CHAPTER 2

LITERATURE REVIEW

2.0 Overview

This chapter will begin with a brief account of the learning strategy in general and will move on to discuss language learning strategy terminology. six areas in the language learning strategy field will be considered in clarifying some terminological and conceptual issues: the distinction between the term strategy and other terms; the differing criteria for classifying language learning strategies; the language learning strategies associated with the four language skills; the linking of the learning strategies to other related variables such as context, gender, major field of study, age and the English language performance level; the role of learning strategies in the language acquisition process; finally, the techniques and methods used in the teaching of learning strategies.

2.1 The Concept of Learning Strategy

The term, "strategy" comes from the ancient Greek term "strategia" which is mainly a military term that refers to procedures for a military operation such as the management of troops, ships and aircraft in a planned campaign (Oxford, 1990).The strategy concept presents a vastly different picture in education nowadays. However both concepts share the view of planned, management and conscious actions. These two concepts serve as the orienting definitions for the term "learning strategy". The next section provides the description of the term learning strategy according to second language acquisition researchers and teachers.

Pride (1981) refers to strategies as learner techniques or devices to assist second language acquisition. Elsewhere, learning strategies have been referred to as "a skillful planning and management of language learning as carried out by the learner or language teacher" (Paivio 1983:189). On the other hand, Nisbet and Shucksmith (1986) give "strategy" a much wider scope as they focus on developing the idea of learning to learn by understanding the process of learning. According to them, the learner can be encouraged to have greater self awareness of how to learn and how to transfer the use of strategies from task to task. Wenden (1987) defines learning strategies as learning behaviours used by the learner to regulate learning. However, Rubin (1987) interpreted this definition in a broader sense when she suggests that learning strategies are learning behaviours that contribute directly to learning.

Similarly, Mayer (1988:11) emphasizes the role of understanding the learning process in order to successfully pursue the goal of teaching students how to learn. He states that learning strategies can be defined as "behaviors of a learner that are intended to influence how the learner processes information". Mayer (1988) stresses that developing theories of learning strategies should be based on theories of human learning such as quantitative (how much is learned), qualitative (what is learned) and behaviourist (how much behaviour is acquired). In addition, Schmeck (1988) points out that the term strategy refers to a sequence of procedures rather than a single event and these procedures must be intended to attain a goal. This means that the learner needs to acquire both the component processes and the organization of the processes to attain a goal. Oxford (1990) then, expands the definition of learning strategies into a more comprehensive one. She states that learning strategies are actions taken by the learner to acquire, store, retrieve and use information in an easy, fast, and more enjoyable manner. These learning strategies she goes on to say, make learning more self directed, more

effective and more transferable to new situations. O'Malley and Chamot (1990:1) support Oxford's view that learning strategies are: "The special thoughts or behaviors that individuals use to help them comprehend, learn, or retain new information." Finally, the literature arrives at a generally accepted definition drawn by Ellis (1994) who suggests that the best approach to define learning strategies is to list the main characteristics of the term as follows:

1. Strategies can be either specific or general techniques to enhance learning.

2. Strategies are problem oriented.

3. Strategies involve linguistic and non linguistic behaviours.

4. Strategies consist of mental or behavioural activities.

5. Strategies can be divided into direct and indirect ones.

6. The choice of strategies is influenced by the individual learner variables.

Thus, the term strategy has been defined and the next section will throw some light on the differences between the term strategy and other terms.

2.1.1 The Distinction Between the Term Strategy and Other Terms

The term "learning strategy" has been used by many authors under other terms such as "thinking and learning skills" (Dave et al., 1985; Segal et al., 1985), "learning to learn skills" (Nisbet & Schucksmith ,1986), and "learning styles" (Spolsky, 1989).

Dave et al. (1985) differentiate between skills and strategies; they indicate that learning strategy is a level above that of the skills and that learning strategy is the action of using the learning skills and the various resources available to the learner in achieving a specific learning goal. Nisbet and Shucksmith (1986) add that strategies are sequences of activities that are purposeful, goal oriented, more readily modified to suit the context,

and they are executive processes that regulate the use of skills in learning tasks. In addition, Kirby (1988) states that skills are abilities and existing cognitive routines employed either intentionally or automatically. These skills can be divided into knowledge skills or action skills. Furthermore, the strategy domain according to Kirby consists of tactics, strategies and styles; tactics and strategies involve conscious decisions to implement a skill while styles refer to the habitual use of a class of similar strategies. Schmeck (1988:171) similarly, distinguishes between learning strategy and tactic; the learning strategy is "a higher level cluster of learning tactics that work together to produce a unified learning outcome"; while the term tactics refers to "the specific activities of learners" and the word strategy "refers to their more general approach or plan". On the other hand, Brown (1994) emphasizes the differences between styles and strategies; styles are constant and predictable as they characterize general personality or cognitive traits and tendencies; while strategies are methods, modes of operation and planned design for acquiring the target language.

2.1.2 Classification of Learning Strategies

The different definitions of learning strategies discussed in the previous section were framed in terms of taxonomies by labeling and classifying them into different categories. The following classifications were conducted roughly chronologically, and fall into three research groups. The first group (Fillmore, 1976; Naiman et al., 1978) was mainly carried out in the 1970s. The second group (Rubin, 1981; Tarone, 1981; O'Malley et al., 1985; Weinstein, 1988) was carried out in the 1980s. The third set (Oxford, 1990; Ellis, 1994; Embi, 1996) was carried out in the 1990s.

Skehan (1989) cites three types of classifications, Wong-Fillmore (1976), Naiman et al. (1978), and Rubin (1981). In the earlier research Wong-Fillmore (1976) identifies two

sets of learning strategies while investigating how children increase their communicative competence in English:

1. Social strategies are important in establishing social relationship. They consist of:

    a) Join a group and act as if you understand what is going on, even if you do not.

    b) Give the impression, with a few well-chosen words, that you speak the language.

    c) Count on your friends for help.

2. Cognitive strategies match with social strategies as students have to learn English in order to communicate and establish social relationship. They consist of:

    a) Assume what people are saying is relevant to the situation at hand.

    b) Get some expressions you understand, and start talking.

    c) Look for recurring parts in the formulas you know.

    d) Make the most of what you have got.

    e) Work on the big things first, save the details for later.

Naiman et al. (1978) collected data through interviews with successful language learners on the language learning strategies that assisted them. The data consists of a set of five major strategies with a number of minor and more specific sub-categories:

1. Active task approach: successful language learners actively involve themselves in the language learning task by either responding positively or seeking preferred learning environment, intensifying their efforts and practising.

2. Realization of language as a system: successful language learners deal with the language as a system. They conduct contrastive analysis between their first and

second languages to eliminate interference errors in the process of second language acquisition.

3. Realization of language as a means of communication and interaction: successful language learners deal with language as a means of communication and interaction by focusing on fluency more than accuracy in the earlier stages, talking to native speakers and seize every opportunity to speak the target language.

4. Management of affective demands: successful language learners are those who cope with the affective demands made upon them by language learning and succeed in doing so.

5. Monitoring of L2 performance: successful language learners always monitor their language by venturing a possible guess and then either look for needed adjustments or ask for verification from a native speaker.

Among the second group is Rubin (1981) who distinguishes between two sets of strategies. The first set is direct strategies that involve class activities which contribute directly to language learning:

1. Clarification/verification strategies that are used to confirm rules in a new language or confirm understanding of the language.

2. Guessing/inductive inferencing strategies that are used by learners to infer meaning. Students may use their knowledge of the world and their first language as a source for understanding and producing the second language.

3. Deductive reasoning is a strategy used by learners to approach the second or foreign language. Here, the learner uses more general rules to obtain and store information about a language in an organized fashion.

The second set is indirect strategies that involve out of class activities such as:

1. Monitoring strategies that involve analysis, synthesis of learning materials, self-management and evaluating effect of actions taken.

2. Memorization strategies that focus on the organization by focusing on the storage and retrieval processes.

3. Practice involves strategies that help in the storage and retrieval of language.

Furthermore, Tarone (1981) distinguishes between four types of strategies, communication, learning, production and perception.

1. Communication strategies refer to activities of two interlocutors to communicate meaning. These strategies are used when either linguistic structures or sociolinguistic rules are not shared between a second language learner and a speaker of the target language.

2. Learning strategies involve activities to develop linguistic and sociolinguistic competence in the target language.

3. Production strategies are attempts to use the language system efficiently and clearly without excessive effort.

4. Perception strategies are activities that interpret incoming utterances efficiently.

When motivation for using a strategy is unclear, some overlap may occur between definitions, but in general the distinction is useful. However, Oxford (1990) argues that it is impossible to separate these four types of strategies apart as all of the above four types result in learning.

There are interesting similarities and differences in the comparison of the earlier strategy classifications. The similarities are:

1. Rubin's (1981) "clarification/verification", "memorization", and "practice' strategies" and Naiman et al.'s (1978) first strategy that is using "active task approach" all reflect Wong-Fillmore's (1976) social strategies and the strategies of "get some expressions" and "make the most of what you have got".

2. Rubin's (1981) strategies of, "guessing/inductive inferencing", and "deductive reasoning" embraces Naiman et al. (1978) second strategy of "realization of language as a system", and this contains Wong-Fillmore's (1976) strategy of "look for recurring parts in formula".

3. Rubin's (1981) "monitoring" strategy seems to contain Naiman et al.'s (1978) strategy of "monitoring of performance".

Differences that emerge can be seen in Wong Fillmore on the one hand and Naiman and Rubin on the other. Wong Fillmore's classification excludes "monitoring", the reflections of learners about their own learning as it is beyond the ability of young children, while Naiman and Rubins' classifications contains "monitoring". Furthermore, Wong-Fillmore's strategy of "assume relevance of what is being said to the situation at hand" shows that non-analytic learning is emphasized. On the other hand, Naiman et al.'s strategy of "realization of language as a system" which involves referring back to the first language and Rubin's strategies of "guessing/inductive inferencing" and "deductive reasoning", they all emphasize the development of a system through analysis. In addition, Wong-Fillmore is more concerned about context-dependent language use; while Naiman and Rubin extend their analysis to include actual language functioning as well as situations where language use is not involved (Skehan, 1989).

O'Malley et al. (1985) on the other hand, identified three sets of strategies on the basis of observation and interviews. The participants of the study were secondary school students studying English as a second language, and their teachers. The first set of strategies is meta-cognitive strategies that include nine strategies: advance organizers, directed attention, selective attention, self management, advance preparation, self-monitoring, delayed production, self-evaluation and finally, self-reinforcement. The second set is cognitive strategies that include repetition, resourcing, directed physical response, translation, grouping, note taking, deduction, recombination, imagery, auditory representation, keyword, contextualization, elaboration, transfer, inferencing, and question for clarification. The third set consists of only a social mediation strategy which is cooperation.

O'Malley et al.'s (1985) classification of learning strategies is different from the previous ones. Most of the strategies that are related to language as a means of communication, management of affective demands or social strategies are not included in O'Malley et al.'s classification as they mentioned only one social strategy that is "cooperation". Furthermore, O'Malley et al. give a number of meta-cognitive strategies in contrast with the previous classifications that include only "monitoring" strategy. In short, O'Malley et al.'s tripartite categorization of learning strategies, cognitive, meta-cognitive, and social/affective strategies is useful and has been generally accepted (Ellis, 1994).

Weinstein (1988) classifies learning strategies differently:

1. Rehearsal strategies for both basic and complex learning tasks.

2. Elaboration strategies for both basic and complex learning tasks.

3. Organizational strategies for both basic and complex learning tasks.

4. Comprehension monitoring strategies.

5. Affective strategies.

According to Weinstein (1988), cognitive strategies are subsumed under the first three categories and there is only one meta-cognitive strategy that includes monitoring strategies.

