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such explicit explanations have activities with the aim of teaching learning strategies indirectly, in which case teachers are expected to explain and model the strategies. The benefit of metacognitive strategies, however, is that it helps students manage and supervise their own use of strategies. In other words, the students' thinking is guided in following a wise course of action as he or she has to cope with new situations. Thus, students who are metacognitively well-developed can match strategies to the required learning task, making adjustments when necessary, and are confident that they can learn, viewing themselves as continual learners and thinkers.

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Brown, A., Bransford, J., Ferrara, R., & Campione, J. (1983). Learning, Remembering, And Understanding. In P.H. Mussen the learning goal or not and, hence, to alternate the strategies for a better result.

'Evaluating strategy use and learning' is an ongoing process which occurs at the same time as all the other metacognitive strategies being used. Therefore, the whole process of preparing and planning, selecting and using, monitoring, and organizing strategies are evaluated from beginning to end.

Of course, it must be noted that none of the aforementioned strategies necessarily follow each other in a linear fashion. That is, more than one process may be occurring during a learning task (Anderson, 2002). According to Anderson (2002): "Allowing learners opportunities to think about how they combine various strategies facilitates the improvement of strategy use."

### Conclusion

In the last three decades or so, it has repeatedly been shown that students can benefit from a greater awareness of the cognitive process involved in learning. Furthermore, many of the textbooks designed for teaching general English now give explicit explanations about the application of different strategies and their benefits, and textbooks that do not have

'Preparing and planning for learning' obligates learners to think about 'what' they wish to accomplish and 'how' they must go about accomplishing their objective. If learners are guided in understanding the objective of their learning task, they will try to find ways of accomplishing whatever goal that activity entails.

'Selecting and using learning strategies' requires familiarity with a variety of strategies based on the students' metacognitive knowledge. In other words, familiarity with strategic knowledge, cognitive task knowledge, and self-knowledge is required.

In 'monitoring strategy use', students should try not to wonder from the objective of their learning goal. Thus, they are required to check and control to see whether the strategies that they are using are helping them in achieving their goal or not.

'Orchestrating various strategies' requires the ability to coordinate, organize, and make associations among various skills. Thus, the difference between orchestrating strategies and selecting strategies is that in the latter, the language learner is required to identify the suitable strategy required for fullfilling the learning goal, but in the former, the learner has to identify whether the strategies being used are helping in accomplishing

'Self-knowledge', on the other hand, refers to knowledge of one's own strengths and weaknesses. For example, if the student can understand that he is being overrelient on a particular strategy when there may be other more adaptive strategies, this could lead to the possible change of strategy use. As expressed by Pintrich (2002), "Students who know their own strengths and weaknesses can adjust their own cognition and thinking to be more adaptive to diverse tasks and, thus, facilitate learning."

# **Metacognitive Strategies:**

Metacognitive strategies are strategies used for monitoring and regulating cognition, and as mentioned earlier when students learn to monitor and control their learning, their learning is enhanced. Thus, it is worth noting Anderson's (2002) classification of these strategies, which is very similar to the classification made by Chamot and O'Malley (1994). Anderson (2002) has divided these strategies into five components: (1) preparing and planning for learning, (2) selecting and using learning strategies, (3) monitoring strategy use, (4) orchestrating various strategies, and (5) evaluating strategy use and learning.

'Strategic knowledge' consists of general strategies for thinking and problem solving and it may apply to most academic disciplines or subject matter domains. It includes knowledge of various strategies used by students to memorize, extract meaning from text, and comprehend what is heard in classrooms or read in course materials. This knowledge can be considered in three general categories, i.e., rehearsal, elaboration, and organizational strategies (Weinstein & Mayer, 1986). Rehearsal strategies consist of repetition for the purpose of memorization; elaboration strategies comprise the use of various mnemonics for memorization, summarizing, paraphrasing and identification of main ideas in texts, and organizational strategies consist of strategies which help students make connections between content elements such as various forms of outlining, concept mapping, and notetaking.

'Knowledge about cognitive tasks' refers to knowledge about the level of difficulty of different tasks and the ability to distinguish that different cognitive strategies may be required. "Because not all strategies are appropriate for all situations, the learner must develop some knowledge of the different conditions and tasks where the different strategies are used most appropriately" (Pintrich, 2002).

or figuring out what they need to do." In other words, he believes that one of the most essential skills that classroom teachers can help language learners develop is the understanding and controlling of cognitive processes: "Rather than focus students' attention solely on learning the language, second language teachers can help students learn to think about what happens during the language learning process which will lead them to develop stronger learning skills" (Anderson, 2002).

## Metacognitive Knowledge:

As stated by Pintrich (2002), despite the many definitions and models of metacognition, there is an important distinction between "(a) knowledge of cognition and (b) the process involving the monitoring, control, and regulation of cognition (e.g. Bransford et al., 1999; Brown, Bransford, Ferrara, & Campione, 1983; Flavell, 1979; Paris & Winograd, 1990; Pintrich, Wolters & Baxter, 2000; Schneider & Pressley, (1997)." Thus, by considering Flavell's (1979) classic article on metacognition, Pintrich

(2002) classifies metacognitive knowledge as (1) strategic knowledge,

(2) knowledge about cognitive tasks, and (3) self-knowledge.

strategies, which facilitate interaction with othersoften in a discourse situation (Oxford, 1990). These six main types of strategies were further divided into 19 strategy groups and 62 subsets. Thus, Oxford's (1990) model was the most comprehensive and theoretically well-conceived taxonomy of language learning strategies. However, for reasons of practicality, other researchers still continued to search for other models which could be easier for the learners to use.

