Journal of History Culture and Art Research (ISSN: 2147-0626)

Special Issue

Tarih Kültür ve Sanat Araştırmaları Dergisi Revue des Recherches en Histoire Culture et Art مجلة البحوث التاريخية والثقافية والفنية

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DOI: 10.7596/taksad.v6i1.741

Citation: Sadri, S., & Firouzi, J. (2017). The Impact of Cognition on Memorizing Words in Learners of English Foreign Language. Journal of History Culture and Art Research, 6(1), 267-280. doi:http://dx.doi.org/10.7596/taksad.v6i1.741

The Impact of Cognition on Memorizing Words in Learners of English as a Foreign Language

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Abstract

In today's world, English language proficiency is necessary for access to new scientific findings in different fields. It is worth mentioning that more utilization of memorizing words in the process of English language learning help English teachers in facilitating language teaching. During English language learning and memorizing of words, the factor of recognition is more important than talent so, this paper aims to investigate the effect of perception on the memorizing words in English language learners. This study performed by descriptive-analysis method. Results showed that learning and use of self-regulated strategies help learners in two "result-based" and "process-based" orientations during writing in foreign language. We can say that knowledge about the kind of relation between the motivational believes and language learning strategies is important.

Keywords: Learning, Metacognition, Learning strategy, Motivation.

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1. Introduction

Regarding learning and teaching of foreign language, recognition of learning processes is one of the important educational issues which help learners in understanding of positive and negative cases in foreign language learning and by use it can get positive results in language learning. Some studies show that one of disappointing issues for language learners is the friction between teaching and learning strategies and lack of use of key and effective strategies for foreign language learning. One major reason is that language teaching gradually has entered student-based field, and attention to the motivation, intrinsic and extrinsic motivation, needs, interests, and language learners' characteristics has a significant role in success of an educational program. Self-regulation is also an important psychological program which helps learners in recognition of learning processes.

Generally, during English language learning and memorizing of words, the factor of recognition is more important than talent. According to theories of so many researchers, recognition is very important for memorizing new word. Knowledge about use of words in foreign language learning is very significant. Information obtained for language learners indicate so many effects on their performance during testing (Pishghadam, 2008).

So, this paper aims to introduce and classify the language learning strategies and then discuss about the necessity of use of them in teaching foreign and especially English language. In the field of English language teaching, needs of learners, learning styles and strategies have been ignored to large extent, which in this regard the gap between teaching and compile of books can be decreased by discovering of governing learning strategies and effective strategies teaching for learning language skills.

1.1. The Concept of Metacognitive Learning

Desire for knowing and understanding is one of human inseparable characters. So, human mind has always been engaged with so many questions. There are some main questions such as what a person knows about learning, and the extent and how he knows about his status. Such questions conduct us toward the metacognition concept. This concept which its definition goes back to the 70s is known by name of John H. Flabeg in literature review, but like so many humanitarian concepts there is no single definition about that.

According to Flabeg (1976, nine citations from Hennessey 1999, page 5), metacognition is knowledge of a person about his cognition processes and their results or everything related to them. It also refers to active observance on these processes and as the result coordinating it

with related cognitive data or objects. He also (1985) offered the following general definition about metacognition: "knowledge or cognitive activity having subject of every aspect of cognitive efforts or try to develop it".

One of concepts that Mackrindel and Christancen (1995) supposed has affected the metacognition is the learning conception. By the learning conception which was introduced and categorized by Slive (1979), we mean the personal and mental imaginations of person about learning which are placed in different levels from the aspects of depth and quality. In another words, it means the same special and personal definitions each person has about learning in his mind. Slive categorized learning in five categories using phenomenography.

After introduction of metacognition concept in mid of 1970 decade, this concept and its relation with learning, success and educational achievement has been in focus. According to Slavin (1991), educational physiologists, during several past decades, have paid attention to the education and use of special learning strategies (based on studies related to metacognition) to students (Stevens, 1991). Lefrankova (1997) has stated the most important existing share of cognitive psychology in the educational psychology is the new focus on learning about how to learn. The study performed by Amali and et al (1985) on students is one of such studies. Amali reported that language learners use the metacognition skills, including programming, self-review and self-evaluation, in order to facilitate their English language learning (Wang, 1990).

