

# The Interplay Among Academic Self-Concept, Self-Efficacy, Self-Regulation and Academic Achievement of Higher Education L2 Learners

Yükseköğretimde İngilizce Öğrenen Öğrencilerin Akademik Öz-Benlik, Öz-Yeterlik, Öz-Düzenleme ve Başarıları Arasındaki İlişki

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## ABSTRACT

Self-concept, self efficacy, and self-regulation are three important factors that predict the success of L2 learners to a large extent. Therefore, the present study was designed to measure the academic self-concept, self efficacy, self-regulation level of higher education students in relation to academic achievement and self-evaluation and secondarily to investigate the correlation between academic self-concept, self-efficacy, and self-regulation. In the present study, academic self-concept was conceptualized as comprising of two main components: academic confidence and academic effort. The participants of the study are 130 higher education EFL (English as a Foreign Language) learners enrolled in English Language and Literature department. Liu and Wang's (2005) academic self-concept scale was used as the main data collection tool. It consists of two sub-scales; academic confidence and academic effort scales. A four-item questionnaire was formed by examining the literature in order to measure self-efficacy and Motivated Strategies for Learning Questionnaire (MSLQ), developed by Pintrich et al. (1991), was used to measure self-regulation beliefs of students. Descriptive, variance, correlation and regression analyses were conducted in order to analyze the data. The results indicated that higher education Turkish EFL learners have a moderate-to-high level of self-concept, self-efficacy, self-regulation, and self-evaluation. High achieving students were found to have higher levels of self-regulation, self-evaluation and academic confidence. Correlation analysis indicated that all of the variables of the study are highly correlated with academic success and regression analysis revealed that self-efficacy was the most important predictor of academic success.

**Keywords:** Self-concept, Self-efficacy, Self-regulation, Academic achievement

## ÖZ

Öz-benlik, öz-yeterlik ve öz-düzenleme İngilizce öğrenen öğrencilerin başarılarını önemli ölçüde etkilemektedir. Bu yüzden, bu çalışma yüksek öğretimdeki öğrencilerin öz-benlik, öz-yeterlik ve öz-düzenleme seviyelerini akademik başarı ve öz-değerlendirme açısından ölçmek ve ikincil olarak öz-benlik, öz-yeterlik ve öz-düzenleme arasındaki ilişkiyi araştırmak için tasarlanmıştır. Bu çalışmada akademik öz-benlik, akademik öz-güven ve akademik öz-çaba olarak iki bileşenden oluşmaktadır. Çalışmanın katılımcıları İngiliz Dili ve Edebiyatı Bölümü'nde kayıtlı 130 yükseköğretim öğrencisidir. Liu and Wang'ın (2005) akademik öz-benlik ölçeği ana veri toplama aracı olarak kullanılmıştır. Bu ölçek iki alt kategoriden oluşmaktadır: Akademik öz-güven ve akademik öz-çaba. Öz-yeterliliği ölçmek için alan yazın taraması sonucu 4 maddelik bir sormaca ve öz-düzenleme becerilerini ölçmek için Pintrich et al. (1991) tarafından geliştirilen Güdülenme ve Öğrenme Stratejileri Ölçeği kullanılmıştır. Elde edilen verileri analiz etmek için tanımlayıcı, varyans, korelasyon ve regresyon analizleri kullanılmıştır. Sonuçlar göstermektedir ki yükseköğretimde İngilizce öğrenen Türk öğrenciler ortalama düzeyde akademik öz-benlik, öz-yeterlik, öz-düzenleme ve öz-değerlendirme seviyelerine sahiptirler. Başarı seviyeleri yüksek olan öğrencilerin daha yüksek öz-düzenleme, öz-değerlendirme ve akademik öz-güvene sahip oldukları görülmüştür. Korelasyon analizi çalışmanın bütün değişkenlerinin birbiriyle ve akademik başarıyla ilişkili olduğunu göstermiştir ve regresyon analizi de başarının tek belirleyicisinin öz-yeterlik olduğunu göstermiştir.

