

# Self-regulated Learning and Beyond: A Theoretical Synthesis

## Öz-düzenlemeli Öğrenme ve Ötesi: Teorik Bir Sentez

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### ÖZET

İnsanoğlunu diğer tüm canlılardan ayıran en önemli özelliklerinden biri aklını kullanabiliyor olmasıdır. Ayrıca insanlar merak eden ve daima araştırıp yeni şeyler keşfeden canlılardır. Bu da beraberinde 'öğrenmeyi' getirir. Uzun yıllardan beri insanlar 'öğrenme' için çok çeşitli yollara başvurmuşlardır. Örneğin aile büyüklerinden öğrenirler, kendileri keşfederler, okurlar, deneyimlerinden öğrenirler, başka insanlardan öğrenirler, vb. Öz düzenlemeli öğrenmede bu yollardan biridir. Bu öğrenme biçiminde öğrenciler kendi öğrenmelerini kendileri düzenler ve öğrenme süreçlerine tamamen aktif bir şekilde katılarak süreci kontrol altına alırlar. Bunu yaparken farklı stratejiler kullanırlar ve farklı süreçlerden geçerler. Zaman içinde öz düzenlemeli öğrenmenin farklı modelleri geliştirilmiştir. Bu çalışmada öz düzenlemeli öğrenme, stratejileri, modelleri, süreçlerinin yapısı ve işlevleri, öz yeterlik inançları ve motivasyon ile ilişkisi, öz düzenlemeli öğrenmenin öğretilmesi, yazmada kullanılması, ve değerlendirmeleri incelenmiş ve nitel doküman analizi ile netleştirilmiştir.

### ABSTRACT

One of the most important features that distinguish human beings from all other living things is that they can use their minds. In addition, humans are creatures of curiosity and always exploring and discovering new things. This brings with it 'learning'. For many years, people have resorted to various ways of learning. For example, they learn from family elders, they discover for themselves, they read, they learn from their experiences, they learn from other people and so forth. Self-regulated learning is one of these ways. In this learning style, learners organize their own learning and take control of the learning process by actively participating in it. In doing so, they use different strategies and go through different processes. Over time, different models of self-regulated learning have been developed. In this study, self-regulated learning, its strategies, models, structure and functions of its processes, its relationship with self-efficacy beliefs and motivation, teaching self-regulated learning, its use in writing, and measurements were examined and clarified with qualitative document analysis.

## 1. INTRODUCTION

Many different situations that occur in an ever-changing and developing world affect people in various ways. People set their goals and objectives accordingly. For example, an epidemic that took place in 2019 and affected the whole world seriously affected all people in many different areas. It has become widespread for people to work from home and handle many activities using technology and the internet, both in accordance with the decisions of the government and with their own preferences. This situation seriously affected education as in every field. Face-to-face teaching gave way to online lessons. Both students and teachers continue their education from their homes via the internet. In online education, many people think that students need to make more effort and understand and grasp the subjects in the lessons alone. This brought new methods and strategies that students started to use and acquired. Self-regulated learning is one of them. Thus, in this study, self-regulated learning, its strategies, models, structure and functions of its processes, its relationship with self-efficacy beliefs and motivation, teaching self-regulated learning, its use in writing, and measurements were inquired.

## 2. METHODOLOGY

Recently, document analysis technique is frequently used in studies on various subjects. Likewise, in this study, document analysis technique was used by questioning the relevant sources, documents and records available to illuminate the subject in question.

## 3. LITERATURE REVIEW

### 1. *What is Self-Regulated Learning?*

Zimmerman (2000) states that self-regulated learning can never be defined as intellectual skill. On the contrary, it is a process in which the individual directs herself/himself. In this process, individuals use their intellectual skills in academic skills. Students actively participate in the learning process instead of being exposed to a hidden event that is in reaction to teaching. Opinions that are set forth by the individual, emotions, and manners are necessary for self-regulation because they are important in achieving targets (In Zimmerman, 2002). Learners arrange their manners according to targets they set and self reflect on their improving impression. This situation develops their self-satisfaction and motivation to go on developing the techniques that they use in learning. They are highly motivated and they have strategies that have the capacity for adaptation, thus they are both successful academically and they are hopeful for their features.