1.2. Role of Word Etymology in Language Learning

Some people regard reading so many texts as one of effective ways of learning vocabularies and became skilled in concept comprehension (Ryder and Graves). But another group believes repeated exposure of learners to vocabularies, until stick in mind of vocabularies, is the proper method of learning, while cognitive psychologists believe that rate of exposure to vocabularies is not important and the depth of this exposure is the matter. Lin (1993), Ryder and Graves (1994) know the conjugational analysis as one of ways of vocabulary learning. They discuss about way of reading textbook and how a list of common roots and affixes should be prepared for students in addition to the teaching of key words of a text to them to improve their vocabularies.

Freid (1985) stated that learning of English vocabularies and their use would be easy and pleasurable if a language learner can understand the structure of so many English words which this work is based on learning roots and affixes (Anglin, 1993). Inflection and

derivation are two basic and wide categories in the word-formation process. In conjugation, word is made in a way corresponding with grammar rules, for example addition of "s" to the simple present and third person singular verbs in which the "s" is a grammatically necessary conjugation. Derivation is the process of forming a new word on the basis of an existing word, in such a way that there is relation between them from the aspect of word and meaning. Within this process, we use "affixes". For example the suffix of –ion changes verb into noun, or suffix –dis in the beginning of a word give it a contrasting meaning. So, derivation lead to the meaning and structural evolutions in a word (O'Grady 1997).

In recent years, attention to the etymology and conjugation, especially from the aspect of derivation, has increased. Understanding of derivational morphology is an important factor for development of writing and speaking during school period and after that (Windsor, 1999).

Meaningful approach toward etymology for learning second language for intermediate and advanced students can lead to the understanding of practical and theoretical linguistics for memorizing and saving vocabularies and their meaning. Etymology of English language, besides learning grammar and phonetics, should be included in course of English language learners. Rubenstein stated that one of strategies which help students with better learning of language is etymology. When a teacher is familiar with the etymology of words and idioms, he can use this knowledge for introduction of new words. Knowing about the root of a word can facilitates understanding a word meaning and concept (Rubenstein, 2001).

Etymology includes data about how a word, statement or concept is created and their structure. These data included four parts:

- 1. Etma and cognates in loan translation (calaque), for example the Latin word of Omnipotent which in English is almighty (all=omni, mighty=potents)
- 2. Analysis of word parts from the aspect of their structure. For example: spirit, spiration and conspire which are from the root of Spir which means breath,

Prevent and invent from the root of come=vent with prefixes of -pre and -in

Distract and attract from the root of draw, prl=tract with prefixes of -dis and -at

Conscious and science from the root of know=sci with adjective and noun making suffixes

3. Analysis of word parts in the process of blending like brunch which is made of the two words of breakfast and lunch.

4. Analysis of word parts during cognitive process such as metaphor, allusion, and way of their construction and their development like the word of Ignite from Latin ignire 'set on fire' derived from agni-/igni, the name of Lady of Fire Goddess which is made by addition of verb maker suffix of ite (Ghandehari, 2004).

Motivation is defined as a collection of factors which incite men toward activity and aim, conduct it and make it continuous (Hafman, 2006). Findings of so many researches indicate that in the process of learning, the extrinsic motivation is more important than extrinsic one (Khalkhali, 2013). According to Hussen (1994), the educational achievement of a learner is related to his internal motivation. People with internal motivation regard themselves capable, competent and with self-controlling skill (Aghahosseini, 2006)), and they are in search of information and experience less psychiatry signs.

In fact, in cognitive phycology, learner is not the pure receiver of information but he is capable of information processing and can use his new experiences and learning for solution of different problems in different situations (Prawat and Folden, 1994).