The classification which is of primary concern with in this study is the one provided by Oxford (1990). She builds on some of the earlier classification to develop a more comprehensive and detailed taxonomy of strategies. These strategies are organized into a set of classes and subclasses. The two major classes are direct and indirect strategies. Direct strategies are divided into three subclasses: memory strategies, cognitive strategies, and compensation strategies. Indirect strategies include meta-cognitive strategies, affective strategies and social strategies. These six subcategories are subdivided into a larger set of more specific strategies.

The first major class, direct strategies, is concerned with the direct involvement of the target language in a variety of specific tasks and situations. All the strategies concerned require mental processing of the language in different ways and for different purposes. The direct class is composed of three subclasses:

1. Memory strategies

    These strategies are powerful mental tools as they aid language learners to store, remember and retrieve new information. They fall into four sets:

    a) Creating mental linkages by:

        i. Grouping.

        ii. Associating/elaborating.

iii. Placing new words into a context.

b) Applying images and sounds by:

i. Using imagery either in the mind or in an actual drawing.

ii. Semantic mapping.

iii. Using key words.

iv. Representing sounds in memory.

c) Reviewing well by:

i. Structured reviewing as the new target language information should be reviewed well in order to be remembered.

d) Employing actions by:

i. Using physical response or sensation.

ii. Using mechanical technique such as the one that involves moving something concrete to remember the target language information.

2. Cognitive strategies

These strategies are the most popular and most significant ones in learning a new language. They are concerned with manipulation or transformation of the target language. They allow learners to understand and produce the language by different means. Cognitive strategies fall into four sets:

a) Practising which contains five strategies such as:

i. Repeating.

ii. Formally practising sounds and the writing system.

iii. Recognizing and using routine formulas and patterns.

iv. Recombining elements in new ways.

v. Practising the new language in natural and realistic settings.

b) Receiving and sending messages that involve

i. Getting the idea quickly (skimming and scanning).

ii.　Using resources for receiving and sending messages.

c)　Analysing and reasoning, this set of strategies involves

　　　　i.　Reasoning deductively.

　　　　ii.　Analysing expressions.

　　　　iii.　Analysing contrastively (a cross language).

　　　　iv.　Translating into the native language or the target language.

　　　　v.　Transferring from one language to another.

d)　Creating structure for input and output by:

　　　　i.　Taking notes.

　　　　ii.　Summarizing.

　　　　iii.　Highlighting.

3.　Compensation strategies

These strategies allow learners to use the language despite limitations in knowledge and they occur in comprehension and production. These ten compensation strategies are clustered into two sets:

a)　Guessing intelligently during listening and reading by:

　　　　i.　Using linguistic clues.

　　　　ii.　Using other clues.

b)　Overcoming limitations in speaking and writing by using eight strategies such as:

　　　　i.　Switching to the mother tongue.

　　　　ii.　Getting help.

　　　　iii.　Using mime or gesture.

　　　　iv.　Avoiding communication partially or totally.

　　　　v.　Selecting the topic.

　　　　vi.　Adjusting or approximating the message.

vii. Coining words.

viii. Using synonym or describing the concept to get the meaning.

The second major class, indirect strategies are concerned with the general management of learning without directly involving the target language. The indirect class is composed of meta-cognitive, affective and social strategies.

1. Meta-cognitive strategies

They are actions that help learners control their own cognition that is essential for successful language learning. These strategies are made up of three sets:

a) Centring the learning by:

i. Overviewing and linking with already known material.

ii. Paying attention.

iii. Delaying speech production to focus on listening either totally or partially.

b) Arranging and planning the learning by:

i. Finding out about language learning.

ii. Organizing by using conditions related to optimal language learning.

iii. Setting goals and objectives.

iv. Identifying the purpose of a language task.

v. Planning for a language task.

vi. Seeking practice opportunities.

c) Evaluating the learning, this set involves two strategies:

i. Self monitoring.

ii. Self-evaluating.

2. Affective strategies

They help learners control emotions, motivations and attitudes about learning. They have a significant influence on language learning success or failure. This set involves two main groups:

    a) Lowering the anxiety by:

        i. Using progressive relaxation, deep breathing or mediation.

        ii. Using music.

        iii. Using laughter.

    b) Self-encouragement by:

        i. Making positive statements.

        ii. Taking risks wisely.

        iii. Rewarding oneself either tangibly or visibly.

        iv. Taking the emotional temperature by:

- Listening to own body.
- Using a checklist to assess own feelings about language learning.
- Writing a language learning diary.
- Discussing own feelings about language learning.

3. Social strategies

They help students learn through communication and social interaction with others. They aid comprehension through helping students getting closer to the intended meaning. They also, indicate interest and involvement. Three sets of strategies exist:

    a) Asking questions that involves:

        i. Asking for clarification or verification.

ii. Asking for correction.

b) Cooperating with others that involves:

i. Cooperation with peers.

ii. Cooperating with proficient users of the new language.

c) Empathizing with others by:

i. Developing cultural understanding.

ii. Becoming aware of others' thoughts and feelings.

Oxford's (1990) classification of learning strategies has a common ground with O'Malley et al.'s (1985) classification despite differences. Oxford's indirect meta-cognitive strategies include a range of what O'Malley et al. would classify as meta-cognitive strategies. Oxford's cognitive strategies and a number of memory and compensation strategies of her direct strategies cover a similar ground to O'Malley's cognitive strategy category. Oxford affective and social categories of indirect strategies correspond closely to O'Malley et al's social/affective strategies. The classifications of both Oxford and O'Malley et al's are valid and insightful. In addition, Oxford's is more accessible while O'Malley et al's is simpler to use (Tudor, 1996).

Ellis (1994) maintains O'Malley's (1985) classification of learning strategies as he puts forward a tripartite categorization of learning strategies: First, cognitive strategies that involve the analysis, synthesis or transformation of information; Second, meta-cognitive strategies that involve the planning, monitoring and evaluating of learning; Third, social/affective strategies which involve the communication and interaction with others.

Finally, Embi (1996) presents a similar classification in his investigation of the language learning strategies used by Malaysian secondary school students and their

relationship to success in language learning. He proposes a model of learning to learn based on his findings. This model is known as SMART language learning. SMART is the acronym of the following main strategies:

S -   Social learning strategies.

M - Meta-cognitive learning strategies.

A -   Affective learning strategies.

R -   Remembering strategies.

T -   Test preparation strategies.

There is however, an important point yet to be considered linked to a definition and classification of learning strategies. It is the classification of strategies by skill areas. The next section will deal with the learning strategies associated with the four language skills, listening, speaking, reading and writing. Some other attention will be devoted to describing the strategies associated with vocabulary and grammar learning.

2.2 The Learning Strategies Associated With Language Skills

Researchers adopt several different taxonomies to classify learning strategies. The type presented in this section focuses on classifying strategies according to skill areas. Success in learning a foreign or second language depends on a variety of factors such as the application of particular strategies to the acquisition of different language skills. The body of existing literature describes the language learning strategies associated with the four language skills and why students decide to use them when engaging in language learning tasks. Oxford (1990) offers significant implications for the ESL and EFL teachers who want to improve their instructional effectiveness. She focuses on the application of direct strategies (memory, cognition, and compensation) and indirect strategies (meta-cognitive, affective and social) to each of the four language skills

(listening, speaking, reading and writing). She stresses the importance of using these strategies in developing all language skills.

2.2.1 Listening Comprehension Strategies

Second language researchers investigated how learners approach listening comprehension. They made lists of strategies presumed to be essential in improving listening comprehension skill. Ellis and Sinclair (1989) cited in O'Malley and Chamot (1990) present some of the basic listening strategies used with intermediate level EFL and ESL students in the language classroom:

1. Using imagery while listening.

2. Planning to listen for selected information (selective attention).

3. Identifying prior knowledge before listening (elaboration).

4. Predicting based on prior knowledge (elaboration and inferencing).

5. Using linguistic signals and paralinguistic cues (selective attention).

6. Guessing unknown words from context (inferencing).

According to Ellis and Sinclair (1989), students have to apply certain strategies to develop listening. It is essential for students to depend upon mental effort to connect words with situations. They should know how to manage their learning through planning. They have to consider listening as an active process of constructing meaning. It is an interactive process by which the students guess intelligently by using clues coming purely from knowledge of the target language or from a variety of sources which are related to world knowledge and own experience. However, although affective and social strategies proved to be powerful contributions to language learning (Oxford, 1990), Ellis and Sinclair's (1989) list does not include these strategies. It might be that learners are not familiar with paying attention to their feelings and social relationship or

maybe because these behaviours are not researched frequently by second language learners.

On the other hand, in the assessment of the strategies used for successful acquisition of listening comprehension skill, O'Malley, Chamot and Kupper (1995) approach listening strategies in a different way. They conducted a study involving students from Spanish speaking countries in Central or South America who were enrolled in ESL classes at the secondary level. Data was collected by using think-aloud procedures. Their findings indicated that listening comprehension process can be classified into three phases and each phase requires the use of certain strategies.

1. Perceptual processing

   In this phase, paying attention is fundamental for comprehension. Students' attention was affected in this study by the length of the listening task and fatigue. Effective listeners were aware of their inattentiveness and consciously redirected their attention back to the task. In contrast, ineffective listeners failed to be aware of their inattention when encountering an unknown word or phrase.

2. Parsing

   Listeners segment and parse portions of the text they heard by using a variety of strategies such as elaboration, self-monitoring, and inferencing. On the other hand, translation was often a problematic task when the text is difficult and complicated.

3. Utilization

   Two ways were identified in making use of prior knowledge- whether to assist comprehension or to assist recall. In order to assist comprehension, the effective listeners tend to relate new information to prior knowledge by using three types of elaborations that form the basis for the schemata:

a) Relating the new information by using world knowledge acquired either in an academic or a non-academic context.

b) Relating the new information to a personal experience and making critical judgment about value of the information.

c) Asking oneself questions about the new information listened to.

In short, students deployed strategic resources to aid comprehension such as paying attention, self monitoring, elaboration, inferencing and relating new information to prior knowledge in a variety of ways depending on the phase of comprehension. Furthermore, the effective listeners made use of both top-down and bottom-up processing strategies. In contrast, ineffective listeners consistently made use of bottom-up strategy. In the top-down processing strategies, the listener employs world knowledge to construct a meaningful interpretation of aural messages. The focus is on the speaker's purpose and the topic of the message. On the other hand, in the bottom-up processing strategies, the listener focuses on the individual components of spoken messages. In other words, the listener decodes the individual sounds to derive the meaning of words and then the meaning of utterances (Nunan, 1991).

Grenfell and Harris (1999) add some other effective listening strategies that can help in developing listening skill:

1. Identifying the type of listening text.

2. Identifying the topic.

3. Using common sense.

4. Using clues such as tone of speaker's voice and facial gestures in the case of video or clues from the tense, word order, etc.

5. Picking out cognates.

6. Identifying unfamiliar phrases and playing the relevant section of the tape over and over again.

7. Holding unfamiliar sounds in your head by saying them over and over again.

8. Trying to break down the stream of sound into individual words.

9. Trying to write down the sounds and relate them to written words previously learned.

According to Grenfell and Harris (1999), the strategies used to promote listening skill involve some analyses on the side of the learner through identifying the type of listening text and the topic. The use of these strategies can facilitate comprehension. Guessing is another essential strategy used to develop listening. Students guess the meaning of what is heard by using their general knowledge of the world, linguistic clues such as the tense and word order, or non-linguistic clues such as the tone of the speaker's voice and the facial gestures. Mastering listening requires students to practise by repetition; they should listen to the native speakers in the new language on a tape or record repeatedly with silent rehearsal (repeating the words to oneself mentally). This strategy helps students to be accustomed to English pronunciation. Finally, students should use their cognition in understanding something spoken in the target language, they should analyse expressions by breaking down a new word, phrase, sentence or even a paragraph into its component parts. The strategy of analysis is valuable as it helps learners to use logical thinking to understand (Oxford, 1990).