**Anahtar Sözcükler:** Öz-benlik, Öz-yeterlik, Öz-düzenleme, Akademik başarı

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## INTRODUCTION

In general, academic self-concept is defined as students' perceptions about their levels of competencies within an academic realm (Ferla et al., 2009; Wigfield & Eccles, 2000). Bracken (2009) defines academic self-concept as "how a person feels about himself or herself within a school or academic setting, or in relation to a student's academic progress" (p. 92). Similarly, some researchers define academic self-concept as the degree of an individual's perception of his or her own proficiency in academic subjects (Bong and Skaalvik, 2003; DiPerna and Elliott, 1999). That is to say, self-concept is a term that denotes the way how students feel about themselves as learners (Guay et al., 2003) and a collection of views about oneself regarding specific academic abilities and perceptions (Trautwein et al., 2006).

Bandura (1995, p.2) defines self-efficacy as "the belief in one's capabilities to organize and execute the courses of action required to manage prospective situations." It refers to students' beliefs as regards their ability to perform a particular task and it is considered among the expectancy components of motivation (Pintrich and De Groot, 1990). It is among the most frequently studied constructs in the field of language education. Students with a high level of self-efficacy have a high level of self-confidence and they believe that they can organize the learning environment conducive to their own learning (Bandura, 1986). To sum up, self-efficacy can be said to refer to an individual's belief in his or her ability to succeed in a particular situation.

Self-evaluation is one of the crucial phases in which individuals evaluate their personal effectiveness in relation to specific learning tasks. It is generally believed that when students can evaluate their own learning, they become more self-regulated learners. Self-evaluation is essential in guiding the learning process on the part of students. According to Zimmerman (2004), teachers can boost students' self-evaluation by guiding them on how to monitor their learning objectives and strategy well and then make the necessary modifications in these objectives.

Self-regulation is defined as the process where learners take the initiative with or without the guidance of others in identifying their own needs, formulating goals, exploring resources, focusing on appropriate learning strategies and evaluating learning outcomes. Self-regulation indicates initiation of action on the part of the learner and includes goal setting and regulating one's efforts to realize desired aims, self-monitoring (meta-cognition), time management, and management of physical and social environment (Zimmerman and Risemberg 1997). It is a central concept in social cognitive theory and refers to an individual's use of three cognitive processes toward goal attainment: self-monitoring, self-judgment and self-reaction (Bandura, 1986). In Zimmerman's terms, self-regulated learning is a process in which students resort to self-regulatory skills like self-assessing, self-directing, controlling and adjusting in order to obtain knowledge (Zimmerman, 1989).

Research on self-concept has attracted the attention of many researchers in different disciplines due to the fact that some studies found a link between self-concept and academic achievement (Liu, 2010). There are some studies that point to the correlation between self-concept and academic achievement (Choi, 2005; Liu, 2008). Recently, Guay, et al. (2010) found that students who had higher level of academic self-concept had higher grades because their academic self-concept enabled them to be more autonomous and motivated. The close link between academic self-concept and academic achievement was also reported in recent studies (Archana & Chamudeswari, 2013; Raju, 2013; Sikhwara, 2014).

The relationship between academic achievement and self-regulation was also studied by Barnard-Brak et al. (2010). They found associations between academic achievement levels and self-regulated learning profiles. Cheng (2011) investigated the relationship between students' self-regulation ability and their learning performance. The results showed that students' learning motivation, goal setting, action control and learning strategies played a significant role in their learning performance. Demirel and Turan (2010) carried out a study on the medical students' self-regulated learning skills and differences between self-regulated learning skills and achievement. Results of the study suggested that there were statistically significant differences between students' self-regulated learning skills and their achievement levels. Successful students were found to have more self-regulated learning skills in all stages of learning.

As stated above, self-efficacy refers to beliefs that an individual holds in regard to his/her ability to perform a specific task. Self-efficacy beliefs can influence an individual's effort exerted in the attainment of a task or one's academic achievement (Bandura, 1997). There are a number of studies that point to the relation between self-efficacy and academic achievement (Pintrich and Schunk, 2002; Mills et al., 2007; Kitsantas and Zimmerman, 2009). In a study, Ching (2002) found that students with high self-efficacy beliefs were confident about what they could achieve, set themselves challenges and were committed to achieving them, and worked harder to avoid failure.