People give importance to self-regulated learning as education plays an important role in developing skills that students can use in their whole life. After getting their diplomas from their schools or colleges, students have to acquire so many significant abilities out of a school, in informal ways. For instance, employers want to work with people who learn a position, which is new, like marketing a product by monitoring other employees and do that job alone. People that improve their abilities to higher levels are risen by the boss or can find a better occupation. If employees want to go on their position and job, their age is not important, they should continuously advance their abilities. Their satisfaction to self-regulated is particularly essential as they work on long projects that require creativity, craftworks, texts like poems, or discoveries. In settings that are arbitrary, students spend the time that is arranged by them so as to learn various skills for self-amusement, changing hobbies to sport (Zimmerman, 2002).

According to Zimmerman (2002), there are three basic points in self-regulated learning. They are:

- a) Precognition,
- b) Self-reflection,
- c) Performance (In Kim, Wang, Ahn, and Bong, 2015).

Self-regulated learning is related to ideas, emotions, and manners that are used by some learners to achieve their targets at the end of learning. People who are self-regulated are metacognitively, motivationally, and behaviourally active in their learning (Yarnall, Malone, and Freed, 2019).

Afflerbach et al. (2008) specify that the Common European Framework was first used 19 years ago. It brought about ‘the ways of learning how to learn.’ The importance of self-regulated learning methods was stressed in the usage of teaching a language. These methods are described as purposeful, target-oriented attempts to accomplish and control endeavors in the way of learning the target language (In Inan, 2013, p. 1546).

## 2. *Self-regulated Learning Strategies*

Self-regulated learning methods are measurements. They are used to observe or arrange their learning processes, to create study habits, and regulate the techniques, which put feedback at the center, by learners (Wang, Hu, Zhang, Chang and Xu, 2012).

According to results of some researches that were made by Zimmerman and his friends, there is a constant connection that is positive between the usage of self-regulated learning techniques and self-regulated students’ performance that they are shown on standardized texts (Zimmerman and Martinez-Pons, 1986, 1988, p. 2 in Kim et. al., 2015). Besides, strategies that are used in the self-regulated learning process and self-efficacy are in close relation and they also previously indicate learners’ academic accomplishment (Ellis, 1989; Schunk, 1990; Zimmerman and Martinez-Pons, 1990 in Wang et. al., 2012).

Self-regulated students have aims, use various methods to attain the targets, and make comments to their own performance for developments or a more challenging assignment. Also, these students put some methods that can motive them into effect. These strategies are:

1. Students evaluate themselves before starting to work on homework or task.
2. They gather sources that are related to the topics that they work on.
3. They combine different theoretical viewpoints.
4. They observe understanding and evaluate the progress (Boekaerts and Cascallar, 2006 in Wang et. al., 2012).

There was an improvement in students’ performance in the situation that they got favorable feedback that could be used by them when they were searching for public assistance (Mackey, Kongas, and Oliver, 2017 in Kim et. al., 2015).

Self-regulation shows students endeavor that is for changing results that they get, by restricting instinctive motivation and displacing them with various approaches that guide them to good consequences. So, powerfully self-regulated students are liable to be self-effectual (Luszczynska, Gutierrez-Dona, & Schwarzer, 2005 in Wang, Schwab, Fenn, and Chang, 2013; Paris and Paris, 2001 in Farsani, Beikmohammadi, and Mohebbi, 2014, p. 2).

All methods that are used by learners are not self-regulated learning. Pintrich (2004) puts forward 4 suppositions for self-regulated learning strategies:

- 1) Learners set the import actively, determine purposes, and replace methods.
- 2) They can control the going of their learning.
- 3) The strategies they use are set through their goals, they are not cursory.
- 4) The methods intercede the connection between contextual features and individual and performance or acquirement (in Wang, Schwab, Fenn and Chang, 2013, p. 174).

According to results of some researches about techniques of language learning, there is a positive connection between learner language learning outcomes and use of strategies (Chen, 2011; Chien, 2012; Zhang, Gu, and Hu, 2008 in Kim et. al., 2015).

## 3. *Structure and Function of Self-Regulatory Processes*

Some psychologists who work on social learning look at the structure of self-regulatory processes through 3 periodic terms. They are the forethought phase, performance phase, and self-reflection phase. The first one is relevant to the beliefs and processes that take place before the endeavor; the second one is relevant to the processes that come into being during behavioral

implement and the third one is relevant to the processes that happen after each learning endeavor. (Zimmerman, 2000 in Zimmerman, 2002).