Finally, Ai and Noor (2000) specify other types of listening strategies used to develop listening comprehension and production. These strategies are:

1. Identifying the main idea.

2. Identifying sub-topics.

3. Predicting the answers.

4. Identifying what is required of each question.

5. Listening for the relevant details.

6. Taking notes using the outline format.

7. Determining the context.

In other words, Ai and Noor (2000) suggest that the use of cognitive strategies is fundamental in the development of listening. They state that in the process of developing listening skill, students use their cognitive strategies in identifying the main idea, sub-topics and relevant details, also, in previewing the questions and analysing them, and finally, students use the cognitive strategies in organizing the target language information by taking notes. The strategy of taking notes allows students to demonstrate their understanding tangibly and prepare them to use the language for speaking and writing.

In general, mastering listening requires students to focus their learning by paying attention. This strategy is essential for comprehension. Students, also have to use linguistic signals, their own experience and world knowledge to guess the meaning of unknown words. They should exert some mental effort to use imagery while listening and finally, students have to use analyses to identify the main idea, sub-ideas and relevant information.

2.2.2 Speaking Strategies

Nunan (1991:39) states that "mastering the art of speaking is the single most important aspect of learning a second or foreign language". Similarly, in the discussion of the importance of comprehension and production in second language learning, Swain

(1988) cited in Cook (1993) stresses that successful language learning needs more than comprehensible input rather successful management of classroom interaction. In an attempt to help learners improve their speaking skill, researchers focus their attention to identify strategies that facilitate the acquisition of speaking. O'Malley et al. (1988) list some of the language learning strategies that are associated with different speaking tasks:

1. Meta-cognitive strategies

    a) Students use functional planning by analysing a communication for the functions that must be accomplished and rehearsing linguistic components to perform the communication.

2. Social/affective strategies

    a) Students use cooperation with fellow students to obtain feedback on volume, pace, organization, and comprehensibility of their presentation.

According to O'Malley et al. (1988), English language learners use meta-cognitive and social/affective strategies to improve their speaking skill. These two types of strategies include planning, analysing, rehearsing and cooperating with peers. However, no strategies are used to reduce anxiety and create a pleasant environment that leads to second language acquisition (Krashen, 1982). In addition, no strategies are used to overcome limitation in speaking and ask questions which are influential in the acquisition of speaking (Oxford, 1990).

Ellis and Sinclair (1989) cited in O'Malley and Chamot (1990) add some other important cognitive, meta-cognitive and memory strategies used with speaking such as:

1. Self management and cooperation strategies are used in finding practice opportunities.

2. Auditory representation strategy is used by conducting imaginary mental conversations.

3. Self-management and organizational planning strategies are used by applying hesitation techniques that provide thinking time in a conversation.

4. Advance preparation strategy is used by rehearsing.

5. Organizational planning and self evaluation strategies are used by staying within one's own language repertoire.

Ellis and Sinclair's (1989) classification of speaking strategies is comprehensive. They state that in the process of developing speaking skill, students practise speaking and rehearsing with other people in natural settings that provide rapid communication. They use their memory strategies that are useful for remembering new expressions that have been heard or read. Finally, students know well how to use their meta-cognitive strategies in planning and organizing their speech, they use hesitation techniques to provide thinking time in a conversation.

On the other hand, Ai and Noor (2000) specify different types of strategies used with speaking such as:

1. Generating ideas.

2. Organizing ideas.

3. Using appropriate expressions.

4. Recalling information.

5. Jotting down reasons.

6. Jotting down suggestions.

Ai and Noor (2000) stipulate that language learners use their memory strategies to retrieve language information quickly. Then, they mentally organize the ideas. Later, they use their cognitive strategies by analysing and taking notes. Finally, students practise the target language by using appropriate expressions.

2.2.3 Reading Comprehension Strategies

Reading is an interactive process by which readers play an active role in constructing a meaningful interpretation of the text. Skilled readers usually utilise linguistic cues and background knowledge to reconstruct meaning (Nunan, 1991). In order to improve students' reading skill, several lists of reading strategies were provided by researchers. However, there are some differences in the way strategies are classified as a consequence of researchers own views of reading process. Winograd and Hare (1988:125) cited seven reading comprehension strategy studies that provide the readers with the effective reading comprehension strategies in general:

1. In the study conducted by Adam et al. (1982), the focus was on the six step strategy for reading content area texts:

   a) Previewing headings.

   b) Reciting subheadings.

   c) Asking questions for subheadings.

   d) Reading to find important details.

   e) Reading sub headings and reciting important details.

   f) Rehearsing or reading each subheading and reciting important details.

2. Hansen and Pearson (1983) focus on inferencing strategy by raising students' consciousness about relating new information to old one and relating personal experiences to text events and predicting text events.

3. Patching et al. (1983) discuss the critical reading strategy through:

a) Detection of faulty generalizations.

　　　　b) Detection of false causality.

　　　　c) Detection of invalid testimonial.

4. Alex and White (1984) discuss the reasoning strategy and how to teach it to the students through:

　　　　a) Encoding.

　　　　b) Inferring.

　　　　c) Mapping.

　　　　d) Applying.

5. Baumann (1984) outlines the comprehension strategy by helping students:

　　　　a) Locate explicit and implicit main ideas in paragraphs.

　　　　b) Locate explicit and implicit main ideas in brief passages.

　　　　c) Construct outlines of main ideas for brief passages.

6. Garner et al. (1984) highlight the text look-back strategy; students were taught how and when to go back to reread certain words or phrases that they did not see accurately the first time.

7. Hare and Borchardt (1984) point out that summarization strategy is composed of:

　　　　a) Rule-checking suggestions which include:

　　　　　　i. Understand the text.

　　　　　　ii. Look back.

　　　　　　iii. Rethink and check and double-check.

　　　　b) Summary rules that include:

　　　　　　i. Collapse lists.

　　　　　　ii. Use topic sentences.

　　　　　　iii. Get rid of unnecessary details.

　　　　　　iv. Collapse paragraphs.

v. Finally, the polishing rule that requires summary editing.

The findings of the above studies indicated that reading is a complex process. It involves many physical an intellectual process. Students have to employ various strategies to develop their reading such as using strategies for reading content area texts, reasoning, comprehension, text-look-back, summarizing and critical reading.

Ellis and Sinclair (1989) cited in O'Malley and Chamot (1990) specify some other principle strategies used with reading:

1. Identifying a reason to read (problem identification).

2. Finding out about the topic before reading (planning, elaboration, and reasoning).

3. Preliminary skimming to determine difficulty level (advance organization and self evaluation).

4. Using First Language (L1) reading strategies (elaboration of prior strategy knowledge).

5. Predicting based on prior knowledge (elaboration and inferencing).

6. Using linguistic signals and paralinguistic cues (selective attention).

7. Guessing unknown words from context (inferencing).

According to Ellis and Sinclair (1989), developing reading involves the use of several strategies. Good readers control and plan their learning by identifying the purpose of reading and linking with already known material. They skim to determine difficulty. Good readers know how to transfer strategies used in the first language to different tasks in the target language. Finally, when confronted with unknown expressions while reading, they consider the strategy of guessing as essential.

Furthermore, Jordan (1997:143) offers a comprehensive list of the main strategies that aid reading comprehension:

1. Prediction.

2. Skimming (reading quickly for the main idea or gist).

3. Scanning (reading quickly for a specific piece of information).

4. Distinguishing between :

   a) Factual and non-factual information.

   b) Important and less important items.

   c) Relevant and irrelevant information.

   d) Explicit and implicit information.

   e) Ideas, examples and opinions.

5. Drawing inferences and conclusions.

6. Deducing unknown words.

7. Understanding graphic presentation (data, diagrams, etc.)

8. Understanding text organization and linguistic/semantic aspect, such as:

   a) Relationship between and within sentences (cohesion).

   b) Recognizing discourse/ semantic markers and their function.

Jordan's (1997) list of reading comprehension strategies stresses the importance of using the cognitive strategies of analysing and reasoning and the compensation strategy of guessing intelligently in developing reading comprehension

On the other hand, Urquhart and Weir (1998) outline the reading strategies offered by Jordan (1997) that aid comprehension in a different manner; they classify reading strategies into three categories:

1. Pre-reading strategies:

a) Previewing that can be achieved through the following:

    i. Thinking about the title.

    ii. Checking the edition and date of publication.

    iii. Reading the table of contents quickly.

    iv. Reading appendices quickly.

    v. Reading indexes quickly.

    vi. Reading the abstract carefully.

    vii. Reading preface, the foreword and the blurb carefully.

b) Prediction strategy that helps anticipating the content of a text can aid comprehension.

2. While-reading strategies:

a) Self-questioning strategy that improves students' processing of a text and gives them an opportunity to monitor their comprehension.

b) Self monitoring strategy that helps adopting repair strategies when comprehension does not take place.

3. Post-reading strategies:

a) Evaluation and personal response strategy that encourages learners to relate content to their existing schemata and evaluate it in the light of their own knowledge.

According to Urquhart and Weir (1998), reading process involves the use of different strategies successively. First, readers should use previewing strategies to motivate them to read, followed by self questioning and self monitoring strategies. These two types of strategies enable readers to check understanding and take steps to enhance it. Finally, students have to use evaluation strategies in order to develop critical thinking.

On the other hand, Ai and Noor (2000) approach the English language learning strategies used in developing reading in a different way:

1. Identifying the topic.

2. Identifying details.

3. Recalling background knowledge.

4. Identifying content words.

5. Guessing the answers.

6. Identifying grammar words.

7. Transferring information from graphic representation to text.

8. Determining the subject.

9. Identifying extremes.

10. Making comparisons.

11. Interpreting trends.

12. Determining the meaning of words.

13. Determining pronoun referents

14. Distinguishing relevant/irrelevant details.

15. Making inferences.

16. Determining the author's purpose.

17. Identifying the author's attitude/tone.

Ai and Noor (2000) describe good readers as those who try to skim in order to identify the topic and scan to find specific details. They create mental linkages by grouping content words, grammar words, pronoun referents and the subject. This grouping makes the material easier to remember by reducing the number of discrete elements. They use their meta-cognitive strategies in arranging and planning the learning process. In addition, good readers use their cognitive strategies which involve analysing

contrastively and transferring information from graphic representation to text. Finally, they use their compensation strategies to guess and make inferences by recalling background knowledge or using the knowledge of the context.

In general, both reading and listening skills share some strategies. They are both active processes by which learners construct meaning through using linguistic and non-linguistic clues. In addition, both of the two skills require some type of analyses; students have to identify the type of text, the main ideas and supporting details.

2.2.4 Writing Strategies

Writing is one of the difficult skills to master by EFL learners. Identifying writing strategies may help in the development of this skill. Ellis and Sinclair (1989) cited in O'Malley and Chamot (1990) specify some of the principle cognitive strategies used with writing such as:

1. Grouping and elaboration of knowledge about discourse strategies are used in collecting models of different types of writing.