The motivational factors are a collection of related factors which influence on the desire and motivation of students for learning. This collection may include learner characteristics, quality and quantity of lessons, teachers' characteristics, conditions and specification of educational environment, learning activity and assignments and other environmental factors. According to the findings of researcher, Tella specified some related factors to the performance of students in mathematics as follow:

- 1- Interest in lesson
- 2- Homework volume
- 3- Character
- 4- Self-concept, self-sufficient
- 5- Motivation and self-efficiency
- 6- Anxiety, enough or lack of enough facilities
- 7- Teacher skills and method of teaching (Wang, 1990)

Identification of these factors helps with selection of proper methods and improvement of conditions for excitement of learners for learning. In between, features related to learners are the most important factors of need. Need refers to the deficiency or falling-out state in an alive being. When a alive being feels need, this is an undesirable feeling and satisfying this desire is pleasurable. So, it is said that their conscious and unconscious motivation originates

from their needs. Meaning of homework and programs before learners is dependent upon their proportion and relation with needs, especially the priority ones (Hoover-Dempsey, 2001).

Nourishing of learning skills is lifelong. One of ways of getting this aim, beside attention to the cognitive, emotional and motivational factors, is training of "self-regulated" learners; the learners can plan for these aims, utilize proper strategies and instruments, evaluate themselves and accept feedback of their works and make needed adjustment.

Zimmerman defines self-regulation as "planned and alternative thoughts, emotions and actions which have been deployed to get the personal aims..." He focused on the process-like nature of self-regulation and stated that the self-regulated learning is not a characteristic but it includes selective use of special processes which should be adjusted personally with each homework and learning issue. According to this principle, Zimerman defined self-regulation in learning as "a self-guide process by which learners change their abilities into the educational skills". Zimerman believed what makes the self-regulated learners outstanding is their active participation in learning and meta-cognitive, motivational and behavioral abilities (Zimmerman, 1995)

2. Language Learning Strategies

Language learning strategies include general approaches, methods and special actions deployed for learning the second or "foreign" language (Ellis 2003). In fact using of the "language learning strategies" learners can increase their proficiency in the studied language (Bialystok, 1983) and facilitate their learning assignment (Chamot, 2005). In another words, the language learning strategies is a collection of behaviors, steps, operations or plans which learners deployed them to facilitate reception, storage, retrieval and use of new information. Results of the performed studies in the area of language learning indicated that language learning strategies lead to improvement of learners in different language areas. These kinds of language learning strategies make learners independent students who can govern their learning process. The language learning strategies categorized into different groups which are similar to each other from some aspects. For example, Omili and et al (1985) divided the language learning strategies into three classes which include "cognitive strategies", "metacognitive strategies", and "social strategies". Oxford also divides the language learning strategies into two main categories of "direct" and "indirect" strategies. The "direct' strategies intervene directly in language learning. These strategies include 'memory strategies", "cognitive strategies" and 'compensation strategies". "Memory strategies" include activities

which help information storage. Cognitive strategies include activities which learners do for making contents understandable. "Compensation strategies" help learner to overcome his knowledge gap. In "socio-educational models" of language learning, the "language learning motivation" is regarded as a hidden variable which include desire for learning language, motivation intensity, and view of language learning. One of these models which have been offered in recent years is "intrinsic motivation-extrinsic motivation model" of Nulz Politier and Valernd (2000). This model was developed after 'self-determination theory" of Desi and Rayan (1985). According to this model, based on self-determination rate which is hidden in the learning aim, the motivational believes in learning second language are divided into three kinds of: "a motivation orientation", "extrinsic-motivation orientation", and "intrinsic-motivation orientation". The motivation orientation indicates lack of aim in doing a work.

Results of some of studies show that people with intrinsic and extrinsic motivation encounter with their assignments by different methods. People with extrinsic motivation enjoy less from activities and focus more on scores and use of superficial methods of information process (Pintrich and Degrut, 1990). Instead people with intrinsic motivation get more involved in the cognitive and metacognitive activities and try more for understanding materials. These people use self-regulated strategies and insist more on doing their assignment (Pintrich and Degrut, 1990).

