probe and deepen the quantitative results by exploring aspects of learning styles and strategies of ten students. Insights gained from both quantitative and qualitative data were used to explore the implications for the learning and teaching of English as a foreign language in the Saudi context. This chapter outlines the design and methodology of the study. It discusses the two phases of this study, and provides a description of the setting for the research and the participants. Quantitative and qualitative analyses of the data and the results are discussed in the following chapters.

#### ***3.1. Major Concerns***

This research is both the result of my personal concern for the learning behaviour of Saudi learners of English, and an extension of previous and ongoing research into the effects of the cultural context on learning and cognitive development. In addition, the current perceived need in Saudi Arabia is to raise the standard of learning and individual development. Therefore, this study is needed on three counts. One, the results of an exploration of the learning styles and strategies used by Saudi female students will have a

cultural specific value and contribute to the development of foreign language teaching and learning in Saudi Arabia. Second, the results and the conclusions drawn through this study may add to the body of research done in the areas of learning and culture in the global context. Third, in Saudi Arabia, empirical research that contributes to raising the standard of learning and improving the quality of human resources is not only scarce but also badly needed.

Research on learning styles and strategies is not easy because of the abstract nature of many associated concepts and the problems of identification and measurement (Brown, 2000). The abstract nature of these concepts makes any empirical definition difficult. Interrelatedness of concepts also makes it difficult to distinguish variables relating to personality, cognitive styles, cognitive strategies, and learning styles. Ehrman, Leaver, and Oxford (2003: 314), for example, assert, “The literature on learning styles uses the terms learning style, cognitive style, personality type, sensory preference, modality, and others rather loosely and often interchangeably.”

Other major difficulties in performing research on learning styles and strategies in foreign language learning is that until recently there has been no theory that could adequately describe the role of cognition in language learning. Theoretical descriptions of the influence learning style and strategies had on cognitive processes in general were also lacking. Efforts to describe learning styles and strategies within the cognitive theory proposed by Anderson (1981, 1996, and 2000) provided the necessary theoretical foundation to guide research in these areas. Some style and strategy research, however, has been largely independent of any particular cognitive theory. It has developed mainly within the context of education and education-related research. The learning strategy approach taken by Oxford, for example, is far removed from any underlying cognitive theory (O’Malley and Chamot, 1995).

Research on learning and culture, in the light of this study and some previously mentioned studies in Chapter Two, is an example of educational research, not defined by any specific theory, but by the nature of the research problem that it tries to solve and by the research intentions and goals. Researchers investigating learning styles and strategies under different cultural conditions are not committed to subscribe to only one approach to collecting and analysing data. They are free to look to many approaches and choose the

methods, techniques, and procedures that provide the best understanding of a research problem. Rather than methods being important, the research problem is the most important and researchers draw inspiration from pluralistic approaches to meet the research needs and purposes (Creswell, 2003).

The purpose of my research is pragmatic; it is to find out what works in actual learning situations for actual learners in actual time and space, and to find solutions to existing educational problems to help learners learn better and develop.

### ***3.2. Approach Taken: Mixed Methods***

As stated before, my inquiry was guided by mixed methods research principles. Mixed methods research refers to the collection and analysis of both quantitative and qualitative data in a single study<sup>2</sup> (Creswell, 2003). The philosophical basis of mixed method studies is the importance of focusing on the research problem, and the use of approaches that provide the best understanding of the research problem. Within this pragmatic perspective, investigators use both quantitative and qualitative data because their objective is to provide the best understanding of a research problem (ibid).

The concept of mixing methods originally evolved in psychology to study the validity of psychological traits. Later, recognizing that each method revealed a somewhat different facet of the same phenomenon, researchers were encouraged to combine multiple methods to obtain a better, richer, and more substantive picture of a phenomenon (Berg, 2004). This multiple line of inquiry led to the emergence of *triangulation*, where multiple investigators, multiple sources of data, multiple theories, or multiple methods, are used to interpret a single set of data (Denzin, 1978; cited in Patton, 2002).

From the concept of triangulation, other reasons for mixing methods emerged. These resulted in the development of three general strategies for the mixed methods inquiry: *Sequential*, *Concurrent* and *Transformational* (Greene et al., 1989; Tashakkori and Teddlie, 1998; Mertens, 1998). The choice of any of these strategies depends on the initial intention of the researcher. The researcher may collect both the quantitative and qualitative data in phases (sequentially) or at the same time (concurrently). When the data are collected in phases, the priority can be given to either the quantitative or the qualitative

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<sup>2</sup> or among several studies in a program of inquiry

data or to both. Transformational procedures can be used to collect data either sequentially or concurrently.

Table 1 summarizes the type of mixed methods strategies of research, as discussed by the above researchers, and shows their implementation, the priority given to either method, the stage at which data is integrated, and the strengths and challenges of each strategy.

**Table 1: Types and Characteristics of Mixed Method Strategies**

<b>Procedure &amp; implementation</b>	<b>Priority</b>	<b>The stage of data Integrating</b>	<b>Purpose</b>	<b>Strengths</b>	<b>Challenges</b>
Sequential explanatory Quan----qual	Quan	At data interpretation	To use qualitative results to explain relationships and unexpected results & interpret quantitative findings	Straightforward; steps fall into clear stages; easy to describe.	Requires familiarity with both quan and qual forms of research; The length of time involved in data collection & analysis
Sequential exploratory Qual----quan	Qual	At data analysis & data interpretation	To test elements of a theory; to generalize Qual findings to different samples	Useful in developing an instrument; straightforward; steps fall into clear stages; easy to describe.	
Sequential transformative Qual---quan Quan---qual	Equal	At data interpretation	To give voice to marginalized individuals; to advocate for participants; to better understand a phenomenon that is changing as a result of being studied	Useful for researchers using transformative frameworks (vision, advocacy; ideology, critical theory)	Little is written on the approach; not clear how to move between the analyses of the 1 <sup>st</sup> phase into the data collection of the 2 <sup>nd</sup> phase.
Concurrent triangulation Quan+qual Qual+quan	Equal	At data interpretation	To confirm, cross-validate, corroborate findings in a single study	Familiar to most researchers; results in well-validated findings; shorter data collection time.	Requires expertise to study a phenomenon with two separate methods; difficult to compare results; discrepancies in the result may be difficult to be resolved.
Concurrent nested strategy Quan+qual Qual+quan	Equal/but nested	At data analysis	To gain a broader perspective by embedding qualitative data to describe an aspect of a quan study that cannot be quantified, or to use qual data to describe participants	A multilevel design: different methods can be used to study different groups or levels; two types of data can be collected simultaneously during one phase;	Little is written on the approach; the data need to be transformed in order to be integrated in the analysis; discrepancies between the two data may occur; unequal evidence in the final result due to unequal priority of methods.
Concurrent transformative Quan+qual Qual+quan	Equal/un Equal	At data analysis & data interpretation	To use a specific theoretical perspective to facilitate methodological choices throughout the research process, such as defining the research problem, identifying the design and data source	Theoretical perspective is reflected in the purpose of the study or research questions; shares the specific strengths of the triangulation and nested strategies.	Shares the challenges of the triangulation and nested strategies.

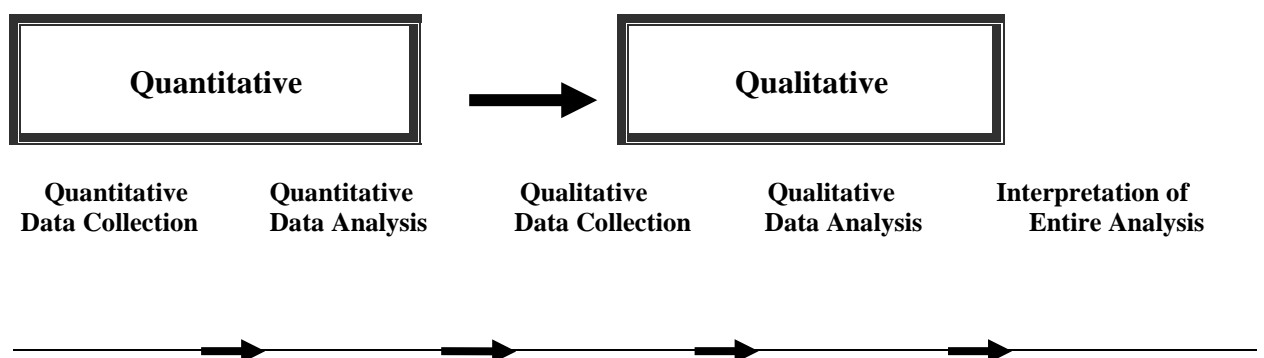
In the *sequential explanatory procedure*, for example, a study may begin with the collection and analysis of quantitative data, followed by that of the qualitative data. The two stages are integrated during the data interpretation phase. The qualitative results can then be used to assist in explaining the findings of a primarily quantitative study. One of the main strengths of this strategy is its directness. In addition, its implementation is easy because of its clearly defined steps. Its main drawbacks are the length of time involved in data collection, and the need for the researcher's familiarity with both quantitative and qualitative forms of research.

In *concurrent procedures*, the collection of qualitative and quantitative data is concurrent, occurring at the same phase of the study, to cross-validate findings or to provide a comprehensive analysis of the research problem. The information is then integrated in the interpretation of the overall results. Alternatively, the researcher may nest or embed one form of data within another larger data collection procedure in order to analyse different questions, groups, or levels of unit in a study. In *transformational procedures*, the researcher uses a theory or an overarching perspective within the design that contains both qualitative and quantitative data. In this procedure, the two types of data may be collected in a sequential or a concurrent manner.

### 3.2.1. Strategy of Inquiry used in the Study

The strategy that best accommodates my inquiry is the *Sequential Explanatory Strategy* for research (Figure 2). In this strategy, the first primary stage was characterized by the collection and analysis of quantitative data, followed by the collection and analysis of qualitative data. The findings of the two stages were then integrated during the interpretation phase.

**Figure 2: Sequential Explanatory Strategy**





Based on the objectives discussed earlier in section (3.0), the aim of this study was to try to answer the main research questions stated earlier in section (2.6). To investigate these research questions, a large and representative sample of the EFL student population of Saudi Arabia was required to obtain quantifiable descriptive data. Three aspects of the sample needed to be identified: their learning styles, learning strategies and background factors. The best, most cost effective and the most practical way to reach a large sample to identify these variables and to examine any statistically significant correlations between them is through self-reporting questionnaires. This study employed three self-reporting questionnaires as instruments to identify learning styles, strategies, and background factors of 209 students. Recognizing the limitations inherent in using questionnaires to convey elaborated data from participants, I decided to follow the results of the questionnaires with focus group interviews and observation methods. It was envisaged that the data obtained from the two qualitative methods of data collection and analysis would assist in explaining and interpreting, in more detail, the findings of the primary quantitative stage.

Figure 3 outlines the design of the study. The figure shows how the pragmatic perspective combined with the sequential explanatory strategy of research and the specific methods of inquiry are combined within a mixed methods framework to provide the best understanding of the problem under study.

**Figure 3: Research Design**

<b>Philosophical perspective</b>	<b>Research approach</b>	<b>Strategy of inquiry</b>	<b>Methods of inquiry</b>
<b>Pragmatic assumptions</b>	<b>Mixed methods (Quan → Qual)*</b>	<b>Sequential explanatory</b>	<b>Questionnaires, Focus groups, Observations</b>

\* Quan= Quantitative; Qual= Qualitative

### **3.3. Methodology**

As stated earlier, the mixed methods approach is one in which the researcher aims to use several approaches for the collection and analysis of data rather than subscribe to only one way (Creswell, 2003). Literature on learning styles and strategies indicate that there are several methods of gathering data on the approaches and techniques students use in learning a target language. These include questionnaires, observations, interviews, verbal

reports, diaries, dialogue journals, and computer tracking. Likewise, various methods have been used to study culture-bound variables in the learning and behaviour of different cultural groups (e.g. Hofstede, 2001; Schwartz, 1990; Triandis, 1988). The appropriateness of a particular method in assessing learning and culture on the research design of the study can be affected by many factors, such as the number of participants, the characteristics of the individuals that need to be assessed, the knowledge claims of the researcher,<sup>3</sup> the context, and the purpose of the study. Several authors recommend the use of multiple methods of data collection in order to allow the researcher to build on the strengths of each method and reduce the weaknesses of the use of a single method (Patton, 2002; Creswell, 2003; Berg, 2004).

The following is a description of how this two-phased, sequential mixed methods study was conducted. Phase One dealt with the quantitative data collection and analysis procedures, and an account of validity and reliability. In Phase Two, there is a discussion of qualitative data collection and analysis procedures as well as an outline of the strategies used to check the accuracy of the qualitative data. First, ethical considerations are outlined.

### ***3.3.1. Ethical Issues***

The researcher should anticipate and specify the kind of ethical issues that might arise during the research (Patton, 2002; Creswell, 2003; Bell, 2006). These issues apply to quantitative, qualitative, and mixed methods research. They also apply to the different stages of the research process, such as the research problem, the purpose statement and research questions, and collecting, analysing and writing up the results of the data. Ethical considerations begin with the identification of a significant research problem or issue, and a rationale for its importance and benefit to the individuals being studied. In the purpose statement and research questions, they involve a clear, coherent description of the central intent of the research study to the participants.

In data collection, a respect for both the participants and the site for the research is an important ethical issue. The researcher should anticipate the potential for risk to participants in a study, such as physical, emotional, social or legal harm. Developing an 'informed consent form' for the participants to sign before the conduct of the study ensures that their rights are protected. A respect for the research site means that the researcher's

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<sup>3</sup> Such as positivism, constructivism, advocacy/participatory, or pragmatics,

disruption of the setting must be kept to a minimum. By timing visits, intrusions in the course of activities of the participants are avoided.

Ethical considerations are also important before the analysis and interpretation of the research data. This takes into account the protection of the identities of participants by giving them pseudonyms. Providing an accurate account of the information is also another ethical consideration. Accuracy may require debriefing of the participants by the researcher, particularly in qualitative research. It may also require using other validation strategies, such as the use of different data collecting methods.

Ethical issues extend to the writing of the research report. For example, the researcher should be careful to avoid the use of words that may be prejudiced or language that has racial, ethnic, gender, or age related overtones. The researcher should also take a practical stance to avoid any ‘scientific misconduct’, such as the suppression or falsification of the results to agree with the position of the researcher, or ‘misuse’ of the findings for the benefit of one group. Nueman (2000; cited in Creswell 2003) suggests releasing the details of the research design to give more credibility to the study.

In this study, ethical considerations are incorporated into the various stages of the research process.

1. The research problem is clearly defined (section 1.5) and the rationale for its importance to individual and social development in the Saudi context is clearly stated in section (1.6).
2. The research questions clearly address the central issue related to the research problem (section 2.6).
3. The participants’ right to participate voluntarily in this study was respected, by asking them read the ‘consent form’ carefully before signing it. The general purpose of the research was explained to them and they were encouraged to ask questions about the research and its anticipated benefits and risks to them. (Appendix Eight).
4. The data were collected using multiple methods and sources of data.

5. The data were collected during a free activity period to limit disturbance to the participants' course of studies.
6. The data were analysed anonymously to protect the participants' identities and confidentiality.
7. The details of the research design are stated exactly as they were followed.

### ***3.4. Stage One: Quantitative Study***

The objective of stage one was to collect descriptive data on the learning styles, strategies and background factors of the students. Through several computational analyses, the information obtained was used to address the research questions raised earlier in (2.6.). The following description of how phase one was conducted is divided into seven sections: the setting, the participants, quantitative data collection procedures and instruments, quantitative data analysis procedures, validity and reliability.

#### ***3.4.1. Setting for the Research***

This research took place at the English Language Centre at King Faisal University (KFU) in Dammam, Saudi Arabia. KFU is located on the eastern coast of the Arabian Gulf and operates under the Ministry of Higher Education of the Saudi Government. The institution has two campuses. The first campus in Al-Hasa comprises the faculties of agriculture, veterinary medicine and animal resources for boys, and of education, with a branch for women. The second campus is located in Dammam, and consists of the faculties of medicine and medical sciences (established with the educational co-operation of Harvard University) and of engineering for boys. A separate branch for girls offers medicine and medical sciences education as well as interior design. The campus at Al-Hasa now also caters for female students of home economics, medicine, and dentistry.

From its inception in 1975, English has been the medium of instruction in the School of Medicine and Medical Sciences, at KFU. When students enter KFU, they are exposed to an intensive course in English for three consecutive semesters, which is taught by the staff of the English Language Centre. The students take English along with other content subjects, such as maths, physics, chemistry, biology, Arabic and Islamic studies, depending on their field of study.

### 3.4.2. Participants

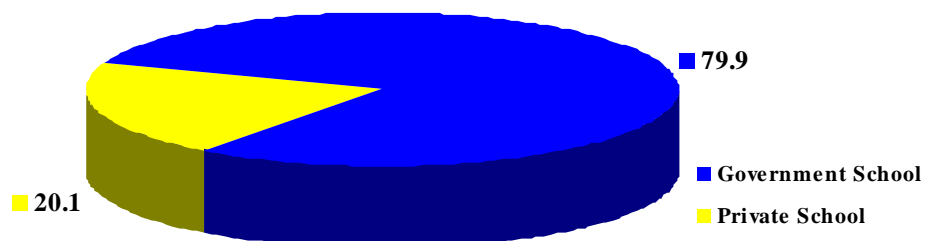
The participants were 262 female students, taking an English course at the first year level at KFU in Dammam. These students were the only female students studying English at first-year college level at the Dammam campus. After the data were collected, incomplete questionnaires were removed, making the total number suitable for analysis 209 students. Most of the participants were ethnically Saudi Arabs, and a few were of mixed origin (Table 2). The majority of the participants were Sunni Muslims. Shi'ites made up a small percentage of the population of this study.

**Table 2: Ethnicity of Participants**

	<b>Mother's origin</b>	<b>Father's origin</b>
	<b>%</b>	<b>%</b>
<b>Saudi</b>	<b>83.0</b>	<b>89.6</b>
<b>Arab</b>	<b>13.5</b>	<b>9.3</b>
<b>Asian</b>	<b>1.9</b>	<b>1.2</b>
<b>Westerner</b>	<b>1.5</b>	<b>0</b>

The ages of the participants ranged between 18 and 20 years. As a university bye-law, all students must be Saudi graduates who had recently passed the final examination from Saudi high schools. They must also have passed the university entrance exam before being admitted to KFU. As stated above (section 3.4.1.), all students are required to take an intensive course of English and only those who score above 500 in the TOEFL are exempted. No students in this study, however, were reported to have achieved this score in the TOEFL Test.

**Figure 4: Type of Previous Learning Institution**



The educational background of the participants varied in terms of the type of previous learning institution attended. While some of them had studied English for twelve years, for an average of four periods a week in private schools, the majority of the students studied English for six years in government schools (Figure 4). Students, through self-reporting questionnaires gave a picture of their educational and sociocultural backgrounds, and of their learning styles and strategies. To stimulate their interest, the students were made aware that the information gathered on how they learn English would be garnered and used to design instructional procedures to help them to learn more effectively. On realizing that their views and comments would be a means to facilitate their learning, the students' enthusiasm for participating in the study increased.

#### ***3.4.3. Quantitative Data Collection Procedures***

Before the study could be carried out, permission had to be sought from KFU, so the research proposal was submitted to the University for approval. Permission was granted for the study to proceed. Three self-reporting questionnaires were used as instruments for collecting the data, namely, the Educational and Socio-cultural Factors Survey (*ESFS*), the Style Analysis Survey (*SAS*) and the Strategy Inventory for Language Learning (*SILL*). The questionnaires were piloted on forty randomly selected participants, similar in their general characteristics to the target population. The pilot study was carried out to identify any ambiguities in the survey instruments, to record the time taken to complete them, and to establish their reliability and validity. The results indicated that the questions were well understood by the students. Some modifications, however, were made on some items to ensure that the survey instruments met the project goals and objectives. The time taken to answer the questionnaires was 50-60 minutes. The pilot study indicated good validity and reliability of the three survey instruments. The pilot study is reported in Appendix One.

#### ***3.4.4. Self-reporting Questionnaires***

The use of questionnaires in second language research is important to collect information on phenomena that are not easily observed, such as motivation, values, attitudes, and self-concepts. They are also used to obtain background information about the subjects, such as age, previous background in language learning, and to collect data on the processes involved in using language, such as, learning styles and strategies.

Questionnaires vary in their explicitness. Unstructured questionnaires have a low degree of explicitness and include open questions to which the subjects respond in a descriptive manner. Those of a high degree of explicitness are the structured ones. They ask respondents to indicate agreement or disagreement, mark responses, or select a number of alternatives. They avoid the problem of obtaining elaborated data from subjects, making it easier to locate each subject's answer to the same question and answers that are similar. Structured questionnaires elicit data in the form of numbers or ranking and can be scored by machine.

There are advantages to using questionnaires. They are self-administered and can be given to a large number of subjects at the same time. They are, therefore, less time consuming. Since the same questionnaire is given to all subjects, the data are uniform, standard, and objective. There are also disadvantages to using a questionnaire. If closed questions are chosen, the subjects can only select responses from a limited number of choices. In addition, one can never be sure that the responses correspond to what the respondent really thinks (Seliger and Shohamy, 1997; Nunan, 1999). In spite of their limitations, I employed three surveys:

- i. Style Analysis Survey, developed by Oxford (1993).
- ii. Strategy Inventory for Language Learning, developed by Oxford (1990).
- iii. Educational and Sociocultural Factors Survey, developed by the researcher.

These three questionnaires provided information on the participants' learning styles, learning strategies, and general background characteristics. Data gathered from qualitative focus groups and observations were then used to explore further the findings of the quantitative data. The three questionnaires were administered to all participants in the classroom during the period of data collection. The following is a brief description of the three survey instruments.

i. ***Style Analysis Survey (SAS)***. The learning style inventory used in this research study was adapted from the Style Analysis Survey (SAS) developed by Oxford (1993). SAS is among the most widely-used of the learning style assessment instruments that are used with ESL/EFL students (Wintergerst et al., 2003). As stated in chapter two (section, 2.2.3: iii), this survey assesses six main categories of learning styles: cognitive, executive,

affective, social, physiological, and behavioural. There are 110 items on the *SAS* grouped into five activity types: how students use their physical senses for study or work (sensory preferences- visual / auditory/ hands-on); how they deal with people (extroversion / introversion); how students handle learning or working situations (intuitive-random / concrete-sequential); how they approach tasks (closure-oriented/ open); and how they deal with ideas (global / analytic). Each dimension of style has ten items representing the students' general approach to learning and working. For each item on the *SAS*, students circle their immediate response on a four-point Likert scale, containing four choices that range from 0 to 3. Values of 0 stand for *never*, whereas values of 3 correspond to *always*. A gain score of 2 points or more indicates a preference for one style over another on the same dimension. *SAS* was used in this study to identify the range and variety of the participants' learning styles and to examine their learning style tendencies (Appendix Two).

**ii. *Strategy Inventory for Language Learning (SILL)*.** The frequency with which students made use of the various learning strategies was tested using the revised version of the Strategy Inventory for language Learning (*SILL*, 50 items), developed by Oxford (1990). The *SILL* is organized into six strategy groups and is further divided into dimensions usually referred to as subscales or factors. Each subscale has a number of items to facilitate more in-depth understanding of the learning strategies for ESL/EFL learners. These strategy groups are metacognitive, memory, cognitive, compensation, affective, and social. Each item in the *SILL* is scored from 1 to 5. Values of 1 indicate very low strategy use and values of 5 indicate very high strategy use (Appendix Three).

In spite of the wide use of the *SILL* as a traditional instrument for measuring language learning strategies of second and foreign language learners, Wen-ta, Dornyei, and Schmitt (2006) identify several problems underlying this instrument. One of these problems is related to the way the *SILL* focuses on the quantity of the learning strategies used as an indication of a strategic learner, while the qualitative aspects are not addressed. These researchers argue that in the theory of learning strategy, it is not the *quantity* but the *quality* of the strategies used that is important. The second problem is that the *SILL* does not distinguish strategic from non-strategic learner behaviours. These researchers argue that “it is not what learners do that makes them strategic learners but rather the fact that they put creative effort into trying to improve their own learning” ( p. 81). A third problem is that



the *SILL* focuses on specific strategic behaviours and the scale items indicate frequencies of strategy use. This means that a linear relationship between the individual item scores and the total scale scores cannot be assumed.

Nonetheless, several reasons motivated the choice of *SAS* and *SILL* rather than other models for this study, as discussed in chapter two. First, the two models reflect most of the style and strategy dimensions discussed in the literature of learning styles and strategies. This makes the selected models suitable for the exploratory nature of the present study. Second, the models are concerned with the manner in which learners think about, view, and respond to information and situations, which rendered them useful in identifying the range and variety of learning styles and strategies of the students. Third, the items on the two instruments cover a comprehensive range of activities that are familiar to students in different learning situations, which makes any comparisons between learners possible.

**iii. *Educational and Socio-cultural Factors Survey (ESFS)*.** The *ESFS* was constructed to collect information on the educational and socio-cultural background characteristics of Saudi female students. The *ESFS* is a structured questionnaire consisting of two parts. Part One was designed to collect information on the students' previous language learning experiences, such as type of previous learning institution, academic achievement in English, methods that were used to teach English, difficulties the student faced in their learning of English, and type of self-supporting activities the student used in the past to learn English. Part Two was designed to gather information on the social and cultural backgrounds of the students. It consisted of seven dimensions that were further divided into factors consisting of several items. Some of the dimensions were: family ethnicity and openness to other cultural groups, cultural and religious characteristics of the family, socioeconomic status of the family, acceptance of social conventions, and styles of interaction in the Family. There were 89 items on the *ESFS* to which students responded on a fixed response scale (Appendix Four).

The information obtained from the three questionnaires formed the baseline data for tackling the research questions in (2.6). The aim of the research questions was to identify the learning styles, strategies and background characteristics of the participants, and then to investigate the relationship between these variables.

### ***3.4.5. Quantitative Data Analysis Procedures***

Data analysis relies mainly on the type of data used in a study. In sequential mixed methods studies, the data are not generated from one specific method of collection, but the result of combining different methods to explain more fully the research problem, and in doing so both quantitative and qualitative data are used. While both provide descriptions of phenomena that occur naturally, quantitative and qualitative studies approach research from different perspectives.

Quantitative data are analysed to provide descriptions of the participants in the form of tables, graphs, frequencies, percentages, etc. These types of data can be exposed to a variety of statistical procedures based on what the purpose is (e.g., finding correlation, standard deviations, etc.). The descriptive research typically begins with preconceived notion or expectation about the phenomena to be investigated. It may be said that descriptive research is hypothesis testing or deductive. This means that the research begins, for example, with a question that narrows the focus of the research and allows the phenomena to be investigated systematically (Seliger & Shohamy, 1997).

In this study, quantitative data obtained from questionnaires were analysed using SPSS (Statistical Package for Social Sciences, version 11.5). After the data had been administered and collected, the data were transferred to the computer database for analysis. These procedures of analyses are explained briefly.

#### ***A: Frequencies, Percentages, and Mean***

Frequencies are used to indicate how often a phenomenon occurs and are based on counting the number of occurrences. In this research, frequencies were used to show the distribution of students' responses on learning styles, strategies, and background factors. The distribution of the students learning styles is presented in percentages. In addition, the mean was used in this research to measure the average use of learning strategies and other learners' background factors. It was also used in advanced correlational statistics to discriminate between two groups of learners in relation to their learning style and strategy scores.

### ***B: Pearson Correlation Coefficient***

Pearson Correlation Coefficient examines the relationship between two sets of variables. Simple correlations, usually represented by the symbol  $r$ , indicate the strength and direction of a relationship by a number between zero and (+1.00) or (−1.00). Either extreme indicates a perfect relationship. A low correlation between the variables indicates that these two variables are poorly related to one another. Zero indicates no linear relationship between the two variables. High correlations do not mean that one variable causes the other, but only that the two variables are related. Correlation Coefficient was used in this research to show the relationships among the dimensions of learning styles. It was also used to show the relationships among the dimensions of language learning strategies with the overall mean score.

### ***C: Multiple Linear Regressions***

Regression analysis is a correlational statistical technique and a forecasting model that is concerned with describing and evaluating the relationship between a given variable (usually called the dependent variable) and one or more other variables (usually called the independent variables) in the same statistical analysis. In other words, it gives information about the relative effects of multiple measures, and assesses the cumulative effects of several variables when allowed to work in combination. Those variables with the largest (standardized) regression coefficients are the ones that contribute most to the model. In this research, stepwise multiple regression procedures were conducted to investigate the influence of learning styles on the selection of language learning strategies, with students' learning styles as the independent variable and their language learning strategies the dependent variable.

### ***D: Discriminant Analysis***

Discriminant analysis is a statistical technique designed to investigate the differences between two or more groups of people with respect to several underlying variables. Discriminant analysis forms linear combinations of the predictors which are used to classify cases into the various groups of the criteria. The mean value of a discriminating variable in a particular group is evaluated. The bigger the difference between the mean values of the predictors related to the various groups, the more discriminating that variable is. Discriminant analysis simultaneously analyzes all of these mean differences and

determines which predictors are most discriminating. The key notion in discriminant analysis is the breaking of the criterion group (variables) into separate identifiable units. This allows for discriminant analysis to better account for discontinuous relationships among the variables.

Discriminant analysis can be used in the same circumstances as multiple regressions. Given a list of potential predictors, one can determine which are the most effective in predicting performance. It provides a discriminant function which includes only those variables that should be used in predicting performance. Unlike regression, tests of significance are provided for each possible variable and the equation as a whole. Probably the biggest advantage of discriminant function over regression is that its measure of predictive ability is in terms of the percent of correct classifications. Given the true grouping of the criteria, one can determine how many predictions produced by the equation are right. This quantity (% of correct classifications) seems much more interpretable than % of variance accounted for in regression.

In this research, discriminant function analysis was conducted to accomplish two tasks: (1) to determine the background factors (predictors) that contributed to the selection of certain learning styles and strategies; and (2) to differentiate between two groups of students with respect to their high or low learning style and strategy scores.

#### **3.4.6. *Validity***

In quantitative research, validity is the ability of an instrument to measure what it is designed to measure. The *SAS* and *SILL* have been correlated with several other instruments for concurrent validity and tested for content validity (Oxford, 2000).

To examine the validity of the newly constructed instrument, *ESFS*, three procedures were obtained: face validity, content validity and construct validity. With regard to face and content validities, The *ESFS* was designed to measure the previous language learning experience of Saudi female students and their socio-cultural characteristics. Each item on the *ESFS* was developed to have a logical link with these objectives. In addition, the items on the *ESFS* cover a broad range of educational and socio-cultural dimensions they are supposed to measure and each dimension has an adequate representation in the items.

Construct validity is a more sophisticated technique for establishing the validity of an instrument because it is based on statistical procedures. It is determined by ascertaining the contribution of each construct or item to the total variance. The contribution of these items to the total variance is an indication of the degree of validity. To determine the internal validity of the ESFS, Pearson product-moment, Gamma, and Cramer's V correlations were used. In general, the contribution of the items in the *ESFS* to the total variance demonstrates that it is a valid measure of the construct and indicates a good interpretability of its scores (Appendix One).

### **3.4.7. Reliability**

In quantitative research, the reliability of a research instrument refers to its ability to produce consistent results each time. A commonly used procedure to describe reliability is Cronbach alpha coefficient. Alpha coefficient values range from 0 to 1; the higher the score, the more reliable the scale. According to Foster (1998), the usually expected reliability coefficient depends upon the kind of test. For tests of cognitive ability, a reliability coefficient of about 0.80 is usually accepted. However, "...tests of personality often have lower values, partly because personality is a broader construct" (Foster, 1998: 203).

Cronbach alpha was used to test the reliability of the three survey instruments. Carson & Longhini (2002) mentioned that overall reliabilities for the dimensions included in the *SAS* using 677 learners of French and Spanish were between 0.76-0.90. The alpha coefficient for the 110 items in the *SAS* using the Arabic translation with 40 Saudi female students was 0.76, and the reliabilities for the five dimensions included in the *SAS* were:

<b>Visual /Auditory /Hands-on</b>	<b>0.73</b>
<b>Extroverted /Introverted</b>	<b>0.77</b>
<b>Intuitive /Concrete-sequential</b>	<b>0.76</b>
<b>Closure-oriented /Open</b>	<b>0.75</b>
<b>Global /Analytic</b>	<b>0.79</b>

Reliability coefficients for the *SILL* ranged from 0.89 to 0.98 in various studies across many cultures (Oxford & Burry-Stock, 1995). Reliability of all the items in the *SILL* was 0.93, using the Arabic translation with a sample of 40 Saudi university students. The reliabilities obtained in this study for the six strategy groups in the *SILL* were:

<b>Memory Strategies</b>	<b>0.87</b>
<b>Cognitive Strategies</b>	<b>0.87</b>
<b>Compensation Strategies</b>	<b>0.90</b>
<b>Metacognitive Strategies</b>	<b>0.87</b>
<b>Affective Strategies</b>	<b>0.89</b>
<b>Social Strategies</b>	<b>0.90</b>

Reliability for the *ESFS* using Cronbach's alpha was 0.84 for the thirty-eight items in part one, and 0.81 for the fifty-one items in part two. The Cronbach alpha reliability obtained for all items in the *ESFS* instrument was 0.87 with forty Saudi female students.

### ***3.5. Stage Two: Qualitative Study***

As discussed before, the purpose of this sequential mixed methods study was to obtain descriptive data from a sample and then follow up with a few participants to explore those results in greater depth. The following description of how stage two was conducted is divided into nine sections: participants, qualitative data collection procedures, focus groups, observations, role of the researcher, developing questions for focus groups, other practicalities of setting, qualitative data analysis procedures, accuracy of the findings.

#### ***3.5.1. Participants***

The focus group sessions took place in the English Language Centre at KFU. The participants were ten students selected from the first stage study population who completed the three questionnaires. They were divided into two groups of five participants each. The selection of participants was determined by the objectives of the study. In the selection, the criteria were that the participants should be willing to express their thoughts and views, and that they represent the target population in terms of type of educational institution and ethnicity.

#### ***3.5.2. Qualitative Data Collection Procedures***

For the purpose of this part of the study, a focus group procedure was thought to be the most appropriate methodological approach. Firstly, the information gathered through the focus group discussions would provide more in-depth qualitative data to inform and deepen the results of the questionnaires. Secondly, different perspectives on the topic of discussion could be obtained, as could the common understandings of the group. Thirdly, the process

of interaction among the participants (and between the participants and moderator), the nature of contribution, and reactions to questions could be observed as the participants engage in the focused discussion. Fourthly, the use of focus groups would allow the group to express freely their needs and views about their language learning and personal development.

### ***3.5.3. Focus Groups***

Focus groups are small structured groups with selected participants brought together to focus a discussion on a particular issue. Patton (2002: 388) believes that “the power of focus groups resides in their being focused.” Krueger (1994: 6) explains that focus groups should be “carefully planned” and designed to obtain perceptions on a specific area of interest in a “permissive, non-threatening environment.” In focus groups, the emphasis is primarily on interaction and dynamics among the group participants themselves. The interaction is initially stimulated by a topic the moderator supplies which develops to an open-ended discussion (Kitzinger, 1994; Morgan and Krueger, 1997).

As a research technique, focus groups was developed and used in advertising and market research as a way of gathering consumers’ reactions and decisions to selected issues (Morgan, 1988; Mertens, 1998). Subsequently, focus groups have been used in other fields, such as in education, health, social movements, and feminist research (Mertens, 1998).

Focus groups can be used as the primary or as a supplementary source of data. As a primary source of data, they are used to explore questions and generate hypotheses at the preliminary stages of a research project; they can also be used at a later stage of the research project, to assess, for example, the effectiveness of a program of activities. Combined with other methods of research, as in this study, focus groups can be used for triangulation between methods, and validity checking of findings, particularly when the topic of investigation is very complex or requires a holistic view (Litoselliti, 2003).

The size of the focus groups is important and depends on the purpose of the study. Typically, the group consists of between six and ten participants, but can range from four to twelve (Litoselliti, 2003). Small groups are more appropriate when the aim of the researcher is to encourage detailed responses or to explore complex, controversial issues, while larger groups are more useful for brainstorming. The number of groups depends on

several factors including the composition of the participants, the location of the groups, the topic and the range of responses required (ibid). Citing Morgan (1988), Berg (2004) asserts that topics of a psychological, cognitive, or deep attitudinal nature seem to be more effectively studied by using focus groups.

The participants in this study had similar demographic characteristics, such as age, sex, religion, ethnicity, and educational level. Therefore, there was little reason to separate them into more than two groups. Although one group would have sufficed to explore in-depth the topics of this research study, Litoselliti (2003) believes that it is too risky to build the whole research project around one focus group. The reason is that the outcome of one group may allow the researcher to make only limited claims about that particular group. There is also the possibility that one group may be low-key, dominated by reluctant participants, or by a dominating group participant, while the other group may be dynamic and exciting.

Focus groups have several advantages compared to other methods of qualitative inquiry, such as one-on-one interview. Like other methods of data collection, they also have potential limitations. Table 3 summarizes some of the main advantages and disadvantages of focus groups, as conceived by Kreuger (1994), Patton (2002), Litoselliti (2003), Berg (2004), and Bell (2006), among many others.

**Table 3: Advantages and Disadvantages of Focus Groups**

Advantages of focus groups	Disadvantages of focus groups
Data collection is cost-effective; the researcher can obtain a number of different views on the same topic from several people instead of from one person.	The number of questions that can be asked in group setting, as well as the available response time for any particular participant is very limited.
Interactions among participants increase the quality of data. The focus group participants get to hear each other and that provides checks and balances on their responses.	Focus group requires a group process skill to be able to deal with false consensus, or a dominating participant.
Focus groups provide rich amount of data and different perspectives on a topic of discussion.	It is very difficult to distinguish between the individual view and the group view, particularly when the individual behaviour is influenced by the group behaviour, and vice versa.
Shared understandings of the group or diversity in views can be easily assessed.	It is difficult to make generalizations based on the focus group information because of the small number of participants, and the difficulty of having a representative sample.



To overcome some of the potential limitations of focus groups outlined in Table 3, several procedures were followed in this study. First, the focus of the topics of discussion were narrowed and made stimulating rather than left complex and unclear. Second, the number of participants was five in each group. This was to allow each participant to contribute in the discussion. Third, the use of probing questions encouraged a balance of contribution among the participants. Although the focus groups may not be representative of the Saudi students' population, illustrations and an in depth exploration of the relationship between the students' backgrounds and learning styles and strategies was the aim of this research study.

#### **3.5.4. Observations**

As a qualitative field method of inquiry, observation refers to “the circumstances of being in or around an on-going social setting for the purpose of making a qualitative analysis of that setting” (Lofland, 1971; cited in Patton, 2002:262). This definition covers various terms used in describing naturalistic field-based observations, including participant observations, fieldwork, field research, and direct observation.

Observation can be structured or unstructured (Bell, 2006). In the latter, the researcher may have a clear idea of the purpose of observation though the details may not be clear. Instead of anticipating the focus and structure of observation, the researcher waits until a pattern emerges and then develops her or his categories from the data. In the former, the researcher decides on the focus rather than allows the focus to emerge. Patton (2002) asserts that observation is a skill that requires both training and preparation. The fieldwork observer needs to be trained to pay attention, to practise writing descriptively, to know how to separate details from trivia, to use rigorous methods to validate observations, and report the strengths and limitations of one's own perspectives. In addition to the training required, an observer needs careful preparation for the task. Careful preparation means to “turn on” concentration, or what Patton calls, ‘The scientific eye’, “The observational senses”, “selective perception” (2002: 261). In this respect, observation involves mental, physical, intellectual, and psychological dimensions.

Field notes provide a description of what has been observed and what is worth noting in a situation. Patton (2002: 303) emphasizes that the observer should use descriptive, concrete, and revealing words that provide sufficient details of the situation instead of “interpretative words” that conceal what actually went on. Field notes may also contain the observer’s own feelings, reactions to the experience, and reflections on what has been observed in the field. There are several ways for recording what has been observed. The selection of a method of recording depends on the purpose of observation. The researcher may make brief notes while observing the interaction and soon after that, write more detailed notes in a narrative form. Another method is the use of categorical recording, in which the observer develops categories to classify the observation. Still another method is the recording of observations on devices, such as video tape, which are later analysed (ibid).

Since both participant observation and focus groups seek to examine group interaction, they share many topics in which either can be used. The decision to select one over the other is affected by several factors: whether observations in a natural setting is more important to the researcher than concentrated interactions in a short time frame, the specific interests, value systems, backgrounds, and training of the researcher, as well as the value placed on the advantages or disadvantages of each method (Berg, 2004). Table 4 illustrates the advantages and disadvantages of observation techniques and the procedures followed in this study.

**Table 4: Advantages and Disadvantages of Observations Techniques and Procedures Followed in the Study**

<b>Advantages of observation</b>	<b>Disadvantages of observation</b>	<b>Procedures followed in the Study</b>
Observation is useful in situations where full or accurate responses cannot be elicited by asking questions.	When individuals become aware that they are being observed, they may change their behaviour.	In this study, observation was made during the focus groups as participants were responding to stimulating activities. The focus of observation was on the process of interaction, the nature of contribution, and reactions to questions.
The observer has the opportunity to see things that may escape other people in the setting.	There is the possibility of incomplete observation as the observer is making field notes and vice versa.	In this study, field notes were made immediately after each focus group session by making brief field-notes while observing the interaction, and then writing more detailed notes after each group session.
Observation can provide a holistic perspective of the context.	Different researchers can observe different things.	
In participant observation, the observer has less need to rely on prior written or verbal conceptualizations of the setting.	If observation is focused, the observer needs to understand the whole cultural systems of the setting.	In this study, my understanding of the cultural systems of the setting stems from being of the same nationality and gender myself as the group being observed.

### ***3.5.5. Role of the Researcher***

Unlike a questionnaire that might be used in a quantitative inquiry to collect data, the researcher is the primary instrument of data collection in qualitative research. As such, a number of strategic, ethical, and personal issues, which are introduced into the qualitative research process, should be carefully thought about before moderating focus groups (Mertens, 1998; Creswell, 2003; Litoselliti, 2003). Litoselliti, (2003: 40-47) lists several factors that are important for the researcher to know if he/she decides to moderate the focus groups. These factors are related to “The topic and composition of the focus groups”, “Methodological factors”, and “The skills required of a good moderator”. First, it is important that the moderator understands the topic of the focus groups and the culture and traditions of the focus group participants. Other considerations in this category are the moderator’s gender, age, race, socioeconomic and professional status. For example, a man will not be the best person to interview women on the topic of marriage. As stated by Litoselliti, a real or perceived power distance between the moderator and the participants may negatively affect the quality of the focus group discussion.

Secondly, it is preferable for the whole series of focus groups to be moderated by the same moderator. This will ensure that the styles are the same, making the analysis of the data easier and reducing the risk of bias. The researcher acting as moderator can also help the control over the critical aspects of the study, such as participant selection, question development and analysis, and increase coherence across the stages of the methodology.

Thirdly, the moderator must have the skills and experience for the task. This means that the moderator should have some familiarity with probing, open-ended questions, focused discussion and group dynamics. A good moderator is a good listener, has the ability to inspire people to talk, and should be able to move from one topic or issue to the next while maintaining the group’s focus and the discussion on track. A good moderator encourages participants to share their views, including controversial ones, and appears “neutral, opinion- free and non-judgmental”, so as not to influence the participants’ position. To put the participants at ease, the moderator should create a, non-threatening atmosphere by providing clear explanations of the purpose of the focus groups and assuring their anonymity and confidentiality. The moderator should also be able to establish an informal, warm, and friendly atmosphere with participants by being perceptive, patient, empathetic,

and genuinely interested in their comments. A good moderator should be confident and in control but also flexible enough to direct the development and progress of the discussion (ibid).

### ***3.5.6. Developing Questions for Focus Groups***

A focus group “is an interview with a small group of people on a specific topic. [It] is, first and foremost, an interview” (Patton, 2002: 385). Patton lists three approaches to the design of the interviews: the ‘informal conversational interview’, ‘the interview guide’, and ‘the standardized open-ended interview’. The first, also called ‘unstructured interviewing’, and ‘ethnographic interviewing’, is the most open-ended approach for interview. It offers flexibility to pursue information as questions emerge from the observation of a particular setting or from talking to one or more individuals in that setting.

The interview guide approach requires specifying in advance the topic or issues to be covered. The wording and sequence of the questions emerge spontaneously in the course of the interview and remain conversational but focused on a particular topic. An interview guide is specifically essential in focus groups because while it keeps the interactions focused, it allows individual perspectives to emerge. The guide also helps make interviewing more comprehensive and makes data collection more systematic. The interview guide can be more or less structured, depending on the researcher’s ability to specify the important topics or issues in advance and the extent to which asking questions in the same sequence to all the respondents is important. This flexibility in wording and sequencing of questions can result in different responses from different perspectives, which can reduce the comparability of responses.