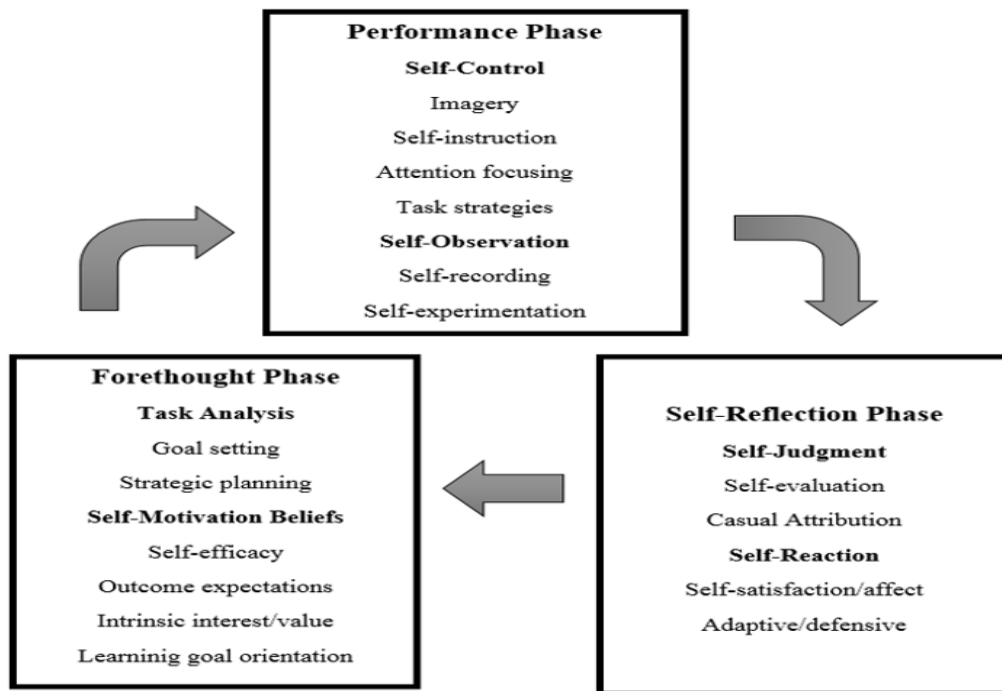


Figure 1. Phases and Subprocesses of Self-Regulation. From B.J. Zimmerman and M. Campillo (in press), "Motivating Self-Regulated Problem Solvers." In J.E. Davidson and Robert Sternberg (Eds.), *The Nature of Problem Solving*. New York: Cambridge University Press. Adapted with permission (In Zimmerman, 2002).

### *Forethought Phase*

a. Task analysis and self-motivation are two main classes for forethought phase processes. The first one includes setting targets and strategic planning. Some pieces of evidence prove that the academic success of the students who set specific proximal targets like learning a wordlist by heart for a spelling test and students who make plans for using spelling strategies like dividing a word into syllables increased considerably (Zimmerman, 2002).

b. Self-motivation comes from learners' beliefs about learning. For example, they believe their effectiveness for having the capacity to gain knowledge and outcome prospects about individual outcomes of gaining knowledge (Bandura, 1997 in Zimmerman, 2002). For instance, learners that have self-efficacy beliefs about learning to segment pieces and hope the things have learned will be useful in an exam that they will have for entering a college are more motivated to gain knowledge in a self-regulated way (Zimmerman, 2002).

Actual attention is relevant to the learners appreciating the ability in the duty for its own value and learning target orientation is relevant to appreciate the learning process for its own value. Learners that reach the issue of history, for instance, amazing and like improving their proficiency of it are motivated to gain knowledge through a self-regulated way (Zimmerman, 2002).

### *Performance Phase*

Self-control and self-observation are 2 main terms that performance phase processes include.

a. The first one is relevant to the expanse of particular techniques or strategies that were chosen in the forethought phase. There are some kinds of self-control techniques that are important. Attention focusing, task strategies, self-instruction, and imagery are among these techniques (Zimmerman, 2002).

b. Self-observation is relevant to self-recording individual cases or self-experimentation to find the reasons for these cases (Zimmerman, 2002).

Self-monitoring, which has so many common points with self-observation, is relevant to a learner's cognitive tracking of individual practicing, as the number of misusing the capital letters when he/she writes an essay (Zimmerman, 2002).

