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## THE ROLE OF GOAL SETTING IN METACOGNITIVE AWARENESS AS A SELF-REGULATORY BEHAVIOR IN FOREIGN LANGUAGE LEARNING

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## Abstract

Metacognition, an awareness of one's own cognitive processes in learning, is a crucial component of self-regulatory behavior that facilitates successful language learning. Therefore, the current study sought to find out the role of different types of goals in participants' metacognitive awareness. A total of 118 university students enrolled in an English Language Teaching program at a major state university voluntarily participated in the study. Data were gathered using Metacognitive Awareness Inventory (MAI) and Goals Inventory. Findings of descriptive statistics revealed that 48.3% of the participants had high, 28% had moderate, and 23.7% had low metacognitive awareness. Besides, significant correlation was found between mastery goals and metacognitive awareness, supporting the findings of the previous studies. These results revealed the importance of goal setting in metacognition and can be useful for practitioners to include in goal orientation to the curriculum by emphasizing the necessity of learner engagement, agency, and self-regulation for successful language learning process.

*Keywords:* EFL, goals, metacognition, metacognitive awareness, self-regulatory behavior

## 1. Introduction

Even though the terms are used interchangeably from time to time, self-regulation and metacognition do not refer to the same thing. In fact, self-regulation involves metacognition along with many other things such as “goal setting, monitoring and evaluating one's actions” (Williams, Mercer, & Ryan, 2015, p. 130). Self-regulatory learners know their own weaknesses and strengths; thus, they know themselves. Furthermore, they are good agents, they can set goals, motivate themselves, and evaluate their own learning process. Eventually, successful language learning occurs. Therefore, facilitating self-regulation has a crucial place in language learning process. The present study sought to find out the role of different types of goals, namely mastery goals and performance goals, in metacognitive awareness which is a vital component of self-regulation. In the literature, there are several related studies; however, the issue deserves more attention (Coutinho, 2007; Gul & Shehzad, 2012; Kharazi, Ezhehei, Ghazi Tabatabaei, & Kareshki, 2008; Schmidt & Ford, 2003; Zafarmand, Ghanizadeh, & Akbari, 2014).

## **2. Literature Review**

### **1.1. Metacognition**

Metacognition is an important element of self-regulatory behavior and could be associated with one's abilities to plan and control his or her own learning process. In other words, it can be considered as an awareness on learning processes, especially cognitive ones. Metacognitive strategies help learners have an outsider perspective on their learning process and analyze if the strategies they use are sufficient or not. On the other hand, cognitive strategies succinctly are mental processes that help learners process information that they need to learn. Therefore, while cognition refers to thinking, metacognition could be associated with thinking about thinking (Öz, 2014, 2015; Williams et al., 2015). For example, when a language learner thinks strategically to complete a task in the lesson, it could be associated with cognitive processes. However, when a language learner tries to understand, regulate, and control his or her own strategies, this time that kind of behaviors refers to metacognitive processes.

In addition, metacognition consists of different types of knowledge such as knowing about oneself as a learner, knowing about the task, and knowing about the strategies one can use to carry out the task (Flavell, 1979). These are vital for metacognitive thinking as knowing our strengths and weaknesses help us compensate for our deficiencies and take precautions. In other words, metacognition also makes people assess themselves and change their way of learning accordingly. To illustrate, a person, who knows that he or she gets anxious while giving a speech in front of others in L2, tries to cope with his or her anxiety in different ways, such as tries to regulate breath, to make eye contact or avoid it, and so on. Thus, the individual eventually can give a successful speech.

Furthermore, according to Anderson (2012), metacognition is composed of different components or stages, such as "planning to learn, deciding when to use strategies, monitoring their use, combining strategies where appropriate, and evaluating their effectiveness" (Williams et al., 2015, p. 134). However, these are not consecutive, they may occur at different times or at the same time. Besides, with different perspectives, various kinds of categorizations can be done.

All in all, metacognition has a crucial place in self-regulation and the literature also indicates that the individuals who have good metacognitive abilities are effective learners and facilitating the use of metacognitive strategies leads to more successful language learning and make learners more autonomous and agent. Therefore, teachers have a responsibility to make learners use metacognitive strategies more with various kinds of activities such as keeping diaries, strategy training, and self-assessment checklists. In addition, course book designers also need to take metacognitive strategies into consideration in the process of constructing course materials.

While taking into account all these mentioned so far, the present study aimed to understand the role of goals in metacognition. Thus, the practitioners can make use of goal setting strategies to elevate the learners' metacognitive skills.