There is also a bulk of research that discovered the relationship between self-efficacy beliefs and course grades (Mills et al., 2007; Hsieh & Schallert, 2008), proficiency in reading (Mills et al., 2006; Mills et al., 2007), and listening (Mills et al., 2006; Magogwe and Oliver, 2007; Tıfarlıoğlu and Çiftçi, 2011). Almost all of these studies found positive correlations between self-efficacy and the stated areas. On the other hand, according to Wang and Pape (2007), factors like past experience, interest, attitudes toward English language, social persuasion, task difficulty, and social and cultural setting to be important for determining learners' self-efficacy level.

A thorough analysis of the relation between self-efficacy and a number of variables in EFL contexts was carried out by Raofi et al. (2013). This analysis covers the years from 2003 to 2012. Among the articles they worked on a bulk of them focused on self-efficacy and EFL performance or grade levels (i.e. Mills et al., 2007; Hsieh and Schallert, 2008) or proficiency in reading

(i.e. Mills et al., 2006; Mills et al., 2007), listening (i.e. Mills et al., 2006; Magogwe & Oliver, 2007; Tilfarlıoğlu & Ciftçi, 2011). The results of these studies indicated that there is a positive relationship between self-efficacy and performance.

Literature abounds in studies that cover self-concept, self-efficacy, or self-regulation separately based on a number of different variables. However, there are few studies that focus on the relation among them. This study attempts to investigate them in relation to each other and in relation to their influence on students' academic achievement. Therefore, the present study aims to answer the following questions:

1. What are the perceptions of higher education EFL students in terms of academic confidence, academic effort, self-efficacy, self-regulation, and self-evaluation?
2. Are there differences between high achieving and low achieving higher education EFL students in terms of their perceptions in academic confidence, academic effort, self-efficacy, self-regulation, and self-evaluation?
3. Is there any correlation among academic confidence, academic effort, self-efficacy, self-regulation and self-evaluation and academic success and which of these variables are predictors of academic achievement?

## METHODOLOGY

### Participants

The participants of the study are 130 higher education EFL learners enrolled in English Language and Literature department. The number of female students is 96 (67.1%), and the number of male students is 34 (23.8%). The number of regular education students is 69 (48.3%) and the number of evening education students is 56 (36.2%). In terms of grade level, the number of 2<sup>nd</sup> grade students is 60 (42.00%), 3<sup>rd</sup> grade students is 64 (44.8%), and 4<sup>th</sup> grade students is 3 (2.1%). The age range of the students ranges from 19 to 25.

### Data Collection Tool

In order to collect data, the original academic self-concept scale developed by Liu and Wang (2005), was used. The scale has two sub scales; (a) academic confidence, and (b) academic effort, each with 10 items to collect the students' academic self-concept information. The items included both negatively and positively worded items to avoid the same answers from the students. Both academic confidence and academic effort items

were mixed in the scale; academic confidence items taking odd numbers (1, 3, 5, 7, 9, 11, 13, 15, 17, 19), while academic effort items taking even numbers (2, 4, 6, 8, 10, 12, 14, 16, 18, 20). In the same questionnaire, the students were requested to report their current Cumulative Grade Point Average (CGPA) which was used as a measure of their academic achievement. In order to measure self-efficacy beliefs of the participants, a 4-item questionnaire was prepared by researching the literature. Self-regulation level of the participants was measured by the self-regulation sub-component of Motivated Strategies for Learning Strategies (MSLQ), which was developed by Pintrich et al. (1991). MSLQ is a comprehensive 81-item self-report instrument designed to measure college students' motivational orientations and their use of different learning strategies, one of which is self-regulation. The MSLQ uses a five-point Likert scale ranging from 1 (labeled "strongly disagree") to 5 (labeled "strongly agree") with no specific labels for the other response categories. Finally, the level of self-evaluation of the participants was measured by asking learners how they rated themselves in four language areas.

### Research Design

The present study is a quantitative study based on survey method. The study employs descriptive and correlation analyses.

### Data Analysis

In the first place, descriptive analyses were conducted in order to measure the general level of the participants in terms of the variables of the study. As a next step, variance analysis (ANOVA) was conducted in order to compare students in terms of their duration of study and variables of the study. Then, the data were subjected to correlation and regression analysis in order to see the relationships among the variables of the study and to determine the predictor of academic success.