#### *Self-reflection Phase*

a. Self-judgment and self-reaction are two main terms that self-reflection phase processes include (Zimmerman, 2002).

i. Self-evaluation is one form of self-judgment. It is relevant to drawing comparisons of self-observed performance with some standard like the perfect standard of performance or a person's first performance with another one's performance (Zimmerman, 2002).

ii. Causal attribution is another form of self-judgment. It is relevant to thoughts about reasons for a person's achievements and wrongs, like the number of true and wrong questions in a mathematic test (Zimmerman, 2002).

b. Emotions of self-satisfaction and positive affect that have a close connection with a person's performance take place in one form of self-reaction. Self-satisfaction and motivation are connected. When self-satisfaction increases, motivation increases in the same direction. However, when self-satisfaction is low, it gives harm to further efforts that would be set for learning (Schunk, 2001 in Zimmerman, 2002). Adaptive/defensive results are two forms that self-reactions take.

i. Defensive reactions are related to endeavors of a person for saving self-image by not using chances to gain knowledge and give a performance, like not participating in a lesson or not going to the course for a test (Zimmerman, 2002).

ii. Contrary to defensive reactions, adaptive reactions are related to calibrations arranged to improve the efficiency of techniques that a person uses for learning, like changing his/her learning methods if they are not effective (Zimmerman, 2002).

#### *4. Relations between Self-regulation Learning Strategies and Self-efficacy Beliefs*

Zimmerman (2000) specifies that there is a significant fact that takes an essential place in self-regulation. It is self-efficacy (In Kim et. al., 2015). The learners' preferences and endeavors they put in their performance are affected by self-efficacy. (Boakaerts and Cascallar, 2006 in Kim et. al., 2015). The accuracy of this statement was proved by experimental researches. They put forward the connection between the usage of self-regulated learning techniques and self-efficacy beliefs (Diseth, 2011; Magogwe and Oliver, 2007; Yusuf, 2011; Zimmerman and Martinez-Pons, 1990 in Kim et. al., 2015). Other researches which made previous, results show that students, who don't strongly believe in their efficacy, generally give up as they encounter any hardship and they generally choose to postpone something as they work on assignments. (Schunk, 1990 in Kim et. al., 2015).

Students in a college engineer-major students in Malaysian were writing an essay in English. Lee (2002) mentions that these students in the college replied in a positive way to negative feedback, they used self-regulated learning strategies. It can be concluded that these strategies developed self-efficacy beliefs to create a better work (In Kim et. al., 2015).

#### *5. Self-regulation and Motivation*

There are 4 major parts that the self-regulation process includes. They are self-regulatory strength, it is known as willpower in society, monitoring, standards and motivation, particularly motivation that people use to attain targets they set or meet the standard that is not different from motivation to regulate the individual, in perform. The following statement will be enough to stress the import of motivation, in the situation that the standard is apparent, the monitoring is still quite efficient, the person's sources are not necessary, and he/she may still not regulate himself/herself because of not giving importance to achieving the target. Motivation can be particularly efficient when used in the place of willpower. If a person is strongly motivated, he/she may have the ability to efficiently self-regulate herself/himself (Soureshjani, 2013).

According to the results of some researches, it is known that learners that use self-regulated techniques are free from external control and constraint and generally they want to participate in special projects. In other words, these learners are initially self-motivated and it depends on an

arranged learning, and use setting targets, organizing, planning, learning by heart, and self-monitoring methods (Maxim, 2009; Zimmerman and Matinezpone, 1988 in Soureshjani, 2013).

Borkowski and Thrope (1994) in Soureshjani, (2013), on the other hand, deal with underachievers and the connection between self-regulation and motivation, indicating that an understanding of underachievement can be found in the inability to incorporate and influence self-regulation and because of insensitivity, unresponsiveness imposed on kids by their mothers and fathers (p.45).

## 6. *Measurements of Self-regulation*

Cognition and metacognition, motivation and emotion, and strategic action will be handle in this part.

### 1- Cognition and Metacognition

#### a. Cognition

Cognition is relevant to the ways persons think when doing activities, like reading for learning, finding the correct answers to mathematic questions, planning a way that can be used from going one point to another, or collecting opinions for a presentation. So many activities require cognitive processes to reach the task necessities (Butler, Schnellert, and Perry, 2017).