### **1.2. Goals**

There are several types of goals which are set by people on their own or by others. Besides, goals can be both short-term and long-term. For instance, people as learners may wish to be successful in a certain lesson or to participate in particular groups to complete a task or to become a successful language teacher in the future, and so on. Thus, to understand goals a great deal of effort was given; however, one of them was the most influential one

which was goal setting theory (Locke & Latham, 1994). According to this theory, there are three essential points which are goals' specificity, their perceived difficulty, and individuals' degree of commitment. Namely, goals should be clear, motivating and achievable. At this point, one should keep in mind that the difficulty should be suitable to the individuals' capacity and they also should include a challenging element so that it can be both motivating and achievable (Williams et al., 2015).

Besides this theory, there is another vital distinction in terms of goals which emphasizes other people's role (Urduan, Ryan, Anderman, & Gheen, 2002). The distinction is succinctly between mastery goals and performance goals (Ames, 1992; Dweck, 1999; Woodrow, 2012). Mastery goals could be associated with one's desires to master a new skill or a piece of knowledge. Thus, the individuals who tend to adopt mastery goals may be more motivated to carry out some certain goals than others. Evidently, mastery goals could be associated with positive motivational profile (Midgley, 2002). Thus, the teachers should facilitate students to adopt more mastery goals and accordingly she/he can avoid the negative outcomes of testing systems. Moreover, mastery goals can also be separated into two. First one, mastery-approach goals that are directly about one's own prospect, as in the case of an individual who wants to be competent in a foreign language so that he or she can read novels without translation. The other one is mastery-avoidance goals which could be explained by one's desire to master a piece of knowledge again, but the impetus comes from avoiding a negative outcome.

Performance goals, on the other hand, refer to the goals that are set by the individuals who desire to perform to others. Accordingly, self-esteem may play an important role as the individuals who tend to adopt performance goals regulate their actions according to other people's evaluations. Furthermore, these evaluations may be broader than what people assume as they do not only include in positive or negative reinforcements like praising or scolding, but also include in basic feelings like shame, fear, anxiety and so on. (Williams et al., 2015). However, there is also a similar kind of distinction, performance-approach goals which could be associated with "making a good impression before others" and performance-avoidance goals in which the individuals "want to avoid from looking bad before others" (Williams et al., 2015, p. 133). Adopting performance goals which is based on regulating one's acts according to others' desires may give unfavorable outcomes in educational settings. Therefore, the teachers have the responsibility to not to encourage competition in classrooms after certain levels.

In addition, there are several studies that emphasize the role of ethnicity or cultural preferences as they indicated that the individuals coming from Eastern cultures are more likely to adopt performance-avoidance goals than the ones coming from Western cultures (Salili, Chui, & Lai, 2001; Woodrow, 2008).

Lastly, one needs to take into account that these goals can occur separately or simultaneously (Pintrich, 2000; Woodrow, 2012). Besides, the literature indicates a research gap in terms of goals in language classroom settings (Woodrow, 2012).

### **1.3. The Relationship between Goals and Metacognition**

According to previous studies, the relationship between goals and metacognition is an intriguing issue as the studies showed inconsistency. To begin with, the relationship between mastery goals and metacognition was found statistically significant and relatively strong by some scholars (Ames & Archer, 1988; Coutinho, 2007; Dweck & Legett, 1988; Kharazi et al., 2008; Pintrich & DeGroot, 1990; Schmidt & Ford, 2003; Zafarmand et al., 2014). In addition, the studies also found out a link between mastery goals and high self-efficacy, good

metacognitive language learning strategies, and high level of English speaking skills (Woodrow, 2006).

However, the findings on the relationship between performance goals and metacognition differed according to the various studies. Some indicated that there was a positive relationship (Ames & Archer, 1988; Butler, 1993; Coutinho, 2007; Gul & Shehzad, 2012; Kharazi et al., 2008), whereas others indicated that there was no relationship between performance goals and metacognition (e.g., Ford, Smith, Weissbein, Gully, & Salas, 1998).

In addition to these relationships, the relationship between mastery goals and performance goals is important. Even though the previous studies gave negative or unrelated results (Midgley et al., 1998), the more recent ones generally indicated positive results (Barron & Harackiewicz, 2001; Pintrich, 2000; Woodrow, 2012).

In summary, the studies which include academic achievement indicated that metacognition is a strong predictor (Dunning, Johnson, Ehrlinger, & Kruger, 2003). In addition, setting goals both mastery and performance goals facilitated the academic achievement (Roebken, 2007). Both metacognition and goals play a crucial role in academic success; therefore, the present study aimed to understand their relationship. To this end, the following research questions were formulated to guide the present study.