In the standardized open-ended approach, the exact wording of questions is determined in advance and the questions are fully structured and specific. All participants are asked the same questions and probes in the same way and the same order in which they were written. The data collected, however, are open-ended in that the interviewee responds using his or her own words, thoughts and insights to answer the questions.

In principle, these three approaches to interviews share a fundamental component: that of asking open-ended questions within which interviewees can use their own words to express their own understanding. Although these approaches vary in the extent to which the

wording and sequencing of questions are predetermined, these contrasting interview strategies can be combined in any particular study. An example of a combined approach would include the use of an interview guide approach with a standardized open-ended format. In this case, certain questions are specified and asked as they are while other issues are left as topics to be explored by the interviewer at will. This strategy offers the interviewer the flexibility to determine when to explore a certain topic in more depth or to pose new questions that had been overlooked.

Because the number of possible questions and the time available for response is greatly restricted in focus groups (Patton, 2002), it is very important that the questions focus the conversations and keep the discussion on track. The questions must be:

- Clear and brief
- Truly open-ended
- Never dichotomy questions (Yes/No)
- Focused on the purpose of the study
- Of a single dimension
- Understandable to the participants
- Never 'why' questions
- Developed with context in mind

For the purpose of this study, I used a combined interview approach for the focus group discussions. Using a jointly standardized open-ended format and interview guide approach (Semi-structured) helped me to ask some questions as they were, and allowed me to explore in greater depth other topics as they emerged from the discussions. The interview guide that was specifically developed for the purpose of the focus group discussion is found in Appendix Nine.

### ***3.5.7. Other Practicalities***

Prior to the actual focus group sessions, a pilot focus group, of two groups with six participants in each, was conducted. The pilot study was extremely useful in improving the planning and conduct of the actual focus groups. It also provided the opportunity to practice and reflect on the moderating techniques and to include in the actual plan details that had been missed or overlooked. For example, a rethinking of the use of more stimulating activities to encourage discussion on the topic investigated and the degree of structure and flexibility in moderating the group. In general, the pilot focus group helped me to make more informed decisions about the research design.

There were three sessions with each focus group. Each session, devoted to the discussion of a particular topic, lasted approximately 30 minutes. The sessions were conducted during the free time between the students' study sessions and free activity hours. All focus group sessions were audio-taped for the purpose of transcription and analysis. Tape recording was also done in order to increase the accuracy of data collection and permit the researcher to be more attentive to the group discussions. Some researchers recommend video recording, when the research project has an interest in group interaction, or when the research project prioritizes experimental approaches over the ethnographic (Litoselliti, 2003). However, videotaping can be obtrusive and affect participants' spontaneity (ibid), and so was not carried out here.

The focus groups was conducted in Arabic. This was to allow the participants to respond more accurately to the focused questions and to express their views more confidently. The focus group data was transcribed from tapes and translated into English. As a translator and language instructor, I was aware of the difficulty involved in translating one language into another [language]. Patton (2002) recommends that the translator needs to do full and complete translation of responses, as verbatim as possible. However, some words and ideas cannot be directly translated without their cultural overlays that tend to contaminate the participants' actual responses when an attempt at an explanation is made. Such contaminations were eliminated in this study through peer examination, and verification of the translation by a second translator.

### ***3.5.8. Qualitative Data Analysis Procedures***

Qualitative Data Analysis is a process that involves "making sense out of text and image data" (Creswell, 2003: 190). It is an ongoing process of continuous reflection about the data, the writing of memos, and the development of an analysis from the information supplied by the participants. The first step in qualitative data analysis and interpretation is the organization and preparation of the data for analysis. This is done by transcribing interviews, typing up field notes, and arranging the data according to the source of information. The researcher then reads through the data to form a general idea and reflect on the overall meaning. At this stage, the researcher can write general notes or ideas in the margins. The material is then organized and coded into chunks and labelled with terms based on the language of the participants. These codes are used to generate a small number

of themes or categories<sup>4</sup>, which can be stated under separate headings and supported by quotations as evidence. These major themes or categories represent the major findings of qualitative studies (ibid). A final step in data analysis is the researcher's personal interpretation. The interpretation or meaning of the data could be based on the researcher's own experiences, or derived from a comparison of the findings with other findings from the literature.

In this study, the focus group interviews were transcribed and analyzed qualitatively, aided by the above guidelines. Since some of the themes of the interviews emerged from quantitative results, the data collected from the interviews confirmed their importance and enabled the researcher to explore them further.

### ***3.5.9. Accuracy of the Qualitative Findings (Validity and Reliability)***

In qualitative research, validity determines whether the findings are accurate from the standpoint of the researcher, the participant, or the reader of a study. Drawing from Creswell's (2003) points for validating the accuracy of qualitative findings, the procedural perspective of the strategies I used to account for internal validity of the qualitative stage of my research study is outlined in Table 5.

**Table 5: Strategies used to Check the Accuracy of the Qualitative Study**

<b>Strategies to check Validity</b>	<b>Procedure followed in this study</b>
<b>Triangulation</b> "Triangulate different data sources of information by examining evidence from different sources" (Creswell, 2003: 196).	Data were collected through multiple sources of data as discussed before.
<b>Member checking</b> "Use <i>member-checking</i> to determine the accuracy of the qualitative findings through taking the final report or specific description or themes back to participants and determining whether these participants feel that they are accurate" (Creswell: 196).	The printed transcripts for interviews were given to the participants to read and sign to assure the accuracy of the transcription.
<b>Peer debriefing</b> "Use <i>peer debriefing</i> ... This process involves locating a person (a peer debriefer) who reviews and asks questions about the qualitative study so that the account will resonate with people other than the researcher" (Creswell, 203: 196).	A colleague in the department of education served as a peer examiner of the data collected.

<sup>4</sup> Creswell suggests between five to seven categories for a research study.

To account for external validity, the primary strategy is the provision of rich, thick, detailed descriptions so that anyone interested in transferability will have a solid framework for comparison (Merriam, 1998). As for reliability in qualitative inquiries, a general way of looking at it is, “to make as many steps as operational as possible and to conduct research as if someone were always looking over your shoulder” (Yin, 1994:37).

### ***3.6. Summary***

In this chapter, I described the design and methodology used in the present study. The first part discussed the mixed methods approach to research. The sequential explanatory strategy to data collection and analysis was described, and the design of the study was outlined. The second part focused on the methodology of the study. It discussed ethical issues and described the two stages of the research. Stage One addressed quantitative data collection and analysis procedures, and provided a description of the setting, participants, and validity and reliability accounts. Stage Two discussed the qualitative data collection and analysis procedures and described the participants, other practicalities of focus group settings, and the strategies used to check the accuracy of the qualitative findings. The next chapter analyses the collected data that addressed the research questions.



## **Chapter Four**

### **Findings of the Quantitative Stage**

#### ***4.0. Introduction***

This research investigation was a two-staged, mixed methods study aimed at exploring the learning styles and strategies of the students in relation to their educational and sociocultural contexts. Two research questions guided this study. The first research question was to investigate the learning styles and strategies of the students. In investigating this, attempts were also made to examine the relationship between learning styles and strategies. The purpose of the second research question was to examine the relationship between background factors and learning styles and strategies. This chapter is devoted to the description of the results derived from the analysis of quantitative data that was obtained during the first stage of the study. In order to do this, I will organize this description around five aspects:

- The learning styles of the students.
- The language learning strategies of the students.
- The relationship between learning styles and language learning strategies.
- The educational and sociocultural characteristics of the students.
- The relationship between learning styles, strategies, previous learning experience, and sociocultural factors.

Results obtained from descriptive statistics are discussed in this chapter with the aid of tables, figures and graphs to provide measures of mean, standard deviation, percentage and frequency of the different variables under study. Correlational statistics were used to examine the interrelationships between the dimensions of learning styles and the dimensions of learning strategies. Regression analysis was used to predict the effect of learning styles on the selection of language learning strategies. Discriminant analysis was used to determine the background factors that could predict the students' reported learning styles and strategies, and to differentiate between two groups of students with respect to their style and strategy scores.

As maintained in Chapters One and Two, one purpose of examining learning styles and strategies is to know those behavioural patterns that characterize individuals' approaches to learning. Such information can serve as a guide in designing learning experiences that match or mismatch students' learning experiences. For example, if we believe that learning processes develop according to biologically driven cognitive styles, then the goal is to detect these styles in order to modify teaching processes to students' cognitive capacities. If, on the contrary, we believe that learning processes can be developed through teaching-and-learning, then the primary concern should be to construct new forms of teaching-and-learning that can help students to discover aspects of thinking/learning not previously developed. In other words, prior to rethinking with what competencies in terms of knowledge, skills and attitudes students should be equipped, it is necessary to find out what learning approaches and techniques they are using and examine the factors that helped in shaping their learning processes. Instructional priorities should be made on the results of such a preliminary investigation.

#### ***4.1. The Learning Styles of the Students***

The first research question raised in section (2.6) was: "What is the range and variety of language learning styles and strategies of female students, studying English at first-year college level at King Faisal University, in Saudi Arabia?"

The Style Analysis Survey (SAS), developed by Oxford (1993), was adapted and translated into Arabic to collect data on the students' learning styles. As stated in section (3.4.4: i), there are 110 items on the SAS, representing eleven dimensions grouped into five styles: sensory (**visual, hands-on, auditory**), social and affective (**extrovert / introvert**), cognitive and executive (**intuitive-random / concrete-sequential**), behavioural (**closure orientation / open**) and cognitive (**global / analytical**). Each dimension has ten items representing the students' general approach to learning and working. For each item on the SAS, participants circle their immediate response on a four-point Likert scale: 0=never, 1=sometimes, 2=very often, 3=always. The minimum score for each dimension is 0 and the maximum is 30 (Appendix Two).

Table (6) shows the frequency of use of the dimensions of learning styles, as well as their means and standard deviations. As the table shows, the most frequently used learning style was the visual (**mean= 19.25 ± 4.15**). Visual styles have the highest occurrences of the

learning style dimensions on two ratings, ‘very often’ (73%), and ‘always’ (6%). No students reported that they ‘never’ used visual styles. Conversely, auditory learning styles have the lowest mean score of the three sensory styles (**mean= 12.88 ± 3.49**) with most responses in the ‘sometimes’ rating range (76%). No students reported that they ‘always’ used auditory styles. Hands-on styles were moderately used by the students, with most responses in the ‘sometimes’ (53%) and ‘very often’ (45%) rating categories (**mean= 15.16 ± 4.43**).

**Table 6: Frequency, Mean, and Standard Deviation of the Dimensions of Learning Styles**

Dimension of Learning Styles	Categories								Total		Mean	S D
	Never		Sometimes		Very often		Always					
	n	%	n	%	n	%	n	%	n	%		
Visual style	0	(0)	44	(21)	152	(73)	13	(6)	209	(100)	19.25	4.15
Auditory style	3	(1)	159	(76)	47	(22)	0	(0)	209	(100)	12.88	3.49
Hands-on style	1	(0)	110	(53)	95	(45)	3	(1)	209	(100)	15.16	4.43
Extrovert style	5	(2)	100	(48)	100	(48)	4	(2)	209	(100)	15.35	5.16
Introvert style	11	(5)	147	(70)	50	(24)	1	(0)	209	(100)	12.11	4.79
Intuitive style	0	(0)	61	(29)	137	(66)	11	(5)	209	(100)	17.81	4.31
Concrete style	0	(0)	66	(32)	140	(67)	3	(1)	209	(100)	17.22	3.95
Closure style	4	(2)	74	(35)	123	(59)	8	(4)	209	(100)	17.25	5.22
Open style	8	(4)	162	(78)	38	(18)	1	(0)	209	(100)	11.95	3.99
Global style	1	(0)	80	(38)	125	(60)	3	(1)	209	(100)	16.65	3.97
Analytic style	0	(0)	117	(56)	90	(43)	2	(1)	209	(100)	15.31	3.99

Mean scores and standard deviations were also used in the next stage of analysis, aimed at obtaining the level of difference in the use of learning styles. Table 6.1 shows the paired samples *t-test* of Learning Styles. The paired mean difference of visual-auditory styles shows a gain score of **6.37** points for visual styles ( $t(208) = 19.15, p < 0.0001$ ), followed by a gain score of **4.09** points for visual over hands-on styles ( $t(208) = 11.76, p < 0.0001$ ), and a gain score of **2.28** points for hands-on over auditory styles ( $t(208) = 7.09, p < 0.0001$ ). This indicates a stronger preference for visual rather than hands-on or auditory styles among these students.

As for the extrovert/ introvert dimension, the mean scores on Table (6) show that the students are more extroverts than introverts (**mean = 15.35 ± 5.16, and 12.11 ± 4.79,**

respectively). Whereas most introverts' responses were in the 'sometimes' rating (70%), the extroverts' responses were mostly distributed in the 'sometimes and very often' rating (48%). Paired mean difference on Table (6.1) shows a gain score of **3.24** points for extrovert learning styles at a statistically significant level ( $t(208) = 5.49, p < .0001$ ). This indicates a preference among these students for extrovert rather than introvert styles.

Table 6 also shows that Saudi female students do not adhere strictly to either intuitive or concrete learning styles ( $\text{mean} = 17.81 \pm 4.31$  and  $17.22 \pm 3.95$ , respectively). The paired mean difference shows that there is a statistically insignificant gain score of only .59 for intuitive styles, which might indicate that students can switch styles from intuitive to concrete and vice versa,  $t(208) = 1.47, p = .143$  (Table 6.1).

**Table 6.1: Paired Samples t-Test of the Dimensions of Learning Styles**

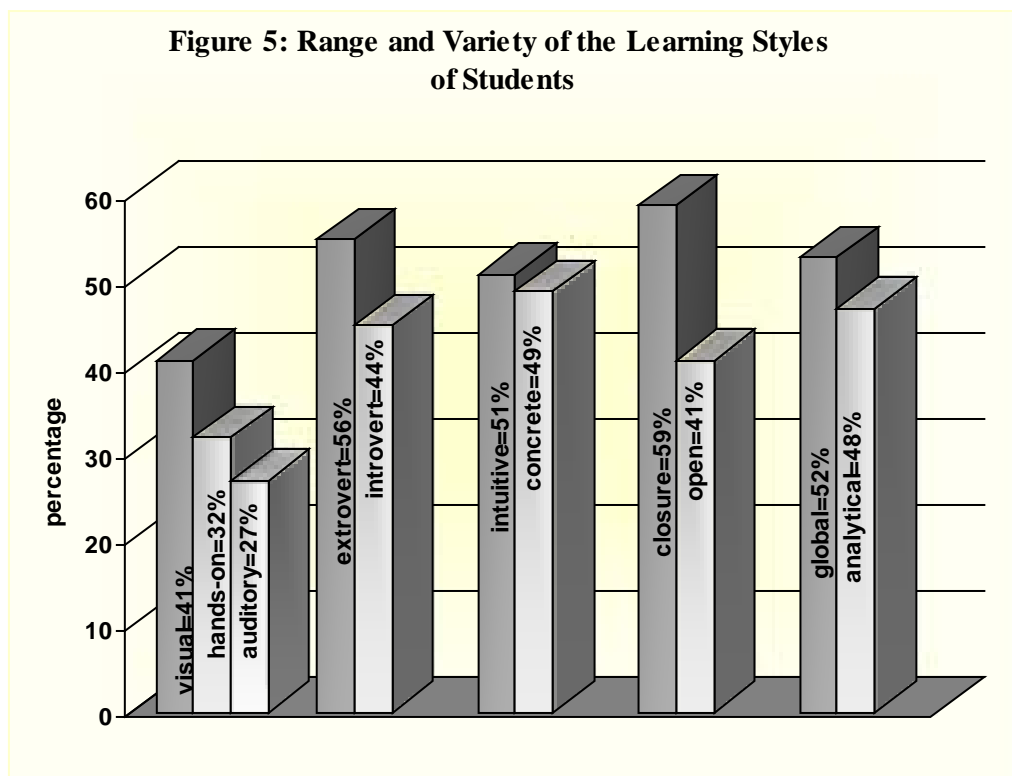
Pairs of Styles		Paired Differences						
					95% Confidence Interval of the Difference			
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	Sig. (2-tailed)
Pair 1	Visual - auditory	6.37	4.81	.33	5.7	7.02	19.15	.0001
Pair 2	Visual - hands on	4.09	5.03	.35	3.40	4.78	11.76	.0001
Pair 3	Hands on -Auditory	2.28	4.64	.32	2.91	1.64	7.09	.0001
Pair 4	Extroverts - introverts	3.24	8.54	.60	2.07	4.40	5.49	.0001
Pair 5	Intuitive - concrete	.59	5.83	.40	-.20	1.39	1.47	.143
Pair 6	Closure- open orientation	5.30	7.46	.52	4.28	6.31	10.27	.0001
Pair 7	Global -analytic	1.34	5.29	.37	.61	2.06	3.65	.0001

Responses on closure orientation styles were mostly in the 'very often' rating category (59%), compared to 18% in the same rating category for open styles. As Table (6) shows, most responses on open styles were in the 'sometimes' category (78%). With a gain score of **5.30** points for closure styles, there was a statistically significant paired mean difference between the use of closure and open styles ( $t(208) = 10.27, p < .0001$ , Table 6.1). The high-paired mean difference of closure-open styles is an indication of a stronger preference among these students for closure than open styles.

Global learning styles were 'very often' used by 60% of the students, compared to 43% users of analytic styles in the same rating category (Table 6). The paired mean difference

between the se two styles shows a gain score of **1.34** points for global styles, at a statistically significant level ( $t(208) = 3.65$   $p < 0001$ , Table 6.1).

The bar graph (Figure 5) of the summaries of the data obtained from the frequency of use of each style dimension revealed the following order of students' preferences in percentages - from the strongest to the weakest: **a closure orientation style (59%), extrovert (56%), global (52%), intuitive (51%), concrete (49%), analytic (48%), introvert (44%), and open (41%)**. Sensory style preferences from the strongest to the weakest were: **visual (41%), hands-on (32%) and auditory (27%)**. The learning style dimensions will be each discussed separately, with a brief definition of each style for easy reference.



#### **A. Sensory Styles: Visual, Hands-on, Auditory**

Visual, hands-on, and auditory styles are referred to as perceptual or sensory styles. As mentioned in section (2.2.3:iii), students employing visual learning styles prefer material in a classroom environment to be presented in a visual format such as books, handouts, video, charts, pictures, and board work. Hands-on students prefer to be physically involved with tasks, tending to prefer activities such as games, conducting experiments, building models and role-play. Auditory students prefer material in a classroom environment that is presented as auditory input such as oral instruction, oral communication and audiotapes.

In this study, the students indicated a stronger preference for visual learning styles than for hands-on or auditory styles. The distribution of students' responses on the learning style items are displayed in Appendix Five. The students used most of the items on visual styles with high frequencies, such as: looking at people to understand what they say (91.5%); underlining the important parts they read (89.9%); remembering something by writing it down (86.3%); and visualizing numbers and words (81.8%). Conversely, many items on the auditory learning styles were either '**sometimes**' or '**never**' used, such as: background sounds help them think (94.3%); listening to music when studying or working (91.9%); and the need for oral directions to complete tasks (64.4%). Hands-on learning styles items were used with moderate frequencies.

### ***B. Dealing with Others: Extrovert / Introvert***

The second dimension of learning styles is extroversion/ introversion. People employing extroverted learning styles like to try things out, focus on the world around, perform most productively in a group, enjoy activities that involve other people and favour social goals as opposed to personal rewards. Students who are extroverts tend to need a stimulus of high intensity and a more varied input to activate their minds. Conversely, people employing introverted learning styles often focus on the inner world of ideas, prefer to work alone or at least with another familiar person, and favour personal rewards as opposed to social goals. They also tend to dislike excessive input, and a single stimulus of low intensity may activate their mental processing.

As reported earlier, 56% of the students in this study indicated their preference for extrovert over introvert learning styles. A closer examination of the students' responses on the introvert dimension (Appendix Five) revealed that 87.5% of the students preferred to study or work alone; tended to be silent in a large group (49.0%); were rather shy (47.4%); and preferred individual hobbies and sports (40.5%). On the extrovert dimension, the styles that were reported as '**sometimes**' or '**never**' used by the students were: the preference to study or work with other students (85.0%); keeping up with personal news about other people (75.3%); staying late at parties (58.7%); developing personal contacts wherever they went (56.3%); and talking to people they didn't know (47.8%).

### ***C. Handling Information (Intuitive/ Concrete)***

Intuitive-random/concrete-sequential is another dimension of learning styles. Students employing intuitive random learning styles are future oriented, prefer a random manner in search of the underlying language system, grasp the general concepts rather than all the details, like to speculate about possibilities, and avoid step-by step instruction. They often make guesses without going through sequential steps of reasoning it out. However, they can be hindered by inaccuracy and missing important information. Conversely, students employing concrete sequential styles are present-oriented, prefer strictly planned sequential classes, and like to adhere to one-step-at-a time activities. If faced with discontinuity, concrete sequential learners tend to feel distressed, preferring to have a clear overview, and focusing on the immediate requirements demanded by instructions.

Figure 5 showed that 51% of the students preferred intuitive styles, and 49% preferred concrete styles. This suggests that the students have a bi-stylistic preference and can switch between these two styles. The frequencies of students' responses on intuitive/concrete style items (Appendix Five) revealed that 51.0% of the students preferred to have everything explained to them rather than discovering them for themselves; 58.2% preferred concrete facts; 64.0% preferred things presented in a step-by-step way; and 73.6% felt that following that procedure did not bore them. These are the styles commonly preferred by concrete learners. However, many students indicated that they felt that it was useful for them to think about the future (91.5 %); (79.8%) liked to think of lots of new ideas, and (76.5%) reported that they liked multiple possibilities and options. Students also indicated that finding hidden meanings was not frustrating to them (68.4 %). These are the styles commonly employed by intuitive learners.

### ***D. Approaching Tasks (Closure Orientation/ Open)***

Orientation to closure, i.e. open vs. closure-orientation to learning, is a dimension that is related to tolerance of ambiguity. Closure-oriented students, sometimes called judging learners, are organized and need lesson directions clearly told. They focus carefully on all learning tasks, and meet deadlines, but suffer from rigidity and intolerance of ambiguity. Open-ended type (or perceiving learners) learn more effectively through negotiation, prefer spontaneous conversations, and enjoy discovery learning in which they pick up information in an unstructured way. They prefer to relax and enjoy learning without concern for

deadlines or rules. Their strong points are flexibility and adaptability to change and to new experiences. However, they may suffer from laziness and inconsistent pacing patterns.

Students in this study showed a stronger preference for closure than open-ended styles. The frequencies of students' responses on the items of these two dimensions (Appendix Five) indicated that they enjoyed a sense of structure (52.2 %), and they didn't feel uncomfortable with a lot of it (58.7%). They preferred to get to places on time (75.3 %), to start tasks on time or earlier (62.3 %), liked deadlines to help them organize their work (87.5 %), and didn't prefer to just let things happen without planning them (79.8 %). The analysis also indicated that the students did not reach decisions quickly (65.2%), but when they did, they rarely felt fine about changing their mind (55.9 %). They also felt that unorganized environments made them nervous (72.4 %). These are usually the learning preferences of closure-orientated students.

#### ***E. Dealing with Ideas (Global/ Analytic)***

The global/analytic dimension arose directly from the earlier idea of a broader contrast between Field Independence and Field Dependence, or the extent to which learners were able to distinguish between truly significant and insignificant background information (Witkin et al, 1962). Students employing a global or field dependent learning style typically prefer to work within the context of the subject under study, think holistically, and are sensitive to group relations, demonstrating greater skills in social behaviour. Conversely, students employing an analytic or field independent learning style typically prefer to work independently, think analytically and prefer to consider facts ahead of ideas. Moreover, field independent students tend to form and rely upon their own points of view and judgments, and prefer learning that emphasizes the details of concepts.

Of the students in this study, 52% reported their preference for global learning styles, and (48%) for analytic styles. The frequencies of students' responses on the global dimension (Appendix Five) showed that six of the ten items were used with relatively high frequencies: the preference to write down only the key points in an outline (62.3 %); seeing the overall plan or big picture rather easily (65.2 %); summarizing information (69.7 %); paraphrasing what others say with ease (70.8%); seeing the main point very quickly (71.7%); and pulling together or synthesizing things easily (78.2%). The frequencies of the



analytic style items revealed that three items were used with relatively high frequencies: looking for differences rather than similarities (55.0 %); using logical analysis to solve problems (76.5 %); and breaking general ideas down into smaller pieces (80.6 %).

#### 4.1.1. Relationship between the Dimensions of Learning Styles

The relationship between the dimensions of learning styles were examined using Pearson's Correlation Coefficients. Table 6.2 shows that most dimensions of learning styles correlated with each other at a low level, with correlation coefficients ( $r$ ) between 0.14 and 0.41. As the table shows, positive correlations were found between visual and other learning styles, the highest was with concrete styles ( $r = 0.34$ ,  $p < 0.0001$ ); but it did not correlate with introvert ( $r = -0.02$ ,  $p < .739$ ), and open styles ( $r = 0.13$ ,  $p < .058$ ). On the other hand, auditory learning styles correlated the highest with intuitive ( $r = 0.37$ ,  $p < 0.0001$ ) and extrovert styles ( $r = 0.35$ ,  $p < 0.0001$ ). No correlation was there between auditory and open orientation ( $r = 0.13$ ) or introvert styles ( $r = -0.09$ ). Hands-on correlated the highest with analytic learning styles ( $r = 0.35$ ,  $p < 0.0001$ ), extrovert ( $r = 0.32$ ,  $p < 0.0001$ ) and open styles ( $r = 0.31$ ,  $p < 0.0001$ ), but it did not correlate with three other learning styles: introvert, concrete, and closure orientation (Table 6.2).

**Table 6.2: Relationship between Dimensions of Learning Styles**

Learning Styles	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1) Visual	1										
(2) Auditory	.22**	1									
(3) Hands-on	.32**	.33**	1								
(4) Extrovert	.25**	.35**	.32**	1							
(5) Introvert	-.02	-.09	-.04	-.47**	1						
(6) Intuitive	.14*	.37**	.30**	.38**	.04	1					
(7) Concrete	.34**	.12	.13	-.02	.09	.01	1				
(8) Closure	.23**	.24**	.09	.17*	-.04	.28**	.22**	1			
(9) Open	.13	.13	.31**	.13	.09	.04	.13	.30**	1		
(10) Global	.30**	.28**	.24**	.30**	.02	.40**	.14*	.22*	.27**	1	
(11) Analytic	.30**	.25**	.35**	.13	.19*	.24**	.41**	.23**	.15*	.12	1

\* Correlation is significant at the 0.05 level.

\*\* Correlation is significant at the 0.001 level

-Negative significant correlations are among opposite pairs of style.

Table (6.2) also shows that extrovert learning styles correlated the highest with intuitive ( $r = 0.38$ ,  $p < 0.0001$ ) and global learning styles ( $r = 0.30$ ,  $p < 0.0001$ ). Introvert styles, on the other hand, had a low correlation with analytic styles ( $r = 0.19$ ,  $p < 0.006$ ); no other correlation was there between introvert and any other learning styles.

Intuitive styles were responsible for some of the highest correlations with other learning styles in this analysis (e.g., with global, extrovert, and auditory). Conversely, concrete styles had the highest correlation with analytic styles ( $r = 0.41$ ,  $p < 0.0001$ ), and with visual styles ( $r = 0.34$ ,  $p < 0.0001$ ), but had some of the lowest correlations or no correlations with other learning styles (Table 6.2).

**Table 6.3: Learning Styles Preferred by Global and Analytic Students**

Global Learning Styles		Analytic Learning Styles	
Open	$r = 0.27$	Introvert	$r = 0.19^*$
Extrovert	$r = 0.30$	Closure	$r = 0.23$
Intuitive	$r = 0.40$	Concrete	$r = 0.41$

*\* $r$  = Pearson Correlation Coefficients*

Table (6.3) groups the various learning styles that positively correlated with each other under two dimensions: global and analytic. As noted in the table, global learning styles correlated the highest with the preference for intuitive learning styles, followed by extrovert and open styles. Conversely, analytic styles correlated the highest with concrete styles, followed by closure and introvert styles. This means that there is a trend for global learners to prefer intuitive, extrovert and open styles, while analytic learners tend to prefer concrete, closure and, to a lesser degree, introvert styles.

Although the correlation coefficients of the dimensions of learning styles were statistically significant, some of these correlations were very low. This is due, in part, to the fact that each style activity measures a distinct set of learning styles, such as sensory, social, affective, executive, and cognitive. It could also mean that these students do not have many strong learning style preferences, as most of their responses had a central tendency. Nevertheless, these results are suggestive of a possible link between certain dimensions of learning styles.

In general, the results on the range and variety of learning styles of the students and the relationships between style dimensions can be concluded in the following points:

- The students showed a stronger preference for visual learning (**mean = 19.25**), than a hands-on (**mean = 15.16**) or an auditory preference (**mean = 12.88**).
- Extrovert styles were reportedly used more than introvert styles (**mean= 15.35 and 12.11**, respectively).
- The students did not adhere strictly to either intuitive or concrete learning styles (**mean= 17.81 and 17.22**, respectively), which might indicate that they could switch between these two styles.
- The students showed a stronger preference for closure than for an open orientation style (**mean = 17.25 and 11.95**, respectively).
- The students showed a preference for global over analytic styles (**mean= 16.65 and 15.31**, respectively).

#### ***4.2. Language Learning Strategies of the Students***

This section will focus on answering the second part of the first research question raised earlier by examining: (1) the range and variety of the language learning strategies of the students, and (2) the relationships between the different groups of learning strategies.

The Strategy Inventory for Language Learning (SILL) developed by Oxford (1990-present) was translated and adapted by the researcher to collect data on the language learning strategies of the students. As indicated previously in section (3.4.4: ii), there are 50 items on the *SILL* organized into six strategy groups which are further divided into subscales. The six strategy groups are: **memorizing, cognitive, compensation, metacognitive, affective, and social** strategies (Appendix Three). Each item is scored from one to five. The frequency of strategy use is classified according to the following key:

<b>Very high strategy use</b>	<b>4.5–5.0</b>
<b>High strategy use</b>	<b>3.5–4.4</b>
<b>Medium strategy use</b>	<b>2.5–3.4</b>
<b>Low strategy use</b>	<b>1.5–2.4</b>
<b>Very low strategy use</b>	<b>1.0–1.4</b>

Table 7 summarizes the data obtained from the *SILL* on the range and variety of language learning strategies of the participants. As noted in the table, the use of language learning strategies among participants is moderate overall, mean= 3.2 out of a possible 5. The most frequently used category of strategies was metacognitive (mean= 3.6), averaged in the ‘high’ used range. This was followed by cognitive (mean= 3.3) and compensation strategies (mean= 3.1), both averaged in the moderate used range. Lower, but still within the moderate used range were memorizing, affective, and social strategies (mean= 3.0).

**Table 7: Mean and Standard Deviation of the Dimensions of Learning Strategies**

<b>Dimensions of Learning Strategies</b>	<b>Mean</b>	<b>SD</b>
Metacognitive	3.6	.79
Cognitive	3.3	.62
Compensation		.
Memorizing	3.0	.69
Social	3.0	.89
Affective	3.0	.85
Overall Strategy mean and SD	3.2	.57

Further analysis indicated that fifteen of the fifty strategies on the *SILL* (30%) were highly used by the students, with mean scores ranging from **3.51** to **4.24**. These comprised of five metacognitive strategies, five cognitive strategies, two compensation strategies, two memory strategies and one affective strategy. Thirty strategies (60%) fell into the medium strategy use category (mean values between **2.51** and **3.48**), and five strategies (10%) had mean values in the low use category (**1.63** to **2.38**). A shortened descriptor of all the *SILL* strategies is listed, in descending order, by their mean values in Table (7.1).

**Table 7.1: The Mean of Learning Strategy Items in Descending Order**

No.	Item description	Mean
<b>Language Learning Strategies Highly Used ( n=15 items)</b>		
33.	I try to find how to be a better learner of English (MC)*	4.24
32.	I pay attention when someone is speaking English (MC)	4.19
38.	I think about my progress in learning English (MC)	4.11
31.	I use my mistakes to help me do better (MC)	4.10
29.	If I can't think of a word I use a synonym (Cs)	4.00
24.	I guess the meaning of unfamiliar words (Cs)	3.88
12.	I practise the sounds of English (C)	3.85
11.	I try to talk like native speakers of English (C)	3.80
40.	I encourage myself to speak even when afraid (A)	3.75
15.	I watch TV shows in English (C )	3.74
13.	I use words I know in different ways (C )	3.65
1.	I think of relationships (M)	3.58
4.	I make mental pictures (M)	3.57
30.	I try to find as many ways as I can to use my English (MC)□	3.52
10.	I say or write new words several times (C)	3.51
<b>Language Learning Strategies Moderately Used ( n=30 items)</b>		
37.	I have clear goals for improving my English (MC)	3.48
2.	I use new words in a sentence (M)	3.41
16.	I read for pleasure in English (C )	3.37
3.	I create images to remember new words (M)	3.35
42.	I notice if I am tense or nervous (A)	3.30
18.	I skim read then read carefully (C )	3.29
21.	I divide words into parts I understand (C )	3.25
9.	I use location to remember new words (M)	3.21
50.	I try to learn the culture of English speakers (S)	3.18
25.	When I can't think of a word I use gestures (CS)	3.18
45.	I ask others to speak slowly or repeat (S)	3.15
8.	I review English lessons often (M)	3.13
19.	I look for words in <i>Arabic</i> that are similar to English ones (C )	3.11
49.	I ask for help from English speakers (S)	3.11
39.	I try to relax when afraid of using English (A)	3.10
20.	I try to find patterns in English (C)	3.10
17.	I write notes, messages, letters, reports in English (C)	3.09
46.	I ask for correction when I talk (S)	3.08
35.	I look for people I can talk to in English (MC)	3.00
28.	I guess what the other person will say next (CS)	2.92
36.	I look for opportunities to read in English (MC)	2.92
22.	I try not to translate word for word (C )	2.93
44.	I talk to someone else about how I feel (A)	2.88
48.	I ask questions in English (S)	2.84
34.	I plan my schedule to have time to study (MC)	2.83
41.	I give myself a reward for doing well (A)	2.80
14.	I start conversations in English (C )	2.67
23.	I make summaries (C )	2.58
7.	I physically act out new words (M)	2.53
47.	I practise English with other students (S)	2.51
<b>Language Learning Strategies Low Used (n= 5 items)</b>		
27.	I read without looking up every new word (CS )	2.38
26.	I make up new words if I do not know the right one (CS)□	2.29
5.	I use rhymes to remember new words (M)	2.23
43.	I write my feelings in a diary (A)	1.89
6.	I use flashcards to remember new words (M)	1.63

\*(MC) = metacognitive, (Cs) = compensation, (C) = cognitive, (A) = affective, (M) = memorizing, (S) = social

The strategies highly used by the students involved actively seeking or creating opportunities to use or practice English functionally. These were: paying attention when someone is speaking English (96%); finding out the way to be a better language learner; evaluating their progress in learning English (92%); noticing English mistakes (93%); using a synonym or similar phrase when the exact English word is not known (92%); making guesses to understand unfamiliar words (91%); practising the sounds of English (89%); using English words in different ways, finding relationships between known and new things they learn in English, and trying to talk like native speakers (84%); encouraging oneself to speak English even when afraid (83%); watching English TV shows (81%); finding as many ways to use English (80%); saying or writing English words several times (77%); and 75% reported making a mental image to remember words, through connecting the sound of a new English word to an image or picture (Table 7.1 and Table 8, Appendix Six).

Among the strategies that were least used by the students was using flash cards to remember new English words, with 84% of the students either rarely or never used that strategy at all. In the same rating category were: writing their feelings in a language dairy, 73%; using rhymes to remember new words (63%); and making up new words when they didn't know the right ones in English (62%), Table (7.1) and (Table 8, Appendix Six).

#### ***4.2.1. Relationship between Dimensions of Learning Strategies***

The relationship between the six dimensions of language learning strategies was examined using Pearson Correlation Coefficient. Results of these correlations are shown in Table (7.2).

**Table 7.2: Relationship between the Dimensions of Learning Strategies**

Dimension of Learning Strategies	(1)	(2)	(3)	(4)	(5)	(6)
(1) Memory	1					
(2) Cognitive	.59**	1				
(3) Compensation	.43**	.51**	1			
(4) Metacognitive	.54**	.68**	.38**	1		
(5) Affective	.43**	.40**	.20**	.56**	1	
(6) Social	.48**	.61**	.40**	.60**	.49**	1
Overall mean score	.75**	.82**	.62**	.83**	.70**	.81**

\*\* Correlation is significant at the 0.01 level.

Statistically significant correlations among strategy subscales ranged from 0.68 (relationship of cognitive and metacognitive strategies) to a low of 0.20 (compensation and affective), with most in the 0.40s and 0.50s. These results show that there is a moderate relationship among pairs of learning strategy subscales. Table 7.2 also shows that the *SILL* overall mean correlated with each strategy group, with correlations of 0.83 (metacognitive), 0.82 (cognitive), 0.81 (social), 0.75 (memory), 0.70 (affective), and 0.62 (compensation). These correlations show that all subscales are related to the total *SILL* in a moderate way.

It should be noted that there is a considerable overlap among the learning strategy subscales. In addition, each strategy group contributed to the *SILL* overall mean score, and was not partialled out to control for the variable that contributed to the total score of learning strategies. This makes one cautious about reporting these results in a way that is any more than tentative (see limitations of the study).

#### ***4.3. Relationship between Learning Styles and Strategies***

In investigating the range and variety of learning styles and strategies of the students, it was essential that the analysis should extend to explore the relationship between styles and strategies and evaluate their influence. This required the use of a statistical procedure that estimates the linear equation of several independent factors that could predict the value of the dependent factor. A statistical procedure that is designed to achieve this objective is Multiple Linear Regression. Stepwise regression procedure was appropriate for this exploratory analysis to specify the set of independent variables that may have potential values in predicting the dependent variable. Stepwise multiple regression analyses were performed by entering the learning styles as the independent variables and learning strategies as dependent variables.

The results of the regression analyses show that statistically significant, predictive relationships were obtained for all six dimensions of learning strategies. Of the eleven dimensions of learning styles, only seven contributed to these relationships. These **were visual, auditory, hands-on, extrovert, intuitive, closure, and concrete** learning styles. The analysis also showed the leaning styles that did not interact with the language learning strategies of students; these were: **global, open, introvert and analytic** styles. The **t-tests** for these variables had statistically insignificant predictive capability ( $p > 0.05$ ), and hence

were not included in the analysis. Only *t* values with a statistically significant level ( $< 0.05$ ) will be reported here. For each regression, the model fit (ANOVA) was examined to see the p-value of the F-test. With a p-value of zero to three decimal places, the six models were statistically significant (Appendix 11). This means that in each model the independent variables were able to predict the dependent variable.

The results from multiple regressions are shown in Tables (9.1-9.6). For each model, the effect of **B** and **Beta** is reported, as well as the *t-test* and statistical significance. In addition, the 95% confidence interval for each regression coefficient is reported. Summary of the statistics of the six regression models is shown in Table (9). For each model, multiple R,  $R^2$  ; and adjusted  $R^2$  ; , are presented. Tests of normality were also applied to examine the distribution of the residuals around each dependent variable score (Table 9.7).

**Table 9: Summary of the Regression Models**

Model	R	$R^2$ ;	Adjusted $R^2$ ;
1- Memory strategies	.39	.16	.14
2- Cognitive strategies	.45	.20	.20
3- Metacognitive strategies	.43	.19	.18
4- Compensation strategies	.36	.13	.12
5- Affective strategies	.46	.21	.20
6- Social strategies	.42	.18	.17

Table (9.1.) shows that three styles predicted memorizing strategies. These are: intuitive (**B= .366**, **p= .001**), visual (**B= .285**, **p= .01**) and closure orientation styles (**B= .222**, **p= .015**). The correlation between the observed and model- predicted values of the dependent variable was,  $r= .39$ . The squared value of the multiple correlation coefficient was,  $R^2$  ; = **.16**, meaning that only 16% of the variance of memory strategies is accounted for by the variables in the model. The **adjusted  $R^2$  ;** indicates that the model accounts for **14%** of the variability of memory strategies, after taking into account the number of predictor variables in the model (Table 9).



**Table 9.1: Regression Model to Predict Memorizing Strategies from Learning Styles**

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	1.379	.269		5.122	.000	.848	1.910
Intuitive	.366	.107	.228	3.407	.001	.154	.578
Visual	.285	.110	.171	2.588	.010	.068	.502
Closure	.222	.090	.168	2.461	.015	.044	.400

In the second regression model (Table 9.2), two learning styles predicted cognitive strategies. These are intuitive (**B= .499**) and closure orientation styles (**B= .245**). The *t-test* for these two predictors is statistically significant (**p < .0001**, and **p < .002**, respectively). The model summary (Table 9) shows that there is a correlation between the predicted and observed values (**r= .45**). The amount of variability that is fitted by the model is **.20**, which means that 20% of the variability of cognitive strategies is accounted for by the two variables in the model.

**Table 9.2: Regression Model to Predict Cognitive Strategies from Learning Styles**

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	1.970	.185		10.662	.000	1.606	2.334
Intuitive	.499	.093	.348	5.385	.000	.316	.682
Closure	.245	.076	.207	3.198	.002	.094	.395

The third regression model (Table 9.3) shows that two learning styles predicted metacognitive strategies: closure (**B= .422**) and intuitive styles (**B= .483**). The *t-test* for these two predictors is statistically significant (**p< .0001**). The model summary (Table 9) shows that there is a correlation between the predicted and observed values (**r= .43**). The fraction of the variability in the response that is fitted by the model is, **R<sup>2</sup> ; = .19** for metacognitive strategies, which means that 19% of the variability of metacognitive strategies is accounted for by intuitive and closure learning styles. As Tables (9.2 and 9.3) show, the higher the preference for closure styles, the more likely the students will select metacognitive strategies; the higher the preference for intuitive styles the more likely they

will use cognitive strategies.

**Table 9.3: Regression Model to Predict Metacognitive Strategies from Learning Styles**

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	2.015	.239		8.426	.000	1.544	2.487
Closure	.422	.099	.279	4.263	.000	.227	.617
Intuitive	.483	.120	.263	4.029	.000	.247	.720

The fourth regression model (Table 9.4) shows that three learning styles predicted compensation strategies: intuitive (**B= .309**), auditory (**B=.300**), and hands-on styles (**B= .220**). The *t-test* for these three predictors is statistically significant (**p= .008**, **p= .038**, and **p= .046**, respectively). The model summary in Table (9) shows that there is a correlation between the predicted and observed values (**r= .36**). The amount of variability in the response that is fitted by the model was very low (**R<sup>2</sup> ; = .13**), which means that only 13% of the variability of compensation strategies are accounted for by intuitive, auditory and hands-on styles.

**Table 9.4: Regression Model to Predict Compensation Strategies from Learning Styles**

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	1.844	.232		7.939	.000	1.386	2.302
Intuitive	.309	.114	.193	2.699	.008	.083	.534
Auditory	.300	.143	.151	2.092	.038	.017	.582
Hands-on	.220	.110	.141	2.006	.046	.004	.437

In the fifth regression model (Table 9.5), three styles are shown to predict affective strategies: concrete styles (**B= .583**, **p = .0001**), closure styles (**B= .375**, **p= .001**) and intuitive styles (**B= .366**, **p= .004**). Table (9) shows that the correlation between the predicted and observed values is, **.46**. The **R<sup>2</sup> ;** is **.21**, meaning that 21% of the variability of affective strategies is accounted for by the three learning styles in the model.

**Table 9.5: Regression Model to Predict Affective Strategies from Learning Styles**

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	.661	.327		2.020	.045	.016	1.305
Concrete	.583	.137	.271	4.255	.000	.313	.853
Closure	.375	.108	.230	3.477	.001	.162	.587
Intuitive	.366	.127	.186	2.877	.004	.115	.617

In the sixth regression model (Table 9.6), three predictors are shown to be associated with social strategies: extrovert (**B= .375**), closure (**B= .356**), and intuitive learning styles (**B= .332**). The effect of these three predictors is statistically significant. The model summary (Table 9) shows that there is a correlation between the predicted and observed values ( $r= .42$ ). The  $R^2$  ; = **.18**, which means that 18% of the variability of social strategies is accounted for by the variables in the model.