2. Organizational planning strategies are used in keeping audience in mind.

3. Organizational planning and self evaluation strategies are employed by using known vocabulary and structures.

4. Self evaluation and substitution strategies are used by composing directly in the target language.

5. Self evaluation strategy is used by revising.

On the other hand, Ai and Noor (2000) add some new memory, meta-cognitive and cognitive strategies used with writing. Students use their memory strategies in generating ideas and in retrieving information. They use their meta-cognitive strategies

in centring their learning by identifying the purpose of a language task. They use them also in planning learning by extracting relevant information, organizing the main points and determining the organizational style. Students use meta-cognitive strategies as well in evaluating their writing by self monitoring and checking subject verb agreement and other tenses. Finally, students use cognitive strategies in writing by developing the topic sentence, writing the introductory paragraph, expanding and combining points into sentences and paragraphs for the body of the essay, and they use them in writing the conclusion as well.

Although compensation, affective and social strategies are helpful in the acquisition of writing (Oxford, 1990), none of these strategies were reported by any of the above writers. No strategies were used to overcome limitations in writing such as coining words or using synonyms. In addition, students often need to find ways to keep their spirits up and persevere when producing the language, again no strategies were used to lower anxiety or encourage oneself. Finally, no strategies were reported using cooperation with peers or asking for corrections during writing. Oxford (1990) presents a good example for employing the strategy of cooperation in writing through dialogue journals in which learners exchange messages with their teachers who respond with comments.

2.2.5 Vocabulary Learning Strategies

Rivers (1983:125) argues that "the acquisition of an adequate vocabulary is essential for successful second language use". Researchers make lists of strategies presumed to be essential for vocabulary building. O'Malley et al. (1988) list the strategies used with different academic language tasks for vocabulary building:

1. Meta-cognitive

    a) Self evaluation by recording the number of new words and the method used to remember them.

2. Cognitive

    a) Grouping by listing words that have equivalent meanings in one section and those which are opposite in meaning in another section.

    b) Using imagery by relating new words to visual concepts in the memory in order to incorporate them with their English equivalent.

On the other hand, Dudley-Evans and John (1998) distinguish between two techniques for vocabulary development:

1. Techniques for comprehension are used through deducing the meaning of vocabulary from the structure of the word and from the context in which it is used.

2. Techniques for production are used through storage and retrieval. Storage can be deployed by the use of word association with a visual image. The retrieval of vocabulary items can be aided by grouping the words according to their meaning or topic, or according to chains of association.

Finally, Nation (2001) develops a taxonomy of vocabulary learning strategies that includes the following:

1. Planning vocabulary learning

    This category of strategies comprises four sets that explain where, when and how to focus attention:

    a) Choosing words

Learners should know their vocabulary goals and then choose from the various levels of vocabulary (high frequency, academic, technical, low frequency) that can help them achieve their goals.

b) Choosing an aspect of word knowledge to focus on

Learners should be aware of the various aspects involved in knowing a word such as form, meaning and use.

c) Choosing strategies

Learners need a strategy that controls their strategy use. They have to know how to choose the appropriate strategy that achieves their goals. They also have to decide how to pursue the strategy and how to switch to another one.

d) Planning repetition

Repetition is essential for vocabulary learning. It should be spaced at increasingly larger intervals to encourage remembering for a long period of time.

2. Sources: finding information about words

Learners have to get information on new vocabulary from various resources such as:

a) Analysing word parts

Being familiar with the word parts such as affixes, suffixes and stems may help in working out its meaning or see connection between related words.

b) Using context

Incidental learning from context is the most important strategy of all sources of vocabulary learning. Learners should be able to guess words

from context by making good use linguistic cues and background knowledge.

c) Consulting a reference source

Reference sources can be divided into two types:

    i. Formal written sources such as dictionaries, glossaries, lists, concordances.

    ii. Oral sources such as asking teachers, native speakers or other learners.

In vocabulary learning, learners may refer to any of the above reference sources to gain information.

d) Using parallels with other languages

In order to cope with the new vocabulary, learners may get information about words from drawing on analogies and connections with first or other languages.

3. Processes: establishing vocabulary knowledge

This set of strategies focuses on the process that leads to a word being remembered such as:

a) Noticing

These strategies encourage giving attention to an item as the first step towards deeper processing of the word. They include:

    i. Putting the word in a vocabulary notebook or a list.

    ii. Repeating the word orally and visually.

b) Retrieving

Retrieval involves recalling knowledge in the same form in which it was originally stored. It can be divided into various types: receptive/productive, oral/visual, overt/covert, in-context/de-

contextualized. Finally, retrieval does not occur if the form and its meaning are presented simultaneously to the learner and it occurs across the four skills of listening, speaking, reading and writing.

c) Generating

Generating involves recalling the items met before but in different ways in which they were originally stored. It can be divided into many types: receptive/productive, oral/visual, overt/covert, in-context/de-contextualized. Generating strategies include:

i. Attaching new aspects of knowledge through visualizing examples of the word.

ii. Word analysis.

iii. Semantic mapping.

iv. Using scales and grids.

v. Creating contexts.

vi. Collocations and sentences containing the word.

vii. Keyword technique.

viii. Meeting and using the word in new contexts across the four skills of listening, speaking reading and writing.

In short, vocabulary learning strategies in general can be divided into three sets: first, cognitive or meta-cognitive, second, strategies for comprehension and others for production and third, planning vocabulary learning, finding information about words and establishing vocabulary knowledge.

2.2.6 Learning Strategies and Grammar

Acquisition of a target language grammatical system is important. Nunan (1991) presents two different views for teaching grammar. The first view involves providing students with a great deal of grammatical explanation that ends up with them knowing quite a lot about the language. The second view focuses on analogy rather than explanation. Students practise inducing the grammatical rules from their experience in using the language. The purpose of grammar teaching is to help students use English correctly and appropriately. Tudor (1996) provides some learning strategies that help in acquiring the grammar of the target language. These strategies are classified into two main categories.

1. Student preparation of exercises

    Asking learners to write and answer their own exercises offers a rich scope for an explorative approach to learning in collaboration with the teacher. The learning strategies that are used in the preparation of exercises are:

    a) Meta-cognitive strategies:

        i. "Planning and self management" strategies are used in the organization and preparation of the exercise task.

        ii. "Selective attention" and "problem identification" strategies are used by focusing on the target constructions and the contexts in which they are used.

        iii. "Self evaluation of students' understanding and ability to use the target constructions" strategy is used by the students.

    b) Cognitive strategies:

        i. Using the strategies of "resourcing", "deduction/induction", and "transfer" that are involved in exercises preparation.

  ii. "Grouping the instances on the use of the target construction" is used as a basis for preparing exercises.

  iii. "Translation" can be used as a starting point for preparing exercises.

 c) Social/affective strategies:

  i. "Questioning for clarification" strategy is used; students ask teachers about the use of the target construction and other aspects of the exercises being prepared.

  ii. "Cooperation with peers" strategy is used in exercise preparation.

2. Exploring textual material

In the discovery-based approach, students collect a body of textual material in the target language containing instances of the target construction. This exploratory form of learning may precede rule formulation or may be used as a follow up activity. The strategies employed in the discovery-based approach are:

 a) Meta-cognitive strategies that include:

  i. "Planning and organizing" the text exploration task.

  ii. Using "selective attention" and "problem identification" strategies on identifying instances of the target construction in the text exploration task.

  iii. Using "self evaluation" strategy to assess mastery of the target construction during the text study and feedback stages.

 b) Cognitive strategies include:

i. Using "resourcing", "deduction/induction", and "transfer" strategies that are involved in gathering information for text explanation task.

ii. Using "elaboration" and "inferencing" strategies to work out the principles underlying the target constructions usage in the text exploration task.

iii. Using "grouping", "summarizing", and "note taking" strategies to explain target constructions occurring in the text corpus.

c) Social/affective strategies that include:

i. Using "questioning for clarification" and "cooperation with fellow students" in the text exploration task.

Thus, Tudor (1996) divides grammar learning strategies into two categories: first, strategies for preparation of exercises and second, strategies for exploring textual material. Both categories play an influential role in the acquisition of grammar.

In summary, this section describes various studies conducted with second and foreign language learners. It summarizes the strategies used with the four language skills, listening, speaking reading and writing. In addition, it describes the strategies used with other skill areas such as vocabulary and grammar learning that cross cut the four basic skills. The next section will shed some light on the factors that influence a language learner's choice of strategies, and the representative studies that are conducted in an attempt to describe this influence.

2.3 Factors Affecting Strategy Choice

Research on learning strategies indicates that all students employ language learning strategies to improve their progress in developing the target language. However, there are some individual differences which are of primary concern with in this study, that influence strategy choice including context, gender, major field of study, age and the English language performance level. Several studies have been conducted to investigate the influence of these factors on the choice of strategies.

2.3.1 First and Second Language Contexts

Among the many factors that might influence a language learner's choice of strategies is the language context of the learner. Oxford (1990:6) states that "some learning strategies might be easier to use in second language contexts than in foreign language settings, or vice versa. However, most learning strategies can be applied equally well to both situations." The differences between second language contexts and foreign language contexts are viewed in terms of where the language is learned and what social and communicative functions the language serves there. ESL learners use the target language for social and communicative functions within the community, whereas EFL learners do not use the target language for immediate social and communicative functions within the community where it is learned (Oxford, 1990).

Similarly, Bedell & Oxford (1996) differentiate between EFL and ESL learners. EFL learners are students who learn in their native, non-English speaking environment, whereas, ESL learners are those who learn English in an English speaking country such as the US or the UK.

Krashen (1982) adds that among the factors that have been thought to be related to second language acquisition success is the amount of exposure to the second language. The informal real world environment is more superior in providing comprehensible input than the classroom or formal environment. In the second language classroom, the range of discourse that students are exposed to is quite limited. Thus, the length of residence in the second language environment allows a great amount of comprehensible input a student obtains that encourages acquisition.

Chamot (1987) investigated the English language learning strategies used by 70 ESL students. The subjects of the study also included 22 of the teachers in three suburban high schools in northern Virginia. The instruments used were class observation and interview with teachers and students. Results were classified as meta-cognitive, cognitive and social/affective. The following is a list of learning strategies found in the study:

1. Meta-cognitive strategies are divided into:

    a) Advance organizers.

    b) Directed attention.

    c) Selective attention.

    d) Self management.

    e) Advance preparation.

    f) Self monitoring.

    g) Delayed production.

    h) Self evaluation.

2. Cognitive strategies are divided into:

    a) Repetition.

    b) Resourcing.

c) Directed physical response.

d) Translation.

e) Grouping.

f) Note taking.

g) Deduction.

h) Recombination.

i) Imagery.

j) Auditory.

k) Representation.

l) Key word.

m) Contextualization.

n) Elaboration.

o) Transfer.

p) Inferencing.

3. Social/affective strategies are divided into:

a) Cooperation.

b) Question for clarification.

In short, most of the strategies found in Oxford (1990) are consistent with Chamot (1987). The difference is in the classification of memory strategies that are considered as cognitive ones by Chamot (1987). O'Malley and Chamot (1990) went on to describe a series of studies that are used to classify and define strategies used in second and foreign language acquisition.

The purposes of the first study conducted by O'Malley et al. (1985a) cited in O'Malley and Chamot (1990) were to identify the range of learning strategies used within and

outside the classroom and to determine if the strategies varied depending on the task or the level of English proficiency of the student. The participants of the study were high school ESL students and particularly both beginner and intermediate levels of English proficiency. The two data collection instruments used in gathering information were the interview and the classroom observation. Interviews with beginner level students were conducted in Spanish while interviews with intermediate level students were conducted in English. The results indicated that there are three classifications of learning strategies, seven meta-cognitive strategies, fourteen cognitive strategies and two social strategies. Although students reported using the above strategies, classroom observations indicated that students rarely used them on integrative tasks instead they often relied upon strategies that did not demand elaborative or active mental processing.