- 1) What are the participants' perceived levels of metacognitive awareness, mastery and performance goals?
- 2) Is there any statistically significant relationship among metacognition, mastery goals and performance goals?
- 3) Is there any change in the relationship between mastery goals and metacognition when the performance goals are in control?

## 2. Methodology

### 2.1. Research Design

The quantitative research design was adopted for the present study. Two inventories were utilized to understand the participants' goal orientation and metacognitive awareness along with the demographic information.

### 2.2. Setting and Participants

For the present study, a total of 118 participants were selected with the help of convenient sampling technique from the EFL students who were studying at a major state university in Turkey. The participants ranged in age from 18 to 22 ( $M = 19.30$  years,  $SD = .85$ ). In addition, Table 1 shows the gender distribution of the participants.

Table 1. *Gender distribution of the participants*

Variables	Gender	N	Mean	SD	%
Gender	Male	28	-	-	23.7
	Female	90	-	-	76.3

### 2.3. Instrumentation

#### 2.3.1. Metacognitive Awareness Inventory

The Metacognitive Awareness Inventory (Shraw & Dennison, 1994) was used to identify the participants' perceived levels of metacognitive awareness. The inventory consisted of 52

statements on a 5 point (from 1= strongly disagree to 5= strongly agree) Likert scale. The internal consistency of the scale was  $\alpha=.93$  in the present study.

### 2.3.2. Goals Inventory

To measure the participants' mastery goals and performance goals, Goals Inventory in a 7-point Likert scale format (from 1= strongly disagree to 7 = strongly agree) was conducted (Roedel, Schraw, & Plake, 1994). The inventory consisted of two sub-categories; mastery goals were measured with 12 items and performance goals were measured with 5 items. The internal consistency of the subscales is  $\alpha=.84$  and  $\alpha=.84$ , respectively.

## 2.4. Data Collection Procedure and Analysis

The current study was carried out with English majors from a state university at the end of the fall semester of 2017- 2018 academic year. The inventories were distributed to the participants and they completed the inventories in 20 minutes for each. After gathering the data, descriptive statistics such as frequencies, percentages, and mean scores were calculated with the help of IBM SPSS 21. After the normality check, to understand if there is any statistically significant relationship among metacognition, mastery goal, and performance goal, Pearson Correlation Coefficients were utilized. In addition, to further understand the relationship between metacognition and mastery goals a Partial Correlation was conducted.

## 3. Results

To address the first research question, descriptive statistics for metacognitive awareness ( $M = 3.79$ ,  $SD = .45$ ), mastery goals ( $M = 4.49$ ,  $SD = 1.0$ ) and performance goals ( $M = 4.47$ ,  $SD = 1.4$ ) were utilized. In addition, results showed that 48.3% of the participants had high, 28% of the participants had mid, and 23.7% of the participants had low metacognitive awareness (Table 2).

Table 2. *Descriptive Statistics for metacognition, mastery goals, and performance goals*

	N	Min	Max	M	SD
Metacognition	118	2.79	4.88	3.7903	.45368
Mastery Goals	118	2.25	6.58	4.4915	1.00228
Performance Goals	118	1.00	7.00	4.4746	1.44478
Valid N (listwise)	118				

For the second research question, a Pearson correlation was conducted to understand the relationship among metacognition ( $M=3.79$ ,  $SD = .47$ ), mastery goals ( $M = 4.49$ ,  $SD = 1.0$ ), and performance goals ( $M = 4.47$ ,  $SD = 1.4$ ) (Table 3).

Table 3. *Correlations among metacognition, mastery goals, and performance goals*

Variables	1	2	3
1. Metacognition	—		
2. Performance Goals	.145	—	
3. Mastery Goals	.565**	.291**	—

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation coefficients indicated that there is a statistically significant relationship between metacognition and mastery goals ( $r(118) = .565$ ,  $p = .000$ ) which

indicates a large correlation (Cohen, 1988), and 31 per cent shared variance. However, the relationship between metacognition and performance goals is statistically non-significant ( $r(118) = .145, p > .005$ ). In addition, the results also indicated a statistically significant relationship between mastery and performance goals ( $r(118) = .291, p = .001$ ).

To address the third research question, whether there is any change in the relationship between metacognition and mastery goals when the performance goals are stabilized, a partial correlation test was employed to make further judgments on the results (Table 4).

Table 4. *Partial Correlation Results*

Control Variables		1	2
	1. Metacognition	—	
Performance Goals	2. Mastery Goals	.552**	—

The partial correlations indicated that the relationship between metacognition and mastery goals ( $r(115) = .552, p = .000$ ) is still significant even though it loses its strength in small amounts.