**Table 9.6: Regression Model to Predict Social Strategies from Learning Styles**

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	1.200	.281		4.269	.000	.646	1.755
Extrovert	.375	.118	.218	3.172	.002	.142	.607
Closure	.356	.112	.209	3.172	.002	.135	.578
Intuitive	.332	.145	.161	2.293	.023	.047	.618

To assure normality of the residual distribution around dependent variable scores, two tests were performed: the Kolmogorov-Smirnov test (with Lilliefors correction) and the Shapiro-Wilks test. The null hypothesis of the normality test is that there is no significant departure from normality. If the null hypothesis is rejected, the data are non-normal. When the p value of the test is more than .05, it fails to reject the null hypothesis and thus the assumption holds. Table 9.7 shows the results of the normality tests.

**Table 9.7: Tests of Normality**

Regression Models	Kolmogorov-Smirnov(a)			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Model 1: Memory strategies	.063	209	.041	.993	209	.414
Model 2: Cognitive strategies	.055	209	.200	.988	209	.074
Model 3: Metacognitive strategies	.058	209	.080	.989	209	.121
Model 4: Compensation strategies	.042	209	.200	.996	209	.866
Model 5: Affective strategies	.042	209	.200	.993	209	.446
Model 6: Social strategies	.052	209	.200	.991	209	.221

From these normality tests, it could be concluded that the residuals appear to be normally distributed around each dependent variable score. The significance of the Kolmogorov-Smirnov test for Model 1, however, appears to violate the normality test (**p= .041**). This means that the distribution of the residual is not normally distributed around memory strategies. It should be noted, however, that statistical tests depend on sample size, and as sample size increases, the tests will often reject innocuous assumptions.

In general, the results of the regression analysis can be concluded in the following points:

1. The main predictors influencing the selection of language learning strategies among the students surveyed were intuitive and closure styles.
2. The use of any language learning strategy among these students was the result of the interaction of two or more learning styles:
  - 2.1. Intuitive learners who prefer visual and closure learning styles are likely to use memory strategies.
  - 2.2. A high preference for closure styles is likely to predict the selection of metacognitive strategies, while a high preference for intuitive styles could predict the selection of cognitive strategies.
  - 2.3. Students who reject closure styles and prefer intuition and multiple sensory styles (hands-on and auditory) are likely to use compensation strategies.

2.4. Concrete learners who prefer closure and intuitive styles are likely to use affective strategies.

2.5. Extrovert learners with a preference for closure and intuitive learning styles are likely to use social strategies.

From the results of the regression analysis, it could be concluded that some learning styles have statistically significant predictive capabilities of learning strategies. However, the amount of variance in the response that is fitted by each model is very small to build large theoretical claims about an association between learning styles and learning strategies. Nevertheless, these results appear to be meaningful and should, therefore, be looked at as suggestive of a possible relationship between styles and strategies and a means for potential strategies for further study.

#### ***4.4. Educational and Sociocultural Factors***

As stated earlier, this research is concerned with the identification of the influence of educational and sociocultural factors on the learning styles and strategies of Saudi female students. The underlying premise is that if the learning styles and strategies of the students were influenced by their background factors, the students would adopt a learning approach that is functional in their particular learning environment. If this is proven to be true, the educational system in Saudi Arabia would need to modify its practices in order to develop pedagogies suitable for more learning and cognitive development to happen. Therefore, a crucial first step would be the identification of the factors that might limit the range and variety of the learning styles and strategies of the students.

Anticipating the types of background factors that might influence the learning processes of the students, an Educational and Socio-cultural Factors Survey (ESFS) was specifically developed by the researcher to elicit relevant information. The preliminary statistical analyses, i.e., frequencies and percentages, of these background factors are presented in this section under two headings: previous learning experience, and sociocultural characteristics of the family.

##### ***4.4.1. Previous Learning Experience***

Previous learning experience refers to the cumulative effect of formal and informal

knowledge or skill gained earlier by the students. In this research, previous learning experience of the students in learning English were measured by the following dimensions:

- Type of previous learning institution.
- Level of previous academic achievement in English.
- Styles that were used to teach English in middle and high schools.
- Methods that were used to teach English in middle and high schools.
- Study styles the students used for preparing for English examinations.
- Difficulties the student faced during their learning of English.
- Motivation to learn English
- Types of self-supporting activities the student used in the past to learn English.

#### • **Type of Previous Learning Institution and Academic Achievement in English**

In this research study, 167 (or 79.9%) of the students came from public (or government) schools where they studied English for six years, while 42 (20.1%) of the students studied English for twelve years in private schools. At the end of high school, students in both government and private schools, nationwide, are required to take the same English examination. As maintained in Chapter One (Section 1.4.2), English examinations are restricted to two skills, reading comprehension and writing. These examinations are prepared annually by an exam board and scrutinized by the Ministry of Education to ensure that they conform to a standard of English set by the Ministry. A Crosstabulation table was applied to examine whether the students' previous achievement in English was related to the type of learning institution previously attended. The results are shown in Table (10).

**Table 10: Crosstabulation of Type of Learning Institution and Level of Academic Achievement in English**

Level of Academic Achievement in English	Type of Institution				Total			
	Public school		Private School					
	n	(%)	Adjusted Residual	n	(%)	Adjusted Residual	n	(%)
Poor	3	(1.4)	.9	0	(.0)	-.9	3	(1.4)
Good	7	(3.3)	.5	1	(0.5)	-.5	8	(3.8)
Very good	33	(15.8)	2.3	2	(1.0)	-2.3	35	(16.7)
Excellent	124	(59.3)	-2.6	39	(18.7)	2.6	163	(78.0)
Total	167	(79.9)	-	42	(20.1)	-	209	(100.0)

As shown, the majority of the students from both public and private schools reported that their academic achievement in their previous learning of English was excellent, followed by very good, good and poor. Chi-square test was carried out to test whether there was a difference in achievement between private and public school attendants. The results are shown in Table (10.1).

#### **10.1: Measures of Association between Type of Learning Institution and Level of Academic Achievement in English**

	Value	df	Asymp. Sig. (2-sided)
<b>Pearson Chi-Square</b>	7.040	3	.071
<b>Likelihood Ratio</b>	8.986	3	.029
<b>Linear-by-Linear Association</b>	5.241	1	.022
<b>N = 209</b>			

The Pearson Chi-squared value of 7.040 on 3 degrees of freedom indicates that there is no relationship between achievement level in English and the type of learning institution previously attended for these students.

- **Teaching Styles and Methods that were used to Teach English**

On the teaching styles that were used to teach English in the middle and high schools, 66.1% of the students reported that the teachers used explanations and question/answer teaching style, and 50.6% indicated that the teachers concentrated on the students' participation in reading and in writing. The least used teaching style was allowing students to interact with each other and practise the new language, with 68.8% of the students reporting that teachers either rarely or never allowed them to do so. On the teaching methods commonly used to teach English, 89.9% of the students reported that the teachers used the blackboard, and 58.3 % indicated that the teachers also used demonstrations and models. Using language laboratories was the least used teaching method, with 90.4% of the students reporting that the teachers either rarely or never used it at all (Appendix Seven: Table 1).

- **Study Styles the Students used for Preparing for English Examinations**

On the styles the students used to study for English examinations, 82.6% of the students reported that they relied on the teacher's explanation and examples in class, 71.0 % of the students sought help from a friend or relative, and 53.3% avoided getting help from a private tutor. Memorizing information from the textbook was another study style for English examination that was used by 52.5% of the students (Appendix Seven: Table 2).

- **The Difficulties the Students Faced during their Learning of English**

Among the difficulties the students faced during their learning of English, availability and use of language laboratories were the most encountered, with 76.9 % of the students' responses in the 'poor' and 'not satisfactory' rating. Other difficulties noted by the students in the same rating categories included the suitability of the textbooks (40.2 %); availability of teaching aids (33.2 %); and the suitability of the teacher's teaching style (25.6%), as shown in Appendix Seven (Table 3).

- **Motivation to Learn English**

The distribution of students' responses on the source of motivation for learning English revealed that their main motivation to learn English was to be able to communicate fluently with English speakers. This was observed in 96.1% of the students. Finding a job was another source of motivation to improve English among 50.6 % of the students. Other types of motivation to learn English, such as to get admission to college or to pass an exam were used with very low frequencies (Appendix Seven: Table 4).

- **Types of Self-supporting Activities the Student used to Learn English**

Among the self-supporting activities the students had used in the past to learn English, watching news and TV programs in English was a common activity in 73.0% of the students. This was followed by tutoring by a family member (50.2 %); speaking English with a friend (36.4 %); using English when on the internet (35.9%); and travel to an English speaking country (25.1 %). Among the less popular self-supporting activities to learn English were: courses in English outside Saudi Arabia; private tutoring; using videotapes and audiotapes to learn English; and having a house helper who speaks English (Appendix Seven: Table 5).



#### 4.4.2. Sociocultural Characteristics

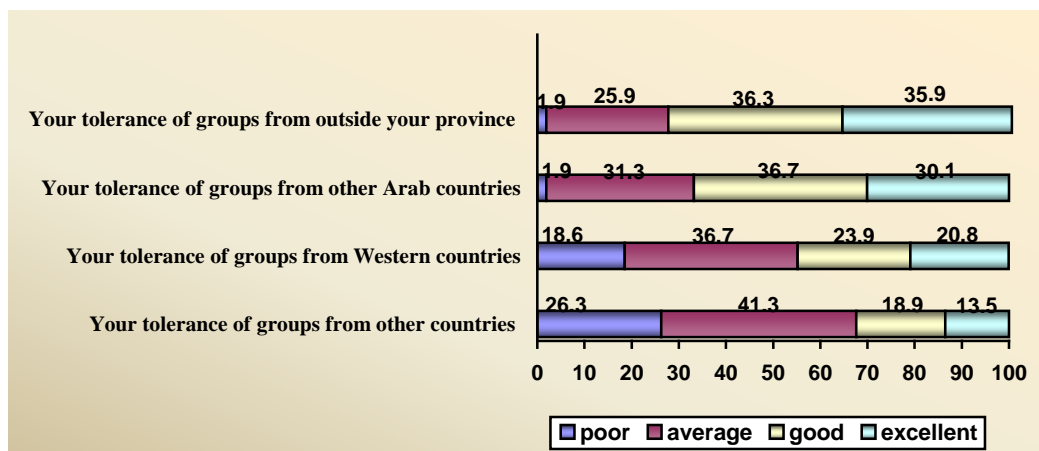
- **Family Ethnicity and Openness to Other Ethnic Groups**

This dimension includes four subcategories: family ethnicity, parents' origin, tolerance of other ethnic groups, and family entertainment. The frequencies of students' responses on their ethnicity and openness to others revealed that the maintenance of social relations and support with other families that shared similar ethnic characteristics to theirs was considered very/important to 73.7 % of the students. To live in the same neighbourhood where other relatives live was very/important to 35.1 % of the students, while 24% of the students reported the importance of marriage to be between their families and other families with similar ethnic characteristics (Appendix Seven: Table 6).

On their ethnicity, most students reported that their parents were Saudis. Some parents were of other Arab or Asian origin. The mothers of 1.5% of the students were Westerners. No fathers were reported to be of Western origin (Table 2; Section 3.4.2).

The students' responses of their tolerance of other ethnic groups are shown in Figure (6). Tolerance of groups from other countries was reported either poor or average by 67.6% of the students. Groups from Western countries were poorly or averagely tolerated by 55.3 % of the students. In contrast, there was good and excellent tolerance of groups from other Arab countries (66.8%), and groups from outside the student's province (72.2 %).

**Figure 6: Students' Responses of their Tolerance of Other Ethnic Groups in Percentage**



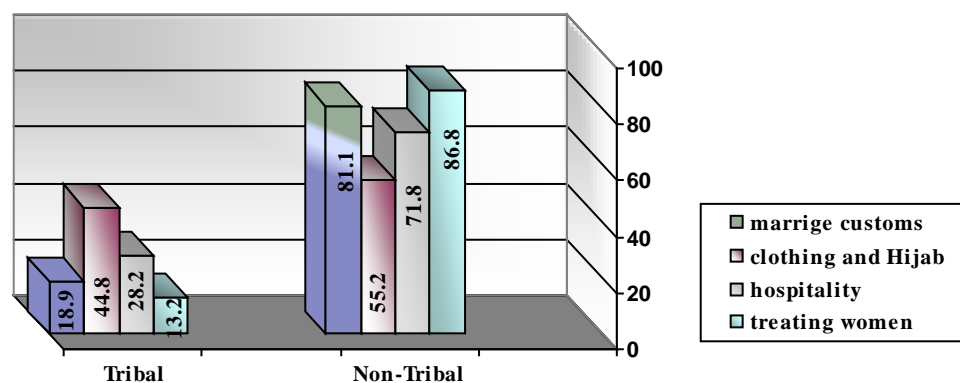
The analysis of students' responses on entertainment in the family revealed that the most common activity was shopping and dining with the family (62.5 %), followed by visiting

relatives and friends (58.6 %) and going out on picnics (39.4 %). The least common activity was doing outdoor-sports with the family, which 86.1% of the students either rarely or never did (Appendix Seven: Table 7).

- **Cultural and Religious Characteristics of the Family**

This dimension includes two subcategories: family traditions and customs, and religious conformity. Distribution of students' responses on the family's customs and traditions are shown in Figure (7). Non-tribal customs and traditions were more common in the way women are treated in the family (86.8%), marriage customs (81.1%), hospitality (71.8%), and clothing and hijab (55.2%).

**Figure 7: Family's Customs and Traditions in Percentage**



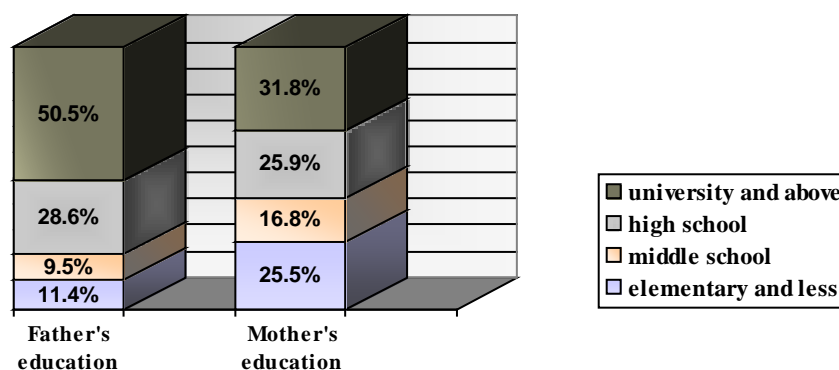
As for religious conformity, 96.9% of the students reported that they performed the five daily prayers on time; 78.4 % responded well to moral advice; 31.3% reported that they did the supererogatory fasting, and only 24.3% of the students reported that they performed the supererogatory prayers either always or most of the time (Appendix Seven: Table 8).

- **Socioeconomic Status of the Family**

The level of parents' education is reported in Figure (8). Father's level of education for 50.5% of the students was university and above, followed by high school (28.6%), elementary and less (11.4%), and middle school (9.5%). Mother's level of education was university and above for 31.8% of the students, followed by high school (25.9%),

elementary or less (25.5%), and middle school (16.8%).

**Figure 8: The Level of Parents' Education in Percentage**



The socioeconomic level of students includes the level of father's job, monthly income, the standard of accommodation, and the standard of neighbourhood. Generally, the socioeconomic status of the students is overall high or very high (Appendix Seven: Table 9).

#### • The Structure of the Family

The order of the students among siblings in the family indicated that the order of most students is first or second (Appendix Six: Table 10). The students' responses on their status in the family shows that 79.2% of the students reported that an older sister is rarely or never more appreciated than a younger brother in the family. Fifty nine percent of the students also reported that fathers rarely or never preferred female offspring, and 64.9 % indicated that a mother's preference for female offspring was rare or never at all (Appendix Seven: Table 11).

The distribution of students' responses on the decisions they are allowed to make about their education, future life, spending money and travel (Appendix Six: Table 12) shows that most students reported that they could make decisions about their college education and the field of study of their choice (96.9%). They could also make their own decisions about work and marriage (94.6%), and to a lesser degree, make decisions concerning spending money and travel (61.0%).

- **Family Conventions (Reward and Punishment)**

Family conventions can be exemplified in the way parents display authority and direct how they want other members in the family to model or respond to behaviour through encouragement and discouragement. The distribution of students' responses on the kind of reward and punishment they receive from members of their family (Appendix Seven: Table 13) shows that more respect and consultation in family matters was a common reward to 76.1% of the students by most members of their family or all of them. This is followed by verbal praise and encouragement (70.2%), and material rewards (50.9%). On the punishment dimension, 45.5% of the students indicated that some members of the family rebuked them; 18.5% indicated that they were denied material reward as a form of punishment, and 10.4% revealed being subjected to physical punishment by some members of the family.

- **Social Orientation (Acceptance of Social Conventions)**

Acceptance of social conventions can be identified by the degree of satisfaction people have about themselves and their present social circumstances; about the way they think other people in their society perceive them; and optimism about the future. Table 11 shows the student's responses to the degree of their acceptance of social conventions. Eighty six percent of the students indicated that they were optimistic about the future, either always or most of the time. In the same rating categories, 73.4% of the students reported that they were satisfied about themselves and their present social circumstances, and 66% indicated their satisfaction with the way others in their society perceived them.

**Table 11: Acceptance of Social Conventions in percentage**

	Categories*			
	0	1	2	3
80. I am satisfied with myself and my present social circumstances	1.9	24.7	50.2	23.2
81. I am satisfied with the way other people in my society perceive me	2.3	31.7	47.1	18.9
82. I am optimistic about the future	1.9	12.1	35.9	50.1

\* 0=no, 1= sometimes, 2= most of the time, 3= always

Acceptance of social conventions can also be identified through the way family members relate to one another. The analysis of the degree of the relationship between the student and other members in her family (Appendix Seven: Table 14) revealed that 95.0% of the

students reported having good or excellent relationship with their sisters, followed by good or excellent relation with the mother 92.7%, with the father (89.5%), and with the brothers (84.1%).

- **Styles of Interaction in the Family**

Styles of interaction refer to conversational rules, conventions for displaying respect, questioning, and other patterns of social interaction in the family. Three common styles of interaction were investigated: acceptance and cooperation with what one is told, debating things and discussing them, and being courteous through using religious and affectionate expressions. The analysis revealed that 76.0 % of the students reported that they debated and discussed things with most members of their family or all of them. Acceptance and cooperating with what one is told was the least used style among the students, with 91.2% of the students either used it with some members of the family or never used it at all. Using affectionate and religious expressions with the family was also less commonly used by 52.9% of the students (Appendix Seven: Table 15).

#### ***4.5. Relationship between the Research Variables***

The Second Research Question raised earlier in section (2.6) was: “What is the relationship between the learning styles, language learning strategies, previous learning experience, and sociocultural factors of female students, studying English at first-year college level at KFU, in Saudi Arabia?”

To answer this Question, discriminant function analysis was conducted to accomplish two tasks: (1) to determine the background factors that contributed to the selection of certain learning styles and strategies; and (2) to differentiate between two groups of students with respect to their learning style and strategy scores. In this multivariate procedure, the number of predictors (previous learning and sociocultural factors) was reduced by using stepwise discriminant analysis. The procedure selected the variables with the highest predictive value and then calculated the *p*-values which described the additional predictive power for the remaining variables. The variable that provided the highest amount of contribution to the model was added to the list of predictors. This procedure was continued until none of the remaining factors added significantly to the model as defined by the list of

predictors. Discriminant analysis also formed linear combinations of the predictors which were used to classify cases into two groups depending on the high or low use of learning styles and strategies.

Stepwise discriminant analysis technique was more appropriate to answer the second research question than commonly used educational measures, such as, regression, correlation weights, etc., for its ability to identify the factors that were predictive of learning styles and strategies. Moreover, the advantage of discriminant function is that its measure of predictive ability is in terms of the percent of correct classifications of group membership. Before the analysis was performed, grouping dependent variables were given codes (low and high) and the minimum and maximum values were specified. Cross validation was also obtained for those cases in the analysis by a 'leave-one-out' classification, in which each case is classified by the functions derived from all cases other than that case.

#### ***4.5.1. Results of Discriminant Analyses and Learning Styles***

The first part of the Second Research Question raised earlier was to identify the relationship between learning styles, previous learning experience and socio-cultural factors of the students. The results of the discriminant analysis revealed that statistically significant, predictive relationships were obtained for eight of the eleven dimensions of learning styles: visual, hands-on, extrovert, introvert, intuitive-random, closure orientation, open and global. The 'leave-one-out' classification function which was produced was 62.4% - 82.4% accurate in placing the respondents into two groups based on their low or high use of learning styles. This accuracy was reflected by the Wilk's Lambda values ( $\Lambda$ ), chi-square values ( $\chi^2$ ), canonical correlations, and p-values, for each correlation. The results from the discriminant function analyses are displayed in Table (12). Table (12.1) shows the test functions for predicting learning styles. Specifically, the eight predictive relationships are:

**Visual Learning Styles.** Based on the canonical coefficients in Table (12), three discriminators predicted the **high use** of visual strategies. The best discriminator was reliance on private tutoring ( $r = .70$ ); the second was reliance on the teacher's explanation and examples ( $r = .57$ ); and the third was the teacher's limited use of language laboratories ( $r = .52$ ). The coefficients for these three predictors were slightly higher for the **high use**

classification function of visual styles. This means that these factors are likely to predict the high use of visual styles. The overall Wilk's Lambda value for the three predictors was statistically significant ( $\Lambda = 0.91$ ,  $\chi^2 = 19.44$ ,  $p < .0001$ , Table 12.1); **78.2%** of cross-validated, grouped cases were correctly classified.

**Table 12: Canonical Coefficients and Classification Results of the Discriminant Analyses of Learning Styles**

	Standard Canonical Coefficients	Classification Function Coefficients	
		Low use	High use
<b>Visual styles (Constant)</b>		<b>-4.46</b>	<b>-4.531</b>
Private tutoring (study styles)	.70	.47	1.27
Reliance on the teacher's explanations and examples (study styles)	.57	2.87	3.38
The teacher's limited use of language labs	.52	.13	.60
<b>Hands-on styles (Constant)</b>		<b>-5.64</b>	<b>-6.908</b>
Avoiding private tutoring (study styles)	.66	.90	1.28
Reward in the family	.63	2.70	3.25
Course(s) in English outside Saudi Arabia	.48	-.38	.12
Tolerance of other ethnic groups	-.44	2.30	1.91
<b>Extrovert styles (Constant)</b>		<b>-9.61</b>	<b>-11.95</b>
Speaking English with a friend	.61	.06	.78
The teacher's limited use of language labs	.44	-1.24	-.65
Tolerance of other ethnic groups	.43	1.02	1.69
Styles of interaction in the family	-.43	3.11	2.20
The teacher allowed students to interact in the class	-.35	1.22	.79
Acceptance of social conventions	.35	5.09	5.79
Mother's education	.32	.73	1.04
<b>Introvert styles (Constant)</b>		<b>-8.29</b>	<b>-7.25</b>
Tolerance of other ethnic groups	.72	3.22	2.66
Punishment in the family	.70	4.49	3.93
<b>Intuitive styles (Constant)</b>		<b>-15.27</b>	<b>-16.75</b>
Acceptance of social conventions	.72	2.87	4.31
Relationship with family members	-.44	7.96	7.05
Speaking English with a friend	.38	.26	.69
Getting help from a friend or a relative (study styles)	.38	.80	1.17
styles of interaction in the family	.36	1.22	1.98
<b>Closure styles (Constant)</b>		<b>-15.77</b>	<b>-16.91</b>
Acceptance of social conventions	.60	5.05	5.95
Limited use of audio-tapes to learn English	.50	1.09	1.72
The teacher's use of the blackboard	-.43	5.35	4.83
Punishment in the family	.41	2.86	3.32
<b>Open Styles (Constant)</b>		<b>-4.44</b>	<b>-2.27</b>
Course(s) in English outside Saudi Arabia	.70	.13	.85
Availability and use of Language Labs□	.55	.51	.85
Father's origin	-.62	1.04	-.13
<b>Global styles (Constant)</b>		<b>-28.48</b>	<b>-31.64</b>

Acceptance of social conventions	.69	4.50	5.70
The order of the students among siblings	.48	2.11	2.50
Level of English in the middle school	.42	9.26	10.02
Reliance on private tutoring	.42	1.71	2.31
Religious conformity	-.56	4.76	3.73
Entertainment in the family	.34	2.30	2.97
Family as an ethnic group	-.39	3.83	3.30

**Hands-on Learning Styles.** As Table (12) shows, three positive predictors contributed to the **high use** of hands-on styles. The classification coefficients for these three predictors was greater for the **high use** classification function of hands-on styles, which means that study styles for English where the students avoid relying on private tutoring, as well as reward in the family, and taking courses of English outside Saudi Arabia are likely to predict the high use of hands-on styles. The results also shows that less tolerance of other ethnic groups is likely to predict the **low use** of hands-on styles. The overall Wilk's Lambda value for the four discriminating factors was statistically significant ( $\Lambda = 0.90$ ,  $\chi^2 = 23.08$ ,  $p < .0001$ , Table 12.1); and **62.4 %** of cross-validated, grouped cases were correctly classified.

**Table 12.1: Test of Functions for Predicting Learning Styles**

Learning styles	Wilks' Lambda	Chi-square	Sig.	Leave one out classification results
1. Visual styles	.91	19.44	.0001	78.2%
2. Hands on	.90	23.08	.0001	62.4 %
3. Extrovert styles	.76	59.84	.0001	65.4%
4. Introvert styles	.94	13.72	.001	73.2%
5. Intuitive styles	.80	48.43	.0001	72.5%
6. Closure styles	.86	32.49	.0001	66.3%
7. Open styles	.94	14.43	.002	82.4%
8. Global styles	.82	43.70	.0001	65.1%

**Extrovert Learning Styles.** The results on Table (12) shows that five factors are likely to predict the **high use** of extrovert styles. The best predictor was speaking English with a friend, followed by the teacher's limited use of language laboratories, tolerance of other ethnic groups, acceptance of social conventions, and mother's level of education. The results also shows that the teacher's teaching style which does not allow students to interact in the class, and the authoritative style of interaction in the family are likely to predict the



**low use** of extrovert styles. The overall Wilk's Lambda value for these seven predictors was statistically significant ( $\Lambda = 0.76$ ,  $\chi^2 = 59.84$ ,  $p < .0001$ , Table 12.1); **65.4%** of cross-validated, grouped cases were correctly classified.

**Introvert Learning Styles.** The results of the discriminant analysis shows that two factors predicted the **low use** of introvert styles: tolerate of other ethnic groups, and low punishment in the family. The coefficients for these two predictors were slightly bigger for the **low use** classification function of introvert styles. This means that students who tolerate other ethnic groups and where punishment in the family is low are likely to reject introvert styles. The overall Wilk's Lambda value for the two predictors was low, but statistically significant ( $\Lambda = 0.94$ ,  $\chi^2 = 13.72$ ,  $p < .001$ , Table 12.1); **73.2%** of cross-validated, grouped cases were correctly classified.

**Intuitive Learning Styles.** As Table (12) shows, four factors predicted the **high use** of intuitive styles. The best predictor was acceptance of social conventions, followed by speaking English with a friend, study styles for English exams where the students got help from a friend or relative, and styles of interaction in the family where the student debated and discussed things with members of her family. The coefficients for these four predictors were slightly bigger for the **high use** classification function of intuitive styles, which means that these factors are likely to predict the high use of intuitive styles. The analysis also shows that the classification function coefficient of poor relationship with family members was slightly bigger for the **low use** of intuitive styles, which means that this factor is likely to predict the low use of intuitive styles. The overall Wilk's Lambda for the five predictors was statistically significant ( $\Lambda = 0.80$ ,  $\chi^2 = 48.43$ ,  $p < .0001$ ). The percentage of cross-validated cases correctly classified was **72.5** (Table 12.1).

**Closure Orientation Learning Styles.** The results of the discriminant analysis showed that three factors contributed to the **high use** of closure learning styles. The best predictor was acceptance of social conventions. The second predictor was the limited use of audiotapes to learn English; and the third was punishment in the family. The coefficients for these three predictors were slightly bigger for the **high use** classification function of closure styles, which means that these factors are likely to predict the high use of closure styles. The coefficient of the teacher's limited use of the blackboard to teach English was bigger for the **low use** classification function of closure styles. This means that less

reliance on the blackboard when teaching English is likely to reduce the preference for closure styles. The overall Wilk's Lambda for the four predictors was statistically significant ( $\Lambda = 0.86$ ,  $\chi^2 = 32.49$ ,  $p < .0001$ , Table 12.1); **66.3%** of cross-validated, grouped cases were correctly classified.

**Open Learning Styles.** Table (12) shows that the coefficients for course(s) in English outside Saudi Arabia, and the availability and use of language labs were slightly higher for the **high use** classification function of open styles, which means that taking courses in English outside Saudi Arabia, and the use of language labs are likely to predict the high use of open styles among the students. The coefficient of the factor labelled 'father's origin' was higher for the **low use** classification function of open styles, which means that the Saudi origin of the father is likely to predict the low use of open styles. The overall Wilk's Lambda for the three predictors was low, but statistically significant ( $\Lambda = 0.94$ ,  $\chi^2 = 14.43$ ,  $p < .002$ , Table 12.1); **82.4%** of cross-validated, grouped cases were correctly classified.

**Global Learning Styles.** As Table 12 shows, the coefficients of five predictors were higher for the **high use** classification function of global styles. These were: acceptance of social conventions, the high order of the student among siblings in the family; high level of English in the middle school; private tutoring; and entertainment in the family. This means that these five factors are likely to predict the **high use** of global styles for these students. There were two other factors with coefficients higher for the **low use** of global styles: fewer ties to the group (ethnicity) and low religious conformity. This suggests that fewer ties to the group and low religious conformity are likely to predict the low use of global style. The overall Wilk's Lambda for these seven predictors was statistically significant ( $\Lambda = 0.82$ ,  $\chi^2 = 43.70$ ,  $p < .0001$ , Table 12.1); **65.1%** of cross-validated, grouped cases were correctly classified.

#### ***4.5.2. Results of Discriminant Analyses and Learning Strategies***

The second part of the Second Research Question was to investigate the relationship between language learning strategies, previous learning experience and socio-cultural factors. As indicated earlier, stepwise discriminant analysis was conducted to explore the relationship between these three variables. The results of the analysis revealed statistically significant, predictive relationships for all six dimensions of learning strategies. The 'leave one out' classification function that was produced was 67.3%- 90.1% accurate in placing

the respondents into two groups based on their low or high use of learning strategies. The results of discriminant analyses are shown in Table 13. Table 13.1 reports the test functions for predicting learning strategies. The analysis that follows will focus on describing the six relationships obtained separately.

**Table 13: Canonical Coefficients and Classification Results of the Discriminant Analyses of Learning Strategies**

	Standard Canonical Coefficients	Classification Function Coefficient	
		Low use	High use
<b>Memory strategies (Constant)</b>		<b>- 25.07</b>	<b>-29.88</b>
Acceptance of social conventions	.57	5.99	7.15
Speaking English with a friend□	.44	-.65	-.14
Motivation to learn English□	.38	5.37	6.06
Type of learning institution in high school	-.36	.05	-.37
Level of English in high school□	.34	9.98	10.71
<b>Cognitive strategies (Constant)</b>		<b>-14.96</b>	<b>-22.37</b>
Level of English in high school	.70	8.78	11.56
Watching news or TV programs in English	.63	1.07	2.40
The teacher's concentration on students' participation	-.39	.59	-.176
Reward in the family □	.36	2.43	3.36
<b>Compensation strategies (Constant)</b>		<b>-23.50</b>	<b>-26.88</b>
The teacher's use of demonstrations and models□	-.59	1.29	.55
The order of the student among siblings in the family	.52	2.16	2.65
Level of English in high school	.50	10.05	11.14
Speaking English with a friend□	.48	-.55	.008
Acceptance of social conventions	.38	6.61	7.36
Type of learning institution in the middle school	.34	.02	.40
<b>Metacognitive strategies (Constant)</b>		<b>-24.63</b>	<b>-30.23</b>
Level of English in high school□	.67	8.62	10.80
Travel to an English speaking country□	-.65	-.41	-1.44
Motivation to learn English □	.54	4.53	5.98
Entertainment with the family□	.46	4.17	5.73
Mixing with English speaking neighbours or friends□	.39	.46	1.24
The teacher's use of the blackboard□	-.34	4.19	3.35
<b>Affective strategies (Constant)</b>		<b>-24.29</b>	<b>-27.77</b>
Religious conformity□	.50	6.55	7.61
The teacher's use of explanation and question /answer styles	-.49	1.22	.56
Decision making□	.47	11.30	12.47
Father's origin□	-.45	-1.41	-2.83
Course(s) in English outside Saudi Arabia□	.44	-.62	.12
Customs and tradition of the family	.43	3.59	4.28
Travel to an English speaking country□	-.37	.01	-.37
Type of learning institution in elementary school	-.30	.12	-.17
<b>Social strategies (Constant)</b>		<b>-28.40</b>	<b>-33.41</b>
Speaking English with a friend□	.54	-.85	-.25
Acceptance of social conventions □	.44	3.65	4.49
Decision making	.37	10.47	11.36
The teacher's use of demonstrations and models□	-.36	1.81	1.36

Level of English in middle school□	.36	8.28	9.00
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**Memorizing Strategies.** As Table 13 shows, the coefficients of four of the five predictors were higher for the **high use** classification function of memorizing strategies. The best predictor was acceptance of social conventions, followed by speaking English with a friend, motivation to learn English in order to be able to communicate, and high level of English in high school. This means that these four background factors are likely to predict the high use of memorizing strategies among these students. The coefficient of the fifth factor, ‘the type of learning institution in high school’ was higher for the **low use** of memorizing strategies. This means that the type of learning institution in the high school is a poor predictor of memorizing strategies for these students. The five predictors were statistically significant ( $\Lambda = 0.82$ ,  $\chi^2 = 43.31$ ,  $p < .0001$ , Table 13.1); **77.3%** of cross-validated, grouped cases were correctly classified.

**Cognitive Strategies.** As Table (13) shows, three discriminating factors predicted the **high use** of cognitive strategies. The first factor was advanced level of English in high school, followed by watching news and TV programs in English, and reward in the family. The classification coefficients of these factors was higher for the **high use** of cognitive strategies, which means that the advanced level of English in high school, watching TV news and programs in English and reward in the family are likely to predict the high use of cognitive strategies among these students. The results of the discriminant analysis also revealed that one educational factor negatively correlated with cognitive style and contributed to its **low use**: the teacher’s limited concentration on the students’ participation in reading and in writing. The classification coefficients of this factor was higher for the **low use** of cognitive strategies, suggesting that less concentration on the students’ participation in reading and writing in class by the teacher is likely to predict the low use of cognitive strategies. These four predictors were statistically significant ( $\Lambda = 0.72$ ,  $\chi^2 = 71.30$ ,  $p < .0001$ ), **90.1%** of cross-validated cases were correctly classified (Table 13.1).

**Table 13.1: Test of Functions for Predicting Learning Strategies**

Learning strategies	Wilks' Lambda	Chi-square	Sig.	Leave one out classification results
1.Memory strategies	.82	43.31	.0001	77.3%

2.Cognitive strategies	.72	71.30	.0001	90.1%
3.Compensation strategies	.82	43.53	.0001	77.6%
4.Metacognitive strategies	.79	50.17	.0001	89.8%
5.Affective strategies	.79	51.31	.0001	69.8%
6.Social strategies	.79	49.52	.0001	67.3%

**Compensation Strategies.** Five factors correlated with compensation strategies and predicted their **high use**. The best predictor was the order of the student among siblings in her family. This was followed by level of English in high school, speaking English with a friend, acceptance of social conventions, and the type of learning institution attended in middle school (Table 13). The classification coefficients of these factors was higher for the **high use** of compensation strategies, which means that advanced level of English in high school, speaking English with a friend, acceptance of social conventions, and attending a private learning institution in middle school, are likely to predict the high use of compensation strategies. The classification coefficient also shows that the limited use of demonstrations and models by the teacher was higher for the **low use** of compensation strategies, which means that the limited use of demonstrations and models by the teacher when teaching English is likely to predict the low use of compensation strategies. The accuracy of the six factors in predicting compensation strategies was statistically significant ( $\Lambda = 0.82$ ,  $\chi^2 = 43.53$ ,  $p < .0001$ , Table 13.1); **77.6%** of cross-validated, grouped cases were correctly classified.

**Metacognitive Strategies.** The results of the discriminant analysis revealed that four predictors contributed to the **high use** of metacognitive strategies. The best predictor of metacognitive strategies was the level of English in high school, followed by motivation to learn English, entertainment in the family, and mixing with English speaking neighbours or friends. The classification coefficients of these four factors were higher for the **high use** of metacognitive strategies. This means that advanced level of English in high school, motivation to learn English for communication, entertainment in the family, and mixing with English speaking neighbours or friend, are likely to predict the high use of metacognitive strategies. Table (13) also shows that two factors negatively correlated with metacognitive strategies. These were: travel to an English speaking country, and the teacher's use of the blackboard when teaching English. The classification coefficients of

these two factors were higher for the **low use** of metacognitive strategies suggesting that little travel to an English speaking country, and the teacher's limited use of the blackboard when teaching English, are likely to predict the low use of metacognitive strategies. The accuracy of the six factors in predicting the use of metacognitive strategies was statistically significant ( $\Lambda = 0.79$ ,  $\chi^2 = 50.17$ ,  $p = .0001$ , Table 13.1); **89.8%** of cross-validated, grouped cases were correctly classified.

**Affective Strategies.** The discriminant analyses in Table (13) show that four discriminators positively correlated with affective strategies: The first predictor was religious conformity. The second was the freedom to make decisions. This was followed by course(s) in English outside Saudi Arabia, and customs and tradition of the family. The classification coefficients of these four factors were higher for the **high use** of affective strategies, suggesting that these four factors are likely to predict the high use of affective strategies. Table (13) also shows that four other predictors negatively correlated with affective strategies and predicted their **low use**. These were: question/ answer style of teaching; father's origin; travel to an English speaking country; and the type of learning institution attended in elementary school. The classification coefficients of these four factors were higher for the **low use** of affective strategies, suggesting that less question/ answer style of teaching, father's origin (Saudi), less travel to an English speaking country; and attending a government learning institution in elementary school, are likely to predict the low use of affective strategies. The accuracy of these eight factors in predicting affective strategies and discriminating between their high and low use was statistically significant ( $\Lambda = 0.79$ ,  $\chi^2 = 51.31$ ,  $p < .0001$ , Table 13.1); **69.8%** of cross-validated, grouped cases were correctly classified.

**Social Strategies.** The canonical correlations in Table (13) show that four factors positively predicted social strategies. These predictors were: speaking English with a friend; acceptance of social conventions; decision making; and level of English in middle school. The classification coefficients of these four factors were higher for the **high use** of social strategies, indicating that they are likely to predict the high use of social strategies. The teacher's use of demonstrations and models negatively correlated with social strategies. The classification coefficient of this factor was higher for the **low use** of social strategies, suggesting that the teacher's limited use of demonstrations and models is likely to predict the low use of social strategies. The overall wilk's Lambda for these five factors

was statistically significant ( $\Lambda = 0.79$ ,  $\chi^2 = 49.52$ ,  $p < .0001$ , Table 13.1); **67.3%** of cross-validated, grouped cases were correctly classified.

#### ***4.6. Comments on the Results of the Questionnaires***

Through the quantitative analysis in this chapter, an attempt was made to answer the two research questions posed earlier: First, “What is the range and variety of language learning styles and strategies of female students, studying English at first-year college level at KFU, in Saudi Arabia? Second, “What is the relationship between the learning styles, language learning strategies, previous learning experience and sociocultural factors of female students, studying English at first-year college level at KFU, in Saudi Arabia?”

The findings of the first research question revealed that the students have a stronger visual learning preference (**41%**), than a hands-on (**32%**), or an auditory preference (**27%**). The students also showed a preference for extrovert (**56%**) rather than introvert styles (**44%**). However, a strong preference for learning alone rather than with other students was evident in the data (**87.5%**). The results also indicated that the students did not adhere strictly to either intuitive or concrete styles and could easily switch styles (**51%** and **49%**, respectively). This suggests that they prefer to follow the teacher’s directions and examples and at the same time, they want to speculate about other learning possibilities and want to have many options during learning and working. The students’ intolerance of ambiguity during learning was reflected in their stronger preference for closure than open-orientation learning styles (**59%**, **41%**, respectively), which indicates that they prefer a sense of structure, clarity of lesson directions, and order during learning. The results also showed that there was a slight preference for global over analytical styles (**52%**, **48%**, respectively), which suggests that they prefer to focus on the general meaning than on knowing all the details of what they learn.

The results of the Pearson Correlations of the dimensions of learning styles showed that there are low to moderate correlations between various dimensions of styles, ranging from  $r=.14$  to  $r=.41$ , suggesting that Saudi female students did not have many strong learning preferences. Intuitive styles were responsible for some of the highest correlations with other learning styles (e.g., with global  $r = .40$ , extrovert,  $r = .38$ , and auditory styles  $r = .37$ ). The results also showed that global learners mostly preferred intuitive, extrovert and

open learning styles, whereas analytic learners mostly preferred concrete, closure and, to a lesser degree, introvert styles.

The results on the students' use of language learning strategies revealed a moderate overall use (**3.2** of a possible **5**). Only metacognitive strategies were used with high frequencies (**mean= 3.6**). All other strategies were moderately used. The strategy items highly used by the students involved actively seeking or creating opportunities to use or practice English functionally, whereas the strategies that were least used by the students included using flash cards to remember new English words, and writing their feelings in a language dairy. This might indicate that the students were more concerned with the formal aspect of language learning than with its communicative and functional aspects

The relationship between the different strategy subscales indicated a moderate correlation ranging from **.68** (relationship of cognitive and metacognitive strategies) to a low of **.20** (compensation and affective), with most correlations in the **.40s** and **.50s**. As maintained earlier, the overlap among the learning strategy subscales could have contributed to some of these relatively high correlations, which makes us cautious about reporting these results in a way that is any more than tentative.

The results of the exploratory regression analysis shed light on the relationship between learning styles and learning strategies and revealed that statistically significant, predictive relationships were obtained for all six language-learning strategies. Intuitive learning styles were a consistent predictor for the selection of all language learning strategies. A closure orientation learning preference also contributed to the selection of all learning strategies, except compensation strategies. An extrovert learning style was a predictor of social strategies; a preference for concrete style predicted the selection of affective strategies; hands-on and auditory sensory styles predicted the selection of compensation strategies; and a preference for visual style predicted the selection of memorizing strategies. These relationships are more suggestive than conclusive evidence of a possible relationship between learning styles and strategies, as the total variance of responses that are accounted for by the variables in the models are very low, and range between **12%** and **20%**.

The relationship between the learning styles, learning strategies, and background factors were addressed in the second research question. Through stepwise discriminant analysis



procedures, the results obtained helped to achieve three goals: (a) specify the educational and sociocultural factors that predicted the use of certain learning styles and strategies; (b) identify the factors that contributed to the high or low use of learning styles and strategy, and (c) point out the learning styles and strategies that were not predicted by educational or sociocultural factors.

The results of the second research question revealed the factors that influenced the range and variety of the students' learning styles and strategies. The first aspect was the teacher's teaching style and methods. For example, the teacher's limited use of English language labs was likely to increase reliance on visual and closure learning styles. In addition, teaching styles in which the teacher rarely allowed the students to interact and practice the language predicted the low use of extrovert styles (Table 12). In subsequent statistical analyses (Table 13), the teacher's style and methods of teaching predicted the low use of all learning strategies, except memorization. For example, question/answer style of teaching contributed to the low use of affective strategies. The teacher's limited concentration on the students' participation in reading or in writing in the classroom contributed to the low use of cognitive and metacognitive strategies. Furthermore, the limited use of demonstrations and models by the teacher contributed to the low use of two strategies: compensation and social.

The second factor was study styles for English exams, which has been shown to be related to the high use of visual, hands-on, intuitive, and global styles, but it did not seem to have any correlations with learning strategies. Another factor related to the selection of certain learning styles and strategies was the advanced level of English proficiency. This factor predicted the use of most learning strategies, but it did not predict the use of affective strategies. Conversely, advanced level of English proficiency, as measured by previous course scores in English, predicted the use of only global styles. In addition, motivation to learn English to communicate was responsible for two predictive relationships with two learning strategies and contributed to their high use. These were memorizing and metacognitive strategies. Motivation, however, was not a likely predictor of the learning styles for these students.

Self-supporting activities was also related to the use of learning styles and strategies. First, taking courses of English outside Saudi Arabia was a likely predictor of the use of hands-

on styles and the selection of the less commonly used open styles and affective strategies. In addition, speaking English with a friend was a likely predictor of extrovert and intuitive styles and the use of three learning strategies: memorizing, compensation and social. Watching news and TV programs in English was also a likely predictor of cognitive strategies. While mixing with English neighbours or friends predicted the high use of metacognitive strategies, little travel to an English speaking country predicted their low use, as well as the low use of affective strategies.