#### b. Metacognition

Metacognition is relevant to the things a person knows and the orchestration of his/her cognition (Butler, in press; Borkowski, 1992; Brown, 1987; Flavell, 1976, 1987 in Butler et. al., 2017).

Metacognitive knowledge that persons make use of in an activity is an important side of metacognition. Metacognitive knowledge takes place in the persons' activities related to learning and in the comprehensions they have. Metacognitive knowledge takes place in the comprehensions that persons bring to these 3 activities:

- 1- Themselves, their strong sides, and defiance.
- 2- Activities and their requirements.
- 3- Techniques they make use of for achievement various activities or make a connection to the gap, between the things they can do and the things they should learn (Butler et. al., 2017).

### 2- Motivation and Emotion

#### a. Motivation

Motivation is a wide word that is used to explain what prompts learners' willingness to invest in showing participation in activities. For instance, in the situation that learners are motivated, they may prefer to participate in an activity, set targets that are relevant to the activity, and go on even if have difficulties (Butler et. al., 2017).

#### b. Emotions

Emotion is related to learners' sentimental replies as participate in or is presented with an activity. Their participation in activities is based on the way they experience and reply to emotions (Butler et. al., 2017).

### 3- Strategic Action

Strategic action contains 5 ingredients:

1. Giving an interpretation of tasks and setting targets.
2. Making plans.
3. Using strategies.
4. Monitoring.
5. Arranging (Butler et. al., 2017).

## 7. *Models of Self-Regulated Learning*

*Zimmerman's Social Cognitive Model of Self-regulation*

This model is structured on Bandura's (1986) social cognitive theory. There are 3 phases in this method. Covert individual, behavioral and environmental situations are considered as sectional in this three mutual determinism. On the other hand, some elements affect learners' performance. Adjusting cognitive, monitoring, and sentimental situations are under the title covert self-regulation. Self-observing and strategically arranging the performance processes constitute behavioral self-regulation. Lastly, observing and arranging environmental circumstances or products constitute environmental self-regulation (Zimmerman, 1990a, 1998 in Puustinen and Pulkkinen, 2001).

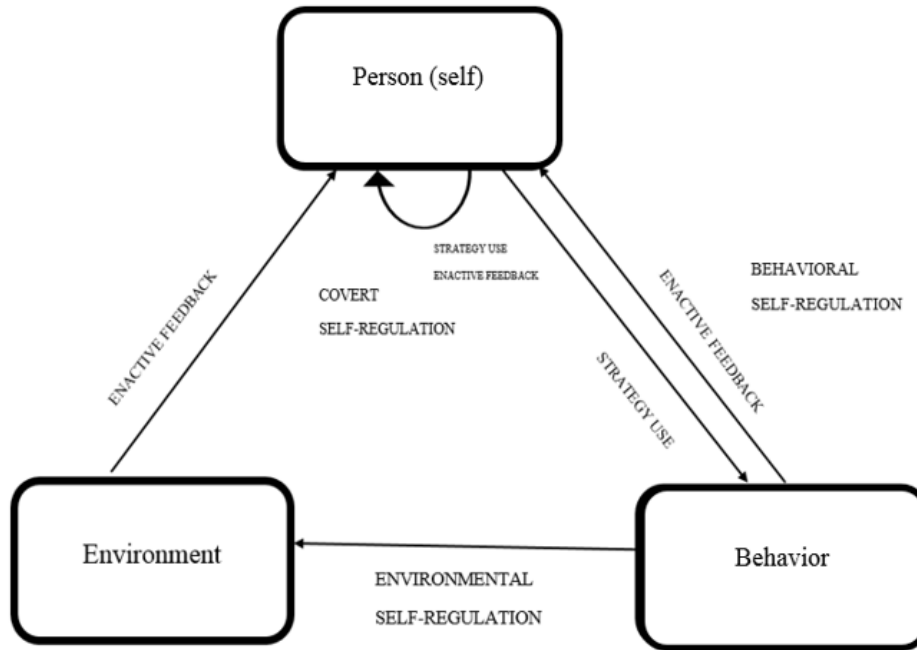


Figure 2. Triadic Model of Self-Regulated Learning. Adapted from Panadero (2017).

Zimmerman (2000) states that normally self-regulation is recurrent. The definition of self-regulation is self-generated ideas, emotions, and actions that are arranged and periodically focused on the achievement of personal targets. Learners use the feedback they got from earlier learning processes to evaluate the targets, the strategy they will use for follow endeavors (In Puustinen and Pulkkinen, 2001).