As can be noticed from the aforementioned classifications, which were just touched upon for the purpose of exemplification, learning strategies have been under consideration and subject to research for several decades, and metacognition has always been an integral part of learning strategies. Its advantage over the other learning strategies is that students who are aware of these strategies are equipped with knowledge and control over their thinking and learning activities.

# Metacognitive Knowledge And Metacognitive Strategies

According to Anderson (2002) metacognition is defined simply as "thinking about thinking". He believes, "learners who are metacognitively aware know what to do when they don't know what to do; ...... they have strategies for finding out

comprehension monitoring strategies, and (8) affective and motivational strategies. Rubin (1987) proposed three types of language learner strategies, i.e., learning strategies, communication strategies, and social strategies, which were all further broken down to help the learner.

Then Oxford (1990) presented a new set of classifications of language acquisition strategies, which focused on the importance of communicative competence. She distinguished between direct language learning strategies and indirect language learning strategies. Thus, she outlined the direct language learning strategies as memory strategies, which aid in entering information into long-term memory and retrieving information when needed for communication; cognitive strategies, which are used for forming and revising internal mental models and receiving and producing messages in the target language; compensation strategies, which are needed to overcome any gaps in knowledge of language. Her categorization of indirect language learning strategies also consisted of three types: metacognitive strategies, which help learners exercise 'executive control' through planning, arranging, focusing, and evaluating their own learning; affective strategies, which enable learners to control feelings, motivations, and attitudes related to language learning; social

and regulating each phase in the information-processing system. Hence, learning strategies, on the basis of the three types of knowledge identified by cognitive psychologists, i.e., declarative, procedural, and conditional knowledge, have been divided into cognitive strategies and metacognitive strategies. strategies comprise declarative and procedural Cognitive knowledge, and they help assimilate information into long-term Whereas, metacognitive strategies comprise memory. conditional knowledge and imply the decision to select and use specific procedures, rules, and principles. Therefore, according to this specification, learning strategies help learners attend to facts of a particular category, encode new information, retrieve knowledge from their long-term memory and implement problem-solving skills (Gagne, 1977).

There are, of course, other classifications of learning strategies. For example, O'Malley (1985) divided learning strategies into three main categories: (1) metacognitive strategies, (2) cognitive strategies, and (3) socioaffective strategies. Weinstein and Mayer (1986) categorized strategies into eight types: (1) basic rehearsal strategies, (2) complex rehearsal strategies, (3) basic elaboration strategies, (4) complex elaboration strategies, (5) basic organizational strategies, (6) complex organizational strategies, (7)

styles depend on certain elements such as 'brain dominance' (e.g. left brain, right brain, or bilateral brain dominance), 'sensory preference' (e.g. visual, auditory, or tactile preference), 'personality type' (e.g. introvert vs extrovert, sensing vs intuitive, thinking vs feeling, judging vs perceiving personality type), and 'learning type' (e.g. meaning-oriented, theory-oriented, solution-oriented, or activity-oriented learning type).

Thus, it appears that although learning strategies are distinct from learning styles, it is in fact the language learner's learning style that determines the choice of strategy.

## A General Overview Of Learning Strategies

The importance of learning strategies was confirmed by the development of cognitive psychology. Cognitive psychology deals with the study of the nature and learning of systems of knowledge, particularly those processes involved in thought, perception, comprehension, memory and learning. Thus, when we speak of learning strategies, we are moving into the realm of information-processing theory, which was proposed by cognitive psychologists.

According to Gagne (1997), learning strategies assist in acquiring different types of knowledge as well as in modifying

other words, help the learner *learn how to learn*. Thus, in order to achieve the above mentioned objective, this article begins by distinguishing between 'learning styles' and 'learning strategies'; then there is a general overview of learning strategies, and finally, the significant role of metacognitive knowledge and metacognitive strategies in language learning is dicussed.

## **Learning Strategies And Learning Styles**

According to Oxford (1992/1993) language learning strategies refer to specific actions, behaviours, steps, or techniques that students use, often intentionally, to improve their learning. Using these language learning strategies can facilitate internalization, storage, retrieval, or use of the new language (Oxford, 1992/1993). Some examples of learning strategies are inferencing, breaking a sentence or word down into parts to understand the meaning, paying selective attention, outlining, paraphrasing, circumlocution, repetition, note-taking, translation, summarizing, and the list continues.

Learning styles, on the other hand, refer more broadly to a learner's "natural, habitual, and preferred way(s) of absorbing, processing, and retaining new information and skills" (Reid, 1995). According to Johnston and Orwig (1999) learning

## **Learning To Learn**

#### Marjaneh Khayer\*

#### Abstract

Research has shown that all students can benefit from instruction in learning strategies regardless of the field of education (Danserea, 1985; Weinstein et al., 1997; Kuiper, 2002). Also, within the field of language, it has been shown that language learning strategies have a significant role in making language learning more efficient and in producing a positive effect on the learners' language use (Wenden and Rubin, 1987; O'Malley and Chamot, 1990; Chamot and O'Malley, 1994; Oxford, 1996; Cohen, 1990). Accordingly, many researchers have tried to present a comprehensible classification or model for strategy training, and "many language textbooks have begun to embed strategies into their curricula" (Cohen, 1998 ). The aim of this article, however, is not to investigate or advocate any specific model of strategy training, but rather to highlight the significance of metacognitive strategies as language learning strategies which help the language learner become more independent, or in

<sup>\*</sup> Azad University, Tehran North Branch