## RESULTS

*Research question 1: What are the perceptions of higher education students in terms of: academic confidence, academic effort, self-efficacy, self-regulation, and self-evaluation?*

In order to get a complete picture of the level of higher education EFL learners in terms of academic self-concept, self-efficacy, self-regulation, academic confidence, academic effort, and self-evaluation, descriptive statistics were applied. The results are given in the table below.

**Table 1:** Descriptive Statistics about the Variables of the Study

Variables	n	Range	Minimum	Maximum	Mean (M)	Sd
Self-efficacy	130	17.00	7.00	24.00	14.03	3.11
Self-regulation	130	20.00	10.00	30.00	17.73	2.78
Academic confidence	130	43.00	17.00	60.00	31.96	5.06
Academic effort	130	41.00	19.00	60.00	33.71	5.10
Self-evaluation	130	18.00	11.00	29.00	19.85	3.65

The results indicate that the participants have a moderate level of self-efficacy ( $M=14.03$ ), self-regulation ( $M=17.73$ ), academic confidence ( $M=31.96$ ), academic effort ( $M=33.71$ ), and self-evaluation ( $M=19.85$ ).

To further analyze the level of self-efficacy, self-regulation, academic confidence, academic effort and self-evaluation, the results of 130 participants were grouped as low, moderate, and high. In order to do this, the maximum values were divided into three so that the cut-off points could be determined. The cut-off points for the variables are as follows: self-efficacy (low=0-6, moderate=7-13, and high=14-20), self-regulation (low=0-8, moderate=9-17, high=18-25), academic confidence (low=0-16, moderate=17-33, high=34-50), academic effort (low=0-16, moderate=17-33, high=34-50), and self-evaluation (low=0-10, moderate=11-20, high=21-30). The results are presented in Table 2.

According to the results, 43% of the participants have a moderate level of self-efficacy, 42.30% of the participants have a moderate level of self-efficacy, and 14.61% of the participants have a low level of self-efficacy. Depending on the results, we can say that the participants have a moderate to high level of self-efficacy. In terms of self-regulation, we can see in the table that 48.6% of the participants have a high level of self-regulation and 47.69% of the participants have a moderate level of self-regulation. We can say that the participants have a moderate to high level of self-regulation. As for academic confidence, which is one of the components of academic self-concept, 33.81% of the participants have a high level of academic confidence and 65.38% of the participants have a moderate level of academic confidence. These results make it clear that the participants have a moderate level of academic confidence. As for the academic effort, the Table 2 indicates that 50.76% of the participants have a high level of academic effort and 48.46% of the participants have a moderate level

of academic effort. We can understand that the participants have a high level of academic effort. Finally, 43.84% of the participants have a high level of self-evaluation and 55.38% of the participants have a moderate level of self-evaluation. We can understand that the level of self-evaluation is moderate.

We can understand from Table 3 that the students have a moderate to high level of medium scores for the items. We can say that a moderate number of the participants expect to do well in their courses ( $M=3.45$ ), and a moderate number of them believe that they know better than their classmates ( $M=3.37$ ). A moderate number of the participants believe that they can understand what is taught in lessons ( $M=3.70$ ).

When we examine Table 4, we can see that most of the participants are aware of the material that they are studying ( $M=3.75$ ), know the things that they will need prior to the lesson ( $M=4.11$ ), stop and go over the study material at intervals ( $M=3.47$ ), and study to get a high mark even when they do not like the subject matter ( $M=3.52$ ).

The descriptive statistics about academic self-concept are presented in Table 5. As we can understand from the table, a huge number of students work to get high marks ( $M=4.44$ ). A moderate number of students can follow lectures ( $M=3.69$ ), can help their classmates ( $M=3.61$ ), believe that they are better than their classmates in most courses ( $M=3.49$ ), and believe that they are good at the courses ( $M=3.25$ ).

The results pertaining to academic effort are presented in Table 6. The table demonstrates that a huge number of the participants do their best to pass all the courses in the stated semester ( $M=4.13$ ). A moderate number of the participants stated that they pay attention to lectures ( $M=3.85$ ), study hard for their tests ( $M=3.78$ ), do not give up in the face of difficulties ( $M=3.80$ ), and are usually interested in lectures ( $M=3.38$ ).