The results of the discriminant analysis also suggested that acceptance of social conventions could predict several learning styles and strategies, such as: extrovert, intuitive, closure and global styles. It was also a predictor of the high use of memorization, compensation, and social strategies. In addition, tolerance of other ethnic groups predicted the high use of extrovert styles and the low use of introvert styles, with poor tolerance of other ethnic groups contributing to a low preference for hands-on styles (Table 12).

Another factor in the students' backgrounds that influenced their learning approaches was family characteristics. For example, entertainment with the family was a predictor of the high use of metacognitive strategies, as well as global learning styles. In addition, the freedom to make decisions in the family predicted the high use of two strategies: affective and social, while it could not predict the use of any learning styles (Table 12 and Table 13). Reward in the family, whether verbal or material, predicted the selection of cognitive strategies and the use of hands-on styles. Punishment, on the other hand, whether verbal, physical, or material, predicted the high use of closure styles, with less punishment related to less use of introvert styles.

The analysis also revealed that the authoritative styles of interaction in the family, father's ethnic origin, and poor relationships with members of the family were predictors of the low use of extrovert, open, and intuitive styles, respectively. Conversely, discussing things with the family and being courteous through using religious and affectionate expressions are predictors of the high use of intuitive learning styles for these students. Religious conformity was a likely predictor of affective strategies, with less religious conformity and less ties to the group related to less use of global styles, as shown in Tables (12 and 13).

The findings also indicated that the socioeconomic status of the family contributed to only one positive, significant relationship between a mother's level of education and the use of

extrovert styles. Similarly, the prestige of the learning institution previously attended predicted the high use of only compensation strategies, while attending government schools was not a predictor of the high use of any learning styles or strategies.

The results of the quantitative analysis indicated that the students might have preferences to use certain learning styles and strategies and that the background factors could play a role in determining the range and variety of their learning preferences. However, the quantitative analysis did not provide any explanations, for example, for the result that showed the limited contribution of the background factors to predict the selection of three learning styles: auditory, concrete, and analytic. Similarly, the results did not give any explanation for the finding that the teacher's teaching style was associated with the low use of a wide variety of learning styles and strategies. Therefore, more information was needed to explain how the students' previous learning experiences limited the use of certain approaches to learning. Further understanding was also needed on the influence of the students' out-of-school experiences on aspects of their learning and classroom behaviour to explain in more depth some of the quantitative findings reported in this chapter. These issues will be dealt with in the next chapter.

#### ***4.7. Summary***

In this chapter, quantitative analysis procedures were undertaken to analyse the data collected in an attempt to answer the two research questions of this study. Section one identified the range and variety of the students' learning styles. Section two identified the learning strategies of the students. The relationship between the students' learning styles and strategies was addressed in section three. Section four provided a detailed analysis of the students' previous learning experience and their sociocultural characteristics. Section five sought to identify the factors that predicted the students' learning styles and strategies and contributed to their high or low use. Although the findings of the quantitative analyses provided a description of the students' learning styles and strategies in relation to their background factors, some of the relationships needed to be further investigated and clarified. The next chapter is devoted to the analysis of qualitative data in order to explain some of the results discussed in this chapter.

## Chapter Five

### Findings of the Qualitative Stage

#### 5.0. Introduction

As discussed earlier, the purpose of this two-phase, sequential mixed methods study was to explore the culturally specific learning styles and strategies of students in the Saudi context. The initial quantitative phase provided descriptive data on the students' learning styles and strategies in relation to their background factors. However, some of the relationships not discernible through statistical procedures needed to be further investigated and clarified.

First, the results of the questionnaires indicated that certain aspects in the students' previous learning experience of English in the middle and high schools limited the range and variety of the students' learning styles and strategies. For example, teaching styles in which the teacher rarely allowed the students to interact and practice the language contributed to the low use of *extrovert styles*. In subsequent statistical analyses, the teacher's teaching style and methods contributed to the low use of several *learning strategies*. For example, the use of question/answer style when teaching English was related to the low use of *affective strategies*. In addition, the teacher's limited concentration on the students' participation in reading and writing in the classroom predicted the low use of *cognitive strategies*. Similarly, the limited use of demonstrations and models by the teacher contributed to the low use of two strategies: *compensation* and *social*.

Second, the results of the questionnaire showed that some sociocultural factors, such as the authoritative style of interaction in the family, father's ethnic origin, and poor relationships with members of the family were related to the low use of *extrovert*, *open*, and *intuitive styles*, respectively. Moreover, the students' background factors, whether educational or sociocultural, did not predict or contribute to the selection of three learning styles: *auditory*, *concrete*, and *analytic*. Therefore, more information was needed to explain how

the students' previous learning experience was associated with the limited use of certain learning styles and strategies. Further understanding was also needed on the influence of the students' out-of-school experiences on aspects of their learning and social behaviour.

To gain more understanding of these results, a few students were interviewed to discuss aspects of their learning behaviour that educational and sociocultural institutions<sup>5</sup> tended to foster or ignore. That helped to explain in more depth the positive and negative effects of the students' backgrounds on their learning style and strategy repertoire. A qualitative research technique which uses focus groups was employed to achieve this objective. The information gathered from the focus group discussions provided more in-depth qualitative data to inform and deepen the results of the questionnaires. Different perspectives on the topics of discussion were obtained, as well as common understandings of the group. It was also possible to observe the process of interaction among the participants (and between the participants and moderator), the nature of contribution, and reactions to questions as the participants engaged in the focused discussions. In addition, the students were given the opportunity to express their views and needs about their language learning and personal development.

The following discussions provide a more comprehensive understanding of how the focus groups responded to the interview questions. The focus groups were conducted after the questionnaires were completed and analysed. Participants were ten students drawn from the population who completed the three survey instruments in Phase One. The participants were divided into two groups, with five participants in each group. The selection of participants was determined by the objectives of the study. In the selection, the criteria were that, in each of the groups, participants were willing to express their thoughts and views, and that they represented the target population in terms of ethnicity, and socioeconomic background, i.e. the type of educational institution attended.<sup>6</sup> Other demographic characteristics, such as age, sex, religion, and educational level were similar across the population of the study. Therefore, there was little reason to separate the participants into more than two groups. Yet, it was felt that since the homogeneity of the

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<sup>5</sup> Such as school, family, and the larger culture in which these institutions are embedded.

<sup>6</sup> Private/ public.

participants was high, the quality of the discussion could be enhanced by having students from different socioeconomic backgrounds in each of the groups<sup>7</sup>.

Contacts with the students was made through several visits to their classrooms to explain the research objectives, how I intended to achieve these objectives, and the importance of the students' participation. The students were told that the aim was to hear their views about how they go about learning. The information would provide a better understanding of their learning process, and the insights gained from the research would ultimately be an asset for instructional practices geared toward improving the learning and teaching of English. Students were asked if they would be interested in participating in the study and whether they would agree to be interviewed in a group. Some students expressed their willingness and enthusiasm to participate.

Students who volunteered to participate in the study were interviewed informally to see if they met the criteria set by the study and ten of them were selected<sup>8</sup>. These students were given a letter of consent to confirm that they agreed to take part in this study. They were also given an assurance that the information they would give would be used for research purposes only, and that their contributions would be anonymous. Participants were given the consent form in Arabic. The English version is found in Appendix Eight.

The focus groups sessions were held at KFU where the students normally have their lectures and thus could be easily reached. The room where the focus group sessions were conducted was well lit, and free from such distractions as noise and other people. To ensure an atmosphere of informality and equality, the participants were seated around a table with the moderator. Nametags for members of the group were given to enable the participants to address each other by name and to create a more friendly atmosphere.

The results of the qualitative analyses will be presented under four headings: (1) Students' background; (2) Reports on the students' schooling experiences; (3) Reports on the students' out-of-school experiences; and (4) Students' views on the teaching and learning

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<sup>7</sup> In the pilot study, socioeconomic background served as a topic that resulted in diverse views among the participants (see chapter 3).

<sup>8</sup> After all the participants turned up for the group sessions, those who volunteered but did not participate in the study (9 students) were sent a thanking letter.

of English. These points will be analysed and illustrated by the most relevant extracts from the responses given during the focus group discussions.

### **5.1. Students' Background**

The first part of this discussion consists of a brief description of the participants in the two focus groups. As discussed earlier, participants for the study had many common background and demographic characteristics. They were all of the same sex, nationality, language, religion, level of education and within the same age range (18-20 years). The difference was that some students had attended private institutions in their previous formal education while the majority studied in government schools. Another difference was ethnicity, which can be linked with the part of Saudi Arabia from where they come.

The first focus group consisted of five students, studying English as a foreign language at KFU. As can readily be seen from Table (14), most students attended private learning institutions or had experienced some innovations in education in experimental government schools. Only one student came from a regular government school. The number of years the students spent studying English also varied. While some studied English for twelve years in private schools, others spent between 6 and 8<sup>9</sup> years studying English in government schools. The Students in the first group came from different parts of Saudi Arabia. The geographical origin of the parents of most of them was Saudi, except one student whose father was from the Emirates, and another whose mother was Egyptian.

**Table 14: Composition of the First Focus Group**

Student	Years of studying English	Type of learning institution	Ethnicity
1. Asa	12	Private school	Saudi (Northern province)
2. Ry	12	Private school	Mother Saudi (Western province), father from the Emirates
3. Ifa	8	Aramco Experimental school, (special government school)	Saudi (Central province)
4. Suha	7	Aramco schools (special government school)	Saudi (Central province)
5. Mona	6	Government school	Mother Egyptian, father Saudi (Eastern province)

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<sup>9</sup> Ifa studied English at a private institution for two years in the second and third grades, and Suha spent a year in the U. S. when she was in fourth grade.

Table (14.1) shows the composition of the second focus group. As shown, only one student studied English in a private school for fourteen years before attending KFU. Other participants in this group studied English for six years in government schools. Four of the students came from the Eastern province of Saudi Arabia and one from the Western region.

**Table 14.1: Composition of the Second Focus Group**

Student	Years of studying English	Type of learning institution	Ethnicity
1. Rana	14	Private	Saudi ( Eastern province)
2. Shams	6	Government	Saudi (Eastern province)
3. Ruga	6	Government	Saudi (Eastern province)
4. Amal	6	Government	Saudi (Eastern province)
5. Fani	6	Government	Saudi (Western province)

As can be seen from both tables, one student from a different learning institution was included in each group. This was intended to enrich the discussions and the dynamics of the group by bringing to light a wider range of learning experiences that might be similar or different from those of the other members of the group.

## ***5.2. Reports on the Students' Schooling Experiences***

Participants in both focus groups were shown three pictures that represented three learning settings (Appendix Ten). The first picture represented a traditional classroom setting where students were all sitting up and listening attentively to the teacher. The desks were situated neatly in rows and all facing the front blackboard and the teacher. In the second picture, students were performing a learning activity and working in small groups and a teacher was moving among the groups. The third picture showed students learning English in a computer language lab. Participants were first asked to describe each learning setting. They were then asked to describe the kinds of classroom activities that might occur in each setting and how they compared to their own experiences in learning English in middle and high schools. Finally, they were asked to indicate in which learning setting they would feel most comfortable. The purpose was three-fold. Firstly, to understand the kinds of classroom activities in which the teacher engaged with the students in previous English classes. Secondly, to understand how these classroom activities might have affected the students' approaches to learning English. Thirdly, to identify whether the students had a preferred learning setting.



The analysis revealed the way the students regarded the three learning settings in relation to their own learning experiences. They explained the positive and negative aspects of each learning setting, the kinds of classroom activities that occurred and influenced, or could influence, their general approaches to learning and class behaviour. They also expressed their understanding of the roles of the teacher and the learner, as well as the aims of learning and learning activities.

The following analysis is presented under three subcategories that emerged from the focus group data on the students' schooling experiences: (a) how the students described the different learning settings; (b) the kinds of learning activities that occurred in each learning setting; and (c) the students' preferred learning setting. The notation system I have followed in the qualitative analysis is shown in Figure (9).

**Figure 9: Notation System used in the Qualitative Analysis**

(	To indicate the point at which the current speaker is overlapped by another's speech.
<b>WORD</b>	Loud utterance
{....}	Pauses represented by dots; two dots for short pauses and four for longer pauses.
[ ]	Researcher's added text
' '	Speaker's emphasis
<i>Unit</i>	An illustrative example from the focus group data
<b>Int:</b>	Interviewer
Source: Adapted from Silverman, 1993; cited in Bloor, Frankland, Thomas, Robson (2002: 62)	

### **5.2.1. How the Students Described the Different Learning Settings**

The interview data revealed that the learning setting shown in picture 'A' was common to most students and represented their experience in learning English in the middle and high schools. The students described such learning as something transmitted by the teacher rather than discovered and interpreted by the learners. This one-way communication from the teacher to the students did not involve the students' active participation and negotiation of meaning in the learning process and, therefore, resulted in boredom, inattention, and lack of interest in the learning activity. Because this schooling experience was similar for almost all the students in both groups, their descriptions of the learning setting in picture 'A' also tended to be similar. The following two extracts are examples of this:

*Ry:* The same traditional way. The students are sitting and the teacher is standing and explaining [the lesson].

*Suha:* A well-behaved class.

*Mona:* Maybe a student is daydreaming, absent-minded, but not paying attention to the teacher.

*(Group 1, Interview 1, Unit 1)*

*Fani:* A teacher is explaining, too involved in explanations.

*Rana:* And the students are not paying attention.

*Fani:* And the students are just watching silently.

*(Group 2, Interview 1, Unit 1)*

Group learning which was represented in picture 'B' was less common among the students interviewed. Some of the students who had experienced group learning were stimulated to narrate their own experiences. They thought that teachers conducted group learning without much enthusiasm or consistency in using it as an alternative method of teaching. The students also indicated that they approached group learning without fully understanding what was expected of them as learners. In contrast, students in the second group did not seem to have experienced group learning. This might explain some of their comments when they described the scene in picture 'B' as chaos and lacking control. The following extracts illustrate part of the discussions that emerged after showing picture 'B' to the students:

*Ifa:* This one [picture A] is individual and this one [picture B] is group learning.

*Asa:* The way a student thinks [in picture A] is not the same as in the second picture. In the second, she would concentrate more.

*(Group 1, Interview 1, Unit 2)*

*Rana:* Chaos ... I feel it's chaos.

*Amal:* There is no control.

*(Group 2, Interview 1, Unit 2)*

The third picture, which showed students learning English in a computer language lab, was presented and the students were asked to give their comments. Some students in private and experimental schools in the first group expressed some familiarity with this innovative learning, but without much enthusiasm. Most of the students however, indicated that learning with computers was out of their scope of experience. The second group focused their description of the learning setting in picture 'C' on its possible effectiveness in improving learning without relating that view to their own learning experiences. This might indicate that learning with the aid of computers and language labs was not part of their previous experience in learning English. The following two extracts are of students

discussing the learning setting presented in picture 'C', in relation to their own experience in learning English:

*Asa:* No, never...

*Ry:* We studied using this way for only one year in the high school.

*Mona:* We never did it this way in school.

*Ifa:* It was done more in computer classes in the second and third years of high school.

*Asa:* We never tried to learn English this way.

*(Group 1, Interview 1, Unit 3)*

*Rana:* Ok, may be the teacher is paying more attention to each student.

*Shams:* To each student.

*Rana:* Correcting the student's mistakes, interacting with her, and so on.

**Int: Shams?**

*Shams:* Yes, that's right.

*(Group 2, Interview 1, Unit 3)*

### **5.2.2. Familiar Context of Learning**

The comments the students made about the kinds of activities that could occur in the different learning settings revealed the kinds of classroom activities they were most familiar with in their previous learning of English. When they were asked about what they thought the focus of activities would be in each of the three learning settings, they indicated that in the first picture, the teacher would be concerned with delivering information that was already in the textbook with excessive use of the blackboard. There would be some occasional use of illustrations, and the teacher would engage in code-switching between English and Arabic. Only on particular occasions, when there is inspection, would the teacher vary her teaching style and increase the use of illustrations and the level of students' participation. Students in both groups made similar comments about the kind of activities in their familiar learning context. The following extract is an example.

*Suha:* The focus is on the blackboard or if she has any illustrations, she would use them.

*Ry:* Of course, the students will be daydreaming.

*Asa:* It is not always that the teacher shows illustrations. Only if there is inspection, then you will see how the teacher improves.

**Int: How do you mean?**

*Asa:* First, she prepares us psychologically: 'Girls be this and do that, and if you are good, you will not have a class next week.' Second, the way she explains and uses the illustrations would change. She would bring all kinds of illustrations and her explanations would improve a lot. There is a big difference. She wouldn't even use any Arabic terminology. No way! So we kind of wish inspectors would come every day.

*Mona:* It is not like that in our school. The teacher used to bring illustrations and try as much as possible, but still in the same traditional way.

*Ifa:* [Supporting *Asa*] She tries to select different students to participate.

*Asa:* That's right.

*Ifa:* One student here, one who is good, one who is weak. She varies, and makes all the students participate.

*(Group 1, Interview 1, Unit 6)*

### **5.2.3. Problems Encountered in the Students' Learning Context**

The data revealed that one of the problems that had an effect on the students' thinking and learning behaviour was the teacher's preoccupation with preparing the students to pass an exam and her emphasis on the product of learning rather than on the process itself. The teacher tended to concentrate on instructing the students on how to find the right answer without the need to understand the meaning of the question. The students felt that by focusing on particular parts of information specified by the teacher to pass an exam, they had to employ certain techniques, such as paying attention, translating, underlining, memorizing, and attending to the overall concept of the learning task, to help them achieve that goal. Their comments indicated that there was the implicit expectation that formal teaching was only a part of the English program; a large part of the learning was expected to be done outside the classroom. The following extract was of students discussing the kinds of activities that might occur in the learning setting represented in picture 'A':

*Fani:* This is a blackboard- and- pen type of class only.

*Rana:* A blackboard-and-pen. SHE [the teacher] ONLY WRITES.

*Fani:* A blackboard-and-pen!

*Rana:* She [the teacher] delivers information that is not even understood.

**Int: What do you think Amal?**

*Amal:* I agree with them.

*Fani:* [Recalling saying to themselves] And oh God! When do we finish so we can go.

*Rana:* Yes, so we can go.

*Fani:* To get our things and leave the class.

*Rana:* Yes.

*Fani:* Boring.

*Ruga:* The problem with learning is that you want to study and the teacher says 'be careful! This part will come in the exam and this in the exam.'

*Shams:* Yes, yes.

*Ruga:* You don't know how you can understand any subject whether it is religion, Arabic or English. 'This is what will be in the exam.'

*Shams:* So you concentrate on that part.

*Ruga:* So we translate it because 'this is what will be in the exam'.

*Fani:* We underline it, IMPORTANT, IMPORTANT.

*Rug:* We don't even try to understand it because it is important [All the students at once]: We try to memorize it.

*Unidentified:* Because it will come in the exam.

*Rana:* And at the end of the school year, the information is ALL gone. I feel it is the same whether we attend school or not. I mean, we memorize, we memorize. Sometimes, it is memorizing without understanding. This is for most subjects...

*Fani:* But I still think that memorization happens and plays a role if the person is interested in the subject. I mean, for example, there were subjects that I liked and I still remember their contents because I liked them in the first place. But there are subjects....

*Amal:* They [the teachers] used to tell us in English classes, 'this is the word', when it is presented like this, put this, so...

*Fani:* So they [the teachers] deactivate your mind. They don't make you...

*Rana:* Yes, you don't think.

*Fani:* Yes! You can't think. 'You students must memorize this and this. In the exam you will have this and this', and you quickly have to gather the information before it's gone. I mean this [pointing to her head] has become inactive.

*(Group 2, Interview 1, Unit 4)*

Another schooling experience that had a negative effect on the students learning and behaviour, as revealed by the focus group data, was the level of interaction between the teacher and students both in and out of the classroom. Most students indicated that they rarely participated in discussions, activities and projects that required understanding and application of course material. Students also indicated that only a few students would participate in English classes and that they were rarely called on to respond without having first volunteered. When students were called on, it was typically to assess their knowledge of what had been previously discussed, using grades and correcting students' academic mistakes in ways that embarrassed them. These oral assessments were sometimes made in authoritative ways that inhibited the students from being able to recall the answer to the question the teacher asked. As one of the students recollected the experience: "We used to be scared." The following two extracts are part of the comments the students made on what they thought the focus of activities would be in their familiar learning setting.

*Ry:* It appears from the picture [referring to picture 'A'] that the teacher is the one who is doing all the explanations and the students are sitting passively.

*Suha:* Spoon-feeding. Teaching through spoon feeding; the way things are in schools.

**Int: How do you mean spoon-feeding?**

*Suha:* She [the teacher] explains the lesson to them [the students], ‘did you get it!;’ if they got it, they got it; if not! I mean, she doesn’t know who understood and who didn’t. I mean, it won’t show until the following day or even in the final exam.

*Asa:* The teacher does what is required of her and that’s it.

*Ifa:* One student answers and that’s enough; she [the teacher] continues. It is not important that all the girls participate.

*(Group 1, Interview 1, Unit 5)*

*Fani:* Even if the student wants to ask, she will hesitate. She gets scared.

*Shams:* Yes, scared.

#### **Int: Why scared?**

*Fani:* Scared because we can be ridiculed, or accused of not understanding, or being stupid. ‘She [the teacher] would say, I already explained this. How many times do you want me to repeat it?’ We always hear this same record.

*Rana:* And how many times does she repeat! The problem is that she explains it only once.

*Amal:* We did not ask questions. Even if we wanted to ask after the class time she would say, ‘I just finished the class and I am tired’.

*Shams:* And she would say, ‘why didn’t you ask when I was in class?’

*Rana:* In class, she doesn’t want anybody to interrupt her, and if we ask her about something that was confusing that she had said to us earlier she claims she didn’t say it, and we can’t say anything.

*(Group 2, Interview 1, Unit 5)*

#### **5.2.4. Learning Activities in the Other Learning Settings**

Students from private or experimental schools described some of their classroom learning experiences where the teacher incorporated other teaching techniques, such as group work, using language labs, or computer assisted instructions, besides “the traditional way.” One of the reasons for using such innovative techniques in these schools could be due to the small class size, which ranged between 25-35 students, compared to 50-55 students in government schools, as most students reported. Despite some teachers’ attempts, the successful implementation of these teaching methods was challenged by many constraints, for example, the teacher’s lack of experience in using such teaching methods, her mood, pressure to reform teaching/ learning methodologies, and students’ lack of understanding of their expected task behaviour. The following extract is part of the comments the students made when they were describing what could go on in the learning settings presented in picture ‘B’:

*Ifa:* I studied this way [picture B] in the ninth grade. They [teachers] used to divide us into groups. Each group consisted of six students. Any work was done in a group. In each lesson, there was group work.

**Int:** And in English classes?

*Ifa:* For all the subjects. Each student will do part of the work and the completed work will be presented as that of the whole group.

**Int:** Was it common in your schools to learn this way?

*Unidentified:* [All talking at once here] No.

*Suha:* No. You see! Sometimes in English classes, they [the teachers] used to divide us into groups, but only if the teacher was in a good mood for that, and if the students wanted to do so. If she [the teacher] was not in a good mood, she would only divide us into groups so that she could call it group work. I think {--} I don't know whether the presidency made it compulsory that there must be group work! I don't know; but there was group work, though we did not work in groups every year.

*Asa:* We used to work in groups but we did not produce any work because we did not understand the idea behind what we were doing. We used to pass the time talking. We did not understand the idea [of group work].

*(Group 1, Interview 1, Unit 3)*

Most often, in their description of the different learning settings in pictures 'B' and 'C', the students tended to emphasise the potential learning advantages of such methods in comparison to the negative aspects of learning in "the traditional method" they were familiar with. For example, the students identified several deficient areas in their previous learning experiences, such as the amount of action and interaction that was almost totally absent and the limited use of technological resources available to improve the teaching and learning of oral language skills. The following extracts are part of the students' comments when they were describing and discussing pictures 'B' and 'C':

*Ruga:* In this one [picture B] there is more discussion than in the previous one. The previous one [picture A], the information becomes static.

**Int:** Could you explain?

*Ruga:* The information is received and it becomes static. You may not even receive it correctly [all laughing].

*Rana:* Truly, I swear!

*Fani:* That's right.

*Unidentified:* [Agreeing with *Ruga*]

*Ruga:* Here [in picture B], there is action.

*Shams:* There is action

*Ruga:* There is interaction; I could discuss things with the one next to me and this discussion could make the information stick.

*Shams:* Like making a comment or something like that.

**Int: Amal?**

*Amal:* Same thing.

**Int: What about picture ‘C’?**

*Ruga:* Individualized teaching

*Rana:* Advanced teaching. Different from what we have in our schools [All laughing here]

**Int: What do you mean by ‘advanced teaching’?**

*Rana:* I don’t know! If this kind of technology is used, I think all English learning here in Saudi will improve and all will have the courage to speak and improve.

*(Group 2, Interview 1, Unit 2:1)*

*Ry:* In the second year of high school, we had a teacher who taught us the TOEFL and she used to teach us this way (picture C). We, for example, used headphones for listening, or used the computer, but it was done only in the second year of high school.

*Ifa:* In high school, we had labs for each subject downstairs in the basement. We had an English lab, math lab, and for Islamic studies. In the English lab, there were headphones and a cassette, but we didn’t use them often. We didn’t use them. They were there, but we didn’t use them.

*Suha:* We had an English lab in our school, but it wasn’t used. I don’t know whether it was out of order! Although it was very big.

**Int: What about picture ‘C’?**

*Suha:* Not suitable for every subject. {----} Could be nice for doing research and you can search and see.

*Ry:* I feel it [teaching and learning of English] could be better with computers.

*(Group 1, Interview 1, Unit 3:1)*

### **5.2.5. Preferred Learning Context**

Although the students in both groups indicated that the traditional learning setting in picture ‘A’ represented their typical learning context, they expressed their preference for learning activities that involved paired or group work. They indicated that it was a good way “to discuss things with other students” in an interactive and communicative way, where “the teacher becomes more flexible”. One of the students also recognized the potential difficulties of group work on the operational level. From her personal experience, it could be that one or two students end up doing “all the work” on behalf of the group. The following extract is of students discussing their preferred learning setting:



Ry: In picture 'A', the student is the one who can prove herself. I mean the student who likes to participate will be known as a smart student. But in picture 'B', all the girls participate as a group and the teacher will know the group as a whole and not just the one student.

Suha: In picture 'B', it looks as if the whole work can be thrown on one student who does all the work for the group. I remember there were ten students in our group and I and another girl were the only ones in the group who used to find the meaning of words from the dictionary, make definitions, and make sentences and questions. That was how it worked.

Ifa: In picture 'A', the student speaks individually, but here [in picture 'B'] she does not. She might discuss things with other students and would say 'let's say this'. So it becomes easier.

Mona: And then here [in picture 'A'], if the student wants to ask a question or wants some clarification she would wait until the class is over and then goes to the teacher to ask. She can't {--} I mean, there are teachers who get angry when the student wants to ask and would say(

Ry: ('Don't interrupt, wait until I am finished then you can ask.'

Asa: The teacher can become more flexible [in picture B].

Ry: If the information is simple, the students don't need to interrupt the teacher. They can discuss it among themselves and explain what the other student doesn't know.

*(Group1, Interview 1, Unit 7)*

### ***5.3. Reports on the Students' Out of School Activities***

The discussions moved on in session two beyond issues of language learning and teaching into social and cultural issues to find out more about the kinds of out-of-school activities that the students engaged in. Understanding the students' social activities in their own cultural setting might give insights into the kind of practical and intellectual knowledge that is likely to stem from interacting with the knowledge and experience of their culture and community. The information can then be used to explain the way these sociocultural activities and norms affected the students' thinking and behaviours and predicted the type of their learning approaches and techniques.

#### ***5.3.1. A Pattern of Social Activities***

The focus group data revealed a pattern of social activities that was common to most students. This out of school pattern of activities reflected a shared social experience that was confined to going to school, coming back from school, eating, taking a siesta, studying, spending some time with the family and going to sleep. The students appeared to structure their out of school activities according to the internalized social and family life style. Some students felt that such routine activities caused them to feel depressed and to develop an introvert behaviour. The following two extracts are of students describing their typical out of school activities:

Ry: We have lunch, sleep, and sometimes we go out or my relatives come to visit.

*Mona:* I come from school, change, I study, have lunch, I continue studying, and then go to sleep. Everyday it's like that.

*Asa:* No, it's routine for me. Three quarter of the day, I sleep. I sleep. I don't even sit a lot with my family, but stay in my room and read. I don't study much.

*(Group 1, Interview 2, Unit 1)*

*Rana:* We sleep, and then study a little the material that was not understood. It's a daily routine. On the weekend, it's gathering with the family and relatives.

*Ruga:* Mine is not any different from hers'. Sleep, studying. On Thursdays and Fridays, it is still more studying. We may sit with the family.

*Shams:* On weekdays, this [routine] doesn't change.

*Fani:* Boring.

*Shams:* Boring. I come back from school, then sleep, study, watch a little TV and then sleep again. That's all. That's it.

### **Int: How does such a routine make you feel?**

*Amal:* I feel it has made me more introverted. Now, I don't have much interest in going out.

*Shams:* Yes, that's right. Depressing.

*Amal:* Yes, depressing.

*Rana:* Depressing. I mean every day is the same. Every day is the same. What would make it different?

*(Group 2, Interview 2, Unit1)*

### **5.3.2. Role of Social Factors in Thinking and Behaviour**

The data indicated how the traditional and cultural heritage imposed on females by Saudi society required them to conform to certain patterns of thinking and behaviour. Through child rearing practices or parental guidance, the proper behaviour of women in Saudi society seemed to have been internalized by the students and to have influenced the way they think and behave, as evident from the focus group discussions. The following extract illustrates the role of the family in determining the proper behaviour of women in terms of their comportment, movement, and dress code out of the home. It is part of a conversational unit in which the students were discussing the circumstances under which they were allowed to visit a friend or go out with one that was triggered by the question on the type of their out of school activities. One student said, "My mother doesn't like me to go to my friends' homes. I'm not allowed. I can go to my cousin's house, but my mother doesn't like girl gatherings. She always says, 'we either go together or you don't go'" (*Amal*, Group 2, Interview 2, Unit 2). Other families may adopt a more flexible approach to going out with friends, but still with the company of a mother or a married sister.

*Ifa:* I knew from the beginning that there are things that I am allowed to do and things that I am not. Before, I didn't comprehend that. I did not comprehend that there were things that I should expect 'no' for an answer, and that there are limitations. For example, the friend issue, 'why do you want to go? No, I want to go'. Then that was over. I realized that my mother was right to refuse [allowing me to go to visit my friend] so I stopped asking.

*Mona:* I sit more in a mixed group [men and women]. Even here in Saudi, we might go with my father's friends and don't cover our faces. So he might say, 'watch how you are wearing your hijab'. I wear the Abaia<sup>10</sup> here, but in Egypt I don't. [So he might say] Your shirt is short [not down to the knee], change it, or put on a longer one'

*Asa:* My parents always tell me that if they agree on something that I should not worry about what others might say. Like when I joined KFUPM. When I told my uncles and grandmother that I might be working in a hospital after I graduate, my grandmother almost had a fit and said, 'what a shame! You better study in a college for four years and become a teacher'.

*Ifa:* My father told me to ask my sisters and to choose the field of study that I want, so I did. But he objects to my studying abroad.

*Suha:* Not outside of Saudi.

(Group 1, Interview 2, Unit 3)

The role of the family in determining the permissible amount and manner of talking (styles of interaction) and the way a woman should think was also evident in the focus group data. The students indicated that it was often that the father would give instructions either directly (using verbal and facial expressions), or indirectly (using questions) in order to ensure that the proper behaviour was understood and followed. This seemed to have promoted among the students a structured, more conformist type of behaviour, and reduced spontaneity in thinking and behaviour. The following extract is part of a unit in which the students were discussing the role of parents, especially the father, in their out of school activities:

*Mona:* I was thinking like a child until I finished high school. I mean I used to think like kids do, 'why this, and why not that'. My mother doesn't work and she stays home, although she studied for a higher degree. But my father, because he meets a lot of people and travels, he expanded my thinking. [He would say] 'People don't think this way, they think that way; it's better if you do it this way.' I was very spontaneous, and often said things without too much thinking. He tells me, no. 'You have to reflect on things. There are things that you must think about before talking, before asking.'

*Asa:* Especially since you are in a big environment [referring to the university]. Not every body will understand you. In your school, ok, your teachers know you and may accept you, but in a large environment, how? You will be spontaneous once or twice then you have to work a second and third time to change their impression of you.

*Suha:* My father is so close to us. One of my sisters [an older one] talks so quickly and she doesn't care. He would say to her, 'don't you listen to what people say so that you can answer them! Speak slowly and speak less.' She talks a lot. I am a quiet person and don't talk much. So he directs her a lot.

*Ifa:* My father presented his views when we were little and that's it. Now if he sees something wrong he will correct us.

---

<sup>10</sup>. A black garment that women in Saudi wear to cover their heads and bodies when they go out.

*Asa:* He tests your way of thinking. He would direct a question to me and my brother [a younger one] and see how each one of us would react. He would argue and try to convince us that what he is saying is right. We might not be totally convinced but we know he is right.

*(Group 1, Interview 2, Unit 4)*

There was evidence in the data that the students' decision making processes, the kind of choices they can make, and thinking about future possibilities are influenced by Saudi society and family values. The thinking behaviour was compatible with the structure given and the availability and convenience of such options in ways that did not contradict the social rules enforced by the parents. The following extract is of students discussing how they deal with options and future possibilities:

*Suha:* I've always liked chemistry and wanted to study nuclear science, but of course (

*Mona:* No. I like to consider one thing only and that's it.

*Suha:* (So I thought of doing pharmacology, but that meant that I should go to Riyadh [the capital of Saudi] for that. My uncles live there, but I didn't feel comfortable to go there.

*Mona:* I hesitate a lot and that is the worst thing about me. That's why I like to have one thing to think about, not two. Like before joining the university here, I was so confused about which field to choose.

*Asa:* *Mona* said that she likes to have one thing to think about. For me it is different. I always think that, ok, I will finish my studies and get high grades, but there are still other things that I would like to do. My father doesn't like that. He says to me, 'Asa, concentrate on what you're doing and that's it.' I tell him when I graduate I want to do this or that. He says, 'No. Concentrate on what you're doing and get a diploma in English instead of thinking of nonsensical things.' They don't accept that you think of different things...

*Ifa:* It is nice that you can have some options, but it can create some kind of hesitation and prolong thinking.

*(Group 1, Interview 2, Unit 5)*

The focus group data also revealed that goal setting and the development of strategic plans were not likely to be vital activities among the students. It might be that they feel they should not set goals and establish strategies, if they believe they cannot do much about achieving them. It may also mean that the concept of time and strategic planning are not highly emphasized in the Saudi Arabic culture, where fatalism often replaces planning. The following extract is of a student making a summary of the most important points that were discussed about their out of school activities, to which other students made contrary comments on parts of it:

*Ifa:* Sleep and most people have a day a week where they meet with relatives. A few students would study on weekends<sup>11</sup>.

*Asa:* I study on Friday and Thursday morning because there is nothing else to do.

*Suha:* We always study on Friday because we stay home. I don't know why Friday is dull!

*Ifa:* Very dull, and depressing.

---

<sup>11</sup> The weekend in Saudi is Thursday and Friday.

*Asa:* Although it is Friday! The Friday prayer and the Muslims' Eid.

**Int: What makes you feel this way about it?**

*Asa:* Because there is school on Saturday.

*Mona:* Because we are the type who would say, why study today or why do my work today when we can do it on Friday.

*Ifa:* A lot of postponing. No matter how hard I try to plan things, it is impossible that I do all the things I plan for. Maybe I would do a quarter of them only.

*Asa:* Maybe the kind of things you plan for are hard to achieve.

*Ifa:* No. Not hard.

*Asa:* When we plan for things, we should focus on the kind of things that we enjoy doing so that we can truly do them.

*Ifa:* We live in a big house and it is always crowded. When I plan for something and then some one comes in, everything is all mixed up and I can't do what I planned to do. It becomes less important.

*Asa:* We always waste time. No matter how hard we tried to plan things right, we go back and waste time, in either sleeping or doing anything else.

*(Group 1, Interview 2, Unit 6)*

There was a general impression among the students interviewed that men are more rational and women more emotional; that a man thinks and reflects on things before making a decision, while a woman is more likely to give a prompt response. The students in the second group also thought that men were equipped with more reason and cognitive abilities. These assumptions stem from social and cultural teachings and upbringing, which define the expected roles of Saudi men and women. The students seemed to recognize an unequal distribution of power without question and regarded the dominance of men over women in status and social relations as normal. Below are two extracts. The first is part of a unit in which the students were discussing the role of parents, especially the father, in their out of school activities which led to discussions on how decisions were made in the family. The second extract is of students making a summary about their out of schools activities in which they were explaining why they had to spend most of their weekends at home studying:

*Asa:* A father would think more about things. He doesn't give an immediate answer. Generally, *Harim* [women] give an impulsive response. But my father, no. He would think and ask us to wait for his reply.

*Suha:* If we ask my father anything, he would wait and then give us his answer, but my mother! 'Can we do this?' she would immediately say no.

*Ry:* Big and important decisions require that you think carefully about them, such as going to university and choosing a major field, because they shape your whole future. Other decisions can be less important.

*Ifa:* My mother would make up her mind quickly, but my father would ask me to go and ask my older sisters [in matters such as going to university or selecting a field of study].

*Asa:* Even if the matter is not big or important, you still need to make a careful decision.

*(Group 1, Interview 2, Unit 4:1)*

*Rana:* Boys are smart. They read the information once and it stays with them.

**Int: And why is that?**

*Rana:* Maybe their brains are different from those of women.

*Fani:* They [men] are more intelligent. Their way of thinking is better.

*Shams:* They [men] have a better memory than women do.

*Fani:* And their viewpoint! It is said when you want to consult someone, consult a man not a woman [an Arabic saying].

**Int: What do you think is the idea behind that saying?**

*Fani:* Because a man judges things rationally but a woman with her emotions. Men reason more.

*(Group 2, Interview 2, Unit 3)*

#### ***5.4. Students' Views on the Teaching and Learning of English***

Other issues which appeared from the focus group data came as a response to the question, **'What suggestions do you have for the teaching and learning of English that you believe may lead you to develop the way you think and learn?'** The purpose of this question was to provide insight into and illustration of the different problems students face in learning English, how they think, and their opinion about their learning context. This analysis was partly made possible by my familiarity with the students' learning environment as a consequence of being a lecturer in the department where this study took place. A summary of students' views, needs, and observations regarding their learning context is presented bellow.

1. The students believed that the content of the English textbooks was boring and outdated.
2. The students expressed their inability to express themselves in English and suggested providing classroom conversational activities or making field trips where they could practise speaking English.
3. The students complained that English teachers were more concerned with finishing the curriculum than with helping the students to comprehend the curriculum.
4. The students from government schools expressed the need to commence teaching English at a younger age and suggested that English should be introduced at the first elementary school level.

5. The students observed that many teachers of English lacked the skills and knowledge of how to teach and suggested that teachers should get more training in teaching methods.
6. The students recognized that part of the problem in learning English was the students themselves and their unwillingness to maximize their effort in the learning process.
7. Some students suggested that extra reading in which a student selects a book to read and make a summary about it would help them to improve their English.
8. The students complained that they felt bored in English classes and that the teacher's teaching style was part of the problem. They suggested introducing interesting activities in teaching English rather than listening to the teacher's explanations, which could be found in the book.
9. The students suggested that any new method or style of teaching should be introduced to the students at an early stage of learning rather than at a stage when they were about to graduate from school.
10. The students thought that English exams did not reflect their actual level of English and that made them suffer at the university level. They also suggested that the results of English examinations should not be included in their final Grade Point Average (GPA).

These views reflect the students' experiences in their own particular situation and context. Such experiences can be a tool for increasing self-awareness on the part of the learner and a deeper understanding of each learner by the teacher. The following extracts are of students discussing their concerns about learning and learning activities, teaching, testing and their expectations of English teachers. They show the students' awareness of their own learning and the limitation of their learning environment. These points will be discussed under four categories, with some conversational extracts:

#### ***i. Stage of Teaching English***

The students suggested that English should be taught in public schools at the elementary level, as in private schools to help them become familiar with the language and acquire it at an early age. They also suggested that it would be preferable that the language teacher were a native or near-native English speaker to help them attain clearer pronunciation.

*Amal:* I wish they would start teaching [English] when children are young.

*Rana:* Yes, and the teacher must be a native speaker.

*Fani:* Her pronunciation would be more accurate.

*Rana:* When the pronunciation is accurate and at a young age! That would be good for them [for the students].

*Amal:* They [the ministry of education] started to introduce English to sixth graders, but the material is the same as in the seventh grade.

*Shams:* The material is the same. It didn't change.

*(Group, 2, Interview 3, Unit 1)*

## *ii. Content and Activities of the Language Course*

Another idea that emerged from the focus group discussions was the content of the English course in middle and high schools and the kinds of activities that should be introduced in English classes. The students expressed their dissatisfaction with the content of the English course which emphasises vocabulary, syntax and grammar while other productive skills, such as writing and speaking were under-emphasised. In addition, the type of activities that the teachers typically used in the classroom did not stimulate the students or required their participation. As one student put it, "This static situation doesn't work". The students suggested that speaking skills should be introduced as an extra-curricular activity that could serve as "a stimulus that will stir things up between the teacher and the students." The students also criticized the focus in teaching writing on reproducing already existing texts which required minimal changes. They suggested that they should be taught how to compose and create their own writings.

*Ruga:* There should be a separate course for discussion and conversation. This is important because we are not practising speaking.

*Shams:* That's right. We can't speak [the language].

*Ruga:* The student can understand but she doesn't have the courage to speak. She is not used to it. She has enough vocabulary but she is not practising speaking. Where would she do that!

*Shams:* We are only receiving; we are not speaking [the language]. We are not using the language that we are learning.

*Rana:* I wish they would make a period for conversation and that its credit should be in a separate transcript. It will serve as a stimulus that will stir things up between the teacher and the students. This static situation doesn't work.

*Fani:* If there will be grades the students will feel tense.

*Rana:* Yes.

*Fani:* It won't work then.

*Ruga:* This whole curriculum should be removed and put aside; completely aside. Language labs should be introduced, and like she [*Rana*] said, conversation class, and a class for writing. {--}Composition! We don't even have that skill, it's only memory work. You have one composition model ready made and you produce something similar to it; you only change the verbs.

*Fani:* like 'is' and 'are'.

*Ruga:* It has been like this since I started studying English from the seventh until the twelfth grade.

*(Group 2, Interview 3, Unit 2)*



### ***iii. Extra-Curricular Activities***

Some of the points that the students suggested were to have more out-of- class learning activities. They suggested that such activities as going on field trips might be helpful to communicate outside the classroom. In addition, they suggested creating situations for practising English in a functional way through other extra curricular activities, such as visiting libraries and reading books of their own choice for developing different language skills.

*Ifa:* [I suggest that they make] one day a week for English on which they take the little ones on a trip where they can practise speaking. For example, they take them to a restaurant to order food so that they get used to speaking.

*Asa:* Like a curriculum from the elementary level.

*Suha:* They should let them read stories. I remember when I was in the States [at grade four] there was one particular day where the students go to the library and take a book or two to read. They may also be assessed on what they read. My English improved a lot because of this. I used to read stories designed for first graders and little by little, I improved.

*Asa:* It is very important to develop speaking skills. It is my weak point.

*Ry:* In high school, we take all the subjects in Arabic, and now at the university it's all in English. So they should add more curriculum in English at the high school level.

*Asa:* It's all vocabulary [at high school].

*Ry:* When we started taking biology at KFU in English, we were shocked with the situation.

*Suha:* It is not important that the curriculum should be in English [in high school]. For example, there are students who go to other colleges where they don't need to use English.

*Ry:* All I'm saying is that there should be extra curriculum in English other than the formal one.

*(Group 1, Interview, 3, Unit 1)*

### ***iv. Roles of the Teacher and the Students***

Another idea that developed from the interview data and which was triggered by the point raised above about extra-curricular activities was the role of the learner. Some students expressed that the role of the student in their learning environment is often passive and that many students put a minimum effort in the learning process, preferring that things should be simplified for them. This may also mean that the tedium of rote-learning meant that those employing a memorizing approach spent less time studying. The role of the language teacher was also criticized. Most students indicated that teachers of English were not always competent in the language they taught and that they lacked training in good teaching methods and communication skills. They suggested in-service training courses for English teachers before they started teaching.