#### 4. Discussion

The main purpose of the study was to investigate the possible relationship between goals and metacognitive awareness. The results indicated that there was a significant relationship between mastery goals and metacognitive awareness. In addition, these results of the Pearson correlation and partial correlation are compatible with the existing literature in terms of the relationship between metacognition and mastery goals (Ames & Archer, 1988; Coutinho, 2007; Dweck & Legett, 1988; Kharazi et al., 2008; Pintrich & DeGroot, 1990; Schmidt & Ford, 2003; Woodrow, 2006; Zafarmand et al., 2014).

However, the relationship between metacognition and performance goals was statistically non-significant in the present study. In terms of this relationship, the previous studies also indicated different results. Some indicated that positive relationship (Ames & Archer, 1988; Butler, 1993; Coutinho, 2007; Gul & Shehzad, 2012; Kharazi et al., 2008), while others found no relationship between these constructs (Ford et al., 1998).

In addition, the results also revealed that there was a significant relationship between mastery goals and performance goals which means that different goal orientation can occur at the same time. This is also in harmony with the existing literature (Barron & Harackiewicz, 2001; Pintrich, 2000; Woodrow, 2012).

The results also indicated the participants' perceived levels of mastery goals, performance goals and metacognitive awareness. As it can be seen in Table 2, the participant perceived levels of mastery goal orientation and performance goal orientation was approximately at the same level, this can be explained by cultural preferences as the previous studies indicated that Eastern cultures more tended to adopt performance goals than Western cultures. However, the sample group may be classified as Middle Eastern (Salili et al., 2001; Woodrow, 2008).

However, seldom cultural preferences cannot explain such kind of result. One needs to consider the context and the education system in it. It is a known fact that in foreign language context the individuals do not have many opportunities to contact with the target community and this facilitates performance goals more by emphasizing competition and testing systems (Williams et al., 2015).

## 5. Conclusion

Metacognition is a strong predictor of academic achievement (Dunning et al., 2003; Öz, 2014), suggesting that learners' metacognitive awareness should be promoted to enable them to be more successful. The findings of the present study indicated statistically significant correlation between mastery goals and metacognition. Therefore, engaging students in activities on goal setting, especially enabling students to set mastery goals for themselves, may help them be more successful. This result also can be interpreted in relation to context which is EFL for the present study. In EFL contexts the individuals do not have enough opportunities to interact with the target community. Thus, the education system is competitive, and testing based, and this system makes learners adopt more performance goals than mastery goals (Anderman, Patrick, Hruda, & Linnenbrink, 2002). However, adopting performance goals is not a desired outcome of the learning process. To avoid this, the teachers may contribute well even though there may be oppositions from their authorities or even the societal values (Williams et al., 2015).

Furthermore, it should be kept in mind that languages are taught as a compulsory course in EFL contexts. Thus, the learners may not have a goal or do not have an idea why they have to learn that language. Therefore, an investigation on their goal orientation should be carried out repeatedly as their orientation could change within time (Dörnyei, 2001).

Even though the relationship between performance goals and metacognition was not statistically significant in the present study, the relationship between mastery goals and performance goals was statistically significant. Thus, the role of performance goals in educational settings should not be denied. In addition, according to the previous studies, setting goals – no matter mastery or performance goals – facilitated academic achievement (Roebken, 2007). Therefore, goal setting has a crucial place in educational settings.

Accordingly, to elevate goal setting, the activities and materials should not conflict with the learners' interests and preferences such as younger learners may prefer more technology based or online tools more than adults; therefore, a need analysis may be required.

For setting long-term goals identification and discussion type of activities could be carried out while for setting short-term goals certain goals can be supported such as “how many words they will learn this week; how many books in the target language they will read; how they will practice speaking the language; how many television programs they will watch in the language” (Williams et al., 2015, p. 103).

However, like all studies this one also has limitations especially in terms of only using quantitative methodology. This gives us a drawback by looking into only the perceived levels of the participants' goal setting and metacognitive awareness. Thus, larger sample studies may be more insightful. Furthermore, the gender distribution is important as the present study did not have equivalent gender distribution due to the context as in Turkey females tend to choose foreign language fields more than males.

In conclusion, the present study indicated that goal setting has a vital role in metacognitive awareness and it is an essential part of self-regulated language learning. Thus, to make students self-regulatory learners, language teachers, curriculum designers, and authorities may try to elevate the students' metacognitive awareness and make them set goals so that the students may become autonomous and good agents, and eventually, successful language learning can occur.



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