Chamot et al. (1987) cited in O'Malley and Chamot (1990) conducted a study to investigate the learning strategies used in foreign language instruction. The purposes of the study were to determine differences in strategy use between Russian and Spanish students at high school and college level and to identify the range and variety of strategies used in formal language context. The instrument used in collecting the data was the General Interview Guide, preceded by classroom observations. This General Interview Guide describes nine types of learning tasks and how the students approached each of the following nine language tasks:

1. Vocabulary learning.
2. Oral grammar drills.
3. Written grammar drills.
4. Listening comprehension.
5. Reading comprehension.
6. Written composition.

7. Oral presentation.

8. Operational communication.

9. Functional communication.

The results showed that one cognitive strategy namely "Key word" was not used in the foreign language study at all. "Key word" strategy means remembering a new word in the second language by identifying a familiar word in the first language that sounds like or resembles the new word. This means that foreign language learners do not refer to their first language in remembering new words in the target language. On the other hand, "rehearsal", "translation", "note taking", "substitution" and "contextualization" strategies were used. In contrast, both of the social strategy "self talk" and the meta-cognitive strategy "delayed production" were used to reduce anxiety and to learn through listening comprehension. Foreign language students at all levels of study reported using far more cognitive strategies than meta-cognitive ones.

Again, in an attempt to confirm the influence of context on learning strategies, Bedell and Oxford (1996) cited several studies involving EFL and ESL learners from many countries such as Ahmad (1988), Oxford, Talbott and Halleck (1990), and Touba (1992). Some of these studies used a strategy classification based on the Strategy Inventory for Language Learning (SILL) and some did not.

Ahmad (1988) used course notebooks, self-reports, observations and interviews to identify vocabulary learning strategies used by 300 Sudanese students. Fifty strategies were identified and the most frequent ones were "Taking notes in the book margin" and "Asking classmates for information".

Oxford, Talbott, and Halleck (1990) used a SILL-based questionnaire with 43 ESL students in Pennsylvania. Analysis of the data revealed high use of social, meta-cognitive, cognitive and compensation strategies with medium use of affective and memory strategies.

Finally, Touba (1992) conducted a study to identify the English language learning strategies used by 500 Egyptian university students majoring in teaching the English language. The tool used to collect the data was an Arabic translation of the 50-item SILL, version 7.0. The results indicated that the students tended to use meta-cognitive and memory strategies most frequently and cognitive strategies least often.

In short, according to the studies cited by Oxford (1996), ESL learners showed high use of meta-cognitive, cognitive, social and compensation strategies. On the other hand, EFL learners reported far more meta-cognitive and memory strategies than cognitive ones. Thus, both ESL and EFL learners made high use of meta-cognitive strategies that focus on organizing and evaluating the learning.

Furthermore, Ai (1996) conducted a study on four Malay learners to identify the academic reading strategies used. Data collected through various instruments such as self-report checklist, subjects' notes, text markings, questionnaire, interview and observation. The results indicated that the Malay students used 83 academic reading strategies. The most common strategies used were cognitive, followed by meta-cognitive ones and finally, the least strategies employed were the affective ones. Furthermore, results reported that there were 10 academic reading strategies common to all subjects such as, rehearsal, elaboration, organizational, comprehension, monitoring and affective strategies. Furthermore, the good learners employed more meta-cognitive

strategies than the less effective ones. The good learners processed the textual information in depth and made extensive use of visual representations.

On the other hand, Yang (1996) reported different results than those reported by the previous studies. She investigated the learning strategies of 68 university students in Taiwan, 38 students were English majors and 30 were Sociology majors. The instruments used in collecting data were a questionnaire and a Group Interview Question Guide. The questionnaire was composed by the author. It contains three sections: the first section consists of 49 items adapted from the SILL to assess strategy use; the second section investigates students' beliefs and attitudes about language learning and the last section obtains students' background information such as gender, age, major field of study, proficiency and perceived motivation. The results indicated that the most commonly used strategies were compensation, followed by affective, meta-cognitive and finally memory strategies respectively.

Finally, Mingyuan (2000) conducted a study on Chinese ESL students who where chosen to study in a six month intensive English programme at the National University of Singapore. The purpose of the study was to identify the language learning strategies and to relate them to proficiency level. Students completed a questionnaire on their use of language learning strategies (SILL) designed by Oxford (1990). Results indicated that students used compensation strategy as most frequently followed by meta-cognitive, cognitive, then, social, next, affective and finally, memory strategies as the least frequent ones.

The conclusion drawn from studying learning strategies in different contexts is that a group of learning strategies may be of a particular use for ESL learners such as meta-

cognitive, cognitive, compensation and social ones whereas, affective and memory strategies were the least used. On the other hand, there was no consistency in the use of strategies used by EFL learners as some used meta-cognitive and memory strategies most frequently, others used them least often.

2.3.2 Gender

There is a growing number of studies that emphasized the importance of gender issues in education. Gender is a term used to "describe the traits and behaviours that are regarded by the culture as appropriate to men and women" (Brannon, 1999:18). This section takes a look at some of the literature available on gender and second language learning; different explanations have been put forward for gender in education; research conducted in this area and how these findings help reach an understanding of gender differences that influence learning which is the primary concern of this study.

During the past twenty years, after women's second movement which questions women's position and rights in 1970s and 1980s in the USA, there has been a great deal written about gender and education in terms of language, achievement, classroom behaviour, learning styles and learning strategies. Teachers became aware of and sensitive to gender issues. They were being urged to develop techniques to eliminate gender bias from schools. As such, gender equity has become one of the most important educational issues. The gender imbalances in the text books were remedied in order to influence females' education achievement positively. Women were presented as positive and active participants and engaged in challenging tasks (Hoover, 1982).

In ensuing section two general questions regarding gender differences will be addressed:

1. Do such differences actually exist?

2. What are the causative factors leading to these differences?

2.3.2.1 Differences Between Males and Females in Education

As males and females are fundamentally different, the influence of one's gender on both production and reception of language is a major factor that affects the acquisition of that language (Brown, 1994). Similarly, Francis (2000:31) states:

> The teacher's perception of gender differences and their consequent interaction with, and expectations of pupils, have been shown to affect classroom interaction and pupil self-perception.

Gurian et al. (2001:44) state: "gender difference affects nearly every area of learning in some nuanced way". Therefore, understanding these gender differences will be the key to advancing true educational reform; Learning environments will be adapted to fit the different needs of both males and females; Specific teaching techniques that accommodate the ways boys and girls learn differently will be applied and tested.

2.3.2.2 Gender and Learning Strategies

Gender-related differences are among the factors that contribute to differences in learning strategies. Green and Oxford (1995:266) state that "gender differences have appeared in SILL-based studies around the globe, with females usually reporting more strategy use than males".

Ehrman and Oxford (1989) cited a study conducted by Politzer (1983) on 1,200 university foreign language students to investigate the influence of gender on strategy use. The results indicated that males did not show statistically greater use of strategies

in any category while females used more learning strategies with significantly greater frequency than males in three categories:

1. Formal practice.

2. Standard study habits.

3. The highly social category of input elicitation.

Similarly, Ehrman and Oxford (1989) conducted a study at the U.S. Foreign Service Institute to examine the effect of gender on the selection of language learning strategies. The participants were 78 Foreign Service institute students and language instructors. The Strategy Inventory for Language Learning (SILL), a 121-item, likert-scaled, a self-report survey of preferred language learning techniques, was distributed to both students and instructors. The findings reported that females showed a significant advantage for the following four sets of strategies:

1. General strategies that include previewing lessons, arranging the study environment, skimming the reading passage before reading in detail, and checking one's own performance.

2. Authentic language use that includes seeking native speakers with whom to talk, initiating conversations in the new language, reading authentic, natural texts, etc.

3. Searching for and communicating meaning, that include guessing when complete information is not available, using text markers to aid comprehension, finding alternative ways to express meaning.

4. Self-management strategies that include correcting own written errors, encouraging oneself, considering one's own progress, planning for future language tasks, and identifying goals.

Similarly, Green and Oxford (1995) found that students in three different course levels in the University of Puerto Rico at Mayaguez showed significant gender differences on the Strategy Inventory for Language Learning (SILL). Although only one strategy "watch TV or movies in English" was used significantly more often by men, fourteen were used significantly more often by women:

1. Use flashcards to remember new words.

2. Review English lessons often.

3. Connect words and location.

4. Skim and then read carefully.

5. Seek first language words similar to second language words.

6. Make summaries of information.

7. Use gestures when stuck for a word.

8. Try to find out about language learning.

9. Think about own progress in learning.

10. Give self a reward for doing well.

11. Notice oneself when tense or nervous.

12. Ask other person to slow down or repeat.

13. Ask to be corrected when talking.

14. Ask for help from English speakers.

Regarding the relationship between gender and strategy categories, results showed that females used the following strategy categories significantly more often than males: memory, meta-cognitive, affective and social. Furthermore, the findings indicated that females used more overall strategy than males. Thus, it is notable that women used strategies more than men and this confirms that gender can determine strategy use.

Furthermore, Kaylani (1996) reached the same results that female used more categories of strategies than males. She investigated the influence of gender on language learning strategies among 255 high school seniors in Jordan. Eight classrooms were used; each contains 26 to 36 students of which four were boys' classes and four were girls' classes. The instrument used in this study was an Arabic translation of the Strategy Inventory for Language Learning (SILL). The results indicated that female students used significantly more memory, cognitive, compensation, and affective strategies than male students. On the other hand, there were no significant differences in the use of meta-cognitive and social strategies between male and female students.

On the other hand, Peacock (2001) researched strategies uses among 140 Hong Kong City University students, 80 males and 60 females. Their average age was 20, ranging from 18 to 24. The 43 teachers who took part were all staff in the Department of English language. Data collected by using the recent version of 50-item Strategy Inventory for Language Learning (SILL). However, results reported something different where males showed a significant advantage for three strategies:

1. I use the English words I know in different ways.
2. I try to guess what the other person will say next in English.
3. I try to find as many ways as I can to use my English.

Another related issue concerns understanding leaning strategies clearly is discussed by Gurian et al. (2001) who co-founded the Gurian Educational Institute as an educational training organization. Its purpose is primarily to focus on providing teachers, administrators, parents and community members with crucial understanding of how the brain learns and how the male and female brains learn differently. Gurian et al. (2001)

classified male-female mind differences that may have influences on strategy use into five categories:

1. Developmental and structural differences

   In most aspects of brain development, females mature earlier than males of which the explanations are as follows:

   a) At the beginning of childhood, girls acquire their complex verbal skills a year earlier than boys. So, in the preschool girls read faster with large vocabulary and better grammar than boys. In general girls tend to have better verbal abilities while boys tend to rely heavily on non-verbal communication.

   b) At the end of childhood, girls' myelination that is responsible for allowing electrical impulses to travel down a nerve fast and efficiently is complete earlier than in young men.

   c) Brain development in infant proceeds from the right hemisphere to the left one. In females the movement to the left starts earlier than in males. On the other hand, men tend to have more development in certain areas of the right hemisphere, which can provide them with better spatial abilities.

   d) In females, the corpus callosum, the bundle of nerves that connects the right and left hemispheres is 20 percent larger than in males.

   e) The prefrontal lobes where sensory processing often occurs develop quicker in females than males. Consequently, females tend to do better than males at controlling impulsive behaviour.

2. Chemical differences

   The amount of most of the brain chemicals differs in males and females. "Serotonin" is secreted in males less than females making males impulsive and

fidgety. In addition, Oxytocin is more stimulated in females making them respond faster to other's pain and needs.