*Ruga:* There is one point that we haven't discussed, yet; the role of the student herself.

*Shams:* Yes, that's right.

*Ruga:* And whether she wants to improve herself or not. There are students who study three or four units the night before the exam; how do they expect to finish studying!

**Int: How does this compare to your way of studying?**

*Fani:* For me, I used to study regularly.

*Shams:* No, for me it was just going over the material.

**Int: Amal?**

*Amal:* The night before the exam.

*Ruga:* No, I did not work hard in English, except for reading to know the information and the vocabulary and that's it, because my English is good.

*(Group 2, Interview 3, Unit 3)*

*Ifa:* The students, by the way, don't like that you put a heavy learning load on them.

*Suha:* No, they don't like that. They get bored.

*Ifa:* No, they don't like that. They like things presented to them in a simple way because they can get bored.

*Suha:* The students prefer that you would give them some papers and to tell them, 'memorize them.' They prefer that than to go over things with them time after time.

*Ifa:* That is right. And the same thing with the teacher. There is a difference between a teacher who knows English well and knows how to explain things and you feel she is competent, and a teacher whose accent and vocabulary are from here and there.

*Mona:* We had only one teacher {----} in high school who was perfect.

*Ifa:* There are teachers who are competent in the language but they don't know how to teach.

*Asa:* That is right. There are a lot of those.

*Ifa:* The teacher could be competent in the language and know spelling and all....

*Ry:* ...but she doesn't know how to deliver information to the student.

*Ifa:* ...but she doesn't know how to explain it.

*Asa:* I think teachers from the beginning need something like a training course on how they can improve their students' learning. Not that they say to us, 'be good so that we'll do such and such.' Their attitude can make us happy because it can make us do better, but it is not done for us. It is for the sake of the model lesson [during inspection] and for her own advantage, not ours.

*Suha:* Especially that it is language, not maths. The student needs to know how to use the language. Knowing the language is not only answering some questions on a paper and it is over.

*Asa:* Yes.

*Suha:* You need it for speaking, chatting [informal speaking], and writing.

*Ry:* In our {--}, in some schools, they used to try different methods, but neither the teacher nor the students had a clear idea of what they were actually doing. The teacher used to come to class and say, 'Today we will do so and so style' and she starts explaining and explaining and we say like, 'ok, and then what'.

*(Group 1, Interview 3, Unit 2)*

### **5.5. Comments on the Focus Group Discussions**

The purpose of this chapter was to examine focus group data to understand in more depth some of the initial quantitative findings related to the influence of background factors on the students' approaches to learning. The focus group data provided additional information to explain and supplement the statistical results in the last chapter. The results of the qualitative analysis revealed that the students' backgrounds, such as schooling experiences and out of school activities had a strong impact on their learning styles and strategies. As noted in the data, the students' schooling experiences largely reflected a traditional approach to teaching, learning and testing. One feature of this traditional approach, as described by the students revolves around teacher-directed explanations and examples on the blackboard, with minimal use of illustrations, group work, language labs, or computer-assisted instructions. The students' learning experiences could have been affected by these practices and procedures, which resulted in the use of certain learning styles and strategies, rather than others, to cope with the requirements of the learning environment. This could explain, for example, the students' reliance on a visual mode of learning to obtain information rather than on the auditory or the hands-on. It could also explain the low use of compensation and social strategies among the students.

Another feature of this traditional approach to teaching that had reflected on the students' general approaches to learning was the way the emphasis of teaching was on accuracy over fluency and communicative competence. The focus group data showed that teachers tended to teach for examinations by spending time providing techniques for choosing correct answers to test questions. Students indicated that they relied on the teacher's direct instructions of what appeared to be the most important topics (as defined by examinations) and were required to reproduce them with rote learning. The emphasis on the reproduction of knowledge rather than on analytical or individual interpretation seemed to have encouraged the students to rely heavily on the memorization and the repetition of information found in their textbooks. Faced with a variety of chunks of information that was irrelevant to concrete, everyday-life situations, the students might have been unable to see interconnections between ideas, or the meanings and implications of what was learned. This could have discouraged these students from seeking, thinking about, analysing and reflecting on information to make sense of it, and encouraged thinking that was removed from concrete action. As a result, analytic and concrete learning styles might be less used in the classroom.

The result of the qualitative data also showed how traditional classroom procedures influenced the students' approaches to learning in a variety of affective ways. The students indicated that the teacher seldom encouraged students to speak out, ask questions, or express opinions. The students were also unwilling to participate in classroom discussions and activities and considered their lack of participation as an appropriate behaviour for the learning environment. This attitude could have encouraged a more passive learning behaviour, and discouraged the students from thinking and making guesses during classroom activities for fear of being wrong and thus losing face. Under these types of classroom conditions, students could have trouble with "boredom", as some of the students expressed, because they could become impatient with listening to instructions without being directly engaged in the learning activity. These teaching/learning procedures and activities could have resulted in the low use of cognitive and affective strategies in the classroom among these students.

The qualitative data also revealed that the classroom echoes the specific nature Saudi society, which fosters conformity to social and family values. The students' low outdoor activities reflected a component of passivity that corresponded to a reduction in overall openness and use of socio-affective strategies, due to the limited socially mediating activities and transactions with others. For examples, styles of interaction in the family and child rearing practices that emphasise values equated with shyness and reticent behaviours could explain the relationship between these background factors and the low use of extrovert and open learning styles among these students. Social restrictions also seemed to influence the way the students set goals and developed strategic planning, the way they handled different possibilities and dealt with options in learning and in life. The focus group data revealed how the students disconnected themselves from opportunities that their society did not offer. They focused instead on making plans in accordance with the values and beliefs of their cultural system and their expected role in family and society. This could have prevented the students from making strategic plans they knew could not be realized.

The students were given an opportunity to document and voice their views and suggestions about their language-learning environment. In general, the students suggested the need for learning through approaches that would help them improve their communicative competences both in and out of the classroom, and which would lead them to be more

involved in the learning process. One of the major reasons that the students were in favour of more functional learning approaches was their 'boredom' with an approach to teaching which emphasised listening passively to the teacher or taking notes. They indicated their preference for an approach that focuses instead on interaction, communication, and the use of practical, every day English in real life situations. The students were also concerned about their future careers, which could be affected by a learning tradition of memorizing information for successful examination performance. This awareness may have led these students to realize the shortcoming of the traditional approach with its aims of learning and teaching, and the potential strengths of the more communicatively oriented approaches.

In conclusion, the focus group data revealed that the students' backgrounds and the learning system they developed in previous learning experience have an influence on their learning styles and strategies. This could explain the relationships between background factors and the limited use of certain learning styles, such as auditory, concrete, and analytic, and the low use of affective, social and compensation strategies. Therefore, the students' backgrounds, such as their previous schooling experiences and out of school activities, should be taken into consideration when investigating the factors related to the range and variety of learning styles and strategies. Additionally, the findings from the focus group discussions provided evidence that the traditional teaching and learning approach that was familiar to the students was not a comfortable way of learning. The focus group discussions showed that the students would have preferred their learning environment to offer a more flexible, interactive and communicative approach to learning, and a less controlled teacher-student relationship. This leads to another conclusion that there is a gap between the current teaching methodology and the learners' expressed needs to learn through more communicative activities.

## ***5.6. Summary***

This chapter examined focus group data in order to understand and explain in more depth some of the initial quantitative findings. Ten students in their first year in the English program at KFU were divided into two focus groups, with five students in each group. The researcher constructed three sets of interview questions that focused on the students' schooling experiences, their out of school activities, and their opinions about the learning situation and English education in Saudi Arabia. The results of the qualitative analysis

provided an explanation of how learning styles and strategies could be influenced by the students' educational and sociocultural backgrounds. The next chapter will discuss the findings of both the quantitative and qualitative stages of the study.

## **Chapter Six**

### **Discussion and Conclusions**

#### ***6.0. Introduction***

The purpose of this two-stage, sequential mixed methods study was to explore the learning styles and strategies of Saudi female students in relation to their educational and sociocultural contexts. The results of both the quantitative and qualitative phases of this study suggest that the educational and sociocultural features of the learners are likely to determine the range and variety of their learning styles and strategies. The students' reported approaches to learning reflected their culturally based view of knowledge, societal expectations of schooling, and the learning system which they developed during previous years of education. In general, the students focused on using learning approaches that were appropriate for dealing with the specific requirements of their learning environment, particularly, to improve their formal learning of English and prepare them for examinations. Other styles and strategies that aim at developing analytical and more communicative competences were under-developed among these students mainly because the learning environment did not encourage their use. Citing Bruner (1996), Wintergerst and colleagues (2003: 98) affirm: "Stereotypical learning preferences for members of a given culture are to be expected- at least to some degree-since learning styles are part of the socialization process within a culture."

#### ***6.1. Students' Learning Styles and Strategies***

The first research question sought to identify the range and variety of the students' learning styles and strategies. The results revealed five interpretative clustering of styles: (1) a stronger preference for a visual mode of obtaining information than for a hands-on or the auditory mode; (2) a preference for using extrovert styles on the social level and introvert on the learning level; (3) a bi-stylistic intuitive and concrete styles; (4) a strong preference for approaching tasks using a closure oriented style rather than an open one; and (5) a global rather than an analytical way of understanding information. Some of these results

are similar to those studies mentioned in Chapter Two on the learning styles of students from other countries, notably, Asians and other minority students. There are also areas of differences that are reflected in different patterns of learning styles and strategies of Saudi students as a result of their different cultural background.

The results of the first research question also revealed that the students' overall use of learning strategies was medium rather than high. Only metacognitive strategies were used at a high level. The other categories, cognitive, compensation, memory, social, and affective, were all used at a medium level. When compared with students in other studies (Lee, 2003; Sheorey, 1999; Merrifield, 1996), Saudi students used strategies somewhat more often than learners in other foreign language settings, and more often than many second language learners in other studies (e.g., Griffiths, 2003). One possible explanation is that the participants in those studies comprised both male and female students while in this study the participants were only females. All studies which examined sex as a variable in the use of language learning strategies reported that significant sex differences usually occurred in a single direction, showing greater use of language learning strategies by females (Lee, 2003).

The high use of metacognitive strategies among Saudi female students is similar to what was observed among foreign language learners from other Asian countries such as Singapore, Japan, Korea, mainland China, Thailand, and Indonesia (e.g. Goh and Kwah, 1997; Mullins, 1992; Oh, 1992; and Phillips, 1990). Goh and Kwah's (1997) survey of students from Singapore learning English reported a higher use of metacognitive strategies than other types of strategies, a conclusion that was also reached by Sheorey (1999) in her study with Indian learners. In a study of the learning strategies of Palestinian students, Shmais (2003) also found that metacognitive strategies were the most preferred.

It is possible that learners in the present study, who had little exposure to English outside of the classroom, tended to use these metacognitive strategies to promote greater learning efficiency in the classroom. The results of both the quantitative and qualitative analyses, however, showed that the students were limited in the range of metacognitive strategies they used. They were limited in the use of those metacognitive strategies crucial for *planning* and *setting goals* for their own learning. It might be that the students could not develop these skills to a high level themselves because they expected others, such as a



teacher or a family member, to guide them substantially in these areas. In addition, the concepts of time and careful planning, and overt verbal behaviour are not much emphasized in the Saudi Arabic culture and education. This finding on the use of metacognitive strategies is closer to that of Hu (2003) in which he reported that students from the less developed regions in China, compared to students from developed regions, were found to lack effective metacognitive, social, and affective strategies, for setting goals, managing emotions and interpersonal learning and strengthening motivation.

An examination of the learning strategies highly used by Saudi female students suggests that they favoured the use of strategies that helped them to improve their English outside the classroom (Table 7.1). One could argue that these students seemed to recognize the importance of using language for interactive and communicative purposes. Therefore, the strategies highly used involved actively seeking opportunities to use or practise English functionally. These strategies enable learners to increase their exposure to the second language outside the formal classroom. The results of the focus groups discussions revealed a similar finding, for the students expressed their need for more communicative and interactive activities, such as, group work and conversational opportunities, instead of relying on test performing techniques and procedures. In fact, the importance of memorization for good performance at examinations did not result in the high use of memorizing strategies among these students. Some of the least strategies used by the students were for memorization, such as using flash cards and rhyming to remember new English words. This finding supports the argument made by Wen-ta, Dornyei, and Schmitt (2006) against the *SILL*, which indicates that the *SILL* focuses on specific strategic behaviour and the scale descriptors indicate frequencies of strategy use. This led these researchers to conclude that a linear relationship between individual item scores and the total scale scores cannot be assumed. They asserted, "...one can be a good memory strategy user in general while scoring low on some of the items in the memory scale (e.g. acting out a new word or using flashcards)" (p. 83).

## **6.2. Relationship between Learning Styles and Strategies**

The first research question also sought to examine the relationship between learning styles and strategies. The results of the quantitative analysis provided tentative indications of a possible relationship between learning styles and learning strategies. Three findings

emerged from the regression analysis. The first was that intuitive and closure orientation styles were almost constant predictors of the selection of all learning strategies. For example, students who reported using cognitive and metacognitive strategies also reported themselves closure oriented and intuitive. This also suggests that the underlying aspects of most learning strategy use for the students in this study were intuition and closure orientation styles. This is not surprising since language is symbolic in nature and requires logical abstraction, predictions, and the formation of hypotheses. In addition, a traditional approach, as opposed to a communicative approach, to foreign language learning appears to involve an orderly, closure oriented style as well as the thinking of possible solutions to language learning problems (Oxford and Green, 1995).

This leads to the second finding of this study on the relationship between learning styles and strategies, which is that the use of any learning strategy is likely to be the result of the interaction and combination of two or three learning styles (Tables, 9.1 – 9.6). For example, in addition to being intuitive and closure orientated, students who preferred visual styles tended to use memorization strategies (Table 9.1). Concrete learners liked to be in touch with their immediate emotions and hence used affective strategies (Table 9.5). Extroverts tended to use social strategies (Table 9.6); and those who preferred auditory and hands-on styles used strategies that helped them to continue to communicate despite their limited knowledge of English (Table 9.4). Although these findings are unique to the students in this study, there appears to be some areas of similarity between these findings and those of two studies reported in the literature on the relationship between learning styles and strategies. The two studies conducted in the US with adult second language learners used the *SILL* to identify the learning strategies of their learners. The first study was conducted by Ehrman and Oxford (1990) who in addition to the *SILL*, used the *MBTI* to identify the learning styles of the students. As in this study, Ehrman and Oxford found that extroverts reported using more social strategies than introverts. Unlike the present study, however, their study indicated that concrete learners favoured memory strategies; intuitive learners used compensation strategies; and open learners used affective strategies, which closure-oriented learners rejected. In the second study, Rossi-Le (1995), used the *SILL* and the Perceptual Learning Style Preference Questionnaire, developed by Reid (1987) and correlated the results of the two using regression analysis. The investigator found that whereas learners who preferred the visual mode reported choosing visualization

as a strategy, those who preferred tactile and kinesthetic perceptual learning styles reported that they engaged others in conversation and sought out native English speakers, thereby becoming directly involved with the subject matter being learned.

The third finding of the present study on the relationship of learning styles and strategies, which could be of interest to language teachers and program designers in Saudi Arabia, was that four of the eleven dimensions of learning styles did not have any statistically significant relationships with learning strategies. These were introvert, open, global, and analytic. The first two deal with aspects of personality type, while the latter two deal with cognitive processing styles. It can be argued that the learners in the present study drew on a series of strategies that were consistent with their learning styles, which were effective in dealing with the specific requirements of their learning environment. The results of the qualitative study revealed that the students were faced with learning activities that prevented them from seeking, thinking about, analysing, and reflecting on information to make sense of it. Teachers also tended to teach for examinations by drawing students' attention to specific pieces of information that were likely to be covered in the tests. These modes of learning English, where the information came from textbooks or teacher's oral explanations, or written on blackboards by teachers, required little cognitive engagement and little or no active participation. Therefore, the students' learning experiences and their learning styles could have been limited by these educational practices and procedures. It is difficult, however, to determine precisely the impact of learning styles on the selection of learning strategies, because of the possible influence of other factors. In relation to this assumption, Cohen (2003) argues that some such factors are learners' age, prior experience in learning the target language, levels of proficiency in the target language, language-learning aptitude, motivation to learn the language, personality, gender characteristics and contextual variables.

The results of the present study on the relationship of learning styles and strategies suggest that learning styles could influence the selection of learning strategies, but other factors may also play a role. However, due to limited test significance, these results should not be taken as proven or established, but rather as suggestive of a possible relationship between styles and strategies that need to be studied further. Nevertheless, these results imply the need that teachers in Saudi Arabia should pay more attention to exposing students to more

analytical, speculative, and interactive learning situations to help them develop more effective cognitive and perceiving (open) processes beyond just the receiving mode.

### ***6.3. Relationship between the Research Variables***

The second research question sought to determine the influence of educational and sociocultural variables on the reported learning styles and strategies of the students. As shown in Chapters Four and Five, the results of this study provided an indication of the role that educational and sociocultural factors could possibly play in determining the students' general approaches to learning (see Tables 12, and 13). One of the factors that was related to the students' learning approaches was the type of learning institution attended in middle and high schools. As observed in this study, students who came from private schools used more compensation strategies, while students from government schools used fewer strategies overall. It was also observed from the qualitative results that students who had studied more English in private schools were occasionally exposed to new and communicative teaching methods, unlike students from government schools who had had no such exposure. It could be that those students from private schools needed to use more compensation strategies to cope with new and confusing learning situations. Oxford and Ehrman (1995) assert that users of compensation strategies tend to be highly flexible, and able to deal creatively with unusual experiences because those strategies themselves require the ability to cope with new and confusing input in ways that allow the learning process to continue rather than be halted. Watanabe (1990) who investigated the strategies of 316 EFL students in Japan reached a similar finding to the one in this study. The investigator found that students who came from prestigious schools, used compensation strategies at a high level, while students from less prestigious schools used all strategy groups at a moderate level.

While private learning institutions predicted the high use of certain strategies in this study, it did not influence the selection of any of the learning styles. Consequently, one might hypothesise that unlike learning strategies, learning styles are not related to the linguistic experience of these students.

Of particular interest in this study was the way in which teaching styles and methods minimized the investigative, discovery and collaboration styles, and maximized passivity

and close adherence to the prescribed textbook and teacher's explicit explanations of English grammar and vocabulary. The results of the qualitative analysis revealed that the students were not accustomed to processing information by observing facts and following certain steps to arrive at a conclusion. Instead, they were mainly required to obtain the facts specified by the teacher on a subject and arrive at a predetermined conclusion, and learn it by rote to obtain high marks in examinations. Such learning environment could have encouraged these students to rely on the perceptions and judgment of the teacher and information written on the blackboard or in textbooks, and discouraged them from developing their ideas freely while thinking, asking questions and forming opinions. This could explain the reason why the teacher's teaching style and methods diminished the use of a wide variety of learning styles, such as auditory, concrete, intuitive, open, and analytical styles (Tables 12).

This leads to another important finding in this study which was that the teacher's teaching style and methods predicted the low use of all learning strategies, except memorizing strategies (see Tables 13). Although the results of the qualitative analysis indicated that the students relied heavily on memorization, the survey results indicated a medium rather than a high use of memorizing strategies to facilitate the students' memory process. A possible explanation could be that the students used a different set of memorizing strategies than the ones investigated in this study to prepare for English examinations. This speculation is supported by data from the focus group discussions in which students revealed that they just memorized the content of the textbook. It is vital, therefore, for these students to be made aware that memory related strategies do not always positively relate to language proficiency. In fact, Purpura (1997) reports that the use of memory strategies in a test-taking situation had a significant negative relationship to the test performance of learners in grammar and vocabulary.

The teacher's teaching style and methods was found in this study to be a predictor of visual rather than hands-on or auditory learning styles. The moderate preference for hands-on sensory styles by the students can be expected, given their moderate exposure to this mode of learning in previous English classes. During the focus group discussions, the students expressed that they wanted language learning activities to involve more action and more stimulating learning situations, such as field trips. The problem was that their previous language classrooms concentrated mainly on explanation and visual skills, leaving the

learner with a strong hands-on preference frustrated and bored. The weak preference for learning in the auditory mode was somewhat surprising among these students who come from an oral tradition, where the emphasis is more on the spoken word. One reason, which was emphasized by the students during the focus group discussions, was that most auditory input (i.e., explanations) in English classes was closely tied to the written. Another reason could be the students' limited exposure to authentic English, both in and out of the classroom, given that listening and speaking skills receive minimal attention, especially in the evaluation. On the other hand, both quantitative and qualitative results showed that the students' strong preference for visual learning styles could have stemmed from the traditional teaching method, where students sat in rows facing the blackboard and the teacher, and took notes of information written on the blackboard. There was minimal use of language labs. The emphasis was largely on language forms, accuracy, and application of practiced drills for passing tests. Thus, the perceptual channels became strongly visual. This finding is similar to that observed in Biggs' (1995), and Kember and Gow's (1991) studies, which showed the reliance of students from Asian countries on visual styles because of their tendency to want to perform well in examinations and achieve high grades. This finding also supports some of the comparative data discussed in the literature (e.g., Park, 2002), that students from different ethnic groups show a strong preference for visual learning modes in the foreign language classroom. Cheng and Banya (1998: 80) explain:

...[I]n a formal learning setting where the target language is learned as a foreign language and linguistic accuracy is the major concern, students tend to be more visual, while in an informal learning situation in which communicative fluency is emphasised, students may tend to be more auditory or kinesthetic.

It is crucial, therefore, for these students to know that the language skills they are aiming for are both verbal and written. In order to understand lectures, oral explanations, discussions, and conversations both in and out of the class, the auditory mode must also be developed and strengthened.

Also of particular interest in this study was that previous academic achievement in English in middle and high schools predicted the selection of global rather than analytical styles. As the assessment criteria that dominate the process of education in Saudi schools

correspond to that of the traditional method, students seemed to memorize the facts and apply them in a routine manner, without feeling the need to acquire analytical or problem solving and reasoning skills. This suggests that English teaching, learning, and testing in the middle and high schools in Saudi Arabia foster and reward a global learning approach. In addition, success, as it relates to school expectations, seems to rely on how functional Saudi students are in meeting the demands of their traditional evaluation system.

This finding regarding the relationship between school definition of success and the use of a particular cognitive style, finds support in the literature on the learning styles of minority students (Native Americans, African Americans, and Hispanic) and mainstream middle and high school students in the US. For example, Irvine and York (1995) demonstrated that minority students tended to be global learners compared to the analytical mainstream students in the US. Their study identified a large achievement gap between the two groups because educational practices and examinations were geared to the skill sets of an analytical approach. Irvine and York concluded that minority students failed academically, because their learning styles were different from the middle class cultural values, beliefs, and norms of US schools.

These results show that cultural values could influence the preference for either global or analytical cognitive styles. As in the present study, a high preference for global learning styles was predicted by the importance the students attached to the maintenance of strong ties and good relations with other families that shared similar cultural characteristics to theirs (Table 12). Other closely related factors that predicted the high use of global styles were family entertainment and the high hierarchical order of the student among siblings in the family. In addition, the way that less religious conformity predicted a diminished preference for global styles could be due to the fact that religion is an operative force in the Saudi Arabic culture of learning. The relationship between global learning styles and sociocultural factors find support in the extensive body of research on interpersonal behaviour, which shows that strong ties to the group, an emphasis on conformity, and strict socialization practices, result in a preference for field dependence or global learning styles. By contrast, less harsh socialization practices would encourage field independence (or analytical styles) and fewer ties to the group (Ritchie, 1988; Bean, 1990; Irvine and York, 1995; Wyss, 2002).

One of the interesting findings of this study was that previous academic achievement in English was a likely predictor of the high use of five of the six learning strategies, with varying statistically significant correlations. The strongest of these correlations was with cognitive strategies, followed by metacognitive, compensation, and social strategies, while the lowest was with memorizing strategies. This finding is in contrast to that of Phillips (1991) who reported no consistent differences between the strategies used by high proficient and low proficient ESL university-level Asian students. Phillips thus concluded that the relationship between proficiency and the use of learning strategies was curvilinear. In contrast to Phillips' (1991) finding, Park (1997) observed that cognitive strategies had the strongest correlation with TOEFL scores among Korean college students. Although the methods for measuring achievement in English and the subjects were different, the results yielded by the present study and that of Park show that the strongest relationship existed between cognitive strategies and academic achievement in English. This, however, should not be interpreted as a direct comparison between the results of the two studies, because proficiency in the current study was measured by the end-of-year academic tests in previous English classes and according to the assessment criteria of the Ministry of Education in Saudi schools, while in Park's study the TOEFL standardized test was used. Nevertheless, these findings are suggestive of a possible relationship between high academic achievement in English in Saudi schools and the high use of particular learning strategies.

As in other studies that have investigated learning styles and strategies in different sociocultural contexts (e.g. Oxford et al, 1992; Oxford & Anderson, 1995; Merrifield, 1996; Park, 2002), the present study also showed a very low use of social and affective approaches to learning by these students. The focus group discussions revealed that the students felt insecure about their language competence and feared failure, ridicule, and stigmatizing labels from their teachers. These negative thoughts and emotions might have adversely influenced the students' use of affective strategies and contributed to low test performance in English. To this effect, Ehrman et al (2003), assert that motivation is markedly related to performance anxiety and that language learners who are overtly anxious about their performance will often be less motivated to perform. In addition, learners often fail to use certain strategies because classroom goals do not support their use or the students' knowledge base was not adequately developed (Garner, 1990). This could



be true of students in the current study who were motivated to use certain learning strategies because the learning situation required their use, but who failed to handle the feelings that were evoked during the learning process. The use of affective strategies was shown to be related to religious conformity (Table 13). In relation to this, Oxford (1990) asserts that the affective side of learning strategies includes emotional and motivation-related strategies, such as anxiety reduction, self-encouragement, and self-reward. It could be that religious conformity also touches on the emotional and motivational side of learning processes. This relationship should, however, be interpreted cautiously because the stepwise technique used in the discriminant analysis tends to capitalize on chance relationships and increase the probability of a Type 1 error, since significance testing is used to make variable selection decisions.

Though motivation was observed, in this study, to be related to memorization and metacognitive strategies, there has been no evidence to support its influence on the selection of any of the learning styles. This finding seems to be in contrast to the assumption that the kind of motivation the learner brings to the learning task, as well as beliefs and attitudes related to learning, form the affective side of a student's learning style (Riding & Rayner, 1998).

In general, the very low and relatively low correlations in the affective and social areas, compared to higher results in the use of cognitive and metacognitive strategies suggests that the emphasis in language teaching and testing in Saudi schools is on a narrow aspect of language learning, i.e., the linguistic form, while the social and affective aspects of language learning are largely ignored.

The second research question also attempted to identify the relationship between self-supporting activities and the range and variety of the students' learning styles and strategies. The results obtained suggest that this informal learning system, highly influenced by family background, could be a possible predictor of the use of more effective styles and strategies than the ones predicted by the students' formal education system (Tables 12, and 13). Among these informal activities, 'speaking English with a friend' stood out as positively predicting the high use of extrovert and intuitive styles, as well as three learning strategies: memorizing, compensation and social. It could be that 'talking to a friend' offered an informal conversational opportunity to these students and helped them

to utilize the language they had already learned and stored in memory. It also allowed them to rehearse the language by communicating in it, in spite of gaps in their knowledge of the English language. Watching TV programs in English was another informal activity which predicted the high use of cognitive strategies. This finding was not surprising since watching TV is a component of the cognitive strategy category, and one of the resources that help students to develop their comprehension and production strategies (Oxford, 1990).

The results of this study also revealed that learning styles and strategies of the students were related to courses of English taken outside Saudi Arabia. This factor predicted the high use of hands-on learning styles, open styles, and affective strategies. In addition, those students whose experience allowed them to socialize with English neighbours and friends were high users of metacognitive strategies (Table 13). It could be that mixing with English speaking friends helped these students to develop their fluency and therefore needed to use these indirect strategies (that provide support for language learning) to focus, monitor, and evaluate their own language learning. This could also explain the finding of this study that showed that little travel to English speaking countries was related to less use of metacognitive strategies. Similarly, limited opportunities for authentic auditory input could have predicted the high use of closure styles among these students. This is in consonance with the result of this study that showed that Saudi students needed clarity of the written word to comprehend oral communication. It also supports another finding that there is a relationship between metacognition and closure orientation styles (see Table 9.3).

These findings are of particular importance, not only because they show the factors that can contribute to the development of three important learning processes- auditory, concrete and analytical, but also because they draw attention to the assumption that students are likely to develop other learning styles and strategies when exposed to new learning and social experiences that provide them with a wider range of learning opportunities. These results also suggest that instruction and training could be given to the students on learning styles and strategies to help them expand their existing learning processes. Therefore, the informal learning system of a particular culture could be a powerful influence on the learning styles and strategies of its learners.

The sociocultural backgrounds of the learners in this study made an impact on many educationally relevant variables related to learning styles and strategies. It could be argued that the educational factors and their corresponding learning styles and strategies reflect the expectations of Saudi society of schooling and learning behaviour. These societal expectations are derived from social norms and communication rules, religious beliefs, cultural characteristics of the family, and stereotypes of the proper behaviour of a woman in Saudi society. One of these influential factors was acceptance of social conventions, which refers to satisfaction with oneself and present social circumstances, how others in the society perceive the student, and optimism about the future. One of the interesting findings of this study was that acceptance of social conventions was a likely predictor of the high use of intuitive, closure, and global styles, but a low predictor of extrovert behaviour. It was also a predictor of three strategies, the strongest of which was of memorization, followed by social and compensation strategies. Acceptance of social conventions was not the only sociocultural factor that was related to the students' approaches to learning and behaviour. As has been observed in this study, students who showed a preference for intuitive styles showed a strong acceptance of social conventions, as well as the use of styles of interaction in the family that allowed them to discuss and understand things. Thus, it seems that, in order to understand and interpret their surrounding, students had to make judgments about the proper behaviour based on feelings, other peoples' views and the adoption of a global perspective of a situation. This suggests that intuitive styles are developed and adopted in an atmosphere where optimism and good relationships with others are dominant.

The results of the qualitative analysis of the students' out of school activities provided some evidence that students were subjugated to their environment rather than dominating it. This was reflected in the way they spent nearly all of their out of school time with parents and other members of the family and engaged in routine indoor activities. It could be that these students had absorbed the social and cultural values of the family that directed their perception and attention toward conforming to certain prescribed patterns of behaviours. In schools, both teachers and students knew that they had to adhere to these patterns of conformity at different levels. The teacher needed to act according to the authority given to her by the higher educational management, and the students needed to act upon the directions given by the teacher, or a prescribed textbook in order to achieve

high examination grades. The emphasis on external regulation and an emphasis on conformity are likely to produce closure oriented students who exhibit little autonomy but greater dependence on authority figures, and more obedience and conformity to rules. Even though the results of the questionnaire indicated that the students could make decisions about their education, marriage and travel, the qualitative data revealed that the decision-making process was hierarchical and authority centralised, so that fathers were consulted before decisions were implemented. This might explain the finding of this study that male dominance and authority predicted the low use of open styles and affective strategies among these students.

The results of this study that showed that the students preferred extrovert over introvert styles were much more complicated to analyze because this dimension of styles represents multiple aspects of personality, such as internal processes, internal states, and external behaviours (James & Woodsmall, 1988). For example, an extrovert may show extroverted tendencies in personal life, and introverted tendencies at work or school, and therefore, the expressed tendency may suppress the opposite. On the social level, the predictors of extrovert behaviour among the students in the current study were acceptance of social conventions, tolerance of other ethnic groups and mother's education. The sociocultural predictors of low introvert behaviour among the students in this study were tolerance of other ethnic groups and less punishment in the family, which might indicate that students with these characteristics are likely to reject introvert styles (Table 12).

As observed in Chapter Four, the majority of students expressed a preference for studying alone rather than with others, possibly because of their passive role in the classroom where they were discouraged from participating unless called on. It could also be a consequence of the limited exposure to small group work, given that attempts to introduce collaborative or interactive learning activities in English classrooms in Saudi Arabia have been very few and inconsistent. In addition, rote memorization, which is the pedagogically promoted method for internalizing information, seems to have encouraged these learners to study alone. Besides, assessment is on an individual basis rather than on collaborative work. In spite of this, during the focus group discussions some students did not classify themselves as introverts or detached from the social experience, but speculated whether their use of introvert styles was the result of the restrictions on their educational and social environments.

The qualitative data provided some indications that the traditional learning approach that was familiar to the students was not a comfortable way of learning. The students would have preferred a learning environment that offered a more flexible interactive and communicative approach to learning, and a less controlled teacher-student relationship. They also related their need for such new methods of teaching to their boredom in the traditional classroom. They felt the need to develop other language skills important for interaction, communication, and personal development.

Similar results were reported by Littlewood (1996, cited in Kennedy, 2002: 438) when over 2000 Hong Kong adult learners were asked to report their preferred L2 learning styles. Despite the general assumption that Chinese students preferred learning by rote, it was found that they “exhibited an orientation to active and communicative modes of learning English...wished to have more opportunities to develop their fluency and attached more importance to it than to correct grammar and vocabulary.” Littlewood attributed the need of Chinese students for more communicative orientation modes of learning to the competitive exam-oriented system in Hong Kong schools that did not encourage a deep approach to learning.

It is thus, important for language teachers in Saudi Arabia to encourage collaborative work, as well as students’ participation in order to increase interaction in the classroom. Participation results in more learning. By being part of a group involved in completing a learning task, each student is exposed to the knowledge and experience of the other members on how to perform a certain task and overcome the problems associated with it.

In conclusion, this exploratory study has contributed to the improvement of our understanding of the preferred learning approaches of Saudi female students and the factors that might influence their choice of particular learning styles and strategies. One major conclusion of this study was that educational factors could play a role in shaping the learning styles and strategies of the students regardless of their individual processing preferences. However, educationally related variables do not operate in a vacuum. They are embedded within the social and cultural fabric of the society. The kind of thinking, learning, and behaviour that Saudi culture tends to foster is reflected in the way traditional teaching approaches dominate instruction, learning, and testing in Saudi schools. The students seemed to develop certain approaches to learning that are appropriate for dealing

with the requirements of their specific environment. In the students' educational experience, greater priority was given to the reproduction of information than to self-expression, speculation, or analytical skills. Some similarities were identified in this study between the students' educational experiences and their social activities with respect to the level of passive engagement that corresponded to a reduction in their active involvement in the learning process. It seems therefore, that the culturally specific educational environment in which students acquire knowledge has an effect on their personal learning style and strategies.

Another major conclusion of this study is that, although the students reported using specific learning styles and strategies, these were not necessarily their *preferred* learning approaches. Nor does it mean that they would use no other learning approaches in other contexts. A learning approach that has developed for pragmatic reasons (i.e., to pass an examination) should not be confused with a context-independent learning approach. In other words, while the educational and sociocultural factors limited the range and variety of the students' learning styles and strategies, they did not seem to weaken the students' personal learning disposition; it only made them adapt to conditions of learning that were not comfortable to them. Draper (1997) wrote:

When a person with a broken toe exhibits a strong preference for resting their weight on the other foot, this is not an argument against healing the toe or expecting them to walk one-legged for the rest of their life. When teachers push only one aspect [of learning] then this is like forcing learners to hop one-legged and is equally unbalanced and perverse.

The fact that the students expressed boredom and discomfort with previous educational practices deserves particular attention. The data from the students' focus groups revealed that previous educational practices continued to dominate their present college-courses, with negative anticipated consequences. This finding also suggests that the students might be able to accommodate other learning styles and strategies than the ones shaped by their previous learning experience if teaching methods that aim at improving their communicative and linguistic capabilities are used in their instruction. It is important to remember at this point that learning styles are preferences and strong habits of learning that have been learned and developed through the socialization process. Although culture may

influence learning styles and strategies in systematic ways, it is not the single determinant, and many other influences, such as age, biological factors, aptitude for learning, situational requirements, or instructional styles, intervene. To assume that learning styles and strategies of the students are fixed learning attributes of the individual is to miss the point. Children may be best taught by one method and later by another when they gain more competence or need to overcome certain challenges in learning.

The other major conclusion is that the students' expressed needs and suggestions in Chapter Five indicate that there is a gap between the current teaching methodology (see Chapter One) and how the students would prefer to learn- through group work and more communicative and collaborative approaches. In an ideal learning situation, any attempts to enhance instruction or support academic growth should take cognizance of some of the students' views of how they would like to learn. The students' perceived difficulties in their particular learning conditions, and their needs and beliefs about language learning processes raise the question of how best language-teaching methodology can accommodate the students' learning preferences. An effective instructional style for dealing with many Saudi students might include the introduction of a structured but somewhat informal classroom atmosphere. This would greatly ease them out of their formality and wean them from rote learning by guiding them gradually into real communication in authentic language situations. There will be a further elaboration of this idea in the discussion of the implications of the findings of the present study in the next chapter.

## **Chapter Seven**

### **Implications of the Findings of the Study**

#### ***7.0. Introduction***

In previous chapters, attempts were made to answer the two research questions posed earlier: First, “What is the range and variety of language learning styles and strategies of female students, studying English at first-year college level at KFU, in Saudi Arabia? Second, “What is the relationship between the learning styles, language learning strategies, previous learning experience, and sociocultural factors of female students, studying English at first-year college level at KFU, in Saudi Arabia?” The answers to these questions, discussed earlier, have engendered the need for the implementation of a change in the current teaching of English language and the learning conditions in Saudi Arabia. This is discussed later in this chapter.

Unlike other studies that used either quantitative or qualitative methods to investigate the learning styles and strategies of students, the present study employed a two-stage, sequential, mixed methodology with three sources of data: questionnaires, focus groups, and observations. Its standpoint was that of an educational research in order to investigate and understand how students learn under the conditions of their particular educational and cultural contexts so that solutions to existing educational problems could be found to help learners learn better and develop. In general, this research study allowed me to: (a) explore the range and variety of the students’ learning styles and strategies and the relationship between styles and strategies; (b) examine the relationship between the background factors of the students and their learning styles and strategies; and (c) gain a deeper understanding of the relationship of these background factors to the students’ learning processes.

In general, some of the results of this study agreed with some of the previous studies, particularly those of Irvine and York, 1995; Sheorey, 1999; Park, 2002; and Griffiths, 2003, that emphasised a relationship between culture and learning styles and strategies. There were areas of similarities between the learning styles and strategies that learners



exhibited in some of these studies and the learning preferences of Saudi learners, revealing an overlap in educational or cultural conditions. There were also areas of differences reflected in the different patterns and frequencies of learning styles and strategies used by Saudi students because of their different cultural backgrounds. This means that the findings of this study are not in accord with those other studies on learning styles and strategies when differences in the educational and sociocultural backgrounds of the students occur.

The third objective of this study set earlier in section (1.1) was to explore the implications of the findings of this study for the development of teaching and learning in the Saudi context. This chapter, therefore, discusses the relationship between the findings and the objectives of this study, and some of the possible implications of those findings.

### ***7.1. Need for Change***

This study has brought into sharp focus several factors that demand substantial modifications in the teaching and learning of English in the Saudi context. These factors emanate from the results of this study that investigated: (a) the range and variety of learning styles and strategies of the students, influenced by their educational and sociocultural contexts, as discussed in Chapters Four and Five; (b) the current educational and sociocultural conditions, as mentioned in Chapter One; (c) data on the students' needs arising out of focus group discussions ( Chapter Five); and (d) the economic changes in Saudi Arabia, mentioned in Chapter One.

The causes of the limited range and variety of the students' learning styles and strategies are many. Some of these could obstruct any attempt to introduce a more communicative and collaborative teaching approach that encourages a wider use of leaning styles and strategies, as the one mentioned in chapter two. These obstacles include the traditional mode of teaching, which creates passive classroom conditions for the learners, and the assessment system, which measures the students' reproductive ability rather than their communicative ability. In addition, there is the problem of large classes, and the absence of modern technological materials. Entrenched in the main issues affecting learning styles and strategies are the problems of teachers, teaching methods, teaching activities, classroom management procedures, and testing.

Although it is important to take into account the learning styles and strategies of the

students, these cannot be the sole basis for designing an instructional approach that can generate change. There should be an awareness of other factors, such as those mentioned above, which could impose constraints on teaching, learning, and personal development. With the lack of attention to the different facets of each of these factors, we run the risk of failing to advance the current position.

## **7.2. *Obstacles to Development***

The students' limited use of a wider range of learning styles and strategies, as shown in this study, reflects the underlying philosophies of the traditional method of teaching embedded in the educational and sociocultural systems. Canagarajah (2002: 135) reported,

Methods are not value-free instruments...Methods are cultural and ideological constructs with politico-economic consequences. Methods embody the social relations, forms of thinking and strategies of learning that are preferred by the circles that construct them.

The attractiveness of the traditional method of teaching in Saudi Arabia is that it protects the religious tradition that emphasizes conformity to certain codes of learning and behaviour, such as reciting, memorizing, and compliance. Its development is based on the manner in which Saudi students, from an early age, are required to master and be able to recite the *Qur'an* and *Hadith*, as well as other forms of Arabic literature. The traditional method found its way into the English classrooms in Saudi Arabia. Its objectives were embedded in textbooks, teacher-training programs, teacher-student interaction, teaching activities and procedures, and testing methods. This alignment with the traditional method of teaching, coupled with an internalized social behaviour that values reticence, passivity, and conformity, could have limited the students' repertoire of learning styles and strategies.

The transfer to the Saudi context of a new teaching methodology, which was designed for a particular group of learners in a different educational context, would be difficult. There would, of course, be the obvious confusion and hesitation toward change of teaching methods from both teachers and students as a result of their previous educational and sociocultural experiences. Consequently, issues concerning the social and cultural dimensions of the structure and organization of the learning context, task design, communication channels, and attitudes of teachers and learners are sensitive and must be

thought out very carefully. The following points, summarized briefly in Table (15), provide an overview of the obstacles that may discourage the successful application of a more communicative and collaborative teaching methodologies in the Saudi context.

**Table 15: Comparing Traditional Teaching and Collaborative Learning Approaches**

<b>Traditional Teaching</b>	<b>Collaborative Learning</b>
A teacher centred environment	A student centred environment
The teacher is in control.	Students are in control of their own learning.
Responsibility is primarily teacher centred.	Responsibility is shared between teacher and student
The teacher is the instructor and decision maker.	The teacher is a facilitator and guide. The students are the decision makers.
The learning experience is often individual and competitive in nature. The competition is usually between students.	Learning may be co-operative, collaborative, or independent. Students work together to reach a common goal. Students willingly help each other sharing/exchanging skills and ideas.
Learning takes place in the classroom.	Learning extends beyond the classroom.
The content is most important and learned by rote to avoid making errors.	The way information is processed and used is most important.
Students master knowledge through drill and practice.	Students evaluate, make decisions and are responsible for their own learning. Students master knowledge by constructing it.

1. One of the obstacles to progress in the Saudi educational system is the way it adopts change. Although there is some enthusiasm among teachers to improve language teaching, the process of accepting new ideas and the adoption of new material and methodology is generally very slow. The closure orientation towards conserving and accumulation of knowledge through repetition and memorization defines the aims of education in Saudi Arabia. These aims reflect the beliefs and experiences of Saudi Arabs that these learning practices are necessary to master the forms which would lead to the understanding of the language. Language is viewed as knowledge, and learning as the acquisition of this knowledge through memorization. Errors are viewed as inadequate study or lack of ability to memorize. In the new teaching method, errors are indicative of development and can be tolerated because the learner is viewed as a skill developer rather than knowledge receiver. The shift from the traditional to the more communicative and collaborative learning

approaches requires that both teachers and students re-examine their assumptions about language learning and develop an open orientation to embrace change. Due to their limited experience and training in using innovations in teaching, however, teachers of English in Saudi Arabia would feel more comfortable with the traditional method than venture into areas in pursuit of new objectives and change of attitudes that seem to be incompatible with their dominant cultural values.

2. In Saudi schools, the primary role of the teacher is that of a figure of authority, the source of knowledge who is able to transmit that knowledge to the students. The teacher is largely responsible for setting learning goals, designing learning tasks, and assessing what has been learned. The students are encouraged to be obedient to their teachers as authority figures who should not be questioned or interrupted. In the collaborative learning and teaching approach, knowledge and authority are shared among teachers and students. The teacher is no longer the dominator in the classroom, but a facilitator. Although the teacher is still the source of knowledge of the content, skills, and instruction, and provides that information to students, the collaborative teacher respects and builds upon the knowledge that the students bring to the learning situation, and encourages them to use their own learning styles, strategies, and personal experience. Many Saudi teachers of English, however, are uneasy about allowing students to initiate dialogue, determine topics, or explore perspectives other than those determined by them. Introducing a new learning paradigm where the student forms a partnership with her teachers to achieve her individual potentials is a notion that is antithetical to Saudi cultural values.