According to the above mentioned materials we can say that knowledge about the kind of relation between the motivational beliefs and language learning strategies is important. In fact knowing about this relation we can induce necessary motivations in language learners to use the language learning strategies and became independent learners who supervise their learning processes and conduct these processes toward more deep learning (Sheikh-al eslami and Khayer, 2006). The learning strategies, especially in the beginning of learning, are consciously and based on the aims of learners. Oxford (1990) as an introduction to the discussion 12 specified the main feature of these strategies. He believes that the language learning strategies have these features: 1. Lead to the achievement of the main aim of communication ability; 2. Lead to the self-evaluation of language learners; 3. Focus on the role of schools; 4. Lead to the solution of learning problems; 5. Lead to the select of actions by learners; 6. Include the cognitive strategies; 7. Improve the learning process directly or indirectly; 8. They aren't observable always; 9. They are informed-actions; 10. They are pedagogical; 11. They are changeable; 12. Different factors have effect on them.

2.1. Introduction of Oxford Model

From 1970s onwards, several models have been proposed which some of them have been developed based on assumptions and some based on the scientific and practical researches. One of these models is Oxford model (1990). Oxford said that the strategies are actions deployed for learning, storage, retrieval and use of information. We can say that the Oxford model is the best and most comprehensive model which has been developed in the area of strategies. In the model of 1990, he divided the strategies into six main groups which are related with learning directly or indirectly. The direct strategies include memorizing, cognitive and compensation and the indirect ones include metacognitive, emotional and social strategies:

- 1- Direct strategies
- a) Memorizing strategies
 - a. Making mental relation
 - b. Use of voice and image
 - c. Overview
 - d. Use of words in its natural context
 - b) Cognitive strategies
 - a. Practice
 - b. Receive and sending message
 - c- Analysis
 - d- Structuralism
 - c) Compensation strategy
 - a. guessing
 - b. overcome the vocal and writing limitations
- 2- Indirect strategies
- a) Metacognitive strategies
 - a- focus on learning
 - b- Planning for learning
 - c- Learning evaluation

b) Emotional strategies

- a- decrease of stress
- b- Self-encouragement
- c- aware of self-emotions

c) Social strategies

- a- Inquiring
- b- Collaboration
- c- Sympathy

The last strategy which has effect on learning indirectly is the social strategy. This includes inquiring, collaboration with each other and sympathy. Inquiring is a valuable strategy which can help learning by clarifying materials and correction of errors. Collaboration is an important strategy which if be without stress will lead to the independence and mutual support, more self-dependency, self-esteem, high motivation and learning. Sympathy means putting oneself in others shoe, and from the point of view of Oxford it is a necessary strategy for communication with others. This strategy is based on awareness about others thoughts and feelings and culture (Pishghadam, 2008).

Most of previous studies were conducted in experimental milieu by artificial extraction methods (for example: Bayalistuk 1983; Kolonel 1994; Jordian 2000; Nakati 2010; Paribokht 1985) and the natural environment of a classroom was ignored. In other words, past researchers regarded the communicational strategies as independent analytical units and didn't take attention to the interactional environment. Natakani and Gaveh (2007) believe that "while so many researches have been performed for interactions in the experimental environments using the communication strategies, little strategies have investigated about use of communication strategies by learners in the real class environment in which learners may use different communication strategies than in the experimental environment".

On the other hand, the performed studies were limited to the vocabulary gaps of learners and researcher paid more attention to the individual language production (in contrast with access to the mutual understanding or discourse) but no attention to the possibility of collaboration of other party in the process of meaning communication (Williams et al., 1997).