**Table 2:** Distribution of the Variables of the Study

Variables	Low		Moderate		High	
	f	%	f	%	f	%
Self-efficacy	19	14.61	55	42.30	56	<b>43.00</b>
Self-regulation	5	3.84	62	47.69	63	<b>48.46</b>
Academic confidence	1	0.76	85	<b>65.38</b>	44	33.81
Academic effort	1	0.76	63	48.46	66	<b>50.76</b>
Self-evaluation	1	0.76	72	<b>55.38</b>	57	43.84

**Table 3:** Descriptive Statistics About Self-Efficacy

Self-efficacy	n	Min.	Max.	Mean (M)	Sd
Compared with other students in this class I expect to do well.	130	1	6	3.45	0.957
I'm certain I can understand the ideas taught in courses.	130	1	6	3.70	0.877
I expect to do very well in this class.	130	2	6	3.52	0.950
Compared with other students in this class I think I know a great deal about the subjects.	130	1	6	3.37	0.882

*Research question 2: Are there differences between high achieving and low achieving higher education EFL students in terms of their perceptions in academic confidence, academic effort, self-efficacy, self-regulation, and self-evaluation?*

In order to determine whether there are statistically significant differences between achievement levels in terms of the variables of the study, the group was divided into two achievement groups: low achieving group and high achieving group. The average grades of the students was calculated and

the median value was found. Students were then grouped as low achieving or high achieving based on the value of median (2.45). Then, a T-test was conducted in order to see the statistically significant differences between the two groups. The results are presented in Table 7. Some of the items in academic self-confidence dimension are negatively worded. They were transformed prior to the analysis.

As we can understand from Table 7, there are statistically significant differences between the two groups in terms of

**Table 4:** Descriptive Statistics About Self-Regulation

Self-regulation	n	Min.	Max.	Mean (M)	Sd
I ask myself questions to make sure I know the material I have been studying.	130	2	6	3.75	0.865
When work is hard I either give up or study only the easy parts.	130	1	6	2.89	1.170
Before I begin studying I think about the things I will need to do to learn.	130	2	6	4.11	0.790
When I'm reading I stop once in a while and go over what I have read.	130	1	6	3.47	1.087
I work hard to get a good grade even when I don't like a class.	130	1	6	3.52	1.129

**Table 5:** Descriptive Statistics About Academic Confidence

Academic confidence	n	Min.	Max.	Mean (M)	Sd
I can follow the lectures easily	130	1	6	3.69	0.99
I am able to help my course mates in their school work	130	1	6	3.61	1.04
If I work hard, I think I can get better grades.	130	1	6	4.44	0.90
Most of my course mates are smarter than I am.	130	1	6	2.56	1.27
My lecturers feel that I am poor in my studies.	130	1	6	2.75	1.22
I often forget what I have learned.	130	1	6	2.87	1.14
I get frightened when I am asked a question by the lecturers.	130	1	6	2.88	1.24
I am good in most of my courses.	130	1	6	3.25	0.96
I always do poorly in course works and tests.	130	1	6	2.52	1.12
I am able to do better than my friends in most courses.	130	1	6	3.40	0.99

**Table 6:** Descriptive Statistics About Academic Effort

Academic effort	n	Min.	Max.	Mean (M)	Sd
I day-dream a lot in lectures.	130	1	6	2.72	1.18
I often do my course work without thinking.	130	1	6	2.69	1.10
I pay attention to the lecturers during lectures.	130	1	6	3.85	1.00
I study hard for my tests.	130	2	6	3.78	0.98
I am usually interested in my course work.	130	1	6	3.73	0.99
I will do my best to pass all the courses this semester.	130	1	6	4.13	1.02
I often feel like quitting the degree course.	130	1	6	3.13	1.34
I am always waiting for the lecture to end and go home.	130	1	6	3.38	1.26
I do not give up easily when I am faced with a difficult question in my course work.	130	1	6	3.80	1.05
I am not willing to put in more effort in my course work.	130	1	6	2.49	1.09

academic confidence ( $p = .000 < .05$ ), self-regulation ( $p = .011 < .05$ ), and self-evaluation ( $p = .003 < .05$ ). However, there are no statistically significant differences between the two groups in terms of academic effort ( $p = .247 > .05$ ) and academic effort ( $p = .216 > .05$ ). Now that academic self-confidence is the second component of academic self-concept, we can say that the high achieving group has a significantly higher level of self-concept. We can understand that high achieving group can follow lectures easily, help their coursemates in their school work and think that they would get higher marks if they studied. High achieving group also feel confident in issues related to the courses. They believe that they are good in courses and they are not frightened in the face of failure. It is also important that high achieving group rated themselves higher in terms of self-regulation. We understand that they have more managing power on the material they are learning, they plan and monitor the learning process, and they work hard to get high marks. High achieving students were also found to be better than low achieving students in terms of self-efficacy. This means that they believe that they perform better than other students, they expect to do well in courses, and they believe that they know a great deal about the courses they work on.