3. The traditional learning approach in Saudi Arabia assigns a passive role to the learner and assumes that the learner is not willing, or unable, to participate in classroom activities and discussions. In a collaborative classroom, learners are given the opportunity to be more active, talk and ask questions. They can play the role of a team leader, encourager, re-teller, recorder, or a spokesperson. They take on more responsibility and control of their own learning and use more effective strategies, such as planning, organizing, interacting with others, and self-encouraging. Although the new method may lead learners to develop new roles, this could be viewed as rebellion against their expected passive role. It is also difficult for these students to break twelve years of habit and behaviour to overcome tendencies of passivity in the learning process.

4. The arrangement of seating in Saudi classrooms is that in which the students sit in rows facing the blackboard and the teacher. The large class size in government schools ranging from 50 to 55 students may present difficulties for teachers attempting to undertake group work and discussions in a crowded room, with little space for group activity. The large class size also requires teachers to have a good organizing ability to manage group work, but this is absent, as some students reported. This might be the result of a long tradition of using conventional teaching methods where the focus is mainly on explaining the contents of the textbook and writing examples on the blackboard for students to copy.

5. The time allocated to English classes in Saudi middle and high schools is about 45 minutes a day, which might be too short for some of the activities that encourage collaborative learning. In addition, collaborative classrooms tend to be noisier than traditional classrooms and some teachers believe that noisy classrooms are an indication of indiscipline or lack of control. The impression is that the time might be spent in talking rather than learning.

6. Students in Saudi Arabia are used to being graded for individual work. Parents also expect to be informed of their children's performance at school. In addition, school staff and the management of education depend on traditional assessments. It is often difficult to assign individual grades to students in collaborative classrooms. While some teachers can give group grades, many students and parents can be unhappy with this kind of assessment.

7. The focus of teaching for many language teachers in the Saudi context is on the learning of new vocabulary and grammar. The aim is to prepare the students to successfully pass many quizzes and examinations. The objectives of the English course are defined by the Ministry of Education which prescribes the materials to be presented by the teacher, when and how they should be taught, and sends inspectors to ensure that the course objectives are met. Students are primarily responsible for memorizing and reviewing information taken from either the textbook or teacher's examples on the blackboard. Conversely, the major mode of communication in a collaborative classroom is dialogue, and the major goal for teachers is to maintain this dialogue among students. The teachers provide options for activities that will engage the student in critical thinking. Learners can discuss their approaches to solving a language problem, explain their

reasoning, and defend their work. When one student has an insight about how to solve a difficult problem, the others in the group learn how to use a new thinking strategy. Thus, students engaged in interaction often exceed what they can accomplish by working independently. Collaborative learning would seem to undermine a very sensitive issue in the Saudi culture, that of authority. The strong relationship between the content of knowledge and how it is transmitted and produced is justified by the constitutional principle of authority. The individual growth of a female student can be seen as a possible source of disharmony between teacher and students, which may not be tolerated.

It seems, therefore, that the traditional method has a justified place in the foreign language classroom in Saudi Arabia. In addition, an unmodified application of a new method might not be suitable as a sole instructional approach for the development of students' learning approaches in the country, owing to the current problems stated earlier. Generally, one method of teaching usually develops as a remedy for identified weaknesses of a previous one. A better way might, therefore, be to draw on the strengths of each method, the traditional and the new, taking into consideration the characteristics of the Saudi culture, the current social needs, and the students' learning needs in order to develop a method that encourages learning and cognitive development.

As stated in Chapter One, the rapid economic growth in Saudi Arabia has brought in its wake escalating demand for various competencies and skills for social and vocational training with the expectations of more opportunities for women. These increasing opportunities, however, have not been paralleled with a growing recognition that preparing Saudi women for the global economy by developing their cognitive skills and competences is vital. This is largely due to educational ideals that aim at preserving the social, cultural and religious values. It is laudable to preserve the cultural values of a society, but this should not be allowed to obstruct pedagogical efforts that are meant to improve the learning processes of the students in the English class.

### ***7.3. Needs to Consider***

In light of the conclusions of this study stated earlier, it might be useful to consider some implications of the findings. These have been grouped under five factors that could contribute to the development of a wider range of language learning styles and strategies

specifically in the Saudi context and perhaps in other similar learning situations. They deal with needs that concern: the context, learners, teachers, instructional material, and assessment.

### ***7.3.1. Implications for the Learning Context***

1. The physical aspect of the learning environment can influence the kinds of learning activities that take place. As this study found, the students' low preference for learning in the auditory mode is partly due to their lack of exposure to listening to authentic English by the use of language labs. Limited use of demonstrations and models also resulted in the low use of compensations and social strategies. Therefore, the English classroom should be designed to facilitate the use of equipment with recorders, videos, charts, cassettes, wall sheets, etc. It is important to consider providing the students with a multi-sensory input to encourage them to develop their sensory styles beyond the visual mode to enable them to cope with teaching modes most frequently used in other areas of study, such as lectures and tutorial discussions.

2. During the focus group discussions, students expressed their need for more stimulating activities in the English class. Therefore, more time should be allocated for the teaching of English, since the four hours per week do not allow the teachers enough time to apply the more cognitively engaging activities. Teaching approaches designed to cover information given for memorization may need less time than those designed for greater learning challenges.

3. A modern library is an indispensable part of any learning institution. Books, journals, periodicals, audiovisual aids, facilities for interlibrary loans, the internet, etc, are necessary for both students and teachers, but particularly for students to cultivate and foster the habit of reading and help them to search for information and explore personal interests. Unfortunately, most schools in Saudi Arabia lack the basic library facilities commonly found in learning institutions in other developed countries. More attention should, therefore, be paid to provide schools with libraries to encourage students to improve their reading habits by reading outside of their prescribed texts and develop independent learning skills.

### ***7.3.2. Implications for Learners***

Most of the suggestions that came from the focus group data reflect the students' needs and interests in the following areas:

1. Students should be provided with a supportive learning environment in which they can express their own views, make suggestions about the effectiveness of instructional material and learning activities, and the quality of the relationship between teacher and learner. Meetings should be held with the students during free sessions several times a year to build up the students' self-esteem, confidence, and emotional well-being in a safe, nurturing environment. This will encourage initiative in learners and help them to take responsibility for their learning by pursuing new directions of interest.
2. Students should be encouraged to read from multiple sources to enable them assemble ideas on a topic from varying points of view. This will give students a broad spectrum from which they can derive knowledge and form opinions and consequently help to reduce reliance on the teacher, as the sole source of knowledge. The students' experiences and new knowledge would motivate them to listen and learn in new ways, and make important connections between their own information and that of the teacher.
3. During the focus group discussions, the students felt that it was vital to develop their fluency in English. The quantitative result of this study also revealed that limited classroom interactions and conversations were related to the students' lack of cognitive engagement, and the limited use of extrovert learning styles. Therefore, frequent opportunities for sustained conversations in the regular schedule should be gradually introduced. A clear academic goal should guide these conversations and engage students in thoughtful and accountable conversation, for example, about texts they read. For students who have little experience with the use of English to express ideas, the teacher must make an effort to foster their participation through such strategies as restating, interpreting, and affirming.
4. Negative thoughts and emotions (e.g., feeling insecure, worry about failure, shyness and fear of ridicule, or stigmatizing labelling) can result in lack of involvement, curiosity, and understanding, as this study has shown. Negative learning behaviours can be reduced in the classroom by maintaining a friendly classroom environment to encourage students to be involved in communicative activities. Feedback should be used as a source of assistance



to encourage students' performance and sharpen their motivation by reacting positively to their errors to help them persist in communicating in English.

5. Related to the point raised above is the need to stimulate students' motivation. As maintained in Chapter Two, many studies indicated that motivation is the most highly correlated variable with students' learning strategies. In this study, motivation predicted only memorizing and metacognitive strategies. Increasing students' motivation in the classroom can be done by assigning brief writing exercises, or raising questions and problems to be worked on by students in small groups, or holding team competitions. Such activities can also reduce the feeling of boredom, which the students complained of in the classroom, and move students towards developing more reflective and creative strategies.

6. Age is an important factor in the acquisition of language and developing skills, and one of the factors influencing the development of learning styles and strategies. Because students of any particular age will differ in their ways of learning, a crucial step in promoting the development of a wider range of learning styles and strategies will be to introduce English in elementary schools, as students in the focus groups suggested.

### ***7.3.3. Implications for Teachers***

This study has identified the need to improve the quality of teaching in Saudi Arabia to meet the future and current, social, economic, and individual challenges. Therefore, more attention should be paid to improving the professional practice of teachers, and consequently, the learning processes of students. This can be achieved by considering the following:

1. The Ministry of Education should provide training programs for teachers that incorporate more interactive approaches, material, and evaluation procedures to help the teachers acquire both theoretical and practical knowledge in language teaching and learning. It is unrealistic to expect Saudi teachers of English to become as competent as native-speaker teachers in their use of English when they teach the more communicative skills, such as conversations and writing. It would, therefore, be useful to have training programs conducted by native speakers of English.

2. Teachers should themselves update their own ideas by looking for innovations in language teaching. This can be done by attending educational conferences or refresher courses where there is a strong support for sharing ideas with other teachers on new trends in language teaching and learning. Teachers may also benefit from exploring learning theories and employing a variety of teaching techniques when helping their students to learn. The result of the study in section (4.5.2) shows that styles and methods of teaching predicted the low use of all learning strategies, except memorization. Teachers, therefore, may find some aspects of the traditional method useful for teaching vocabulary and grammatical items, but at the same time incorporate more interactive and communicative work for students in the classroom.

3. Teachers should try to discover how their students are currently learning in order to orient their teaching practices, provide students with feedback, conduct strategy training, or help learners develop different attitudes, beliefs and feelings about their language learning. Teachers can identify their students' learning styles and strategies by using assessment techniques, such as self-reports, think aloud procedures and classroom observations. This initial step is important for the teacher to understand the various needs of their learners, as identified by this study, to facilitate the learning process.

4. Teachers should know that changing from the traditional role to a new one would require responsibility, knowledge and a different attitude to role changes. They are expected, for example, to create stimulating situations that engage students in the learning process beyond cognition.

#### ***7.3.4. Implications for Instructional Material***

1. The results of the focus groups analysis revealed that conversational activities and creative writing were virtually neglected in most Saudi classes of English. In addition, the result of the questionnaires revealed that the students' focus was more on using strategies that enabled them to deal with the formal aspects of the language than on using strategies that helped them to communicate, such as socio-affective strategies and open styles. The current syllabus would have to have incorporated diversified activities that give equal attention to form as well as the function of language to encourage students to learn more

through various learning styles and strategies. This is important because learning should continue outside the classroom setting.

2. Instructional materials should avoid oversimplification of the content for the students in order to encourage them to take some responsibility for their own learning and maximize their effort in the learning process. This can be done by instructing the students on what a particular learning strategy is and why it will improve their learning and by demonstrating to them how and when to use it. For example, to activate what students know about a topic before they read it, they can be encouraged to predict and form linkages between what is known and the new material, and by skimming and scanning. Instructional material should be varied to provide situations and activities for making choices and decisions, as the students appear ready. In all cases, students should not be overloaded with too much information before they have the chance to think about it, digest it, or write it down.

3. Extra-curricular activities that involve action should be used to help students use strategies for effective communication. Some such activities are trips to museums, a university, or a library, as the students suggested. These activities will offer students the experience of collaboration and hands-on learning. The tasks of the unit will also require considerable group cooperation, interdependence, and student choice for how to participate and accept responsibility. Students' can then write about the focus of the activity and present it as an assignment. Extra-curricular activities could involve a joint project in which students collaborate on the production of a monthly school newspaper. The teacher may go round the various groups of students to observe their progress and provide assistance as needed. The involvement of students in communicative activities by asking them to watch a specific program on TV could improve their language and be a topic for classroom discussion. The results of this study showed that extra curricula activities such as watching English programs on TV was a strong predictor of the use of cognitive strategies.

4. Instructional material should also involve aspects of the English language culture in which common interests can be found and shared, sources of problems identified and discussed, and cultural differences understood and respected. This might strengthen the use of social strategies among these students and help them to develop and use open learning styles, both of which were not common to the students in this study.

5. Age appropriate study skills should be a principal subject on the curriculum for all Saudi learners throughout the various educational stages, i.e. primary, middle, high, and university education. Study skills would better equip language learners with their own language needs and prepare them for their future professions.

#### ***7.3.5. Implications for Assessment***

The method of student evaluation should be aligned with the teaching material and instructional methods. The aim of evaluation in the traditional method is to test the accuracy of a learner's linguistic knowledge and reproductive ability. As pointed out by the students in the focus groups, these methods of assessment are a source of great anxiety and fear, and lead to the use of the rote learning approach simply to obtain high grades. Such exams leave little room for creative expression, critical thinking and problem solving in education and, subsequently at work. Zhang and Watkins (2001: 256) state, "...the ways in which students are assessed have a strong influence on the ways they approach their learning tasks. Therefore it is critical that teachers use assessment methods which tend to facilitate a deep approach to learning."

A change to a new view of learning and curriculum that encourages thinking would require new assessment criteria with new goals. Therefore, in addition to assessing the student's degree of mastering the learning outcome, continuous assessment may include work habits, such as effort, completion of assignments, contribution, and participation. This new criteria for assessment may guide students to form specific goals and help them to evaluate their progress in attaining those goals with an increased responsibility of self-assessment.

The suggestions and recommendations mentioned above are both feasible and attainable. However, some of these improvements are tied to core educational activities and may require complex changes and involve the whole system and a large number of the members of the education organization. As a first step, it is essential to create a network where educators, teachers and members of the policy system can meet to discuss common issues on teaching and learning. The exchange of view points will enable educators to find a fit between these suggested improvements and the current organizational practices and beliefs that can be translated into manageable and comprehensible teaching strategies and procedures. In addition, policy makers should keep abreast of purposeful research

information that relates to the learning environment in Saudi Arabia to increase their awareness of how to utilize recent research findings to achieve the needed adjustment. In the meantime, teachers should be encouraged to introduce a wider variety of learning styles that are needed to generate a wider range of language learning strategies among their students. Furthermore, students should be encouraged to read outside their prescribed textbooks in order to develop the habit of reading, which is important in expanding their knowledge. It is hoped that these suggestions and recommendations would open up possibilities for such discussions among educators to consider implementing a more flexible teaching/learning approach in the near future, aimed at improving the students' learning and cognitive development.

#### ***7.4. Limitations of the Study***

In retrospect, there are specific limitations in this research which should be addressed as a means for improvement and a focus for further study. The first limitation focuses on the effect of sample size on achieving significance. Because it is easier to obtain statistical significance with a large sample size, a researcher should be sensitive to the practical significance of the results. Therefore, the term significance does not necessarily equate with being important or meaningful. On a theoretical perspective, it is plausible to argue that the results obtained in this study, although statistically significant, should not be taken as conclusive evidence of how Saudi female students like to learn a foreign language and the factors that influence their learning preferences. As stated in Chapter Two, the field of learning styles and strategies is still fragmented and lacks consensus on how to define, classify and measure learning styles and strategies, and hence lacks a solid theoretical foundation to justify such claims. Nevertheless, the results of the present exploratory study provide useful and meaningful information to further our understanding of the learning processes of these students and the factors that could possibly interact and influence their learning processes.

A second limitation of this study involves the use of Pearson Correlation Coefficients to examine the correlations among learning strategy subscales, and the *SILL* overall mean score. Although moderate correlations were obtained at statistically significant levels (section 4.2.1), the results could be contaminated, because each subscale contributed to the overall mean score. As stated in Chapter Four, partial correlation analysis might be a more

appropriate statistical procedure to show the ability of the variable that was controlled for on the persistence of the correlations with the overall mean score. Unfortunately, this issue and the limitations of the *SILL*, as stated in Chapter Three, were considered after the analysis was performed and procedures were well underway.

The third limitation associated with this research is the notion of academic achievement. In the present study, achievement was specified by the scores obtained from English examinations, which are given to the students at the end of their formal education. As stated in Chapter Four, these examinations are commonly prepared by teachers of English to test students on the content covered through the whole year. At the end of high school, students in both government and private schools nationwide are required to take the same English examination. These English examinations are prepared annually by an exam board and scrutinized to meet certain English requirements set by the Ministry of Education. Although these exams differ from standardized English tests in their content, scope, and purpose, the analysis in this study provoked interesting speculation about the relationship between achievement as part of the students' previous experience in learning English in Saudi Arabia and the use of certain learning styles and strategies, a consideration that could present itself in future study. By considering the shortcomings associated with this methodology, perhaps this exploratory study could serve as a basis for further research on learning styles and strategies and the factors that influence their selection and use.

### ***7.5. Directions for Further Research***

Several recommendations for further research can be suggested as a result of this study. First, there is little doubt that the qualitative component of this study would give pointers for the direction future research should take, in a field with unlimited opportunity to explore the relationship between learning and culture. More such studies are needed to further reveal the relationships between learning styles, learning strategies, and experiences at school and out of school in the Saudi context.

Second, this study has pointed out several weaknesses in the traditional teaching method, which have resulted in the limited use of certain leaning styles and strategies, prompting the suggestion of a gradual shift to a more communicative and collaborative learning approaches in the classroom. Further research needs to be done to determine which aspects of the communicative learning approaches are appropriate for adoption, and which aspects

need modification before implementation in the Saudi learning setting. A longitudinal study to observe and compare the effectiveness of the old and the new methods should be undertaken in future research.

Third, the stepwise methods used in the regression and discriminant analysis procedures were useful as ‘mining tools’ (Knapp & Sawilowsky, 2001) to specify a set of independent variables that have potential values in predicting a dependent variable. The purpose was to provide information that can be used to understand the relationships between the research variables to allow a specific hypothesis to be constructed, which can be confirmed with later research.

Fourth, since there has been no major previous study, to my knowledge, on the learning styles and strategies of female students in the Saudi context, a replication study that seeks answers to similar questions posed in the current study, using a larger sample, is needed. This will determine the extent to which methodologies and results can be generalized beyond the present study.

Fifth, this study focused on the learning styles and strategies of Saudi female students. It would be useful to examine and identify the influence of educational and sociocultural factors on the learning styles and strategies of Saudi male students and compare the findings to the results of the present study.

Sixth, this study used survey instruments to identify the learning styles and strategies of the students and their relations to background factors. It also used focus groups to explain in more depth some of the quantitative findings. The use of different measurement techniques to assess learning styles and strategies with the same sample of students could be cross-correlated. This would contribute to the validity of various assessment techniques, such as surveys, interviews, and think-aloud procedures. For instance, it would be useful to juxtapose results of an interview to a survey to see how closely they correlate to each other. The discovery of a high correlation between an interview and a survey would be useful in the selection of an effective assessment procedure.

Seventh, since this was an exploratory study, the focus was on broad views of learning style, strategy, and culture. More studies are needed to focus on the relationship between learning styles and specific factors, such as socioeconomic level, openness to other cultural

groups, and achievement. There is also a need to investigate the relationship between learning styles and learning strategies and the factors that influence their relationships. This line of research has been barely explored in the literature.

Eighth, the greatest obstacle to development in the Saudi educational system is the lack of empirical research to guide and inform policy makers. A national newspaper recently published that the Ministry of Education was about to introduce a research methods course for high school students to encourage them to become more research oriented (AlOsaimi, 2007). The findings of this study indicated that this was one of the situations the students were unhappy about: the introduction of change at the critical time, i.e., close to the end of formal education. Besides, to make the introduction of a research methods course feasible, certain initial facilities largely lacking in most Saudi schools must be put in place. The most important of these are library facilities to encourage pupils to read from an early age. It is only on the foundations of research findings, such as those in this thesis, that Saudi educators can base their decisions on the development of education with confidence.

This study is a starting point for our exploration of teaching, learning, and development in the Saudi cultural context. It has opened a window on the prospects for attempts to be made to understand the thinking, learning, and behaviour of Saudi female learners in their cultural setting. Most importantly, this study has provided an important opportunity to suggest that learning institutions and their teaching staff should become more sensitive to the students' learning styles and strategies and to help students maximise their learning experience for their future careers. A positive outcome of this study has been the development of an awareness of the types of learning styles and strategies that Saudi educational and cultural contexts tend to foster. Unfortunately, however, it has also emerged that the learning preferences of the individual student within the Saudi educational and social systems are largely ignored.



## **Appendices**

## **Appendix One**

## **(The Pilot Study)**

### **An Investigation of the Role of Educational and Socio-Cultural Factors on the Learning Styles and Strategies of Female Students in Saudi Arabia: A Pilot Study**

#### ***0. Introduction***

This pilot study was conducted to pre-test three survey instruments and to assess the data collection procedures in preparation for the main study. The first instrument is the newly constructed Educational and Socio-cultural Factors Survey (ESFS), developed by the researcher. The other two instruments are the Style Analysis Survey (SAS) and the Strategy Inventory for Language Learning (SILL), both developed by Oxford (1993, 1990, respectively). As far as the researcher is aware, this is the first time that these two instruments have been used in the Saudi setting. It was therefore imperative that these instruments were also piloted prior to the actual large scale study (main study) was carried out. The pilot study was conducted to achieve the following objectives:

- To assess the feasibility of the data collection procedure to be used in the main study.
- To identify ambiguities and difficult questions and re-word them for the *SAS* and *SILL*, or discard any questions that make a minimal contribution to the *ESFS* instruments.
- To record the time taken by the students to complete the questionnaires.
- To establish reliability and validity for the research instruments.

#### ***1. Design of the Pilot Study***

##### ***1.1. Setting***

The pilot study took place at the female section in the English Language Centre at King Faisal University (KFU) in Saudi Arabia. It was conducted during the second week of May of 2005 and lasted for three weeks.

##### ***1.2. Sample for the Pilot Study***

Participants were forty Saudi female students. The ages of the students ranged between 18 and 20 years. Of the 40 students, 82% attended government schools and 18% attended private schools (Table 3). Students were randomly selected so as to represent the entire population of Saudi female students, studying English at the first year college level at King Faisal University in Saudi Arabia (n= 248).

**Table 1: Type of previous Learning Institution Attended**

Type of school	n	%
Government school	33	82
Private school	7	18
Total	40	100.0

A simple random sampling procedure was used to select students for the pilot study. In this procedure, a number was assigned to every member of the population (listing frame). Using a table of random numbers, a column was randomly selected and all the numbers that corresponded to the sampling units in that column were taken (three digits). The pilot group was as similar as possible to the target population in its general characteristics, such as age, gender, level of education, religion and nationality.

### ***1.3. Data Collection Procedures***

Before the study could be carried out, permission had to be sought from KFU, so the research proposal was submitted to the University for approval. Permission was granted for the study to proceed. Three survey instruments were pilot tested, namely, the Educational and Socio-cultural Factors Survey (ESFS), the Style Analysis Survey (SAS) and the Strategy Inventory for Language Learning (SILL). The language of the three questionnaires was Arabic to eliminate the language problem in understanding and answering the questionnaires. The *ESFS* was constructed in Arabic and then translated into English. The *SAS* and *SILL* were translated into Arabic by the researcher, after gaining permission from the author (email correspondence). A blind-back translation was also used to make sure that the style and the content of the questionnaires were maintained. This was done by having two bilingual Arabic-English linguists translate the instruments into English without seeing the original English version, and then having other Arabic-English linguists translate the instruments into Arabic without seeing the Arabic version. The final Arabic version was then used in the pilot study.

The three instruments were administered to the pilot group during a free hour in one of the language classrooms at King Faisal University. Before the three instruments were administered, a brief introduction was given that included explaining why the participants have been selected to respond, what benefit would there be for responding, and how their responses were going to be used. Following this, instructions for answering the questionnaires were explained. The students were also instructed that the researcher is interested in their feedback and they were encouraged to note down any ambiguities or response options which were causing difficulties.

After the questionnaires were completed, the group was engaged in an informal discussion with the researcher. During the discussion, students were asked to comment on the difficulties faced in answering the questionnaires, or any other suggestions that they were interested in adding and their comments were noted down. The completed questionnaires were collected and data were entered in the computer and statistically analyzed, using SPSS (Statistical Package for Social Sciences), version 11.5 for Windows.

### ***1.4. Data Collecting Instruments***

As stated earlier, three questionnaires were tested in this pilot study: the Educational and Socio-cultural Factors Survey (ESFS), the Style Analysis Survey (SAS), and the Strategy Inventory for Language Learning (SILL).

#### **1.4.1. The Educational and Socio-cultural Factors Survey (ESFS)**

The *ESFS* was constructed by the researcher to collect information on the educational and socio-cultural backgrounds of Saudi female students. Before designing the instrument, the researcher reviewed the literature on language learning and culture to see what has been done and what can be learned from the designs of other researchers who have done similar studies. In addition, some experts in the fields of education, sociology and measurement were consulted. The researcher then decided to develop her own survey to identify the educational and socio-cultural factors of the students.

The *ESFS* is a structured questionnaire that consists of two parts. Part one is designed to collect information on the previous language learning experience of Saudi female students. Part one is made of seven sections:

- A/1- Type of previous learning institution.
- A/2- Level of previous academic achievement in English.
- A/3- Styles that were used to teach English in middle and high schools.
- A/4- Methods that were used to teach English in middle and high schools.
- A/5- Study styles the students used for preparing for English examinations.
- A/6- Difficulties the student faced during their learning of English.
- A/7- Self-supporting activities the student used in the past to learn English

Part two is designed to gather information on the Saudi females' social and cultural backgrounds. It consists of seven dimensions and is further divided into seventeen subsections. The dimensions are:

- A- Family Ethnicity and Openness
- B- Cultural and Religious Characteristics of the Family
- C- Socioeconomic Status of the Family
- D- The Structure of the Family
- E- Family Conventions (Reward and Punishment)
- F- Social Orientation (acceptance of social conventions)
- G- Styles of Interaction in the Family.

There are 85 items on the *ESFS* to which students are asked to respond on a fixed response scale. The purpose of the *ESFS* is to collect information that can be used to investigate the role of educational and socio-cultural factors on the type of language learning styles and strategies used by Saudi female students.

#### **1.4.2. Style Analysis Survey (SAS)**

The second instrument used in the pilot study was Oxford's *SAS* (1993). The *SAS* is among the most widely-used of the learning style assessment instruments in the ESL/EFL field (Wintergerst et al., 2001). The *SAS* measures five different dimensions of learning styles grouped into five activity types: (1) sensory preferences (visual, auditory and hands-on); (2) extroversion/introversion; (3) intuitive-random/ concrete-sequential; (4) closure / open orientation; and (5) global/ analytic. There are a total of 110 statements and students rate their responses on a four-point scale: 0 = Never, 1 = Sometimes, 2 = Very Often, 3 = Always. Higher scores on each of the five dimensions represent the preferred learning style. The purpose of using the *SAS* is to identify the language learning styles of Saudi female students.

### ***1.4.3. The Strategy Inventory for Language Learning (SILL)***

The third instrument used for collecting data on the strategy use of Saudi female students was Oxford's (1990) Strategy Inventory for Language Learning (SILL, 50-item version for ESL/EFL). The *SILL* is a self-scoring paper and pencil questionnaire which consists of a series of statements to which students are asked to respond on a five-point Likert scale ranging from 1 (never or almost never true of me) to 5 (always or almost always true of me). There are fifty items on the *SILL* measuring six strategy-groups and is further divided into dimensions usually referred to as subscales or factors. Each subscale has a number of items to facilitate more in-depth understanding of the learning strategies for ESL/EFL. These groups are:

1. Memory strategies (nine items).
2. Cognitive strategies (fourteen items).
3. Compensation strategies (six items).
4. Metacognitive strategies (nine items).
5. Affective strategies (six items).
6. Social strategies (six items).

### ***1.5. Results of the Pilot Study***

As set out earlier, the main objectives of the pilot study were to: find out whether the items in the three instruments were clearly understood by the participants, measure the amount of time required by the students to complete the questionnaires, and establish the validity and reliability of the research instruments.

#### ***1.5.1. Modification of Instruments***

Post questionnaire discussions with the participants and their comments indicated that the participants found the three survey instruments easy and interesting to answer. Furthermore, they were interested in getting a feedback on their language learning styles and strategies. However, based on the comments of the participants some modifications were made to ensure that the questions were clearly understood. The following illustrates how these modifications have been made on the three surveys instruments:

- ***The Educational and Socio-cultural Factors Survey (ESFS)***
  - i. One item was added to the dimension on 'The difficulties the students faced when learning English.' This item was No. 20, which reads 'Availability of teaching aids'. Many students suggested that this item should be added to this dimension.
  - ii. One dimension was added to Part One, and was called, 'the source of motivation to learn English'. This was based on the students' comments that engendered the need to include their reasons behind learning English (four items, No. 22-25).
  - iii. Items No. 60 which reads, 'Your order among siblings in the family', caused some difficulties for many students and was, therefore, removed from the dimension on 'The structure of the family.' The other two statements which indicate the rank order of the student among sisters and brothers in the family were maintained.

- ***Style Analysis Survey (SAS)***

The structure of the original inventory was closely followed for the adapted version of the SAS. Some modifications, however, were made based on the suggestions of the students in the post questionnaire discussion. The following illustrates how these changes were made.

- i. In item No. 27 which reads, ‘Manipulating objects helps to remember’, the word ‘manipulating’ was difficult to translate into Arabic. In the adapted version it was translated to mean ‘Using’, and the modified sentence reads in Arabic, ‘Using objects helps me to remember’.
- ii. In item No. 34 which reads, ‘It is easy for me to talk to strangers, the word ‘stranger’ was changed to mean ‘students I don’t know’, hence the new item reads, ‘It is easy for me to talk to students I don’t know’.
- iii. Other stylistic modifications were made to some items in the instrument to bring the meaning closer to the students’ understanding.

- ***The Strategy Inventory for Language Learning (SILL)***

The original *SILL* was designed to elicit data from the subjects who were studying English as a second or foreign language. The adapted inventory was designed to elicit data from students studying English and whose mother tongue is Arabic. Therefore, in adapting the original *SILL*, the following changes were made:

- i. In the original inventory, item No. 19 which reads, ‘I look for words in my own language that are similar to new words in English’, was changed to ‘I look for words in Arabic that are similar to new words in English’.
- ii. In item number No. 41, the word ‘treat’ in ‘I give myself a reward or treat when I do well in English’ was difficult to translate into Arabic and was therefore removed. In the adapted version, the new sentence reads, ‘I give myself a reward when I do well in English’.
- iii. In sentence number No. 11 which reads, ‘I try to talk like native English speakers, the word ‘native’ was omitted and the new sentence reads, ‘I try to talk like English speakers’.
- iv. Other stylistic modifications were made to some items in the instrument to bring the meaning closer to the students’ understanding.

### ***1.5.2. Time Taken to Answer the Questionnaires***

Students in the pilot group took 50-60 minutes on average to complete the three questionnaires. The explanation of the purpose of the study and instructions for completing the questionnaires took on average 15-20 minutes. During the informal discussion, participants indicated that the data collection procedure followed in the pilot study and the time taken to answer the questionnaires were appropriate for them.

### 1.5.3. Reliability and Validity of instruments

One of the objectives of the pilot study was to test the reliability and validity of the three research instruments. The data gathered from the pilot study were thus subjected to statistical analysis.

#### A. Reliability of Instruments

- **Reliability of the ESFS**

As indicated earlier, there are 85 items in the *ESFS* divided into two parts. Part one is designed to measure previous learning experience, and Part two, measures the social and cultural background characteristics of the students. Of the 85 items of the *ESFS*, 32 measure previous language learning experience, and 53 items measure social and cultural background characteristics. Reliability for the *ESFS* using Cronbach's alpha was (0.84) for the 32 items in Part One, and (0.81) for the 53 items in Part Two. The Cronbach alpha reliability obtained for all items in the *ESFS* instrument was (0.87), using 40 Saudi female students.

In addition, a split-half reliability coefficient measure was carried out. In this procedure, the scale is split into two parts and the correlation between the two parts is examined. The results showed that the Alpha for the 43 items in part 1 was .84, and the Alpha for the 42 items in part 2 was .81. The Correlation between the two forms was .44. Guttman Split-half was .61. This shows good reliability for the questionnaire items and good homogeneity of the survey.

- **Reliability of the SAS**

Reliability of the SAS has been established in many studies. Citing Oxford, Carson & Longhini (2002) mention that the overall reliabilities for the dimensions included in the SAS using 677 French and Spanish learners ranged from 0.76 to 0.90. In this pilot study, the alpha coefficient for the 110 items in the SAS using the Arabic translation with 40 Saudi female students was (0.76). The reliability for the dimensions included in the SAS using 40 Saudi female learners ranged from 0.73 to 0.79. Table 2 compares the reliability statistics of the dimensions of learning styles in Oxford's study, and the present pilot study. Cronbach's Alpha was used as the indicator of reliability in the present pilot study.

**Table 2: Reliability Coefficients for the SAS Dimensions**

	Dimension of Learning Style	Alpha coefficients	
		Oxford's study	The present pilot study
Activity (1)	Visual /Auditory /Hands-on	0.76	<b>0.73</b>
Activity (2)	Extraverted /Introverted	0.90	<b>0.77</b>
Activity (3)	Intuitive /Concrete-sequential	0.85	<b>0.76</b>
Activity (4)	Closure-oriented /Open	0.85	<b>0.75</b>
Activity (5)	Global /Analytic	0.78	<b>0.79</b>

When reliabilities for the dimensions of learning styles are compared between the two studies, the alpha coefficient for the 40 Saudi female students in the present study is lower than that in Oxford's study, except for the global/analytic scale, which was slightly higher in the present study. This suggests that the Arabic version of the instrument is probably as reliable an estimate of the learning styles scale as the English version produced by Oxford in 1999.



- ***Reliability of the Strategy Inventory for Language Learning (SILL)***

The *SILL* has been checked for reliability and validated in multiple ways. Its Cronbach alpha reliability coefficients range from 0.89 to 0.98 in various studies across many cultures (Oxford & Burry-Stock, 1995). In general, Cronbach Alphas reliabilities of the ESL/EFL *SILL* have been: 0.94 using the Chinese translation with a sample of 590 Taiwanese university EFL learners (Yang, 1992a); 0.92 using the Japanese translation with 255 Japanese university and college EFL students (Watanabe, 1990); and 0.91 using the Korean translation with 59 Korean EFL learners (Oh, 1992).

In this pilot study, the Cronbach's alpha reliability of all the items in the *SILL* was 0.93 using the Arabic translation and with a sample of 40 Saudi female university students. Table (2) shows the reliability obtained in this study for the six strategy groups in the *SILL*.

**Table-3: Reliability Coefficients for the six strategy groups in the *SILL***

	Strategy type	Alpha coefficient
Part -A	Memory Strategies	<b>0.87</b>
Part -B	Cognitive Strategies	<b>0.87</b>
Part -C	Compensation Strategies	<b>0.90</b>
Part -D	Metacognitive Strategies	<b>0.87</b>
Part -E	Affective Strategies	<b>0.89</b>
Part -F	Social Strategies	<b>0.90</b>

As the table shows, the reliability statistics of the dimensions of learning strategies range between 0.87 and 0.90. The high level of reliabilities was probably in part due to the large number of indicators in the *SILL*.

### ***B. Validity of Instruments***

Validity is the ability of an instrument to measure what it is designed to measure. As for the *SAS* and *SILL*, they have been correlated with several other instruments for concurrent validity and tested for content validity, as claimed by Oxford (1999). Oxford (1996d) also claims that the *SILL* validity rests on its predictive and correlative link with language performance as well as its confirmed relationship to sensory preferences and gender.

To examine the validity of the *ESFS*, three validity procedures were obtained: face validity, content validity and construct validity. With regard to face and content validities, The *ESFS* was designed to measure the previous learning experience of Saudi female students and their socio-cultural characteristics. Each item in the *ESFS* was developed to have a logical link with these objectives. In addition, the items cover a wide range of educational and socio-cultural factors, and each dimension has an adequate representation in the items.

Construct validity is a more sophisticated technique for establishing the validity of an instrument. It is based on statistical procedures. It is determined by ascertaining the contribution of each construct or item to the total variance. The contribution of these items to the total variance is an

indication of the degree of validity. To determine the internal validity of the *ESFS*, Pearson product-moment, Gamma, and Cramer's V correlations\* were used.

Table (3) shows the level of correlation of each item in the *ESFS* with its dimension. As the table shows, there are significant correlation levels for all items. There are, however, items which made minimal contribution to the scale, such as items 24 ( $r = 0.37$ ) and item 83 ( $r = 0.38$ ).

**Table- 4: Internal Validity of Items in the ESFS**

Item No.	<i>r</i>	Item No.	<i>r</i>	Item No.	<i>r</i>	Item No.	<i>r</i>
1	<b>0.86</b>	22	<b>0.48</b>	43	<b>0.61</b>	64	<b>0.67</b>
2	<b>0.93</b>	23	<b>0.81</b>	44	<b>0.63</b>	65	<b>0.87</b>
3	<b>0.92</b>	24	<b>0.37</b>	45	<b>0.64</b>	66	<b>0.87</b>
4	<b>0.88</b>	25	<b>0.67</b>	46	<b>0.68</b>	67	<b>0.54</b>
5	<b>0.88</b>	26	<b>0.74</b>	47	<b>0.60</b>	68	<b>0.79</b>
6	<b>0.84</b>	27	<b>0.72</b>	48	<b>0.84</b>	69	<b>0.86</b>
7	<b>0.86</b>	28	<b>0.56</b>	49	<b>0.73</b>	70	<b>0.82</b>
8	<b>0.69</b>	29	<b>0.50</b>	50	<b>0.58</b>	71	<b>0.74</b>
9	<b>0.54</b>	30	<b>0.45</b>	51	<b>0.84</b>	72	<b>0.85</b>
10	<b>0.63</b>	31	<b>0.55</b>	52	<b>0.73</b>	73	<b>0.88</b>
11	<b>0.78</b>	32	<b>0.59</b>	53	<b>0.68</b>	74	<b>0.79</b>
12	<b>0.46</b>	33	<b>0.73</b>	54	<b>0.65</b>	75	<b>0.83</b>
13	<b>0.46</b>	34	<b>0.66</b>	55	<b>0.65</b>	76	<b>0.82</b>
14	<b>0.64</b>	35	<b>0.70</b>	56	<b>0.86</b>	77	<b>0.81</b>
15	<b>0.53</b>	36	<b>0.89</b>	57	<b>0.91</b>	78	<b>0.86</b>
16	<b>0.69</b>	37	<b>0.89</b>	58	<b>0.87</b>	79	<b>0.80</b>
17	<b>0.59</b>	38	<b>0.80</b>	59	<b>0.70</b>	80	<b>0.80</b>
18	<b>0.80</b>	39	<b>0.82</b>	60	<b>0.94</b>	81	<b>0.78</b>
19	<b>0.58</b>	40	<b>0.86</b>	61	<b>0.88</b>	82	<b>0.85</b>
20	<b>0.84</b>	41	<b>0.89</b>	62	<b>0.90</b>	83	<b>0.38</b>
21	<b>0.48</b>	42	<b>0.51</b>	63	<b>0.54</b>	84	<b>0.66</b>
-	-	-	-	-	-	85	<b>0.74</b>

Item (24) is part of a 12 statements dimension (A/7: Type of self-supporting activities the student used in the past to learn English). The item reads, 'Course(s) of English outside Saudi Arabia'. This item was not a common activity to 97.5% of the students in the pilot group (Table 4.1). It was thought, however, that this item should not be removed from the survey in case participants in the main study would respond differently.

**Table- 4.1: the Distribution of Students' Responses on Item 24**

Course(s) in English outside Saudi Arabia		n	%
Categories	no	39	97.5
	rarely	1	2.5
	Total	40	100.0

\* -Gamma measure was used when the dimension consisted of items with an ordinal scale of measurement.

-Cramer's V correlation was used when the dimension consisted of items with a nominal scale of measurement.

Item (83) also made a minimal contribution to the construct. This item reads, ‘I accept and cooperate with what I am told by members of my family’. Item 83 is part of the dimension on styles of interaction in the family. As Table (4.2) shows, the responses indicate that this is not a common style of interaction in the family among 62.5% of the students. Nevertheless, it was not removed from the construct in case participants in the main study responded differently. In general, the contribution of the items in the *ESFS* to the survey demonstrates that it is a valid measure of the construct and indicates a good interpretability of its scores.

**Table- 4.2: the Distribution of Students Responses on Item 83**

<b>I accept and cooperate with what I am told by members of my family</b>		<b>n</b>	<b>%</b>
<b>Categories</b>	no	25	62.5
	with some of them	12	30.0
	with most of them	3	7.5
	Total	40	100.0

## 1.6. Conclusions

This pilot study was conducted to achieve the following objectives: (1) to assess the feasibility of the data collection procedure to be used in the main study; (2) to identify ambiguities and difficult questions and re-word and/or discard any questions that do not significantly contribute to the survey instruments; (3) to record the time taken by the students to complete the questionnaires in order to plan for data collection for the main study; and (4) to establish reliability and validity of the research instruments. The findings of the pilot study have lead to the following conclusions:

1. The data collection procedure was appropriate and there were no major problems that affected the research process. However, the researcher is aware that the size of the pilot group was small compared to the larger size of the actual group in the main study. In which case the data collection procedure would need to be carried out using the same steps and the same group size (40 students) in successive stages until all participants are surveyed.
2. The three survey instruments, *ESFS*, *SAS* and *SILL* were generally understood by the students. Some modifications, however, were made as necessary to ensure that the instruments are understood as they were intended to be.
3. The time taken to answer the questionnaires was 50-60 minutes on average. The explanation of the purpose of the study and instructions for completing the questionnaires took on average 15-20 minutes. Although the time taken to answer the questionnaires may seem long, students did not find this to be a problem.
4. The statistical analysis obtained indicates a good reliability of the *SAS*, *SILL* and *ESFS* instruments, despite the small sample size of the pilot group. The validity procedures followed indicate that the *ESFS* is a valid measure of the educational and socio-cultural factors of Saudi female students. The validity of the *SAS* and *SILL* has been established since the two instruments have been correlated with several other instruments for concurrent validity and tested for content validity.

## **Appendix Two**

## Style Analysis Survey (SAS)

**Purpose:** The SAS is designed to assess your general approach to learning and working. It does not predict your behaviour in every instance, but it is a clear indication of your overall style preference.

**Instructions:** For each item, circle the response that represents your approach:

**0 = Never      1 = Sometimes      2 = Very Often      3 = Always**

Complete all items. There are five major activities representing five different aspects of your learning and working style.