In this way, communication strategies have been studied as a part of learner use of language and not as the result of interaction between a learner and at least one other party (Fernandez Dubao and Palasious Martinenz 2007). Therefore, recently because of lack of understanding of classroom problems and interaction between teacher-learner, the number of research on communication strategies has increased which utilized an interactional approach in describing the use of communicational strategies. Following the theory of Yul and Throne (1991) stating that for a comprehensive understanding of a strategic communication we should consider the two sides of the learners' performance and their counterparts, some researchers such as Freth and Vegner (1997) tried to introduce the strategic communication as an interactional phenomenon. In these researches, the communicational strategies have been investigated as common and mobile elements in the interactional environment and their communicational function is founded through taking into account of functions of all of participants in a conversation and not just the learners. So, it may that a non-native teacher also has deficiency in interaction within class (Rampton 1997) as Wilms (1987) stated that "all of us (teachers) – not only learners- naturally like to utilize the communicational strategies in face with the communicational problems".

The last discussion in the environment of foreign language teaching environment, where non-native teachers are active, is very important. We should regard that so many of these teachers are second-language and their language knowledge isn't proficient yet. So, the communicational strategies about the non-native teachers became significant from two aspects of: facilitating of transferring meaning to the learners and second as a source for help the second-language teachers.

2.2. Real Learning against Superficial and Unstable Learning

In the Piaget's system, we should discriminate between learning in broad and limited range. Learning in limited meaning is reception of special responses and extending it to the special situations. This kind of learning is unextendable, superficial and unstable. But learning in its broad rang give meaning to the first kind of learning. According to Piaget, evolution explains learning. In the Piaget's system, instruction doesn't focus on learning rate and this system doesn't believe in information storage. Piaget states this issue about the aims of education: "the main aim of education is training of creative people who can think not those people who repeat what they have been said. The other aim is nourishing of critical thinking and people who investigate and study not those people who accept what they heard" (Rovio, 2002).

In this way, in the Piaget's system, teacher 1) urges the critical thinking, 2) inhibits blindly acceptance or memorizing of book materials, 3) value the continuous thinking and creativity, 4) avoid from imposed, teacher-oriented, book-oriented and planned training and don't obstruct the creativity way of student learning, 5) help students to find a logical connection between events and materials through creating a rich environment and persuade them to discover things, 6) doesn't compare students with each other.

Real learning within the Piaget's system involved new making of mental functions and let children internalize new experiences and extend them to the new situations. This kind of learning is occurred when children have acquired the necessary mental instruments, and in this way students aren't compared with each other. According to Piaget, school should enhance students from where they are but not so far to cut their relation with the environment (Kadivar, 2011, 35-36).

3. Learning in Cognitive Theories

Bruner (1960) believes that we can learn others about each scientific major in the organized collections (structure). In this way, the process of information get facilitated and this organized collection help learners to use it for problems analysis.

By structure we mean that the learner can receive the principles of an issue to be able to connect the new and unrelated materials with each other and with the previous information. In other words, focus on the basic principles makes an issue understandable, and as the result the issue becomes meaningful for the learner and conditions for reminding and facilitating of learning is provided (Broner, 1966). Broner doesn't limit discovery to the unknown issues but includes it with "all forms of knowledge access by the use of mind. In the view of discovery, environment should provide inducing situations in which the learner can select activities with personal value; experiences, mistakes and ups and downs of learner in this process are important for his cognition formation. So, during discovery learning, learner can get general rules from special examples.

By this method, learner can learn how to discuss the issue and having related information, can use a scientific and inferential method. So, organized mental plan can achieved for the cognitive activities and the learner can solve the problem by his own thinking. Broner states that the "discovery learning doesn't mean let learners do works on their desire. Discovery is more obvious in the activities in which learners can search, intervene and discovery. So, the

learners learn the new knowledge within the desired context as problem solving skills lie access to the rules, hypotheses tests and collection of information (Shokohi et al., 2012).

4. Conclusion

In respect of growth of psychological sciences, new strategies have been found for advancement of learning. So, some scientists have offered new theories for accessing the educational aims and advancement of its quality level. In Iran, students have always been faced with learning challenges and memorizing words and learning foreign language, so modern methods have considered advancement of quality level of learning. According to the above mentioned material, we can say that knowledge about the kind of relation between the motivational believes and language learning strategies is important. In fact we can induce the necessary motivation in language learners using these language learning strategies and make them independent learners who supervise their learning processes and conduct these processes toward deep language learning.

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