3. Hormonal differences

    Males and females differ in the degree of dominance of human hormones; "Estrogen" and "Progesterone" are female growth and bonding hormones. On the other hand, "Testosterone" is the male growth, sex-drive and aggression hormone. The interplay of hormones and the brain affects humans' mood and influences learning performance. When female "Estrogen" is high, girls score higher on tests than when it is low. Furthermore, when male "Testosterone" is high, boys score higher on spatial exams but worse on verbal tests. Male and female hormone levels vary; males' testosterone goes up much more than females; this makes males more aggressive compared to females.

4. Functional differences

    The new technologies that allow researchers to examine the function of living brains show that there are innate differences in male and female brain functioning such as the uses of brain cells and blood activity: males use the right hemisphere more while females use the left; Males move more emotive materials down to the brain stem while females move more of it upwards to the upper brain; The female's brain never rest, using its resources, doing so quickly in more places in the brain while male brain is not as activated in many places. The areas of greater functioning in females are memory and sensory intake. Males and females see, hear, and taste things differently; females are able to hear and see things better than males. Furthermore, their nose and palate are more sensitive. In addition, females' overall resistance to long-term discomfort is stronger than males although, they reach pain quickly. Regarding memory ability, females can store a greater quantity of random information for short

periods while males can store better than females for long periods if the information is important to them or organized in a coherent way. On the other hand the areas of greater functioning in males are in spatial tasks and abstract reasoning.

5. Differences in processing emotion

Brain based research shows that male and female brains differ in relation to emotive processing which is crucial to learning. Females process more emotive information than males since more of the activity moves up to the hemispheres that verbalize and reason over the crisis. On the other hand, male's emotive processing takes longer and involves less reasoning. Male's brain moves information towards the brain stem over a crisis that makes male physically aggressive or withdrawn. This lesser emotive ability makes males more emotionally fragile and this fragility may extend to their ability to learn.

2.3.2.3 Gender and Learning Styles

Gurian et al. (2001) discuss ten areas of learning styles differences between males and females based on brain-based research such as the following:

1. Deductive and inductive reasoning

Males favour deductive thinking as they begin their reasoning process from general to specific more quickly than females. On the other hand, females tend to favour inductive thinking as they begin from specific to general and they prefer to begin with concrete examples.

2. Abstract and concrete reasoning

Males can explore the abstract world better than females while females find it easier to refer to concrete physical things; although, there are many exceptions to all these rules.

3. Use of language

During the learning process, females often speak while they learn while males work silently. Furthermore, females prefer to use everyday language replete with concrete details while males prefer to communicate by using jargon and coded language.

4. Logic and evidence

Females tend to hear more of what is said. They feel safe with more instructional meaning. On the other hand, males tend to hear less and often ask for evidence to convince them.

5. The likelihood of boredom

During all aspects of education, males tend to get bored more easily than females and require varying stimulants to refresh them.

6. Use of space

Males tend to use up more physical space when they are learning compared to girls as they are learning in the way their spatial brains learn.

7. Movement

Males tend to move around while learning, in contrast, females need not move around, as this movement helps males to stimulate their brain and relieve impulsive behaviour.

8. Sensitivity and group dynamics

Learning through social interaction is effective with females. Males focus on performing the task without much sensitivity to the emotions of others around them. On the other hand, pecking orders (i.e. where the student fits in the group's social strata) is more important to males than females. Males become fragile learners when they feel they are worthless; while females are not as dependent on pecking order status for school performance as males. The cause of this

fragility for males when they are humiliated or disliked is their high level of stress hormones.

9. Use of symbolism

Males tend to prefer symbolic texts, diagrams and graphs while females prefer written texts and ponder the emotional workings of character.

10. Use of learning teams

In forming the learning teams, males tend to spend less time in creating structured ones while females tend to spend longer time in creating looser organization.

In conclusion, the new millennium is going to be the age of innovations as it reveals more about how the brain in general learns and how males and females learn differently. Therefore, understanding gender differences will open a number of doors to better education (Gurian et al., 2001).

2.3.3 Major Field of Study and Learning Strategies

Research shows that another factor rather than gender exerts influence on the learners' choice of strategies. The focus of this section will be on the influence of major field of study on strategy use. Most of the strategy research focuses on high school students or students majoring in English. Bedell & Oxford (1996) reviewed several studies that examined the learning strategies of students majoring in English and some other fields of study.

Dai (1989) proved that there is some significant relationship between the use of meta-cognitive strategies and major field of study. He investigated the meta-cognitive strategies of 60 Chinese graduate students at three US universities majoring in English

language and Engineering. The instrument used in collecting the data was a think-aloud reading task.

On the other hand, Huang (1984) conducted a study on 60 graduating English majors to assess their individual strategy use. Results reported that many students often used memorizing, keeping vocabulary lists and listening to radio in English.

Similarly, Adegbija (1990) investigated the language learning strategies of 35 Nigerian senior university English majors. The instruments used to collect data were open-ended surveys, interviews and observations. Results indicated that the most frequent strategies used were reading extensively, mixing with fluent speakers, listening to radio in English, watching TV, and referring constantly to the dictionary. The meta-cognitive strategies and the strategies associated with the writing skill were all rarely reported.

Furthermore, Touba (1992) investigated the learning strategies of 500 Egyptian university students majoring in English. The instrument used in collecting the data was an Arabic translation of the 50-item SILL, Version 7.0. Results indicated high use of meta-cognitive and memory strategies and low use of cognitive strategies.

On contrary, Mullins (1992) reported different results than those reported by the previous study; he conducted a study on the use of language learning strategies of 110 English majors at Chulalongkorn University, Thailand. The SILL 7.0 was used in collecting the data. Results reported high or near-high use of compensation, cognitive and meta-cognitive strategies, and a medium use of social, affective and memory strategies.

The conclusion drawn from studying learning strategies with different major fields of study is that students differ in their learning preferences based on major field of study. Students majoring in English used the following individual strategies at a high level: memorizing, keeping vocabulary lists and listening to radio in English, reading extensively, mixing with fluent speakers, watching TV. On the other hand, there was no consistency in the use of strategies at category level as some used memory and cognitive strategies most frequently, others used them least often.

2.3.4 Age in Language Learning

Do children learn in different ways to adults? This section examines one of the factors that received the most attention in second language acquisition (SLA) research. The age issue is an important one for theory building in SLA research, for educational policy-making and for language pedagogy. A number of studies that investigated age effect on second language acquisition demonstrated an adult advantage and some child advantage.

Taylor and Martlew (1992) present the differences between children's and adults' spelling strategies that have important implications for teaching practice. They are:

1. Children rely solely on phonetic spelling strategies that involve splitting words into constituent phonemes and searching for their invariant spelling correspondences. On the other hand, adults use other strategies such as visual ones to cope with the irregular nature of orthography.

2. Although both adults and children adopt phonetic spelling strategies, there are differences between the groups; adults use different phonological judgment from children when presented with the same task, such as, spelling short vowels for their long counterparts by children and so on.

Ellis (1994) summarizes the relationship of the learners' age with their English language performance by stating that the age issue has some common grounds such as the following:

1. Adults are superior to children in rate of learning, particularly in grammar.

2. Only learners who start as children can achieve a more native-like accent in informal learning contexts.

3. A native grammatical competence can be acquired by children later than acquiring pronunciation.

4. Children have an advantage over adults in reaching higher levels of attainment in pronunciation and grammar.

5. Age affects the process of acquiring pronunciation but it does not affect acquiring L2 grammar.

6. Social and interaction strategies are more important with young learners while meta-cognitive strategies are more important with adults.

Johnson and Newport (1995) present a study to supplement the findings that say there is an age related effect on learning the grammar of a second language. The subjects were 46 native Chinese and Korean speakers who varied in age from ages 3 to 39. They learned English as a second language. Subjects were tested on their knowledge of English syntax and morphology by being asked to judge the grammaticality of spoken English sentences of varying types. The results indicated that there is a clear and strong relationship between age of exposure to the English language and performance. Subjects who were exposed to English in earlier age obtained higher scores on the test than those who began later.

Tudor (1996) adds that younger learners may find some learning strategies difficult to handle or may not be prepared cognitively to use them while adults feel ease in using them. In general, there appears to be a strong relationship between age of learning English as a second or foreign language and performance.

2.3.5 Second or Foreign Language Performance Level

Learning strategies change as the knowledge of the second or foreign language develops and the choice of strategies reflects the general stage of second or foreign language development. Green and Oxford (1995) list the different ways used by researchers and teachers to gauge students' language performance such as:

1. Self-rating of proficiency.

2. Language proficiency and achievement tests.

3. Entrance and placement examinations.

4. Years of language study.

5. Career status reflecting expertise in language learning.

The following two ways in gauging students' language performance "years of language study" and "language proficiency and achievement tests" will be given the centre of attention.

2.3.5.1 Years of Language Study

O'Malley et al. (1985) conducted a study to identify the type and frequency of learning strategies used with the following different types of language learning activities: pronunciation, grammar, vocabulary, following directions, listening, making a brief presentation in class, social communication and functional communication. Data was collected through interviews and observations. The participants of the study were 70

beginner and intermediate ESL students. The data collected over a span of one month towards the end of the school year. The findings indicated that both beginner and intermediate students used an extensive variety of learning strategies. Furthermore, intermediate level students reported greater use of meta-cognitive strategies than beginner level students. In general, both beginner and intermediate level students used more cognitive than meta-cognitive strategies.

On examining the variation in the use of individual strategies in relation to students' level in the English language, O'Malley et al. (1985a) cited in O'Malley and Chamot (1990) conducted a study to discover the differences in strategy use between beginner level and intermediate/advanced level students. Results showed that students at higher levels reported more strategies than did beginner level students. Moreover, students at the beginner level of language study relied most on repetition, translation, and transfer, whereas, more advanced students relied most on inferencing. Furthermore, some cognitive strategies were reported less frequently by beginner level students such as rehearsal, grouping, substitution, imagery, elaboration and summarizing. The least frequent strategies used by both beginner and intermediate level students were social and affective ones.

Similarly, Green and Oxford (1995) focus on individual strategies as well as the use of strategy categories and overall strategy use. They examined the variation in the use of strategy and its relationship to student's achievement level. They conducted a study on a total of 374 students in three different course levels, Pre-basic, Basic, and Intermediate English at the University of Puerto Rico at Mayaguez. Students are placed in these three course levels according to their scores on the English as a second language achievement test. The test consists of two parts, the first part deals with grammar and the second part

is made up of reading passages with comprehension questions. The main instrument used was the SILL (50-item Version 7.5 for ESL/EFL). The results demonstrated significant relationship between strategy use and success in language learning. Regarding the use of strategy category and its relationship to proficiency level, the results indicated that the following individual strategies were used by more successful students:

1. Try to talk like native English speakers.

2. Practise sounds of English.

3. Use known words in different ways.

4. Start conversation in English.

5. Watch TV shows spoken in English.

6. Read for pleasure in English.

7. Write notes, letters and reports in English.

8. Try not to translate word-for word.

9. Read without looking up all new words.

10. Try to guess what other person will say.

11. Use circumlocutions or synonyms.

12. Look for people to talk in English.

13. Seek opportunities to read in English.

14. Have clear goals for improving skills.

15. Encourage oneself to speak when afraid.

16. Practise English with other students.

17. Ask questions in English.

On the other hand, the affective strategy "Notice when I am tense or nervous" was used more frequently by less successful students. Students take their emotional temperature

when studying English. They listen to signals given by the body that reflect stress, worry, fear and anger. Furthermore, results showed that the following individual strategies were used frequently at all course levels:

1. Associate new material with already known one.

2. Connect word sound with an image or picture.

3. Connect words to mental pictures of situations.

4. Connect words and locations.

5. Notice own mistakes and try to be better.

6. Try to find out about language learning.

7. Think about own progress in learning.

8. Ask other person to slow down or repeat.

9. Ask for help from English speakers.

Proficiency level had a significant effect on the use of cognitive, compensation, meta-cognitive and social categories as they all were used most by more successful students. Pre-basic students used compensation, meta-cognitive and social strategy categories significantly less often than Intermediate or Basic students, but there were no significant differences in the use of strategies between Intermediate and Basic students. Regarding the cognitive group, the Intermediate level students used this strategy group significantly followed by Basic students who in turn used these strategies significantly more often than the Pre-basic students. Finally, the findings indicated that there was no significant difference for overall strategy use between Basic and Intermediate courses, but there was a significant difference between each of these levels and the pre-basic level.