<b>ACTIVITY 1: HOW I USE MY PHYSICAL SENSES TO STUDY OR WORK</b>		<b>Scores</b>			
1	I remember something better if I write it down.	0	1	2	3
2	I take lots of notes during the lecture.	0	1	2	3
3	I can visualize pictures, numbers or words in my head.	0	1	2	3
4	I prefer to learn with video or TV more than any other media.	0	1	2	3
5	I underline or highlight the important parts I read.	0	1	2	3
6	I use colour-coding to help me as I learn or work.	0	1	2	3
7	I need written directions for tasks.	0	1	2	3
8	I get distracted by background noises.	0	1	2	3
9	I have to look at people to understand what they say.	0	1	2	3
10	I am more comfortable when the walls where I study have posters or pictures.	0	1	2	3
11	I remember things better if I discuss them out loud.	0	1	2	3
12	I prefer to learn by listening to a lecture or a tape, rather than by reading.	0	1	2	3
13	I need oral directions for tasks.	0	1	2	3
14	Background sounds help me think.	0	1	2	3
15	I like to listen to music when I study or work.	0	1	2	3
16	I can easily understand what people say even if I can't see them.	0	1	2	3
17	I remember better what people say than what they look like.	0	1	2	3
18	I easily remember jokes I hear.	0	1	2	3
19	I can identify people by their voices.	0	1	2	3
20	When I turn on the TV, I listen to the sound more than watching the screen.	0	1	2	3
21	I'd rather just start doing things rather than pay attention to directions.	0	1	2	3
22	I need frequent breaks when I study or work.	0	1	2	3
23	I move my lips when I read silently.	0	1	2	3
24	I avoid sitting at a desk when I don't have to.	0	1	2	3
25	I get nervous when I sit still too long.	0	1	2	3
26	I think better when I can move around.	0	1	2	3
27	Manipulating objects helps to remember.	0	1	2	3
28	I enjoy building or making things.	0	1	2	3
29	I like a lot of physical activities.	0	1	2	3
30	I like collecting cards, stamps, coins or other things.	0	1	2	3
<b>ACTIVITY 2: HOW I DEAL WITH PEOPLE</b>		<b>Scores</b>			
31	I prefer to study or work with others	0	1	2	3
32	I make new friends easily.	0	1	2	3
33	I like to be in groups of people.	0	1	2	3
34	It is easy for me to talk to strangers.	0	1	2	3
35	I keep up with personal news about other people.	0	1	2	3
36	I like to stay late at parties.	0	1	2	3
37	Interactions with new people give me energy.	0	1	2	3
38	I remember people's names easily	0	1	2	3

39	I have many friends and acquaintances.	0	1	2	3
40	Wherever I go, I develop personal contacts.	0	1	2	3
41	I prefer to work or study alone.	0	1	2	3
42	I am rather shy.	0	1	2	3
43	I prefer individual hobbies and sports.	0	1	2	3
44	It is hard for most people to get to know me.	0	1	2	3
45	People view me as more detached than sociable.	0	1	2	3
46	In a large group, I tend to keep silent.	0	1	2	3
47	Gatherings with lots of people tend to stress me.	0	1	2	3
48	I get nervous when dealing with new people.	0	1	2	3
49	I avoid parties if I can.	0	1	2	3
50	Remembering names is difficult for me.	0	1	2	3
<b>ACTIVITY 3: HOW I HANDLE POSSIBILITIES</b>		<b>Scores</b>			
51	I have a vivid imagination.	0	1	2	3
52	I like to think of lots of new ideas.	0	1	2	3
53	I can think of many different solutions to a problem.	0	1	2	3
54	I like multiple possibilities and options.	0	1	2	3
55	I enjoy considering future events.	0	1	2	3
56	Following a step-by-step procedure bores me.	0	1	2	3
57	I like to discover things rather than have everything explained.	0	1	2	3
58	I consider myself original.	0	1	2	3
59	I am an ingenious person.	0	1	2	3
60	It doesn't bother me if the teacher or boss changes a plan.	0	1	2	3
61	I am proud of being practical.	0	1	2	3
62	I behave in a down-to-earth way.	0	1	2	3
63	I am attracted to sensible people.	0	1	2	3
64	I prefer realism to new, untested ideas.	0	1	2	3
65	I prefer things presented in a step-by-step way.	0	1	2	3
66	I want a class or work session to follow a clear plan.	0	1	2	3
67	I like concrete facts, not speculation.	0	1	2	3
68	Finding hidden meanings is frustrating or irrelevant to me.	0	1	2	3
69	I prefer to avoid too many options.	0	1	2	3
70	I feel it is useless for me to think about the future.	0	1	2	3
<b>ACTIVITY 4: HOW I APPROACH TASKS</b>		<b>Scores</b>			
71	I reach decisions quickly.	0	1	2	3
72	I am an organized person.	0	1	2	3
73	I make lists of things I need to do.	0	1	2	3
74	I consult my lists in order to get things done.	0	1	2	3
75	Messy, unorganized environments make me nervous.	0	1	2	3
76	I start tasks on time or early.	0	1	2	3
77	I get places on time.	0	1	2	3
78	Deadlines help me organize work.	0	1	2	3
79	I enjoy a sense of structure.	0	1	2	3
80	I follow through with what I have planned.	0	1	2	3
81	I am a spontaneous person.	0	1	2	3
82	I like to just let things happen, not plan them.	0	1	2	3
83	I feel uncomfortable with a lot of structure.	0	1	2	3

84	I put off decisions as long as I can.	0	1	2	3
85	I have a messy desk or room.	0	1	2	3
86	I believe that deadlines are artificial or useless.	0	1	2	3
87	I keep an open mind about things.	0	1	2	3
88	I believe that enjoying myself is the most important thing.	0	1	2	3
89	Lists of tasks make me feel tired or upset.	0	1	2	3
90	I feel fine about changing my mind.	0	1	2	3
<b>ACTIVITY 5: HOW I DEAL WITH IDEAS</b>		<b>Scores</b>			
91	I prefer simple answers rather than a lot of explanations.	0	1	2	3
92	Too many details tend to confuse me.	0	1	2	3
93	I ignore details that do not seem relevant.	0	1	2	3
94	It is easy for me to see the overall plan or big picture.	0	1	2	3
95	I can summarize information rather easily.	0	1	2	3
96	It is easy for me to paraphrase what other people say.	0	1	2	3
97	I see the main point very quickly.	0	1	2	3
98	I am satisfied with knowing the major ideas without the details.	0	1	2	3
99	I can pull together (synthesize) things easily.	0	1	2	3
100	When I make an outline, I write down only the key points.	0	1	2	3
101	I prefer detailed answers instead of short answers.	0	1	2	3
102	It is difficult for me to summarize detailed information.	0	1	2	3
103	I focus on specific facts or information.	0	1	2	3
104	I enjoy breaking general ideas down into smaller pieces.	0	1	2	3
105	I prefer looking for differences rather than similarities.	0	1	2	3
106	I use logical analysis to solve problems.	0	1	2	3
107	My written outlines contain many details.	0	1	2	3
108	I become nervous when only the main ideas are presented.	0	1	2	3
109	I focus on the details rather than the big picture.	0	1	2	3
110	When I tell a story or explain something, it takes a long time.	0	1	2	3

## **Appendix Three**



# Strategy Inventory for Language Learning (SILL)

## Version for Speakers of Other Languages Learning English

### Version 7.0 (ESL/EFL)

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 write the response (1, 2, 3, 4, or 5) that tells how true the statement is.

1. Never or almost never true of me
2. Usually not true of me
3. Somewhat true of me
4. Usually true of me
5. Always or almost always true of me

Part A: Memory Strategies		Scores				
1.	I think of relationships between what I already know and new things I learn in English.	1	2	3	4	5
2.	I use new English words in a sentence so I can remember them.	1	2	3	4	5
3.	I connect the sound of a new English word and an image or picture of the word to help me remember the word.	1	2	3	4	5
4.	I remember a new English word by making a mental picture of a situation in which the word might be used.	1	2	3	4	5
5.	I use rhymes to remember new English words.	1	2	3	4	5
6.	I use flashcards to remember new English words.	1	2	3	4	5
7.	I physically act out new English words.	1	2	3	4	5
8.	I review English lessons often.	1	2	3	4	5
9.	I remember new English words or phrases by remembering their location on the page, on the board, or on a street sign.	1	2	3	4	5
<b>Part B: Cognitive Strategies</b>						
10.	I say or write new English words several times.	1	2	3	4	5
11.	I try to talk like native English speakers.	1	2	3	4	5
12.	I practice the sounds of English.	1	2	3	4	5
13.	I use the English words I know in different ways.	1	2	3	4	5
14.	I start conversations in English.	1	2	3	4	5
15.	I watch English language TV shows spoken in English or go to movies spoken in English.	1	2	3	4	5
16.	I read for pleasure in English.	1	2	3	4	5
17.	I write notes, messages, letters, or reports in English.	1	2	3	4	5
18.	I first skim an English passage (read over the passage quickly) then go back and read carefully.	1	2	3	4	5
19.	I look for words in my own language that are similar to new words in English.	1	2	3	4	5
20.	I try to find patterns in English.	1	2	3	4	5
21.	I find the meaning of an English word by dividing it into parts that I understand.	1	2	3	4	5
22.	I try not to translate word for word.	1	2	3	4	5
23.	I make summaries of information that I hear or read in English.					

Part C: Compensation Strategies		Scores				
24.	To understand unfamiliar English words, I make guesses.	1	2	3	4	5
25.	When I can't think of a word during a conversation in English, I use gestures.	1	2	3	4	5
26.	I make up new words if I do not know the right ones in English.	1	2	3	4	5
27.	I read English without looking up every new word.	1	2	3	4	5
28.	I try to guess what the other person will say next in English.	1	2	3	4	5
29.	If I can't think of an English word, I use a word or phrase that means the same thing.	1	2	3	4	5
Part D: Metacognitive Strategies						
30.	I try to find as many ways as I can to use my English.	1	2	3	4	5
31.	I notice my English mistakes and use that information to help me do better.	1	2	3	4	5
32.	I pay attention when someone is speaking English.	1	2	3	4	5
33.	I try to find out how to be a better learner of English.	1	2	3	4	5
34.	I plan my schedule so I will have enough time to study English.	1	2	3	4	5
35.	I look for people I can talk to in English.	1	2	3	4	5
36.	I look for opportunities to read as much as possible in English.	1	2	3	4	5
37.	I have clear goals for improving my English skills.	1	2	3	4	5
38.	I think about my progress in learning English.	1	2	3	4	5
Part E: Affective Strategies						
39.	I try to relax whenever I feel afraid of using English.	1	2	3	4	5
40.	I encourage myself to speak English even when I am afraid of making a mistake.	1	2	3	4	5
41.	I give myself a reward or treat when I do well in English.	1	2	3	4	5
42.	I notice if I am tense or nervous when I am studying or using English.	1	2	3	4	5
43.	I write down my feelings in a language learning dairy.	1	2	3	4	5
44.	I talk to someone else about how I feel when I am learning English.	1	2	3	4	5
Part F: Social Strategies						
45.	If I do not understand something in English, I ask the other person to slow down or say it again.	1	2	3	4	5
46.	I ask English speakers to correct me when I talk.	1	2	3	4	5
47.	I practice English with other students.	1	2	3	4	5
48.	I ask for help from English speakers.	1	2	3	4	5
49.	I ask questions in English.	1	2	3	4	5
50.	I try to learn about the culture of English speakers.	1	2	3	4	5

## **Appendix Four**

## Educational and Socio-cultural Factors Survey (ESFS)

### Part I: Previous Learning Experience

<b>A/1- Type of previous learning institution Level of Education</b>	<b>Government School</b>	<b>Good Private School</b>	<b>Very Good Private School</b>	<b>Excellent Private School</b>
	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
1. Elementary school	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
2. Middle school	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
3. High school	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>

<b>A/2- Level of your academic achievement in English</b>	<b>Poor</b>	<b>Good</b>	<b>Very Good</b>	<b>Excellent</b>
	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
4. Middle school	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
5. High school	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>

<b>A/3- Styles that were used to teach you English in the middle and high schools</b>	<b>Never</b>	<b>Sometimes</b>	<b>Often</b>	<b>Always</b>
	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
6. The teachers used explanation and question /answer styles	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
7. The teachers allowed students to interact frequently with other students in the class and practise the language	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
8. The teachers concentrated on students' participation in reading and in writing	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>

<b>A/4- Methods that were used to teach you English in the middle and high schools</b>	<b>Never</b>	<b>Sometimes</b>	<b>Often</b>	<b>Always</b>
	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
9. The teacher used the blackboard	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
10. The teacher used language laboratories	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
11. The teacher used demonstrations and models	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>

<b>A/5- Methods you used when studying for English examinations</b>	<b>No</b>	<b>Sometimes</b>	<b>Often</b>	<b>Always</b>
	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
12. I relied on the teacher's explanation and examples in class	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
13. I avoided getting help from a private tutor	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
14. I avoided getting help from a friend or a relative	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
15. I avoided memorizing information from the textbook	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>

<b>A/6- Difficulties you faced during your learning of English</b>	<b>Poor</b>	<b>Satisfactory</b>	<b>Good</b>	<b>Excellent</b>
	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
16. Regularity of teacher's attendance to class	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
17. Suitability of the English textbooks to your level of English	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
18. Suitability of the teacher's teaching style to your learning preferences	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
19. Availability and use of Language Laboratories	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
20. Availability of teaching aids	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
21. Teachers' attitudes towards students (e.g., tolerance, calmness)	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>

<b>A/7- The source of motivation to learn English</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>
	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
22. I learn English to be able to communicate fluently with English speakers	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
23. Improving my English is <b>not</b> to pass an exam	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
24. Improving my English is <b>not</b> to get admission to the college I like	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
25. Improving my English is <b>not</b> to find a job	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>

<b>A/8- Type of self-supporting activities you have used in the past to learn English</b>	<b>No</b>	<b>Rarely</b>	<b>Often</b>	<b>Always</b>
	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
<b>Activity</b>				
26. Tutoring by a family member	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
27. Private tutoring	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
28. Course(s) in English inside Saudi Arabia	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
29. Course(s) in English outside Saudi Arabia	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
30. Audio-tapes for learning English	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
31. Video-tapes for learning English	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
32. Using English when on the internet (i.e. chatting, emails)	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
33. Watching news or TV programs in English	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
34. Speaking English with a friend	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
35. Mixing with English speaking neighbours or friends?	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
36. Having a house helper who speaks English	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
37. Travelling to an English speaking country	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>

**Part II: Social and Cultural Background of the Family****A- Family Ethnicity and Openness**

<b>A/1- The family as an ethnic group</b>	<b>Very Important</b>	<b>Important</b>	<b>Somewhat Important</b>	<b>Not Important</b>
	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
38. How important is it for your family to live in the same neighbourhood as other relatives?	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
39. How important is it in your family for marriage to be between distant relatives or other families with similar cultural/ethnic characteristics?	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
40. How important are social relations and support between your family and relatives or families with similar cultural/ethnic characteristics?	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>

<b>A/2-Ethnic background of the family</b>	<b>Saudi</b>	<b>Arab</b>	<b>Asian</b>	<b>Western</b>
	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
41. Father	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
42. Mother	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>

<b>A/3-Tolerance of other cultural/ethnic? groups</b>	<b>No</b>	<b>Sometimes</b>	<b>Most of the time</b>	<b>Always</b>
	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
43. I accept groups from outside my province	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
44. I accept groups from other Arab countries	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
45. I accept groups from Western countries	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
46. I accept groups from other countries	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>

<b>A/4- Family entertainment (outdoors)</b>	<b>No</b>	<b>Rarely</b>	<b>Often</b>	<b>Always</b>
	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
47. Shopping and dining with the family.	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
48. Going out on picnics with the family	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
49. Visiting relatives and friends	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
50. Doing sporting activities with the family	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>

**B- Cultural and Religious Characteristics of the Family**

<b>B/1- Cultural characteristics of the family</b>	<b>Tribal</b>	<b>Somewhat modern</b>	<b>Quite modern</b>	<b>Completely modern</b>
	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
51. Marriage customs in the family	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
52. Clothing and hijab traditions in the family	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
53. Hospitality customs in the family	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
54. Customs of treating women in the family	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>

<b>B/2- Religious conformity</b>	<b>No</b>	<b>Sometimes</b>	<b>Most of the time</b>	<b>Always</b>
	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
55. I do the five prayers on time	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
56. I do the supererogatory prayers	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
57. I do the supererogatory fasting	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
58. I respond well to moral advice.	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>

### **C- Socioeconomic Status of the Family**

<b>C/1- Education level of family members</b>	<b>Primary</b>	<b>Intermediate</b>	<b>Secondary</b>	<b>University and above</b>
	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
59. Father's education	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
60. Mother's education	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>

<b>C/2- Socioeconomic level of the family</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>	<b>Very High</b>
	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
61. Level of father's job	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
62. Monthly income of the family.	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
63. Standard of accommodation	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
64. Standard of neighbourhood	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>

### **D- The Structure of the Family**

<b>D/1- Your rank order in the family</b>	<b>First</b>	<b>Second</b>	<b>Third</b>	<b>Fourth and beyond</b>
	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
65. Your order among sisters in the family	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
66. Your order among brothers in the family	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>

<b>D/2- Your status in the family</b>	<b>No</b>	<b>Sometimes</b>	<b>Often</b>	<b>Always</b>
	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
67. An older sister is more appreciated than the younger brother	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
68. My father prefers female offspring	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
69. My mother prefers female offspring	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>

<b>D/3- Your decision-making in the family</b>	<b>No</b>	<b>Sometimes</b>	<b>Most of the time</b>	<b>Always</b>
	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
70. I make decisions concerning my university education	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
71. I make decisions concerning my future (e.g., marriage, work)	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
72. I make decisions concerning spending money and travelling.	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>

**E- Family Conventions (Reward and Punishment)**

<b>E/1- Punishment in the family</b>	<b>No</b>	<b>Some of Them</b>	<b>Most of Them</b>	<b>All of Them</b>
	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
73. Members of my family avoid rebuking me or use verbal punishment	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
74. Members of my family avoid using material punishment with me	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
75. Members of my family avoid using physical punishment with me	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
76. Members of my family use verbal praise and expressions of encouragement with me	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
77. Members of my family offer me material rewards	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
78. Members of my family reward me with more respect and more consultation in family matters	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>

**F- Social Orientation**

<b>F/1- Acceptance of social conventions</b>	<b>No</b>	<b>Sometimes</b>	<b>Most of the time</b>	<b>Always</b>
	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
79. I am satisfied with myself and my present social circumstances	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
80. I am satisfied with the way other people in my society perceive me	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
81. I am optimistic about the future	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>

<b>F/2- Quality of social relationships with members of the family</b>	<b>Poor</b>	<b>Fair</b>	<b>Good</b>	<b>Excellent</b>
	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
82. With my father	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
83. With my mother	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
84. With my brothers	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
85. With my sisters	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>

**G- Interaction Styles in the Family**

<b>G/1-Common styles of interaction in the family</b>	<b>No</b>	<b>With some of Them</b>	<b>With Most of Them</b>	<b>With All of Them</b>
	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
86. I accept and cooperate with what I am told by members of my family	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
87. I argue about things and discuss them with members of my family	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
88. I am courteous with members of my family (affection and religious expressions)	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>



## **Appendix Five**

**Table of Distribution of the Students' Responses on the Style Analysis Survey**

No	Item description	0	1	2	3*
1.	I remember something better if I write it down.	1.6	12.1	46.6	39.7
2.	I take lots of notes during the lecture.	7.3	30.0	34.4	28.3
3.	I can visualize pictures, numbers or words in my head.	1.6	16.6	34.8	47.0
4.	I prefer to learn with video or TV more than any other media.	35.6	28.3	19.1	17.0
5.	I underline or highlight the important parts I read.	2.4	7.7	19.0	70.9
6.	I use color-coding to help me as I learn or work.	24.7	17.8	20.3	37.2
7.	I need written directions for tasks.	17.4	38.2	30.8	13.8
8.	I get distracted by background noises.	4.5	21.0	26.3	48.2
9.	I have to look at people to understand what they say.	.4	8.1	27.9	63.6
10.	I am more comfortable when the walls where I study have posters.	21.5	35.2	25.9	17.4
11.	I remember things better if I discuss them out loud.	1.6	11.7	38.5	48.2
12.	I prefer to learn by listening to a lecture or a tape, rather than by reading.	3.6	17.8	41.8	36.8
13.	I need oral directions for tasks.	13.4	51.0	23.9	11.7
14.	Background sounds help me think.	83.4	10.9	4.1	1.6
15.	I like to listen to music when I study or work.	76.5	15.4	4.5	3.6
16.	I can easily understand what people say even if I can't see them.	12.1	40.9	31.6	15.4
17.	I remember better what people say than what they look like.	18.6	38.1	31.2	12.1
18.	I easily remember jokes I hear.	36.8	42.9	14.6	5.7
19.	I can identify people by their voices.	6.5	31.2	45.3	17.0
20.	When I turn on the TV, I listen more than I watch	31.6	37.2	26.3	4.9
21.	I'd rather just start doing things rather than pay attention to directions.	54.7	32.0	9.7	3.6
22.	I need frequent breaks when I study or work.	8.6	34.8	28.7	27.9
23.	I move my lips when I read silently.	10.5	25.5	25.1	38.9
24.	I avoid sitting at a desk when I don't have to.	23.1	34.4	23.5	19.0
25.	I get nervous when I sit still too long.	5.6	22.7	25.1	46.6
26.	I think better when I can move around.	22.3	30.0	31.5	16.2
27.	Manipulating objects helps to remember.	3.2	12.2	41.3	43.3
28.	I enjoy building or making things.	29.1	33.2	22.3	15.4
29.	I like a lot of physical activities.	8.9	34.8	34.4	21.9
30.	I like collecting cards, stamps, coins or other things.	59.1	21.1	10.1	9.7
31.	I prefer to study or work with others	47.3	37.7	13.0	2.0
32.	I make new friends easily.	11.7	32.4	33.6	22.3
33.	I like to be in groups of people.	5.3	21.5	41.7	31.6
34.	It is easy for me to talk to strangers.	15.4	32.4	27.1	25.1
35.	I keep up with personal news about other people.	32.8	42.5	17.4	7.3
36.	I like to stay late at parties.	24.7	34.0	27.1	14.2
37.	Interactions with new people give me energy.	5.6	24.7	37.7	32.0
38.	I remember people's names easily	15.0	36.4	32.4	16.2
39.	I have many friends and acquaintances.	11.7	16.3	36.0	36.0
40.	Wherever I go, I develop personal contacts.	15.4	40.9	30.3	13.4
41.	I prefer to work or study alone.	3.6	8.9	24.7	62.8
42.	I am rather shy.	10.9	41.7	30.4	17.0
43.	I prefer individual hobbies and sports.	25.5	34.0	27.9	12.6
44.	It is hard for most people to get to know me.	30.8	45.3	17.4	6.5
45.	People view me as more detached than sociable.	47.0	29.1	16.6	7.3
46.	In a large group, I tend to keep silent.	13.4	37.6	29.6	19.4
47.	Gatherings with lots of people tend to stress me.	48.2	32.3	15.0	4.5
48.	I get nervous when dealing with new people.	23.9	45.3	19.1	11.7
49.	I avoid parties if I can.	52.6	27.5	15.4	4.5
50.	Remembering names is difficult for me.	34.0	45.3	13.8	6.9
51.	I have a vivid imagination.	3.6	23.6	35.6	37.2
52.	I like to think of lots of new ideas.	2.0	18.2	41.7	38.1
53.	I can think of many different solutions to a problem.	3.3	28.7	38.9	29.1
54.	I like multiple possibilities and options.	4.9	18.6	33.2	43.3
55.	I enjoy considering future events.	2.4	14.6	31.2	51.8
56.	Following a step-by-step procedure bores me.	28.7	44.9	21.1	5.3
57.	I like to discover things rather than have everything explained.	10.9	40.1	32.0	17.0
58.	I consider myself original.	7.3	28.7	38.9	25.1
59.	I am an ingenious person.	18.2	35.6	32.8	13.4
60.	It doesn't bother me if the teacher or boss changes a plan.	15.0	39.3	31.5	14.2
61.	I am proud of being practical.	1.6	10.1	32.8	55.5
62.	I behave in a down-to-earth way.	-	7.3	34.4	58.3
63.	I like concrete facts, not speculation.	14.3	27.5	29.1	29.1
64.	I prefer realism to new, untested ideas.	7.7	30.4	38.8	23.1
65.	I prefer things presented in a step-by-step way.	5.6	30.4	30.0	34.0
66.	I want a class or work session to follow a clear plan.	1.6	12.6	28.3	57.5
67.	Finding hidden meanings is frustrating or irrelevant to me.	25.5	42.9	24.3	7.3
68.	I prefer to avoid too many options.	36.8	45.3	13.0	4.9
69.	I am attracted to sensible people.	6.9	16.2	32.4	44.5
70.	I feel it is useless for me to think about the future.	63.6	27.9	8.1	.4

**Table continued**

No	Item description		1	2	3	4
71.	I reach decisions quickly.	<b>(Closure)</b>	18.2	47.0	26.3	8.5
72.	I am an organized person.		13.4	27.1	43.3	16.2
73.	I make lists of things I need to do.		21.9	29.1	32.0	17.0
74.	I consult my lists in order to get things done.		25.9	26.7	27.9	19.5
75.	Messy, unorganized environments make me nervous.		5.7	21.9	27.5	44.9
76.	I start tasks on time or early.		9.8	27.9	41.7	20.6
77.	I get places on time.		5.7	19.0	47.0	28.3
78.	Deadlines help me organize work.		3.2	9.3	31.2	56.3
79.	I enjoy a sense of structure.		7.3	40.5	36.0	16.2
80.	I follow through with what I have planned.		2.1	27.1	52.6	18.2
81.	I am a spontaneous person.	<b>(Open)</b>	7.3	27.1	38.9	26.7
82.	I like to just let things happen, not plan them.		47.4	32.4	15.4	4.8
83.	I feel uncomfortable with a lot of structure.		13.0	45.7	25.5	15.8
84.	I put off decisions as long as I can.		30.4	45.3	19.0	5.3
85.	I have a messy desk or room.		44.9	38.5	13.4	3.2
86.	I believe that deadlines are artificial or useless.		83.4	13.0	2.0	1.6
87.	I keep an open mind about things.		2.0	31.6	45.3	21.1
88.	I believe that enjoying myself is the most important thing.		12.5	30.0	33.2	24.3
89.	Lists of tasks make me feel tired or upset.		23.0	50.2	21.9	4.9
90.	I feel fine about changing my mind.		16.6	39.3	31.1	13.0
91.	I prefer simple answers rather than a lot of explanations.	<b>(Global)</b>	7.3	34.0	29.6	29.1
92.	Too many details tend to confuse me.		19.0	43.3	32.0	5.7
93.	I ignore details that do not seem relevant.		10.9	32.5	36.8	19.8
94.	It is easy for me to see the overall plan or big picture.		2.8	32.0	51.0	14.2
95.	I can summarize information rather easily.		6.0	24.3	47.8	21.9
96.	It is easy for me to paraphrase what other people say.		5.7	23.5	44.9	25.9
97.	I see the main point very quickly.		3.2	25.1	50.2	21.5
98.	I am satisfied with knowing the major ideas without the details.		37.7	41.6	15.0	5.7
99.	I can pull together (synthesize) things easily.		1.6	20.2	57.1	21.1
100.	When I make an outline, I write down only the key points.		11.4	26.3	42.1	20.2
101.	I prefer detailed answers instead of short answers.	<b>(Analytic)</b>	24.7	27.9	25.5	21.9
102.	It is difficult for me to summarize detailed information.		30.4	46.6	19.8	3.2
103.	I focus on specific facts or information.		16.1	30.0	38.1	15.8
104.	I enjoy breaking general ideas down into smaller pieces.		3.6	15.8	41.3	39.3
105.	I prefer looking for differences rather than similarities.		8.9	36.0	36.8	18.2
106.	I use logical analysis to solve problems.		3.7	19.8	47.8	28.7
107.	My written outlines contain many details.		15.0	34.8	34.8	15.4
108.	I become nervous when only the main ideas are presented.		16.2	40.1	23.1	20.6
109.	I focus on the details rather than the big picture.		21.5	45.7	21.5	11.3
110.	When I tell a story or explain something, it takes a long time.		20.6	46.2	24.3	8.9

\*0=never, 1=sometimes, 2=very often, 3=always

## **Appendix Six**

**Table 8: of the Response Frequencies of the Learning Strategy Items**

Items Description	Categories <sup>a</sup>				
	1	2	3	4	5
	%	%	%	%	% <sup>b</sup>
1. I think of relationships.	6	10	28	30	26
2. I use new English words in a sentence so I can remember them.	10	12	28	28	22
3. I connect the sound of a new English word and an image.	13	12	25	28	22
4. I remember a new English word by making a mental picture.	8	12	20	36	24
5. I use rhymes to remember new English words.	47	16	14	13	10
6. I use flashcards to remember new English words.	66	18	9	4	3
7. I physically act out new English words.	30	21	23	17	9
8. I review English lessons often.	17	15	25	24	19
9. I remember English words by remembering their location.	14	13	28	27	18
10. I say or write new English words several times.	9	14	22	26	29
11. I try to talk like native English speakers.	5	11	22	26	36
12. I practice the sounds of English.	3	8	25	29	35
13. I use the English words I know in different ways.	6	10	25	30	29
14. I start conversations in English.	22	24	26	18	10
15. I watch TV shows spoken in English.	10	9	17	25	39
16. I read for pleasure in English.	10	14	29	24	23
17. I write notes, messages, letters, or reports in English.	16	20	22	24	18
18. I first skim an English passage then read carefully.	9	15	29	33	14
19. I look for words in Arabic that are similar to words in English.	17	16	24	25	18
20. I try to find patterns in English.	15	19	23	26	17
21. I find the meaning of an English word by dividing it.	13	13	29	25	20
22. I try not to translate word for word.	22	17	23	23	15
23. I make summaries of information that I hear or read in English.	26	24	23	19	8
24. To understand unfamiliar English words, I make guesses.	3	6	22	38	31
25. When I can't think of a word, I use gestures.	15	17	22	25	21
26. I make up new words if I do not know the right ones.	45	17	12	16	10
27. I read without looking up every new word.	35	22	21	14	8
28. I try to guess what the other person will say.	17	23	23	25	12
29. If I can't think of a word, I use one that means the same thing.	2	6	21	33	38
30. I try to find as many ways as I can to use my English.	6	14	24	33	23
31. I notice my English mistakes.	3	4	17	31	45
32. I pay attention when someone is speaking English.	1	3	19	28	49
33. I try to find out how to be a better learner of English.	3	4	12	25	55
34. I plan my schedule so I will have enough time to study English.	23	18	25	20	14
35. I look for people I can talk to in English.	17	22	23	21	17
36. I look for opportunities to read in English.	20	21	22	19	18
37. I have clear goals for improving my English skills.	11	14	23	20	33
38. I think about my progress in learning English.	2	6	20	23	49
39. I try to relax whenever I feel afraid of using English.	19	15	23	21	22
40. I encourage myself to speak English even when I am afraid.	6	11	20	27	36
41. I give myself a reward or treat when I do well in English.	30	13	18	24	15
42. I notice if I am tense or nervous.	16	13	23	23	25
43. I write down my feelings in a language-learning dairy.	59	14	12	10	5
44. I talk to someone else about how I feel.	26	16	21	17	20
45. If I do not understand, I ask the other person to slow down.	17	14	26	21	22
46. I ask English speakers to correct me when I talk.	17	17	25	23	18
47. I practice English with other students.	32	21	23	14	10
48. I ask questions in English.	19	20	28	24	9
49. I ask for help from English speakers.	15	16	33	17	19
50. I try to learn about the culture of English speakers.	17	16	24	18	25

<sup>a</sup>1= Never or almost never true of me; 2= Usually not true of me; 3= Somewhat true of me; 4= Usually true of me; 5= Always or almost always true of me.

<sup>b</sup>. Percentage has been rounded to the nearest whole number.

## **Appendix Seven**

**Table 1- Distribution of Students' Responses on Previous Teaching Styles and Methods**

Styles that were used to teach English in the Intermediate and Secondary Schools	Categories <sup>a</sup> ;			
	0 %	1 %	2 %	3 %
. The teachers used explanation and question /answer styles	3.4	30.5	42.5	23.6
. The teachers allowed students to interact with each other	14.7	54.1	19.2	12.0
. The teachers concentrated on students' participation in reading and in writing	11.6	37.8	25.5	25.1
<b>Methods that were used to teach English in the Intermediate and Secondary Schools</b>				
. The teacher used the blackboard	.8	9.3	29.7	60.2
. The teacher used language laboratories	72.6	17.8	3.8	5.8
. The teacher used demonstrations and models	3.5	38.2	33.2	25.1

<sup>a</sup> ; 0=never, 1=sometimes, 2=often, 3=always

**Table 2- Distribution of Students' Responses on their Study styles for English Examinations**

The styles you used to study for English Exams	Categories <sup>a</sup> ;			
	0 %	1 %	2 %	3 %
. I relied on the teacher's explanation and examples in class	4.6	12.8	35.9	46.7
. I avoided getting help from a private tutor	25.1	21.6	21.6	31.7
. I avoided getting help from a friend or a relative	43.2	27.8	12.4	16.6
. I avoided memorizing information from the textbook	26.6	25.9	27.0	20.5

<sup>a</sup> ; 0=never, 1=sometimes, 2=often, 3=always

**Table 3-Distribution of Students Responses on the Difficulties they Faced when Learning English**

Difficulties you faced during your learning of English	Categories <sup>a</sup> ;			
	0 %	1 %	2 %	3 %
. Regularity of teacher's attendance to class	4.2	3.5	28.6	63.7
. Suitability of the English textbooks to your level of English	14.3	25.9	40.9	18.9
. Suitability of the teacher's teaching style to your learning preferences	5.4	20.2	47.7	26.7
. Availability and use of Language Laboratories	68.0	8.9	9.7	13.4
. Availability of teaching aids	7.4	25.8	39.8	27.0
. Teachers' attitudes towards students (e.g., tolerance, calmness)	4.7	13.2	36.8	45.3

<sup>a</sup> ; 0=poor, 1=not satisfactory, 2=good, 3=excellent

**Table 4- Distribution of Subjects by the Source of Motivation to Learn English**

	Categories <sup>a</sup> ;			
	0 %	1 %	2 %	3 %
. I learn English to be able to communicate fluently with English speakers	.4	3.5	10.6	85.5
. Improving my English is <b>not</b> to pass an exam	5.0	5.0	27.5	62.5
. Improving my English is <b>not</b> to get admission to the college I like	8.9	12.0	23.6	55.5
. Improving my English is <b>not</b> to find a job	31.3	19.3	19.3	30.1

<sup>a</sup> ; 0= strongly disagree, 1= disagree, 2= agree, 3=strongly agree

**Table 5- Distribution of Subjects by the Type of Self-supporting Activities they have used in the Past to Learn English**

Type of self-supporting activities the students have used in the past to learn English	Categories*			
	0 %	1 %	2 %	3 %
. Tutoring by a family member	17.4	32.4	26.6	23.6
. Private tutoring	81.0	11.2	5.8	1.9
. Course(s) in English inside Saudi Arabia	61.0	25.1	10.4	3.5
. Course(s) in English outside Saudi Arabia	91.5	3.9	1.2	3.5
. Using audio-tapes for learning English	74.9	17.8	4.6	2.7
. Using video-tapes for learning English	77.2	16.2	3.5	3.1
. Using English when on the internet	39.4	24.7	21.6	14.3
. Watching news or TV programs in English	10.8	16.2	34.4	38.6
. Speaking English with a friend	27.9	35.7	23.6	12.8
. Mixing with English speaking neighbours or friends	60.6	22.4	10.0	6.9
. Having a house helper who speaks English	71.4	17.4	6.6	4.6
. Travelling to an English speaking country	47.1	27.8	12.4	12.7

\*0=never, 1=rarely, 2=often, 3=always

**Table 6- The Distribution of Students' Responses on their Ethnicity in Percentage**

	Categories <sup>a</sup> ;			
	0 %	1 %	2 %	3 %
. How important is it for your family to live in the same neighbourhood as other relatives?	19.7	15.4	31.7	33.2
. How important is it in your family for marriage to be between families with similar ethnic characteristics?	11.3	12.7	29.3	46.7
. How important are social relations and support to be between your family and other families with similar ethnic characteristics?	41.3	32.4	21.3	5.0

<sup>a</sup> ; 0=very important, 1=important, 2=somewhat important, 3=not important

**Table 7- Distribution of Student's Responses on Outdoor Entertainment with the Family**

	Categories <sup>a</sup> ;			
	0 %	1 %	2 %	3 %
. Shopping and dining with the family	7.8	29.7	32.4	30.1
. Going out on picnics with the family	13.1	47.5	24.7	14.7
. Visiting relatives and friends	6.9	34.5	34.7	23.9
. Doing outdoor-sport activities with the family	55.2	30.9	9.3	4.6

<sup>a</sup> ; 0=never, 1=rarely, 2=often, 3=always



**Table 8- Distribution of students Responses on Religious Conformity**

	Categories <sup>a</sup> ;			
	0	1	2	3
. I do the five prayers on time	-	3.1	29.3	67.6
. I do the supererogatory prayers	22.0	53.7	19.3	5.0
. I do the supererogatory fasting	19.3	49.4	24.7	6.6
. I respond well to moral advice.	1.5	20.1	41.7	36.7

<sup>a</sup> ; 0=no, 1=sometimes, 2=most of the time, 3=always

**Table 9- The Socioeconomic Status of the family**

	Categories <sup>a</sup> ;			
	0	1	2	3
. Level of father's job	2.3	12.3	38.6	46.8
. Monthly income of the family	1.8	16.8	40.9	40.5
. Standard of accommodation	1.4	15.5	45.0	38.1
. Standard of neighbourhood	2.3	24.5	50.0	23.2

<sup>a</sup> ; 0= low, 1= medium, 2= high, 3= very high

**Table 10- The Order of the Student among Siblings in the Family**

	Categories <sup>a</sup> ;			
	0	1	2	3
.Your order among sisters in the family	44.1	22.7	14.1	19.1
. Your order among brothers in the family	35.0	29.1	15.9	20.0

<sup>a</sup> ; 0= first, 1= second, 2= third, 3= fourth and beyond

**Table 11- Students' Responses on their Status in the Family**

	Categories <sup>a</sup> ;			
	0	1	2	3
. An older sister is more appreciated than a younger brother in the family	55.3	23.9	10.8	10.0
. My father prefers female offspring	32.8	26.2	23.3	17.7
. My mother prefers female offspring	33.2	31.7	18.5	16.6

<sup>a</sup> ; 0= never, 1=sometimes, 2=often, 3= always

**Table 12- Decision Making**

	Categories <sup>a</sup> ;			
	0	1	2	3
. I make decisions concerning my college education and field of study	.8	2.3	8.1	88.8
. I make decisions concerning my future (e.g., marriage, work)	-	5.4	19.7	74.9
. I make decisions concerning spending money and travelling	7.3	31.7	39.0	22.0

<sup>a</sup> ; 0=no, 1=sometimes, 2= most of the time, 3=always

**Table 13- Reward and Punishment in the Family**

	Categories <sup>a</sup> ;			
	0	1	2	3
. Members of my family avoid rebuking me or use verbal punishment	10.4	35.1	30.9	23.6
. Members of my family avoid using material punishment with me	10.0	8.5	9.3	72.2
. Members of my family avoid using physical punishment with me	5.8	4.6	10.8	78.8
. Members of my family use verbal praise and expressions of encouragement with me	7.4	22.4	43.6	26.6
. Members of my family offer me material rewards	12.4	36.7	30.1	20.8
. Members of my family reward me with more respect and more consultation in family matters	4.2	19.7	30.9	45.2

<sup>a</sup> ; 0=no, 1=some of them, 2= most of them, 3= all of them

**Table 14-The Relationship between Members of the Family**

Level of relationships with members of my family	Categories			
	0 %	1 %	2 %	3 %
. With my father	1.8	8.6	22.7	66.8
. With my mother	.5	6.8	15.0	77.7
. With my brothers	1.8	14.1	26.8	57.3
. With my sisters	.5	4.5	16.8	78.2

0= poor, 1= fair, 2= good, 3= excellent

**Table 15- Styles of Interaction in the Family**

	Categories <sup>a</sup> ;			
	0 %	1 %	2 %	3 %
. I accept and cooperate with what I am told by members of my family	48.3	42.9	6.9	1.9
. I debate about things and discuss them with members of my family	3.1	20.8	35.5	40.5
. I am courteous with members of my family (affection and religious expressions)	23.6	29.3	30.1	17.0

<sup>a</sup> ; 0=never, 1= with some of them, 2= with most of them, 3= with all of them

## **Appendix Eight**

## Consent Form (Focus Group)

Dear Student,

You are invited to participate in a research on how Saudi students like to learn English. You were selected as a participant because you are a Saudi student, studying English at first year university level. The purpose of this study is to explore the approaches and techniques you like to use when you learn English and the factors that may affect them. Please read this form carefully and ask any questions you may have before agreeing to be in this study.

### Procedures:

If you agree to participate in this study, I would like you to do the following:

1. Participate in group discussions with other students who are studying English at KFU.
2. Agree to be audio taped and videotaped during that group discussion.
3. Express your views freely during the discussions.

### Confidentiality:

I am doing this research as a PhD student of the University of Leicester. Any information you will give will be kept confidential. In any sort of report I might publish, I will not include any information that will disclose your identity.

### Voluntary nature of the Study:

Your decision to participate or not will not affect your current or future grades or your relations with your teachers. If you decide to participate, you are free to withdraw at any time without affecting those relationships.

### Statement of Consent:

I have read the above information. I consent to participate in this study.

Signature -----

Date -----

Signature of the researcher -----

Date -----

## **Appendix Nine**

## Interview Guide for Focus Groups

### - Opening Questions: (session One)

The first round of questions is for quick answers; the objective is to enable the identification of the participants. These questions are also useful for ice-breaking and putting the participants at ease.

**Moderator:** *I would like you to introduce yourselves by telling me your name, what you are studying, and where you live.*

**- Introductory Questions:** These questions introduce the general topic of discussion and aim to foster interaction.

**Moderator:** *Which language skill (reading, writing, listening, and speaking) do you find easiest to learn? Which skill is the most difficult for you?*

**- Key Questions:** These questions are directly related to the purpose of the focus group.

**Question One (Session One):** The participants will be shown three pictures:

The first picture shows a classroom setting where real students are sitting in rows and a teacher is holding a book in her hand and writing on the blackboard.

In the second picture, students are working in small groups and the teacher is having a discussion with some students in one of the groups.

The third picture shows students learning English in a computer language lab and the teacher is observing the way the students are handling their learning (Appendix IO).

**Moderator:** *I would like to show you these three pictures and I want you to tell me in which classroom setting you would feel most comfortable.*

**Moderator:** *Which picture describes more your experience in learning English at middle and secondary schools?*

**Question two (Session Two):**

**Moderator:** *In the first session, we discussed some classroom settings and your experiences in learning English in the middle and secondary schools. In this session we will discuss your out-of-school experiences. So, what are the kinds of activities that you like to do when you are not at school?*

**Question Three: (Session Three):**

**Moderator:** *In the previous sessions, we discussed your schooling experiences as well as your out-of-school experiences. In this session, I want to hear your suggestions about any specific areas in language learning and teaching that you want to see improved in middle and secondary schools.*

**The final Question:** At the end of the third session, the students will be asked to summarize the most important points that were discussed in the previous sessions, or any other new points that they would like to add.

## **Appendix Ten**

**Picture 'A'**



<http://www.partnersintransition.org/images/Teacher%20in%20classroom%20full%20of%20students.jpg>

**Picture 'B'**



**Picture 'C'**



[http://www.angelo.edu/dept/modern\\_languages/degree\\_programs.htm](http://www.angelo.edu/dept/modern_languages/degree_programs.htm)



## **Appendix Eleven**

**Table 9.1: Model of Fit for Memory Strategies (ANOVA<sub>d</sub>)**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.891	1	8.891	20.355	.000(a)
	Residual	90.420	207	.437		
	Total	99.311	208			
2	Regression	12.959	2	6.479	15.457	.000(b)
	Residual	86.353	206	.419		
	Total	99.311	208			
3	Regression	15.438	3	5.146	12.577	.000(c)
	Residual	83.874	205	.409		
	Total	99.311	208			

a Predictors: (Constant), Intuitive styles

b Predictors: (Constant), Intuitive styles, Visual styles

c Predictors: (Constant), Intuitive styles, Visual styles, Closure styles

d Dependent Variable: Memory strategies

**Table 9.2: Model of Fit for Cognitive Strategies (ANOVA<sub>c</sub>)**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.013	1	13.013	40.639	.000(a)
	Residual	66.283	207	.320		
	Total	79.296	208			
2	Regression	16.149	2	8.074	26.340	.000(b)
	Residual	63.147	206	.307		
	Total	79.296	208			

a Predictors: (Constant), Intuitive styles

b Predictors: (Constant), Intuitive styles, Closure styles

c Dependent Variable: Cognitive strategies

**Table 9.3: Model of Fit for Metacognitive Strategies (ANOVA<sub>c</sub>)**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.027	1	16.027	29.066	.000(a)
	Residual	114.138	207	.551		
	Total	130.165	208			
2	Regression	24.365	2	12.183	23.720	.000(b)
	Residual	105.800	206	.514		
	Total	130.165	208			

a Predictors: (Constant), Closure styles

b Predictors: (Constant), Closure styles, Intuitive styles

c Dependent Variable: Metacognitive strategies

**Table 9.4: Model of Fit for Compensation Strategies (ANOVA<sub>d</sub>)**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.350	1	8.350	19.002	.000(a)
	Residual	90.962	207	.439		
	Total	99.312	208			
2	Regression	11.380	2	5.690	13.330	.000(b)
	Residual	87.932	206	.427		
	Total	99.312	208			
3	Regression	13.073	3	4.358	10.359	.000(c)
	Residual	86.239	205	.421		
	Total	99.312	208			

a Predictors: (Constant), Intuitive styles

b Predictors: (Constant), Intuitive styles, Auditory styles

c Predictors: (Constant), Intuitive styles, Auditory styles, Hands-on styles

d Dependent Variable: Compensation strategies

**Table 9.5: Model of Fit for Affective Strategies (ANOVA<sub>d</sub>)**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	17.485	1	17.485	27.299	.000(a)
	Residual	132.583	207	.640		
	Total	150.068	208			
2	Regression	27.129	2	13.564	22.729	.000(b)
	Residual	122.939	206	.597		
	Total	150.068	208			
3	Regression	31.900	3	10.633	18.447	.000(c)
	Residual	118.168	205	.576		
	Total	150.068	208			

a Predictors: (Constant), Closure styles

b Predictors: (Constant), Closure styles, Concrete styles

c Predictors: (Constant), Closure styles, Concrete styles, Intuitive styles

d Dependent Variable: Affective strategies

**Table 9.6: Model of Fit for Social Strategies (ANOVA<sub>d</sub>)**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.177	1	16.177	22.667	.000(a)
	Residual	147.725	207	.714		
	Total	163.902	208			
2	Regression	25.703	2	12.852	19.157	.000(b)
	Residual	138.199	206	.671		
	Total	163.902	208			
3	Regression	29.158	3	9.719	14.787	.000(c)
	Residual	134.744	205	.657		
	Total	163.902	208			

a Predictors: (Constant), Extrovert styles

b Predictors: (Constant), Extrovert styles, Closure styles

c Predictors: (Constant), Extrovert styles, Closure styles, Intuitive styles

d Dependent Variable: Social strategies

## Bibliography

- AlArifi, N. (2001, August 25). *Personal Transformation: A Group Therapy Program for Saudi Women*. Paper Presented at the Annual Convention of the American Psychological Association. Retrieved November 22, 2003, from: <http://www.pharaonconsulting.com/>
- AlHaidib, M. (1986). *Teaching English as a Foreign Language in the Intermediate and Secondary Schools of Saudi Arabia*. PhD Thesis. University of Kansas.
- AlKamookh, A. (1981). *A Survey of the English Language Teacher's Perceptions of the English Language Teaching Methods in the Intermediate and Secondary Schools of the Eastern Province in Saudi Arabia*. PhD Thesis. University of Kansas.
- Allal, L., & Ducrey, G. P. (2000). Assessment of-or in-the Zone of Proximal Development. *Learning and Instruction*, 10, 137-152.
- AlManey, A., & AlWan, A. (1982). *Communicating with the Arabs*. Prospect Heights, IL: Waveland Press.
- AlMazroou, R. (1988). *An Evaluation Study of Teaching English as a Foreign Language in Secondary Schools in Saudi Arabia as Perceived by Saudi EFL Teachers*. PhD Thesis. Southern Illinois University, Carbondale.
- AlOsaimi, Najah. (2007, January 20). An Educational Plan to Encourage Scientific Reasearach. *Asharq Al- Awsat*. Vol, 29, No. 10280, Front Page.
- AlSaif, M. (1997). *A Study of Saudi Society*. AlKhraiji Publications: Riyadh. [In Arabic]
- AlTwajiri, A. (1982). *The Adequacy of Students' Preparation in English as a Foreign Language in Saudi Schools*. PhD Thesis. University of Oregon.
- Anderson, J. R (1981). *Cognitive Skills and Their Acquisition*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Anderson, J. R. (1996). *The Architecture of Cognition*. Cambridge, MA: Harvard University Press.
- Anderson, J. R. (2000). *Cognitive Psychology and its Implications* (5<sup>th</sup> Ed.). New York: Worth.
- Bailey, P., Onwuegbuzie, A., Daley, C. (2000). Using Learning Styles to Predict Foreign Language Achievement at the College Level. *System*, 28 (1), 115-133.
- Ball, A., & Farr, M. (2003). Language Varieties: Culture and Teaching the English Language Arts. In J. Jensen (Ed.), *Handbook of Research on Teaching the English Language Arts* (2<sup>nd</sup> Ed., pp. 435-445). Mahwah, NJ: L. Lawrence Erlbaum Associates.