*Research question 3: What is the correlation among academic confidence, academic effort, self-efficacy, self-regulation, and self-evaluation and academic success and which of these variables are predictors of academic achievement?*

In order to investigate the relation between (a) academic confidence, (b) academic effort, (c) self-efficacy, (d) self-

regulation, and (e) self-evaluation and academic success, correlation analysis was carried out. The results are presented in Table 8.

As it can be seen from Table 5, there are positive relationships between academic achievement and academic confidence ( $r = .46, p < .01$ ), self-efficacy ( $r = .26, p < .01$ ), self-regulation ( $r = .26, p < .01$ ), and self-evaluation ( $r = .32, p < .01$ ). Interestingly, the correlation between academic achievement and academic effort was rather low ( $r = .17, p < .01$ ). The highest correlation occurred between academic confidence and academic achievement. This indicates the important of academic confidence and indirectly the importance of academic self-concept in academic achievement.

As a next step, in order to determine the predictors of academic achievement within the variables of the study, a regression analysis was conducted. The results are given in Table 9.

Table 9 reports the results of multiple linear regression analysis for the variables of the study and academic achievement. The multiple correlation coefficient was 48, revealing that nearly 23% of the variance in the sample can be accounted for the linear combination of variables in the study. T-test results for the significance of regression coefficients illustrated that self-efficacy ( $\beta = .39, p < .05$ ) and was the only significant predictor of academic achievement. Other variables were not significant in predicting academic achievement at higher education for Turkish ELL learners ( $\beta = .06, p > .05$ ;  $\beta = .05, p > .05$ ;  $\beta = .06, p > .05$ ,  $\beta = .12, p > .05$ ,  $\beta = .08, p > .05$ ,  $\beta = .02, p > .05$ , respectively).

**Table 7:** T-test Results for Low Achieving and High Achieving Groups

Variable	Groups	n		Sd	f	p
Academic confidence	low achieving group	59	12.78	2.51	1.450	<b>.000</b>
	high achieving group	51	15.24	3.28		
Academic effort	low achieving group	59	17.58	2.21	2.301	.247
	high achieving group	51	18.16	3.00		
Self-efficacy	low achieving group	59	31.59	3.83	1.567	.216
	high achieving group	51	32.73	5.64		
Self-regulation	low achieving group	59	32.71	4.61	0.342	<b>.011</b>
	high achieving group	51	35.08	4.94		
Self-evaluation	low achieving group	59	19.32	3.02	2.627	<b>.003</b>
	high achieving group	51	21.27	3.66		

**Table 8:** Pearson Product-Moment Correlations Among Variable of the Study and Academic Success

Variables	acaachiv	acacon	acaef	seleffic	selgreg	selfeva
acaachiv		.46**	.17	.20*	.26**	.32**
acaconfidence			.49**	.41**	.51**	.45**
acaeffort				.58**	.54**	.26**
seleffic					.62**	.27**
selgreg						.35**
selfevaluation						

Notes: \* $p < .05$ ; \*\* $p > .01$

**Table 9:** Results of Multiple Regression Analysis for Academic Achievement

Variables	B	SE	$\beta$	t	p
Constant	1.131	.429		2.635	0.010
Academic confidence	0.002	0.013	0.015	0.129	0.897
Academic effort	0.006	0.012	0.053	0.462	0.645
Self-efficacy	0.066	0.019	0.397	3.515	<b>0.001</b>
Self-regulation	0.012	0.022	0.061	0.556	0.580
Self-evaluation	0.019	0.015	0.126	1.278	0.204

Notes:  $R = .48$ ;  $R^2 = .23$ ;  $F(2, 52) = 6.14$ ;  $p = .000$

## DISCUSSION and CONCLUSION

The findings of the study indicated that the participants have a moderate-to-high level of self-efficacy and self-regulation, a moderate level of academic confidence and self-evaluation and a relatively high level of academic effort. Self-evaluation in the present study was conceptualized as self-evaluation of EFL learners in relation to four language skills. In order to measure their self-evaluation, they were asked to rate their success in four language skills. The results showed that they have a moderate level of self-evaluation.