Grenfell and Harris (1999) classify the strategies used by beginners, intermediate and advanced-intermediate students. They conducted case studies on three language learners- Sophie, Jenny, and Ben. Think aloud technique was used in collecting information on strategy use. Learners were asked either to provide an oral commentary while undertaking a reading or speaking task in the target language, or to reflect retrospectively after carrying it out.

Sophie was at advanced-intermediate stage in her linguistic development. She developed limited range of learning strategies such as:

1. Monitoring.

2. Inferencing.

3. Making use of an established list of fillers and pre-packaged forms.

4. Social interaction.

Jenny was at an intermediate stage in her linguistic development. She developed a range of useful strategies for reading and writing such as:

1. Applying formal rules.

2. Visualization words while speaking.

3. Advanced inferencing strategies.

4. Advanced monitoring strategies.

5. Paying attention to detail.

Ben was a beginner learner; he developed the following learning strategies while undertaking reading and listening tasks in the target language:

1. "Look-cover-test-check" strategy in the vocabulary learning.

2. Repetition in the learning of phrases.

3. Guessing.

Jenny's approach in learning was different from both Sophie's and Ben's. Jenny used more complex strategies at least for the learning of grammatical rules and for monitoring. As Sophie was in the advanced stage, she was a proficient speaker and needed to monitor less. Ben's major feature of his approach was guessing. Grenfell and Harris (1999) conclude that differences in strategy use are determined by significant factors such as task and cognitive style as well as stage of learning and competence.

Overall, there was a variation in the use of strategies in relation to the students' level in the English language. Students at higher levels reported more and different strategies than did beginners level students.

2.3.5.2 Language Proficiency and Achievement Tests

Successful learners use different strategies than the less successful, either in the quality or quantity. However, Reiss (1983) cited in Kaylani (1996) stresses the differences between successful and unsuccessful learners in the quality of the strategies used. She states that successful learners employ strategies that are appropriate to their age, stage of learning and purpose of learning the language. Taylor (1975) conducted a study to investigate the relationship between the strategies of overgeneralization and transfer and the degree to which elementary and intermediate students of English as a second language rely on these strategies while learning English. The participants of the study were twenty native Spanish speakers who offered 1600 English sentences. Error analysis in the auxiliary and verb phrase indicated that overgeneralization and transfer errors were quantitatively different for elementary and intermediate language learners. The intermediate subjects made a higher proportion of errors attributed to

overgeneralization. On the other hand, the proportion of elementary errors was attributed to transfer from Spanish. The major conclusion from the study is that as proficiency increases, reliance on transfer decreases and reliance on overgeneralization increases.

Identifying strategies used by good language learners has a significant importance in language learning. It can help teachers and researchers to be aware of what is going on inside the good language learner and how do they think and process information. It will also tell what strategies and processes learners use to learn a language. Finally, identifying good language learners' strategies helps in training poor learners to enhance their success record. Rubin (1981) investigated the strategies used by good learners and listed them as follows:

1. A willing and a good guesser who uses all the clues the environment and the discourse may give him/her. Guessing relates to one's first language as much as to one's second language. Furthermore, guessing changes as one gets older; adults use different strategies in guessing than do children.

2. Has a strong motivation to communicate by using his/her knowledge to get the message across. Although learners may make mistakes in order to learn.

3. Attends to the form by analysing, categorizing, synthesizing constantly.

4. Willing to take advantage of using the language and practising.

5. Monitors his/her speech and the speech of others to learn from his/her and their own mistakes.

6. Focuses on meaning comprehension more than to structure acquisition.

7. Looks for ways to convey the language functions.

8. May develop a feeling for some features that best enhance intelligibility.

9. Looks for meaningful ways to memorize new words.

Furthermore, Kim (1983) proves that there are some differences in the use of learning strategies by successful and poor readers. He investigated the oral reading strategies of 40 second language learners in the Faculty of Social Sciences and Humanities, at the National University of Malaysia. Two groups were selected, proficient and poor readers. Students were required to read a passage which had been subjected to four treatment conditions by varying its graphic display and semantic information. The findings showed that proficient readers relied heavily on the graphic information in the text and they made more miscues when the graphic display was varied. On the other hand, poor readers were not affected by the graphic or semantic information rather they made a great number of miscues.

On the other hand, Pearson (1988) describes the effective strategies used by good language learners and those which are not used by poor learners. He conducted two interviews on site in South East Asia with two employees. The aim of the interviews was to confirm the findings of previous studies that say, successful language learners apply specific strategies to the task of learning. The results indicated that the first businessman Mr. J. who had been in Singapore for three and a half years reported his failure in improving his English language due to the lack of employment of several language learning strategies such as:

1. He did not speak English unless it was unavoidable.

2. He did not try to guess or work out meanings or general rules.

3. He was always frustrated because he did not understand everything.

4. He did not try to take risks in speaking English.

5. He avoided topics.

6. He rarely planned or practised what he wanted to say in English.

7. He did not try on his own to learn English.

8. He used gestures and local expressions for beginning and ending a conversation.

The interview with the second employee Mr. T, the oldest of the engineers, on the coastal site in Malaysia indicated that his success in acquiring Indonesian as a second language was due to his extensive use of many of the language learning strategies such as:

1. He had a desire to learn and seized every opportunity to communicate with native speakers.
2. He repeated each word several times for memorization.
3. He took risks.
4. He listened to conversations and tried to create sentences and finding general rules.
5. He used guesses followed by checking for clarification.
6. He practised the language.
7. He used gestures, paraphrasing, simplification and synonyms.
8. He always tries to improve his target language.
9. He monitored his production errors which he then tried to correct.
10. He did not suffer any symptoms of culture shock.

Thus, this study confirms the findings which indicate that there is a strong relationship between the use of learning strategies and proficiency level as successful language learners make extensive use of many of the strategies.

Whereas, Rubin (1981) described the strategies used by good language learners in general, Porte (1988) investigated the strategies of poor language learners in dealing with new vocabulary. Structured interviews were used with fifteen adolescent EFL

learners studying at private language schools in London. The analysis of the structured interviews identified several strategies such as the use of repetition in vocabulary learning, the writing out of translation equivalents in order to aid learning and the use of dictionaries to discover meaning. Studies of the good language learner showed that the above strategies used by poor learners were very similar to those of successful learners. The only difference was that, the weak learners demonstrate less sophistication and a less suitable response to a particular activity.

Finally, Embi (1999) investigated the types of language learning strategies used by Malaysian secondary school students learning English, Arabic, and Bahasa Malaysia (BM) and the relationship between language learning strategies and success in language learning. The subjects of the study were 400 Form Four students from three secondary schools in Selangor. The instrument for this study was the Strategy Questionnaire that consisted of 87 items divided into three main parts: classroom Language Learning Strategies, Out-of-class Language Learning Strategies and Exam Language Learning Strategies. Three different levels of analysis were undertaken to determine variation in the use of overall strategy use, and strategy categories as well as individual strategies. The results showed significant relationship between the overall reported strategy use for English and Arabic learning and language performance. On the other hand, there was no significant relationship between the overall reported strategy use for Bahasa Malaysia learning and language performance. Regarding the three strategy categories used in the Strategy Questionnaire, the findings showed that the classroom language learning strategies varied significantly by language performance only with Arabic learning but not with English and Bahasa Malaysia learning. On the other hand, the Out-of-class language learning strategies and Exam language learning strategies varied significantly by language performance for English and Arabic learning but not for Bahasa Malaysia

learning. Regarding the relationship between language performance and the use of each individual strategy, the findings showed that nearly a quarter of the strategy questionnaire items varied significantly by language performance. Furthermore, the most common individual strategies used by the subjects included strategies from the social, meta-cognitive, affective, memory and examination categories.

Mingyuan (2000) investigated the language learning strategies used by the pre-matriculation Chinese students participating in a six month intensive English programme. The purpose of the study was to examine the relationship between the use of learning strategies and English proficiency. The participants were 18 years old on average. They were from the People's Republic of China and chosen to study in Singapore. Strategy Inventory for Language Learning (SILL) was used as an instrument to collect data. This Inventory was developed by Oxford (1986). A proficiency test was used to determine students' proficiency in terms of vocabulary, grammar, composition and oral communication.

The findings showed that there was a strong relationship between the use of language learning strategies and language proficiency. The more students used all the strategies, the more progress they made in their language proficiency. Moreover, the findings indicated that the use of different strategies might lead to an improvement in different areas of language development. Results reported that the more the students used memory and affective strategies, the more progress they made in writing compositions. Additional findings reported that the more students used cognitive strategies, the more progress they made in their proficiency in overall English. This is due to the concern of this type of strategy to the direct activities that promote learning; the strategy represents what students actually do in oral communication.

In general, this section discusses some of the major issues that need to be addressed in describing the factors that influence the choice of learning strategies such as context, gender, major field of study, age and English language performance level. The next section will deal with the role of learning strategies in the second or foreign language acquisition.

2.4 The Role of Learning Strategies in the Language Acquisition Process

There are two opposing views regarding the importance of cognitive strategies in second language acquisition. Some views suggest that language is learned separately from cognitive skills. The best known proponent of this view is Krashen (1982). In the Monitor Model, Krashen denies the importance of cognition in second language acquisition as he differentiates between "learning" and "acquisition". According to him, learning is a formal, conscious process that functions as a monitor or editor. This does not lead to real language proficiency or acquisition and it may slow the processes that occur automatically. On the other hand, acquisition is subconscious. It is responsible for our fluency. It occurs without awareness when the input is comprehensive. The two processes "learning" and "acquisition" are entirely independent of one another. However, we will shortly see the controversy surrounding this claim.

Other views support the role of cognition in second language acquisition. Schmidt (1986) cited in Ellis (1994) offers the terms "attention" and "intention" to refer to "conscious learning" and he distinguishes between two types of learning- intentional and incidental. The intentional learning involves the conscious decision to learn the second language and incidental learning occurs when the learner picks up the second

language through exposure. Based on his experience on acquiring Portuguese, Schmidt (1986) argues that in both cases learning involves some degree of conscious attention to the second language although there is no intention to learn. Consequently, learning cannot take place without conscious attention in the process of second language acquisition.

Similarly, Jones (1988:237) defines learning strategies from a cognitive perspective, as she says "learning strategies are the various mental operations that the learner uses to facilitate learning". On the other hand, Mayer (1988) does not distinguish learning strategies from other cognitive processes, as he focuses on describing how information is stored and retrieved, not on how learning can be enhanced. Mayer states that the information processing framework explains how the information is stored and acquired in three memory stores: sensory memory, short term memory and long term memory. Furthermore, Mayer points out that those learning strategies are intentional as the learners can control their own learning by applying techniques for selecting information, building internal and external connections.