- Ballard, B., & Clanchy, J. (1991). *Teaching Students from Overseas: A Brief Guide for Lecturers and Supervisors*. Melbourne: Longman.
- Baumann, J. (1988). Direct Instruction Reconsidered. *Journal of Reading Behaviour*, 31, 712-718.
- Bean, R. (1990). *Cognitive Styles of Korean and Japanese Adults Learning English in the U.S.* MA Thesis. Alaska Pacific University. (ERIC ED 321530).
- Bedell, D., & Oxford, R. (1996). Cross-cultural Comparisons of Language Learning Strategies in the People's Republic of China and Other Countries. In R. Oxford (Ed.), *Language Learning Strategies around the World: Cross-cultural Perspectives* (PP. 47–60). Manoa: University of Hawaii Press.
- Bell, J. (2006). *Doing your Research Project* (4<sup>th</sup> Ed). McGraw- Hill Education, England: Open University Press.
- Benedict, C., Kirk, C., Larsen, C., & Tinney, M. (2003). Learning Orientation Styles Across Cultures. Retrieved July 12, 2003, from: <http://www.joshkirk.com/carrie/researchview.html>
- Berg, B. (2004). *Qualitative Research Methods for the Social Sciences* (6<sup>th</sup> Ed). Pearson Education, England: Allyn and Bacon.
- Biggs, J. (1995). *Student Approaches to Learning, Constructivism, and Student-centred Learning*. Paper Presented at the Twentieth International Conference on Improving University Teaching. University of Maryland, University College and City University of Hong Kong, Hong Kong.
- Biggs, J. (2001). The Reflective Institution: Assuring and Enhancing the Quality of Teaching and Learning. *Higher Education*, 41, 221-238.
- Bloor, M., Frankland, J., Thomas, M., Robson, K. (2002). *Focus Groups in Social Research* (2<sup>nd</sup> Ed). Thousand Oaks, CA: Sage Publications.
- Brown, A., Ash, D., Rutherford, M., Nakagawa, K., Gordon, A., & Campione, J. (1993). Distributed Expertise in the Classroom. In G. Salomon (Ed.), *Distributed Cognitions: Psychological and Educational Considerations* (pp. 188-228). New York: Cambridge University Press.
- Brown, H. D. (2000). *Principles of Language Learning and Teaching* (4<sup>th</sup> Ed.). White Plains, NY: Longman.
- Bruner, J. (1996). *The Culture of Education*. Cambridge, MA: Harvard University Press.
- Bureau of Near Eastern Affairs. (2006). Background Notes: Saudi Arabia: Author. Retrieved January 18, 2006, from: <http://www.state.gov/r/pa/ei/bgn/3584.htm>.

- Canagarajah, S. (2002). Globalization, Methods, and Practice in Periphery Classrooms. In D. Block & D. Cameron (Eds.), *Globalization and Language Teaching* (pp. 134-150). London: Routledge.
- Carson, J., & Longhini, A. (2002). Focusing on Learning Styles and Strategies: A Diary Study in an Immersion Setting. *Language Learning*, 52 (2), 410-438.
- Chamot, A. U (2004). Issues in Language Learning Strategy Research and Teaching. *Electronic Journal of Foreign Language Teaching*, 1 (1) 14-26. Retrieved October 16, 2006, from: <http://www.e-flt.nus.edu.sg/v1n12004/chamot.html>.
- Chamot, A. U. (1987). The Learning Strategies of ESL Students. In A. Wenden & J. Rubin (Eds.). *Learner Strategies in Language Learning* (pp. 71-83). Englewood Cliffs, NJ: Prentice-Hall.
- Chamot, A. U., O'Malley, J. M., Kupper, L., & Impink-Hernandez, M. (1987). *A Study of Learning Strategies in Foreign Language Instruction: First Year Report*. Rosslyn, VA.: InterAmerica Research Associates.
- Cheng, M., & Banya, K. (1998). Bridging the Gap Between Teaching Styles and Learning Styles. In J. Reid (Ed.), *Understanding Learning Styles in the Second Language Classroom* (pp. 80-84). Upper Saddle River, NJ: Prentice Hall.
- Claxton, C., & Murrell, P. (1987). Learning Styles: Implications for Improving the Educational Process. (*ASHE-ERIC Higher Education Report No. 4*). Washington, DC: American Association for the study of Higher Education.
- Cobb, P. & Bowers, J. (1999). Cognitive and Situated Learning Perspectives in Theory and Practice. *Educational Researcher*, 28 (2), 4-15.
- Cohen, A. (2003). The Learner's Side of Foreign Language Learning: Where Do Styles, Strategies, and Tasks Meet? *International Review of Applied Linguistics*, 41, 279-291.
- Creswell, J. (2003). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (2<sup>nd</sup> Ed). Thousand Oaks, CA: Sage Publications.
- DeBello, T. C. (1990). Comparison of Eleven Major Learning Style Models: Variables, Appropriate Populations, Validity of Instrumentation, and the Research behind Them. *Reading, Writing and Learning Disabilities*, 6, 203-222.
- DeCapua, A., & Wintergerst, A. (2005). Assessing and Validating a Learning Styles Instrument. *System*, 33 (1), 1-16.
- Delpit, L. (1988). The Silenced Dialogue: Power and Pedagogy in Educating Other People's Children. *Harvard Educational Review*, 58, 280-298.
- Denzin, N. (1978). *The Research Act: A Theoretical Introduction to Sociological Methods* (2<sup>nd</sup> Ed.). New York: McGraw Hill.

- De Vita, G. (2001). Learning Styles, Culture and Inclusive Instruction in the Multicultural Classroom: A Business and Management Perspective. *Innovations in Education and Teaching International*, 38 (2), 165-174.
- Dhafer, T. (1986). *A Survey of the English Language Supervisors' and Teachers' Perception of the English Language Curriculum in the Secondary Schools of Saudi Arabia*. PhD Thesis. Michigan University.
- Dickinson, L. (1992). *Learner Autonomy 2: Learner Training for Language Learning*. Dublin: Authentik.
- Donato, R. (2000). Sociocultural Contributions to Understanding the Foreign and Second Language Classroom. In J. Lantolf (Ed.), *Sociocultural Theory and Second Language Learning* (pp. 27-50). Oxford: Oxford University Press.
- Draper, S. (1997). Learning Styles. (ED Notes). Retrieved January 20, 2007, from: <http://www.psy.gla.ac.uk/>
- Dunn, R. (1997). The Goals and Track Record of Multicultural Education. *Educational Leadership*, 54 (7), 74-77.
- Dunn, R., & Dunn, K. (1972). *Practical Approaches to Individualizing Instructions*. Englewood Cliffs, NJ: Prentice-Hall.
- Dunn, R., & Dunn, K. (1993). *Teaching Secondary Students Through Their Individual Learning Styles: Practical Approaches for Grades 7-12*. Boston: Allyn & Bacon.
- Dunn, R., Giannitti, M.C., Murray, J.B., Rossi, I., Quinn, P. (1989). Grouping Students for Instruction: Effects of Learning Style on Achievement and Attitude. *Journal of Social Psychology*, 130 (4), 485-494.
- Dunn, R., & Griggs, S. (1995). *Multiculturalism and Learning Styles: Teaching and Counselling Adolescents*. Westport, CT: Greenwood Press.
- Dunn, W., & Lantolf, J. (1998). Vygotsky's Zone of Proximal Development and Krashen's  $i + 1$ : Incommensurable Constructs; Incommensurable Theories. *Language Learning*, 48, 411-442.
- Ehrman, M. (1996). *Second Language Learning Difficulties: Looking Beneath the Surface*. Thousand Oaks, CA: Sage Publications.
- Ehrman, M., Leaver, B., & Oxford, R. (2003). A Brief Overview of Individual Differences in Second Language Learning. *System*, 31 (3), 313-330.
- Ehrman, M., & Oxford, R. (1989). Effects of Sex Differences, Career Choice, and Psychological Type on Adults' Language Learning Strategies. *Modern Language Journal*, 73, 1-13.
- Ehrman M. & Oxford, R. (1990). Adult Language Learning Styles and Strategies in an Intensive Training Setting. *Modern Language Journal*, 74, 311-327.

- Ehrman, M., & Oxford, R. (1995). Cognition Plus: Correlates of Language Learning Success. *The Modern Language Journal*, 79, 67-89.
- Eliason, P. (1995). Difficulties with Cross-cultural Learning-Styles Assessment. In J. Reid (Ed.), *Learning Styles in the ESL/EFL Classroom* (pp. 19-33). Boston: Heinle & Heinle.
- Ellis, R. (1994). *Understanding Second Language Acquisition*. Oxford: Oxford University Press.
- Esposito, J. (1998). *Islam: The Straight Path*. Oxford: Oxford University Press.
- Fatany, Samar. (2004, October 12). The Status of Women in Saudi Arabia. *Arab News*.
- Fatany, Samar. (2006, May 22). More Work for Media on Women's Progress. *Arab News*.
- Felder, R. (1995). Learning and Teaching Styles in Foreign and Second Language Education. *Foreign Language Annals*, 28 (1), 21-31.
- Foster, J. (1998). *Data Analysis using SPSS for Windows: A Beginner's Guide*. Thousand Oaks, CA: Sage Publications.
- Gallin, R. (1999). *Language Learning Styles and Their Effect on the Reading Comprehension Strategies of ESL Students*. Unpublished Double Plan B Paper. Department of English as a Second Language, University of Minnesota.
- Gardner, R. (1985). *Social Psychology and Second Language Learning: The Role of Attitude and Motivation*. London: Edward Arnold.
- Garner, R. (1990). When Children and Adults Do not use Learning Strategies: Toward a Theory of Settings. *Review of Educational Research*, 60 (4), 517-529.
- Gay, L., Airasian, P. (2000). *Educational Research* (6<sup>th</sup> Ed.). Upper Saddle River, NJ: Prentice Hall.
- Goh, C., & Kwah, P. (1997). Chinese ESL Students' Learning Strategies: A Look at Frequency, Proficiency and Gender. *Hong Kong Journal of Applied Linguistics*, 2, 39-53.
- Grainger, P. R. (1997). Language-learning Strategies for Learners of Japanese: Investigating Ethnicity. *Foreign Language Annals*, 30 (3), 378-383.
- Grasha, A. (1990). Using Traditional Versus Naturalistic Approaches to Assessing Learning Styles in College Teaching. *Journal of Excellence in College Teaching*, 1, 23-38.
- Greene, J., Caracelli, V., & Graham, W. (1989). Toward a Conceptual Framework for Mixed-Method Evaluation Designs. *Educational Evaluation and Policy Analysis*, 11 (3), 255-274.



- Green, J., & Oxford, R. (1995). A Closer Look at Learning Strategies, L2 Proficiency, and Gender. *TESOL Quarterly*, 29 (2), 261-297.
- Greenfield, P. M. (1997). Culture as Process: Empirical methods for cultural psychology. In J.W. Berry, Y. H. Poortinga, & J. Pandey (Eds.), *Handbook of Cross-cultural Psychology. Theory and Method* (2<sup>nd</sup> Ed., pp. 301-346). Boston: Allyn & Bacon.
- Greenfield, P., & Cocking, R. (1994). *Cross-cultural Roots of Minority Child Development*. Hillsdale, N.J: Lawrence Erlbaum Associates.
- Gregorc, A., & Ward, H. (1977). Implications for Teaching and Learning: A New Definition for Individual. *NASSP Bulletin*, 61, 20-26.
- Griffiths, C. (2003). Patterns of Language Learning Strategy Use. *System*, 31 (3), 367-383.
- Hansen-Strain, L. (1989). Student and Teacher Cognitive Styles in Second Language Classrooms. In V. Bickley (Ed.), *Language Teaching and Learning Styles Within and Across Cultures* (pp. 218-233). Hong Kong: Education Department, Institute of Language in Education.
- Hayes, J., & Allinson, C. (1988). Cultural Differences in the Learning Styles of Managers. *Management International Review*, 28, 75–80.
- Helfrich, H. (1999). Beyond the Dilemma of Cross-cultural Psychology: Resolving the Tension between Etic and Emic Approaches. *Journal of Culture & Psychology*, 5 (2), 131-153.
- Heredia, A. (1999). Cultural Learning Styles. EIRC Clearinghouse on Teaching and Teacher Education. Retrieved November 22, 2003, from: <http://ericcass.uncg.edu/virtuallib/diversity/1036.html>.
- Hill, J. (1976). *The Educational Sciences: A Conceptual Framework*. West Bloomfield Hills, MI: Hill Educational Sciences Foundation.
- Hilliard, A.G., III. (1989, January 6). Teachers and Cultural Styles in a Pluralistic Society. *NEA Today*, 7, 65-69.
- Hitti, P. (1958). *History of the Arabs*. NY: Oxford University Press.
- Hofstede, G. (2001). *Culture's Consequences: Comparing Values, Behaviours, Institutions, and Organizations Across Nations* (2<sup>nd</sup> Ed). Thousand Oaks, CA. and London: Sage Publications.
- Hofstede, G. (1986). Cultural Differences in Teaching and Learning. *International Journal of Intercultural Relations*, 10, 301-320.
- Howard, M. (1996). *Contemporary Cultural Anthropology* (5<sup>th</sup> Ed.). New York: Harper Collins College Publishers.

- Hu, G. (2003). English Language Teaching in China: Regional Differences and Contributing Factors. *Journal of Multilingual and Multicultural Development*, 24 (4), 290-318.
- Huang, X., & Van Naerssen, M. (1987). Learning Strategies for Oral Communication. *Applied Linguistics*, 8, 287-307.
- Irvine, J., & York, D. (1995). Learning Styles and Culturally Diverse Students. In J. A. Banks (Ed.), *Handbook of Research on Multicultural Education* (pp. 484-497). New York: Simon & Schuster Macmillan.
- James, T., & Woodsmall, W. (1988). *Timeline Therapy and the Basis of Personality*. Cupertino, CA: Meta Publications.
- John-Steiner, V. (1988). The Road to Competence in an Alien Land: A Vygotskian Perspective on Bilingualism. In J. V. Wertsch (Ed.), *Culture, Communication and Cognition: Vygotskian Perspectives* (pp. 348-371). New York: Cambridge University Press.
- Jonassen, D. H., & Grabowaski, B.L. (1993). *Handbook of Individual Differences, Learning and Instruction*. New York: Lawrence Erlbaum Associates.
- Jung, C.G. (1971). *Psychological Types*. Princeton, NJ: Princeton University Press.
- Kashima, Y. (2000). Conceptions of Culture and Person for Psychology. *Journal of Cross-cultural Psychology*, 31 (1), 14-32.
- Keatley, C., Chamot, A.U., Spokane, A., & Greenstreet, S. (2004). Learning Strategies of Students of Arabic. *The Language Resource*, 8, 4. Retrieved June 3, 2005, from: <http://www.nclrc.org/%20nectfl04ls.pdf>.
- Keefe, J. (1979). Learning Style: An Overview. In J. Keefe (Ed), *Student Learning Styles: Diagnosing and Prescribing Programs* (pp. 1-17). Reston, VA: National Association of Secondary School Principals.
- Keefe, J. (1987). *Learning Style: Theory and Practice*. Reston, VA: National Association of Secondary School Principals.
- Kember, D. & Gow, L. (1991). A Challenge to the Anecdotal Stereotype of the Asian Student. *Studies in Higher Education*, 16 (2), 117-128.
- Kennedy, P. (2002). Learning Cultures and Learning Styles: Myth-Understandings about Adult (Hong Kong) Chinese Learners. *International Journal of Lifelong Education*, 21 (5), 430-445.
- Kinging, C. (2001). Sociocultural Approaches to Teaching and Teachers' Research. In R. Z. Lavine (Ed.), *Beyond the Boundaries: Changing Contexts in Language Learning* (pp. 201-225). New York: McGraw-Hill.

- Kinsella, K. (1995). Understanding and Empowering Diverse Learners in the ESL Classroom. In J. Reid. (Ed), *Learning Styles in the ESL/EFL Classroom* (pp. 170-194). Boston, MA: Heinle & Heinle.
- Kitzinger, J. (1994). The Methodology of Focus Groups: the Importance of Interaction between Research Participants. *Sociology of Health, 16* (1), 103-121.
- Knapp, T., & Sawilowsky, S. (2001). Constructive Criticism of Methodological and Editorial Practices. *Journal of Experimental Education, 70* (1), 65-79.
- Kolb, D. (1976). *The Learning Style Inventory: Self-scoring Test and Interpretation*. Boston McBer & Company.
- Kolb, D. (1981). Learning Styles and Disciplinary Differences. In A. Chickering and Associates (Eds.), *The Modern American College*. San Francisco: Jossey-Bass Publishers.
- Kreuger, R. (1994). *Focus Groups: A Practical Guide for Applied Research*. London: Sage Publications.
- Lantolf, J. (Ed.). (2000). *Sociocultural Theory and Second Language Learning*. Oxford: Oxford University Press.
- Lantolf, J., & Appel, G. (Eds.). (1994). *Vygotskian Approaches to Second Language Research*. Norwood, N.J: Ablex Press.
- Lawrence, G. (1995). *People Types & Tiger Stripes* (3<sup>rd</sup> Ed.). Gainesville, FL: Centre for Applications of Psychological Type.
- Leaver, B. (1986). Hemisphericity of the Brain and Foreign Language Teaching. *Folia Slavica, 8* (1), 76-90.
- Leaver, B., & Oxford, R. (2001). Mentoring in Style: Using Style Information to Enhance Mentoring of Foreign Language Teachers. In B. Rifkin (Ed.), *Mentoring Foreign Language Teaching Assistants, Lecturers, and Adjunct Faculty* (pp. 55–88). Boston: Heinle and Heinle.
- Lee, K. (2003, September). The Relationship of School Year, Sex and Proficiency on the Use of Learning Strategies in Learning English of Korean Junior High School Students. *Asian-EFL-Journal*. Retrieved February 24, 2006, from: <http://www.asian-efl-journal.com/>
- Lessard-Clouston, M. (1997). Towards an Understanding of Culture in L2/FL Education. *The Internet TESL Journal, III, 5*. Retrieved December 16, 2005, from: <http://iteslj.org/Articles/Lessard-Clouston-Culture.html>.
- Letteri, C. (1980). Cognitive Profile: Basic Determinant of Academic Achievement. *Journal of Educational Research, 73*, 195-199.

- Levine, A., Reves, T., & Leaver, B. (1996). Relationship between Language Learning Strategies and Israeli versus Russian Cultural-Educational Factors. In R. Oxford (Ed.), *Language Learning Strategies Around the World: Cross-cultural Perspectives* (pp. 35-45). Manoa: University of Hawaii Press.
- Litoselliti, L. (2003). *Using Focus Group in Research*. London: Continuum.
- Littlewood, W. (1996). Hong Kong Students and their English. *LEAP Report*. Hong Kong: Macmillan Publishers.
- Lofland, J. (1971). *Analyzing Social Settings*. Belmont, CA: Wadsworth.
- Long, M. (1985). A Role for Instruction in Second Language Acquisition: Task-based Language Instruction. In K. Hyltenstam, & M. Pienemann (Eds.), *Modelling and Assessing Second Language Acquisition* (pp. 77-99). Clevedon, England: Multilingual Matters.
- Martinez, M. (1996). Performance Dimensions - Intentional Learning Questionnaire. In Benedict, C., Kirk, C., Larsen, C., and Tinney, M. (2003). *Learning Orientation Styles Across Cultures*. Retrieved July 12, 2003, from: <http://www.joshkirk.com/carrie/researchview.html>.
- McCrone, J. (1999). Left Brain, Right Brain. *New Scientist*, 163, 25-30.
- Merriam, S. (1998). *Qualitative Research and Case Study Applications in Education*. San Francisco, CA: Jossey-Bass.
- Merrifield, J. (1996). Examining the Language Learning Strategies used by French Adult Learners. *Language Studies Unit*. Aston University.
- Messick, S., & Associates. (1976). *Individuality in Learning*. San Francisco, CA: Jossey-Bass.
- Mertens, D. (1998). *Research Methods in Education and Psychology. Integrating Diversity with Qualitative & Quantities Approaches*. Thousand Oaks, CA: Sage Publications.
- Ministry of Education. (2004). Departments and Services: Education: Author. Retrieved September 10, 2004 from: [http://212.71.35.4/openshare/EnglishCon/About-Saud/Education2.htm\\_cvt.html](http://212.71.35.4/openshare/EnglishCon/About-Saud/Education2.htm_cvt.html).
- Ministry of Education. (2004). Strategic Planning: The Executive Summary of the Ministry of Education Ten-Year Plan, 2004-2014: Author. Retrieved November 22, 2006 from: [http://212.71.35.4/openshare/EnglishCon/Introducti/vision.htm\\_cvt.html](http://212.71.35.4/openshare/EnglishCon/Introducti/vision.htm_cvt.html).
- Morgan, D. (1988). *Focus Groups as Qualitative Research*. London: Sage Publications.
- Morgan, D., & Krueger, R. (1997). *The Focus Group Kit*. London: Sage Publications.
- Mullins, P. (1992). *Successful English Language Learning Strategies of Students Enrolled in the Faculty of Arts*. Doctoral Dissertation. Chulalongkorn University, Bangkok, Thailand.

- Myers, I. B., & Myers, P.B. (1980). *Gifts Differing*. Palo Alto, CA: Consulting Psychologists Press.
- Naiman, N., Frohlich, M., Stern, H.H., & Todesco, A. (1978). *The Good Language Learner*. Research in Education Series, 7. Toronto: Ontario Institute for Studies in Education.
- Nassaji, H. & Swain, M. (2000). A Vygotskian Perspective on Corrective Feedback in L2: The Effect of Random versus Negotiated Help on the Learning of English Articles. *Language Awareness*, 9, 34-51.
- Nelson, G. (1995). Cultural Differences in Learning Styles. In J. Reid (Ed.). *Learning Styles in the ESL/EFL Classroom* (pp. 3-18). Boston, MA: Heinle & Heinle.
- Nieto, S. (2000). *Affirming Diversity: the Sociopolitical Context of Multicultural Education*. New York: Longman.
- Ninnes, P. (1991). *Culture and Learning in Western Province, Solomon Islands*. MA Thesis. School of Education: Flinders University of South Australia.
- Nueman, W. (2000). *Social Research Methods: Qualitative and Quantitative Approaches* (4<sup>th</sup> Ed.). Boston: Allyn and Bacon.
- Nunan, D. (1998). Encouraging Learner Independence. In J. Reid (Ed.), *Understanding Learning Styles in the Second Language Classroom* (pp. 147-155). Upper Saddle River, NJ: Prentice Hall.
- Nunan, D. (1999). *Research Methods in Language Learning*. Cambridge: Cambridge University Press.
- Oh, J. (1992). Learning Strategies Used by University EFL Students in Korea. *Language Teaching*, 1, 23-53.
- Ohta, A. (2000). Rethinking Interaction in SLA: Developmentally Appropriate Assistance in the Zone of Proximal Development and the Acquisition of L2 Grammar. In J. Lantolf (Ed.), *Sociocultural Theory and Second Language Learning* (pp. 51-78). Oxford: Oxford University Press.
- O'Malley, J., & Chamot, A. U. (1995). *Learning Strategies in Second Language Acquisition*. Cambridge: Cambridge University Press.
- O'Malley, J., Chamot, A. U., Stewner-Manzanares, G., Kupper, L., & Russo, R. (1985). Learning Strategies used by Beginning and Intermediate ESL Students. *Language Learning*, 35 (1), 21-46.
- Omrod, J. (2000). *Educational Psychology: Developing Learners* (3<sup>rd</sup> Ed.). Upper Saddle River, NJ: Prentice-Hall.

- Oxford, R. (1990). *Language Learning Strategies: What Every Teacher Should Know*. Boston: Heinle & Heinle.
- Oxford, R. (1993). *Style Analysis Survey (SAS)*. Tuscaloosa, AL: University of Alabama.
- Oxford, R. (1995). Gender Differences in Language Learning Styles: What Do They Mean? In J. Reid (Ed.), *Learning Styles in the ESL/EFL Classroom* (pp. 34-46). Boston: Heinle & Heinle.
- Oxford, R. (Ed.). (1996a). *Language Learning Strategies Around the World: Cross-cultural Perspectives*. Manoa: University of Hawaii Press.
- Oxford, R. (Ed.). (1996b). *Language Learning Motivation: Pathways to the New Century*. Manoa: University of Hawaii Press.
- Oxford, R. (1996c). Why is Culture Important for Language Learning Strategies? In R. Oxford (Ed.), *Language Learning Strategies Around the World: Cross-cultural Perspectives* (ix-xv). Manoa: University of Hawaii Press.
- Oxford, R. (1996d). Employing a Questionnaire to Assess the Use of Language Learning Strategies. *Applied Language Learning*, Vol. 7, 25-45.
- Oxford, R. (2000). Relationship between Second Language Learning Strategies and Language Proficiency in the Context of Learner Autonomy and Self-regulation. *Revista Canaria de Estudios Ingleses*, 38 (Special issue edited by Leslie Bobb, pp. 109-126).
- Oxford, R. (2001). Language Learning Styles and Strategies. In M. Celce-Murcia (Ed.), *Teaching English as a Second or Foreign Language* (pp. 359-366). Boston: Heinle & Heinle.
- Oxford, R. Assessing Language Learning Styles Using the "Styles Analysis Survey." In J. Carson, & A. Longhini (2002), Focusing on Learning Styles and Strategies: A Diary Study in an Immersion Setting. *Language Learning*, 52 (2), 410-438.
- Oxford, R. (2003). Language Learning Styles and Strategies: Concepts and Relationships. *International Review of Applied Linguistics*, 41, 271-278.
- Oxford, R., & Anderson, N. (1995). A Crosscultural View of Learning Styles. *Language Teaching*, 28, 201-215.
- Oxford, R., & Burry-Stock, J. (1995). Assessing the use of Language Learning Strategies Worldwide with the ESL/EFL Version of the Strategy Inventory for Language Learning (SILL). *System*, 23 (1), 1-23.
- Oxford, R., Cho, Y., Leung, S., & Kim, H. (2004). Effect of the Presence and Difficulty of Task on Strategy Use: An Exploratory Study. *International Review of Applied Linguistics*, 42, 1-47.

- Oxford, R., & Cohen, A. (2004). *Teaching and Researching Language Learning Strategies*. London: Addison Wesley Longman.
- Oxford, R., & Ehrman, E. (1993). Second Language Research on Individual Differences. *Annual Review of Applied Linguistics*, 13, 188-205.
- Oxford, R., & Ehrman, E. (1995). Adults' Language Learning Strategies in an Intensive Foreign Language Program in the United States. *System*, 23 (3), 359-386.
- Oxford, R., & Green, J. (1995). Making Sense of Learning Strategy Assessment: Toward a Higher Standard of Research Accuracy. *TESOL Quarterly*, 29, 166-174.
- Oxford, R., Hollaway, M., & Murillo, D. (1992). Language Learning Styles: Research and Practical Considerations for Teaching in the Multicultural Tertiary ESL/EFL Classroom. *System*, 20 (4), 439-456.
- Oxford, R., Massey, K., & Anand, S. (2003). Transforming Teacher-Student Style Relationships: Toward a more Welcoming and Diverse Classroom Discourse. In J. Frodesen, & C. Holten (Eds.), *The Power of Context in Language Teaching and Learning*. Boston: Heinle & Heinle.
- Oxford, R., & Nyikos, M. (1989). Variables Affecting Choice of Language Learning Strategies by University Students. *The Modern Language Journal*, 73 (3), 291-300.
- Oxford, R., & Shearin, J. (1996). Language Learning Motivation in a New Key. In R. Oxford (Ed.), *Language Learning Motivation: Pathways to the New Century* (pp. 121-144). Manoa: University of Hawaii Press.
- Park, C. (2001). Learning Style Preferences of Armenian, African, Hispanic, Hmong, Korean, Mexican, and Anglo Students in Secondary Schools. *Learning Environments Research: An International Journal*, 4 (2), 1-27.
- Park, C. (2002). Crosscultural Differences in Learning Styles of Secondary English Learners. *Bilingual Research Journal*, 26 (2), 213-229.
- Park, G. (1997). Language Learning Strategies and English Proficiency in Korean University Students. *Foreign Language Annals*, 30 (2), 211-221.
- Patton, M.Q. (2002). *Qualitative Research & Evaluation Methods* (3<sup>rd</sup> Ed). Thousand Oaks, CA: Sage Publications.
- Peacock, M. (2001). Match or Mismatch? Learning Styles and Teaching Styles in EFL. *International Journal of Applied Linguistics*, 11 (1), 1-20.
- Phillips, V. (1990). *English as a Second Language Learner Strategies of Adult Asian Students Using the Strategy Inventory for Language Learning*. Doctoral Dissertation. University of San Francisco, CA.
- Phillips, V. (1991). A Look at Learner Strategy use and EFL Proficiency. *CATESOL Journal*, November, 57-67.

- Piaget, J. (1972). Intellectual Evolution from Adolescence to Adulthood. *Human Development*, 15, 1-12.
- Politzer, R. (1983). An Exploratory Study of Self-reported Language Learning Behaviours and their Relation to Achievement. *Studies in Second Language Acquisition*, 6, 54-65.
- Politzer, R., & McGroarty, M. (1985). An Exploratory Study of Learning Behaviours and Their Relationship to Gains in Linguistic and Communicative Competence. *TESOL Quarterly*, 19 (1), 103-123.
- Poortinga, Y. H. (1992). Towards a Conceptualization of Culture for Psychology. In S. Iwawaki, Y. Kashima, & K. Leung (Eds.), *Innovations in Cross-cultural Psychology* (pp. 3-17). Lisse, the Netherlands: Swets & Zeitlinger.
- Porte, G. (1988). Poor Language Learners and their Strategies for Dealing with New Vocabulary. *ELT Journal*, 42 (3), 167-171.
- Price-William, D. (1999). Cross-, intra-, inter-, and just Plain Cultural. In W. J. Lonner & D. Dinnel (Eds.), *Merging Past, Present, and Future in Cross-cultural Psychology: Selected Papers from the Fourteenth International Congress of the International Association for Cross-Cultural Psychology* (pp. 40-45). Lisse, Netherlands: Swets & Zeitlinger.
- Pritchard, A. (2005). *Ways of Learning: Learning Theories and Learning Styles in the Classroom*. London: David Fulton Publishers.
- Purpura, J. (1997). An Analysis of the Relationships between Test Takers' Cognitive and Metacognitive Strategy Use and Second Language Test Performance. *Language Learning*, 42 (2), 289-325.
- Ratner, C. (1998). The Historical and Contemporary Significance of Vygotsky's Sociohistorical Psychology. In R. Rieber, & K. Salzinger (Eds.), *Psychology: Theoretical-historical Perspectives* (pp. 455-473). Washington, D.C: American Psychological Association.
- Ratner, C. (2002). *Cultural Psychology: Theory and Method*. Springer, New York: Plenum.
- Reid, J. (1987). The Learning Style Preferences of ESL Students. *TESOL Quarterly*, 21 (1), 87-111.
- Reid, J. (1995). *Learning Styles in the ESL/EFL Classroom* (Ed.). Boston: Heinle & Heinle.
- Reid, J. (1998). *Understanding Learning Styles in the Second Language Classroom* (Ed.). Upper Saddle River, NJ: Prentice Hall.
- Richardson, J. (1992). Cognitive Psychology and Student Learning. *Psychology Teaching Review*, 1, 2-9.



- Riding, R. (2001). *Cognitive Styles Analysis Research Administration* (Rev. Version). Harborne, Birmingham, UK: Learning & Training Technology.
- Riding, R. & Rayner, S. (1998). *Cognitive Styles and Learning Strategies: Understanding Style Differences in Learning and Behaviour*. London: David Fulton Publishers.
- Ritchie, D. (1988). The Effects of Socialization on Cognitive Style and Second Language Learning Among Southeast Asian Refugees. *Issues & Developments in English & Applied Linguistics*, 3, 51-65.
- Rogoff, B. (1990). *Apprenticeship in Thinking*. New York: Oxford University Press.
- Rogoff, B., Mistry, A., Goncu, & Mosier, C. (1993). Guided Participation in Cultural Activity by Toddlers and Caregivers. *Monographs of the Society for Research in Child Development*, 58 (7, Serial No. 236).
- Rossi-Le, L. (1995). Learning Styles and Strategies in Adult Immigrant ESL Students. In J. Reid (Ed.), *Learning Styles in the ESL/EFL Classroom* (pp. 118-125). Boston: Heinle & Heinle.
- Rubin, J. (1975). What the “Good Language Learner” Can Teach Us. *TESOL Quarterly*, 9 (1), 41–51.
- Rubin, J. (1987). Learner Strategies: Theoretical Assumptions, Research History and Typology. In A. Wenden, & J. Rubin (Eds.), *Learner Strategies and Language Learning* (pp. 15-29). Englewood Cliffs, NJ: Prentice Hall.
- Sadler-Smith, E., & Riding, R. (1999). Cognitive Style and Instructional Preferences. *Instructional Science*, 27, 355-371.
- Salloom, H. (1995). *Education in Saudi Arabia*. Beltsville, MD: Amana Publications.
- Samovar, L., Porter, R., & Jain, N. (1981). *Understanding Intercultural Communication*. Belmont : Wadsworth.
- Scarcella, R., & Oxford, R. (1992). *The Tapestry of Language Learning: The Individual in the Communicative Classroom*. Boston: Heinle & Heinle.
- Schwartz, S. (1990). Individualism-Collectivism: Critique and Proposed Refinements. *Journal of Cross-cultural Psychology*, 21, 139-157.
- Seliger, H., & Shohamy, E. (1997). *Second Language Research Methods* (4<sup>th</sup> Ed.). Oxford: Oxford University Press.
- Sheorey, R. (1999). An Examination of Language Learning Strategy Use in the Setting of an Indigenized Variety of English. *System*, 27 (2), 173-190.
- Shmais, W. (2003). Language Learning Strategy Use In Palestine. *TESL-EJ*, 7 (2), A-3. Retrieved April 22, 2005, from: <http://www.writing.berkeley.edu/TESL-EJ/ej26/a3.html>.

- Shouby, E. (1951). The Influence of the Arabic Language on the Psychology of the Arabs. *Middle East Journal*, 5, 284-302.
- Shweder, R. (2001). The Psychology of Practice and the Practice of the Three Psychologies. *Asian Journal of Social Psychology*, 3, 207-222.
- Silverman, D. (1993). *Interpreting Qualitative Data: Methods for Analysing Talk, Text and Interaction*. London: Sage Publications.
- Silver, H., Strong, R., & Perini, M. (2000). *So Each May Learn: Integrating Learning Styles and Multiple Intelligences*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Skehan, P. (1986). Cluster Analysis and the Identification of Learner Types. In V. Cook (Ed.), *Experimental Approaches to Second Language Acquisition*. Oxford: Pergamon.
- Skehan, P. (1991). Individual Differences in Second-Language Learning. *Studies in Second Language Acquisition*, 13, 275-298.
- Speck, B. (2002). Learning-teaching-assessment Paradigms and the On-line Classroom. *New directions for Teaching and Learning*, 91, 5-18.
- Spolsky, B. (1989). *Conditions for Second Language Learning: Introduction to a General Theory*. Oxford: Oxford University Press.
- Sternberg, R. (1997). *Thinking Styles*. Cambridge: Cambridge University Press.
- Sternberg, R., & Zhang, L. (Eds.). (2001). *Perspectives on Thinking, Learning, and Cognitive Styles*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Stevenson, H. (1983). How Children Learn? The Quest for a Theory. In P. H. Mussen (Ed.), *Handbook of Child Psychology* (4th Ed., pp. 213-237). New York: John Wiley.
- Suleiman, Y. (2003). *The Arabic Language and National Identity*. Edinburgh: Edinburgh University Press.
- Syed, Z. (2003). TESOL in the Gulf: The Sociocultural Context of English Language Teaching in the Gulf. *TESOL Quarterly*, 37 (2), 337-340.
- Tabachnick, B., & Fidell, L. (2001). *Using Multivariate Statistics*. New York: Harper & Row.
- Tashakkori, A., & Teddlie, C. (1998). *Mixed Methodology: Combining Qualitative and Quantitative Approaches*. Thousand Oaks, CA: Sage Publications.
- Terpstra, V., & David, K. (1985). *The Cultural Environment of International Business*. Cincinnati, OH: South-Western Educational Publishing.

- Tharp, R., & Gallimore, R. (1988). *Rousing Minds to Life: Teaching, Learning and Schooling in the Social Context*. New York: Cambridge University Press.
- Triandis, H. (1972). *The Analysis of Subjective Culture*. New York: Wiley.
- Triandis, H. (1988). Cross-cultural Contributions to Theory in Social Psychology. In M.H. Bond (Ed.), *The Cross-cultural Challenge to Social Psychology* (pp. 122-140). Newbury Park, CA: Sage Publications.
- Tsui, A. (1996). Reticence and Anxiety in Second Language Learning. In K. M. Bailey, & D. Nunan (Eds.), *Voices from the Language Classroom* (pp. 145-167). Cambridge: Cambridge University Press.
- Van-Lier, L. (1996). *Interaction in the Language Curriculum: Awareness, Autonomy, and Authenticity*. London: Longman.
- Vann, R., & Abraham, R. (1990). Strategies of Unsuccessful Language Learners. *TESOL Quarterly*, 24 (2), 177-198.
- Vermunt, J.D. (1998). The Regulation of Constructive Learning Processes. *British Journal of Educational Psychology*, 68, 149–171.
- Vernon, G. (1962). *Sociology of Religion*. New York: McGraw Hill.
- Vygotsky, L. (1978). *Mind in Society: The Development of Higher Psychological Processes* (M. Cole, V. John-Steiner, S. Scribner, & E. Souberman, Eds. and Trans). Cambridge, MA: Harvard University Press.
- Vygotsky, L. (1981). The Instrumental Method in Psychology. In J. V. Wertsch (Ed.), *The Concept of Activity in Soviet Psychology* (pp.134-144). Armonk, NY: Sharpe.
- Vygotsky, L. (1989). *Concrete Human Psychology*. *Soviet Psychology*, 27 (2), 53-77.
- Ward, C., Bochner, S., & Furnham, A. (2001). *The Psychology of Culture Shock* (2<sup>nd</sup> Ed.). Hove, UK: Routledge.
- Watanabe, Y. (1990). *External Variables Affecting Language Learning Strategies of Japanese EFL Learners: Effects of Entrance Examination, Years Spent at College/University, and Staying Overseas*. Master's Thesis, Lancaster University: Lancaster, U.K.
- Weaver, S. & Cohen, A. (1998). Making Strategy Training a Reality in the Foreign Language Curriculum. In A. Cohen (Ed.), *Strategies in Learning and Using a Second Language* (pp. 66-106). Harlow: Addison Wesley.
- Wells, G. (1999). *Dialogic Inquiry: Toward a Sociocultural Practice and Theory of Education*. Cambridge: Cambridge University Press.
- Wenden, A. (1986). What do Second-language Learners Know about their Language Learning? A Second Look at Retrospective Accounts. *Applied Linguistics*, 7 (2), 186-201.

- Wenden, A. (1987). Conceptual Background and Utility. In A. Wenden, & J. Rubin (Ed.), *Learner Strategies for Learner Autonomy* (pp. 3-13). Englewood Cliffs, N.J: Prentice-Hall.
- Wen-ta,T., Dornyei, Z., and Schmitt, N. (2006). A New Approach to Assessing Strategic Learning: The Case of Self-Regulation in Vocabulary Acquisition. *Applied Linguistics*, 27/1, 78–102.
- Wertsch, J. (1985). *Vygotsky and the Social Formation of Mind*. Cambridge, MA: Harvard University Press.
- Wertsch, J. (Ed.). (1988). *Culture, communication and Cognition: Vygotskian Perspectives*. New York, Cambridge University Press.
- Wertsch, J. (1991). *Voices of the Mind: A Sociocultural Approach to Mediated Action*. Cambridge, MA: Harvard University Press.
- Wildner-Bassett, M. (1992). *Relationships among Language Learning Strategies, Personality Types, and Learning Styles*. Paper presented at the annual meeting of the American Council on the Teaching of Foreign Languages, Chicago.
- Wilkins, S. (2001). Student and Employer Perceptions of British Higher Education in the Arabian Gulf Region: Research in Post-Compulsory Education. *Dubai Polytechnic*, 6, 2, (p. 20). Retrieved November 25, 2003, from: <http://www.triangle.co.uk/rpe/content/pdfs/6/issue6.2.asp>.
- Williams, M. & Burden, R. (1997). *Psychology for Language Teachers: A Social Constructivist Approach*. Cambridge: Cambridge University Press.
- Willing, K. (1988). *Learning Styles in Adult Migrant Education*. Adelaide: National Curriculum Research Centre.
- Wintergerst, A., DeCapua, A., Verna, M. (2003). Conceptualizing Learning Style Modalities for ESL/EFL Students. *System*, 31, 85–106.
- Witkin, H., Dyk, R., Faterson, H., Goodenough, D., & Karp, S. (1962). *Psychological Differentiation*. New York: Wiley.
- Wyss, R. (2002). Field Independent/Dependent Learning Styles and L2 Acquisition. *ELT Newsletter*, 102. Retrieved December 24, 2003, from: <http://www.nll.co.uk>.
- Yin, R. (1994). *Case Study Research: Design and Methods*. Thousand Oaks, CA: Sage Publications.
- Zaharna, R. (1995). Bridging Cultural Differences: American Public Relations Practices & Arab Communication Patterns. *Public Relations Review*, 21, 241-255.
- Zhang, L., & Watkins, D. (2001). Cognitive Development and Student Approaches to Learning: An Investigation of Perry's Theory with Chinese and US University Students. *Higher Education*, 41, 239–261.