In literature, there are a number of studies that point out that academic self-concept and academic achievement are closely related (Cokley, 2000; Awad, 2007; Tan & Yates, 2007; Marsh, 2004). Guay, et al. (2003) also put forward that both academic self-concept and academic achievement directly influence each other; that is, they are reciprocal. Raofi et al. (2013) examined 32 studies on self-efficacy that were carried out from 2003 to 2013 to carry out a thorough analysis of the relation between self-efficacy and a number of variables in EFL contexts. Most of these studies also indicated that there was a close relation between self-efficacy and academic performance. Recently, in Turkish context, Pehlivan and Köseoğlu (2010) found a significant positive relationship between the students' achievement levels and academic self concepts. The present study has found that although self-concept is not one of the predictors of success at higher education level, it is related to academic achievement and high achieving students tend to have more academic self-confidence, more self-regulation, and view themselves more successful in all language skills.

The other variables of the study, namely, self-regulation, self-efficacy, and self-evaluation, are also related to academic achievement. There is a bulk of studies that confirm the link between self-regulation and academic success. Demirel and Turan (2010) found a link between self-regulation and academic achievement. Cheng (2011) also found a correlation between self-regulation and academic achievement. Quite recently, Kırmızı (2014) worked on self-regulation and found that self-evaluation and metacognition components of self-regulation were particularly highly correlated with academic success. In another study in Turkish context, Tilfarlıoğlu and Cinkara (2009) also indicated the close connection between self-efficacy and academic performance. The present study also found a high level of correlation between self-regulation and academic achievement.

The findings of the present study also indicated that there is a positive relationship between students' self-efficacy beliefs and their academic performance. According to the results of the present study, the most important predictor of academic achievement was self-efficacy ( $\beta=0.001$ ,  $p<00.5$ ). Earlier research has indicated that self-efficacy has a stronger effect on academic performance than other motivational variables, such as self-regulation (Kitsantas & Zimmerman, 2009; Pintrich and De Groot, 1990; Pintrich and Schunk, 2002). Therefore, we can say that self-efficacy is one of the most important variables that determine the self-regulation beliefs of students and their success.

In the present study, the participants were grouped into two groups: low achievers and high achievers. They were compared in terms of academic self-concept, self-efficacy, self-regulation, and self-evaluation. The results indicated that there are statistically significant differences between low achieving and high achieving groups in terms of academic confidence (a sub-dimension of self-concept), self-regulation, and self-evaluation. This finding is in line with the literature. There are a number of researchers who claimed that academic achievement influences academic self-concept (Marsh, et al. 1999; Marsh, et al. 2002). Recently, Guay, et al. (2010) found that students who had higher level of academic self-concept had higher grades because their academic self-concept enabled them to be more autonomous and motivated.

In the present study, the relationship between academic self-concept and academic achievement was conceptualized as unidirectional. That is to say, the present study worked on the influence of academic self-concept on academic achievement. However, from the literature we learn that the relation between academic self-concept and academic achievement can be considered reciprocally. Currently, a number of researchers support the reciprocal-effects model, in which academic self-concept and academic achievement serve as a predictor of one another (De Fraine, et al., 2007; Marsh, et al., 2002). Therefore, in another study the relation between academic self-concept and academic achievement can be considered reciprocally.

Rodriguez (2009) stated that academic self-concept plays a crucial role in learning and determines students' motivational orientation. Therefore, there is a need to carry out studies that explore the relation between academic self-concept and motivation. In another line of research, the influential

factors that foster self-efficacy of learners were studied. Çakır and Alici (2009), for example, found that past experiences and social persuasions fostered the development of self-efficacy. Similarly, Wang and Pape (2007) announced that past experiences, interest, and attitudes towards English language play significant roles in the development of self-efficacy. Therefore, more research can be carried out on the factors that enhance self-efficacy of learners.

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