There are 3 stages in this model.

- a) Forethought
- b) Performance
- c) Self-reflection

In the first stage, learners analyze the assignment, set targets, make plans to find a way to achieve the targets, and some motivational beliefs give energy to the process and have an effect on the actuation of learning techniques (Panadero, 2017).

In the second stage, learners work on the assignment, as they regulate how they are going on, and make use of some self-control techniques to keep themselves cognitively be involved in and motivated to complete the assignment (Panadero, 2017).

In the third stage, learners evaluate their performance during the whole process, making assessments about their achievements and errors (Panadero, 2017).

#### *Winne's Four-stage Model of Self-Regulated Learning*

Winne and Hadwin (1998) state that self-regulated learning has some properties of both an ability and a happening (P. 534, in Puustinen and Pulkkinen, 2001).

Self-regulated learning considered a natural part of gaining knowledge is described as metacognitively guided behavior that makes learners able to regulate the ways they use cognitive strategies and tactics when they have an assignment (Winne, 1996 in Puustinen and Pulkkinen, 2001). There are four separate phases in self-regulated learning.

- a) Sensations that students have about the assignment define the task definition.
- b) In the second phase, there are two important steps: Making plans and setting targets.
- c) In the third phase, the strategies and tactics that were determined in the second phase, are used.
- d) In the last phase, learners metacognitively conform techniques that were planned to be used at the same time they are considering future needs, related to a process. With this process, learners evaluate the things they created or thought in the earlier phases critically with the help of their meta-level knowledge (Winne and Hadwin, 1998 in Puustinen and Pulkkinen, 2001).

The model is defined as recurrent. In this model, all products that were produced in previous phases are considered to modernize the conditions on which the process never stops (Winne and Hadwin, 1998 in Puustinen and Pulkkinen, 2001).

#### *Pintrich's General Framework of Self-Regulated Learning*

Pintrich (2000) created a general framework for self-regulated learning. The framework of self-regulated learning represents four stages that are involved in self-regulated learning (Puustinen and Pulkkinen, 2001). They are:

- a. Forethought
- b. Monitoring
- c. Control
- d. Reflection

In these four stages, there are self-regulatory activities that are represented in 4 divided areas, involving cognitive, behavioral, and contextual, and motivational and affective areas (Puustinen and Pulkkinen, 2001).

The self-regulatory activities that are in the forethought stage thus include, among other issues, efficacy evaluations, prior content knowledge and metacognitive knowledge activation, and appropriation of target guidance, time and endeavor planning, and comprehension of the duty and context. Similarly, the second stage monitoring involves cognizance and monitoring of cognition, motivation, time use, influence, endeavor, and task and context conditions. Control activities are related to the person's choice and adaptation of methods that he/she will use for thinking, learning, affect, and motivation, for the regulation of endeavor and ask discussion. Lastly, reflection involves cognitive evaluations, sentimental reactions, making choices, and task and context evaluation. The framework is represented as a heuristic because all academic learning doesn't involve specific self-regulation (Puustinen and Pulkkinen, 2001).

#### *Borkowski's Process-oriented Model of Metacognition*

Borkowski's process-oriented model of metacognition represents the development of self-regulation, related to propulsion functioning by the writer while proceeding from the learning of earlier that are lower levels cognitive abilities and becoming gradually connected to positive motivational states. When the teachers or parents teach children how to use a learning strategy, the development of self-regulation begins for these children. They learn the features of that specific strategy gradually. In time, they learn to know various strategies that are used in learning. Using these strategies in different contexts conduces to expand and improve in quality the particular strategy knowledge they can reach. Self-regulation appears as children can choose suitable strategies and monitor their own performance. When strategic and self-regulatory or supervisor processes are well set up, children gain knowledge about noticing the benefit of using strategies. Self-efficacy comprehensions and attributional beliefs improve, so connecting strategy use to motivational and individual situations (Puustinen and Pulkkinen, 2001).