Garner (1988) points out an important feature of any strategy as he says that strategies are not accidental, they are largely under the control of the learner, they are generally deliberate, planned, and consciously engaged in activities. O'Malley and Chamot (1990:1) stress the active nature of mental processes in the language acquisition process; they state that "language is a complex cognitive skill that can be described within the context of cognitive theory". Furthermore, O'Malley and Chamot (1990) present four advantages in viewing second language acquisition as a cognitive skill such as:

1. This approach can provide a comprehensive and well-specified theoretical framework when applying relevant theories developed in other disciplines to the study of second language acquisition.

2. When applying relevant models developed in other disciplines to the study of language acquisition, the level of specificity and the process orientation of the models help provide a more detailed process view of second language acquisition than is provided by most current models of second language learning.

3. Viewing language acquisition as a cognitive skill can provide a detailed process view of second language acquisition.

4. This approach helps in the development and use of learning strategies in second language instruction.

Finally, O'Malley and Chamot (1990) summarize the distinction between Krashen's linguistic theory and cognitive theory in two points:

1. Krashen considers acquisition as a subconscious process while cognitive theory views acquisition as an active conscious process at least in the initial stages of learning. According to the cognitive view, beginning and intermediate second language (L2) learners are conscious about the strategies used inside and outside the classroom.

2. According to the cognitive theory, Krashen's acquisition/learning distinction is unnecessary as different language skills can be acquired at different levels, so the unconscious acquisition can depend on the level of the skill and not on the formal settings.

2.5 The Teaching of Learning Strategies

Once strategies used by second or foreign language learners have been identified, described and classified, the question arises of whether strategies training can assist learning, what strategies should be taught, and what instructional approach can teach learning strategies: the separate versus integrated instruction or direct versus embedded instruction.

There is a widespread agreement in the literature about the importance of implementing a learner training programme to enhance the effectiveness and use of strategies by the independent learner. Oxford (1990:201) states "research shows us that learners who receive strategy training generally learn better than those who do not, and that certain techniques for such training are more beneficial than others."

Wittrock (1988) documents the historical development of the teaching of learning strategies; he says that traditionally, the teaching of learning strategies refers to the ancient Greece and Rome, where learning how to remember information was an important part of higher education. But there has been little or no evidence of success. The current revival of interest in studying learning strategies is based on the growing understanding of how people learn (Mayer, 1988).

With regard to the teaching of learning strategies, the major goal of any educational system is to train students to process information and enhance their thinking abilities. Wittrock (1988:296) states that all people can be educated by following a strategy that " goes beyond the design of instructional materials to include changing the behaviour of learners by giving them new strategies, and new ways to think about learning and knowledge acquisition." Oxford (1990) adds that the scope of strategy training can

cover many aspects of language learning such as the kinds of language functions, individual and group work in language learning, learning versus acquisition, accuracy versus fluency, fear of mistakes and the ways of language learning versus the ways of learning other subjects.

This following section of the chapter will focus on a number of issues related to actual implementation of learning strategy instruction and how to influence the manner in which students deal with new information. Nisbet and Shucksmith (1986) suggest that a learning strategy's training programme has two main functions. First, it teaches super-ordinate skills or strategies that help learners integrate transfer from task to task. Second, it develops a degree of self awareness and self monitoring of learning performance in the learner. Jones (1988) points out an important set of discoveries regarding training. It involves the following:

1. Experimental studies show that there are four levels of strategy training:
    a) General instruction for strategy use.
    b) Guidelines for strategy application to the text.
    c) Structure of text information.
    d) Instruction for strategy application.
2. Training that provides explicit strategy instruction has a powerful impact on learning.
3. The poor students with limited competence need extended instruction.

Brown (1994) suggests four different approaches for teaching strategies in the language classroom. They are:

1. Interactive techniques

Brown presents various techniques to encourage students to develop their own strategies such as, to lower inhibitions, to encourage risk-taking, to build students' self confidence, to help students to develop intrinsic motivation, to promote cooperative learning, to encourage students to use right-brain processing, to promote ambiguity tolerance, to help students use their intuition, to get students to make their mistakes work for them, and finally, to get students to set their own goals.

2. Compensatory techniques

    This type of strategy training focuses on the identification of specific techniques that aim to compensate for certain style weaknesses. Brown prescribes using certain techniques to overcome some cognitive style problems such as: to low tolerance of ambiguity, to excessive impulsiveness, to excessive reflectiveness/caution, not to be too much field dependence, and finally not to be too much field independence.

3. Administer a strategy inventory

    Many instruments can be used in class or out-of-class for developing awareness of strategies such as self check list or formal style test and the best is Rebecca Oxford's Strategy Inventory for Language Learning (See Appendix A).

4. Impromptu teacher-initiated advice

    Students can benefit greatly from the teachers insights about their own language learning experiences and from the training they receive on how to learn.

Oxford (1990) on the other hand, provides three different ways for strategy training:

1. Awareness training

    This step is very important as students will be introduced to the concept of learning strategies. They will develop awareness on the general idea of language

learning strategies and the ways of using such strategies to accomplish various language tasks in a fun way.

2. One-Time strategy training

In this type of training, participants engage in practising one or more strategies with actual language tasks. The training usually takes place in one or a few sessions.

3. Long-Term strategy training

This type of training is more effective than the One-Time training as Long-Term strategy training lasts for a longer time and covers a greater number of strategies. However, both types of training focus on helping the participants practise strategies with actual language tasks.

Oxford (1990) presents an eight step model for strategy training:

1. Determine the learners' needs and the time available

Are the learners children? Adolescents? Graduate students? Adults? Are they intermediate language students? Beginners? Advanced? The next step is to consider the strategies preferred by the learners and the time available for strategy training.

2. Select strategies well

Choose strategies that are important for the students and satisfy their needs. Furthermore, the selected strategies should be transferable to a variety of language situations and tasks.

3. Consider integration of strategy training

Integrating strategy training with the tasks and materials used in the regular language teaching programme is very efficient. The meaningful context helps in remembering the strategies.

4. Consider motivational issues

   It is important to increase motivation through giving grades, or credits for attainment of new strategies. Also, students can be highly motivated by asking them to choose the strategies or the tasks they will use in language learning. Finally, being sensitive to learners' original strategy preferences and introduce new strategies gently and gradually can increase motivation highly.

5. Prepare materials and activities

   The teacher should develop some hand-outs that focus on the way of using the strategies and the suitable time for using them. Also, developing some strategy handbooks by either students or teachers can be very helpful and interesting to the learners.

6. Conduct completely informed training

   This step is the best and the most effective training technique. In this stage students are informed as completely as possible about the value of the strategies used, the ways of using the strategies in several language tasks and how to transfer strategies from task to task. Finally, learners can be informed on how to evaluate the success of the strategies used.

7. Evaluate the strategy training

   This step indicates that observations during and after the training are useful for evaluating the success of strategy training. Moreover, self assessments can help in practising self-monitoring and self-evaluating strategies

8. Revise the strategy training

   The last step in strategy training is the revisions of each step in the cycle of strategy training that has just occurred. This step helps in the improvement of strategy training.

Grenfell and Harris (1999) present a framework of steps in the teaching of learning strategies. The steps can be applied to a range of strategies and cover the following areas:

1. Reading strategies.

2. Listening strategies.

3. Memorization strategies.

4. Strategies for checking written work.

5. Communication strategies.

Grenfell and Harris'(1999) steps used in the teaching of learning strategies are:

1. Consciousness raising

   The purpose of this step is to encourage learners to reflect on the learning process and share the strategies they use in a class brainstorm. The teacher brainstorms with the learner and collects the ideas on the board in the form of a checklist.

2. Modelling

   In this step, the teacher may need to model some strategies that are less familiar to students.

3. General practice

   Learners in this step need allocated classroom time to become familiar with the strategies. Therefore, they need some explicit reminders to use the learning strategies alongside a number of tasks to promote them.

4. Action planning, goal setting and monitoring

   In this step, learners are encouraged to draw up their own individual action plan by identifying their own targets, the particular strategies that help to achieve them and the means by which they will measure success.

5. Focused practice and fading out the reminders

   In this step, students reach a stage where they can use the strategies they have previously identified without explicit directions.

6. Evaluating strategy acquisition and recommencing the cycle

   Here, the teacher establishes whether the strategies have been internalized and can be deployed effectively by the learners.

Brown (1994) classifies the packaged models of learning strategy training into three types. The first one is textbook-embedded training. In this type, the content of the ESL textbooks itself is the utilization of learning strategies. The second type is adjunct self-help guides. In this type, strategy training can be practised through the assignment or recommendation of a self-help guide. The third type is the learning centres that provide a number of possible types of extra-class assistance which improve the strategic competence in language learning. Sometimes learners are trained to use the effective strategies but they fail to use them due to several factors:

1. Learners' perceptions of strategy attributes, for example, if a student believes that certain strategies may take extra time but he/she is not willing to spend extra time.

2. Students' perceptions of their own achievement attributes; for example, the student who believes that in order to use a strategy, he/she should be smart but he/she sees himself/herself as a poor student with limited competence.

3. The match between learners and strategy attributes. For example, if a student believes that a certain strategy requires a prior knowledge and he/she does not have that background knowledge, he/she will not use the strategy.

4. Perceived efficacy of learning strategies for obtaining a learning outcome.

(Palmer and Goetz, 1988)

Mayer (1988) suggests that two research issues have been hotly debated and should be addressed for proper implementation of learning strategy programmes in schools:

1. Providing techniques for describing and evaluating learning strategies, including techniques for describing the cognitive processes and outcomes of learning.

2. Providing separate general learning strategies, or integrated specific strategies within the context of subject matter.

O'Malley and Chamot (1990) are in favour of the direct integrated strategy instruction programmes. They argue that direct integration can demonstrate to learners the specific application of the strategies and can facilitate the transfer of strategies to similar tasks. As a result, students will be assisted toward autonomous use of strategies.

There are several studies which indicate that strategy training is effective in improving the performance of students on a wide range of tasks and skills. O'Malley et al. (1988) described a training study in order to evaluate the effectiveness of strategy training among ESL intermediate level students, for vocabulary learning, listening comprehension and academic speaking tasks. Findings indicated that students could be taught to apply learning strategies to a variety of language tasks and link certain strategies to specific tasks. In addition, results suggested that the selection and use of strategies were based on ethnic background.

 Wittrock (1988) conducted a research on the teaching of learning strategies to soldiers who failed reading comprehension tests. The purpose of teaching was to help soldiers learn how to read better at the army research institute. The beginning was to lay learning strategies on the students, then giving meta-cognitive strategies such as a strategy for building inferences, and a strategy for writing summaries. The results indicated that

there was a significant increase in reading comprehension and the processes of, attention, motivation and comprehension.

In summary, this chapter presents a review of relevant literature that provides the foundation of the present study. It first provides a general overview of the concept of language learning strategies, covering most of the earlier and current attempts to classify strategies. It demonstrates the strategies used to develop the students' four language skills, listening, speaking, reading and writing. Next, it discusses some of the major issues that need to be addressed in describing the factors that influence the choice of learning strategies. It reviews some issues related to the role of learning strategies in the language acquisition process and the possibility of teaching the learning strategies. The chapter ends in providing useful models and techniques for incorporating strategy training.

The next chapter will build upon the review presented and describes a study conducted by the researcher. The purposes of the study are to identify the strategies used by female EFL undergraduates and to examine the influence of a range of variables such as major field of study and performance level on the choice of language learning strategies. Finally, the study will identify some of the strategies that are associated with the language skills, listening, speaking, reading and writing. The findings would provide information that enhances students' awareness of their learning strategy preferences and help teachers incorporate strategy training that enhances students' progress in language learning.