Significant cognitive behaviors may help students to get feedback about their achievements or errors, now. This feedback is considered to have a major influence on formalizing personal-

motivational situations that give energy to the executive processes that are essential for further strategy choices. Moreover, the things children know about the world, and their general and specific knowledge improve. The general and specific knowledge is generally sufficient for finding solutions to the problems alone, without learning strategies. The model, in its last form, involves comprising task orientation, possible selves, self-worth, self-system, and learning targets (Borkowski, 1996; Borkowski & Burke, 1996; Borkowski et al., 2000 in Puustinen and Pulkkinen, 2001).

#### *Boekaerts' Model of Adaptable Learning*

Boekaerts (1992, 1995, 1996a, 1996b) created a model that has the capability of adapting to learning in the school, affording evaluation a central role in self-regulated learning. Perception of the learning situation, general-specific metacognitive knowledge, and the self-system, with the associated motivational factors, are 3 types of information that are considered as affects the appraisements by an active internal working model. Appraisements were assumed as intimate and teachers considered them to guide learners' manner in the school. There are 2 kinds of appraisements: positive and negative. In the first one, positively charged appraisements were considered to guide an extension of the things known about the topic and ability and usually to an expansion of individual sources. On the contrary, in the second one, negatively charged appraisements were assumed to guide to ego presentation purposed at the protection of sources and well-being. The enlarged model is focused on the target processes. Target processes and the whole self-regulated learning processes come from interpretation, identification, and evaluation of the gaining knowledge situation; they in the later stages guide to target setting and working hard for these targets. Identification is related to the recognition of admission as an example of a group of cases, like an example of the group of accomplishment cases, situations that are not accepted by society, and stressful situations. It depends on the knowledge of the assignment, the directions, and the social and physical context. Expectations are considered as relevant to an individual, internal reference, unavoidably diverse explications of the same learning cases by different learners (Puustinen and Pulkkinen, 2001).

### *8. The Teaching of Self-Regulated Learning*

Some different strategies can be used for teaching self-regulation.

A. Modeling is among the most suggested strategies for teaching self-regulation (Graham, Harris and Troia, 1998 in Montalvo and Torres, 2004). Students can internalize phrases that are used in planning, controlling, construction, dealing with cognitive sources and reflecting on the things has been done when they watch the teacher and other master models, performing them (Montalvo and Torres, 2004).

B. Practice using self-regulation techniques, firstly the teacher lead, then the learners are free, and feedback they get from others (generally the teacher) considering the strategy efficiency are strategies that affect learning and learners' motivation positively because they promote the transfer of techniques and their performance. The goal of led and independent practice is that the liability or control, of starting, practicing, and judging the techniques be transferred from the teacher to the learners (Onrubia, 1996 in Montalvo and Torres, 2004). Vygotsky and other writers suggested initially indirect learning. This type of indirect learning is on the particular ingredients in many educational programs and models (Valle, González Cabanach, Vieiro and Suárez, 1998 in Montalvo and Torres, 2004).

C. Self-monitoring is so significant ingredient in the intervention, in the situation that learners are willing for learning strategies, one way or another they have to control their application, their efficacy, and the ways that can be used for changing or varying them in the case that they are not effective (Montalvo and Torres, 2004).

D. Providing the learner with social support from the teachers and from his/her friends in the same class as he/she is learning self-regulation techniques is among the most used strategies in different programs. In time, the support is not provided to the students because they don't need so much help in their acquisition and improvement, they become more component (Montalvo and Torres, 2004).

Lastly, all of these programs come after an educational process ending in self-reflective practice, where the learners put the acquired abilities and techniques into practice, they reflect on the learning process they follow, they assess performance achieved and strategy efficacious. If they need, they change the view they use and they put calibrations in effect in their physical and social environment to develop a more appropriate environment for learning (Montalvo and Torres, 2004).

#### 9. How to Use Self-Regulated Learning in Writing

Lee (2002) mentions that 4 sections can help learners to develop their writing ability in English.

1. Self-estimation: They evaluate themselves.
2. Transforming and organizing.
3. Trying to find information.
4. Searching for public assistance (In Kim et. al., 2015).

Chamot and El-Dinary (1999) state that the students under 11 years old use strategies in their learning processes and these two researchers realized a particular difference in the use of strategies based on the content of the learning tasks. The students used so many strategies to finish reading assignments while they used just a few strategies to complete writing assignments. The strategies that they used were making conclusions, forecasts, paying attention, knowledge of the language, restating texts that are written in the foreign language, and making a summary, however, there was just one strategy in the context of writing, and it was making plans (In Wang et. al., 2012).

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