

## Academic Efficacy As a Mediator and Moderator Variable In the Relationship Between Academic Procrastination and Academic Achievement

Murat Balkis\*

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### Abstract

*Problem statement:* Numerous studies have reported that several factors negatively and positively affect academic performance among college students, such as time spent on tasks, motivation, study habits, level of experienced stress, academic procrastination, level of perceived efficacy, burnout, self esteem, and etc. The studies reported that both procrastination and self-efficacy are related with academic achievement, and significantly predict academic achievement. Students with high level of procrastination reported that they have low level of self-efficacy and poor academic achievement, in spite of students with high level self-efficacy reported that less level of procrastination and higher level of academic achievement. Those studies only focused on the main effect of procrastination and self- efficacy on academic achievement. None of them have focused on the mediator or moderator role of self-efficacy in relation between academic procrastination and academic achievement.

*The purpose of the study:* The purpose of this study is to investigate the mediator and moderator role of academic-efficacy to predict the effect of procrastination on academic achievement.

*Methods:* The participants were 364 students who study different major fields at the Faculty of Education in Pamukkale University. In this study, Aitken Procrastination Inventory Academic-Efficacy Scale, and Personal Information sheet were used to gather data.

*Findings and Results:* In general, academic efficacy has partial mediator role in relation to the academic procrastination and reported academic achievement. Results also showed that academic-efficacy moderate relationship between academic procrastination and reported academic

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\* Asst. Prof. Dr., Pamukkale University Faculty of Education, mbalkis@pau.edu.tr

achievement by raising reported academic achievement and reducing academic procrastination

*Conclusions and Recommendations:* As a result, reducing academic procrastination and raising academic-efficacy are important for academic achievement. School counselor and educator could utilize a procrastination measure to help students determine their level of procrastination and determine whether or not they may need to work with a counselor to gain skills to combat their procrastination.

*Key words:* Academic procrastination, academic efficacy, academic achievement

Numerous studies have reported several factors that negatively and positively affect academic performance among college students, such as time spent on tasks, motivation, study habits, level of experienced stress, procrastination, level of perceived efficacy, burnout, self esteem, and etc(Balkis & Duru, 2009; Bowles, 1999; Conti, Amabile,& Pollack, 1995; Credé & Kuncel, 2008; Felsten & Wilcox, 1992; Klassen, Krawchuk, & Rajani, 2008; Lockett & Harrell, 2003; Yang, 2004).

Tuckman (1991) defined procrastination as to delay work that could be under one's control due to the lack of self-regulating performance. Academic procrastination has been defined by Senécal, Julian, and Guay (2003) "as an irrational tendency to delay at the beginning or completion of an academic task" (p.135). Recently, research has revealed the presence of procrastination among college students (Balkis & Duru, 2009; Çetin; 2009; Day, Mensink, & O' Sullivan, 2000; Ferrari, Johnson, & McCown, 1995; Haycock, 1993; Onwuegbuzie, 2000; Özer, Demir, & Ferrari, 2009; Solomon & Rothblum, 1984).

Research has also shown that procrastination is related to poor academic performance (Balkis & Duru, 2009; Beck, Koons, & Milgrim, 2000; Beswick, Rothblum, & Mann, 1988; Çetin, 2009; Fritzsche, Young, & Hickson, 2003; Klassen, Krawchuk, & Rajani, 2008; Özer, Demir, & Ferrari, 2009; Wesley, 1994), less effort on the task (Saddler & Buley, 1999), and low task capability (Milgram, Marshevsky, & Sadeh, 1995). Briefly, the studies reported above are indicating that procrastination is a widely- experienced problematic behavior among college students a behavior that has negative effects on academic achievement. These studies only focused on the main effect of procrastination on academic achievement. However, it could be expected that there may be different latent or mediator variables in relation to academic procrastination and academic achievement.

The other important factor that influences academic performance is self-efficacy. Self-efficacy is based on beliefs that will lead to success or a sense of mastery (Ames, 1992, Ames & Archer, 1988). Bandura (1989) defines this construct "as people's judgments of their own skills to organise and execute actions which are required to attain the preferred types of performance with current skills" (p.319). Zimmerman (1995) defined academic efficacy "as personal judgments of one's capabilities to organise and execute courses of action to attain designated types of educational performances" (p.203). In self-efficacy theory, academic efficacy includes judgments on abilities to fulfill tasks in specific academic domains (Dorman, Fisher, & Waldrip, 2006).

Research findings have provided evidence that academic self-efficacy is an important factor affecting academic achievement (Adeyemo, 2007; Andrew, 1998; Bandura, 1986, 1991; Chemers, Hu, & Garcia, 2001; Klassen, Krawchuk, & Rajani, 2008; Lane & Lane, 2001; Pajares, 1996; Multon, Brown, & Lent, 1991; Wood & Locke, 1987). For example Multon, Brown, and Lent (1991) found that academic efficacy is a consistent positive predictor of academic achievement. In the light of the above evidence, it could be said that students with high levels of academic self-efficacy have high levels of academic achievement; however students with low levels of academic self-efficacy have poor academic achievement. Considering a positive relationship between academic self-efficacy and academic achievement, the question of whether academic efficacy can take an active part in the relationships between academic procrastination and academic achievement arises. Bandura (1986) argued that when adequate levels of ability and motivation exist, self-efficacy would affect a person's task initiation persistence. According to Bandura (1986), behavior avoidance can be the result of weak efficacy beliefs, whereas strong efficacy beliefs can promote behavior initiation and persistence. Considering the hypothetical role that self-efficacy plays in completing behavior, it could be said that students with high levels of academic procrastination have low self-efficacy or students with confidence in their ability to do their schoolwork are less likely to procrastinate. There are a few studies that attempted to investigate the link between procrastination and self-efficacy (Ferrari, Parke, & Ware, 1992; Haycock, McCarthy, & Skay, 1998; Klassen, Krawchuk, & Rajani, 2008; Tuckman, 1991; Tuckman & Sexton, 1992). These studies suggested that procrastination is negatively related to self-efficacy.

Briefly, those studies reported above indicate that both procrastination and self-efficacy are related to academic achievement, and can significantly predict academic achievement. Students with high levels of academic procrastination reported that they have lower levels of self-efficacy and poor academic achievement, and students with high levels self-efficacy reported that lower levels of academic procrastination and higher levels of academic achievement. These studies only focused on the main effects of procrastination and self-efficacy on academic achievement. None of them have focused on the mediator or moderator role of self-efficacy in relation to academic procrastination and academic achievement. In the light of the hypothetical explanations made by Bandura (1997) that self-efficacy has a mediating role over behavior, and from the results of the research mentioned above, it could be expected that the relationship between academic procrastination and academic achievement might differ depending on the level of the students' academic efficacy. When students are confident in their abilities, they may be more motivated to initiate their assignments than students with lower levels of academic efficacy (Bandura, 1997). In fact, Seo (2008) reported that self-efficacy fully mediated relation to procrastination and self-oriented perfectionism. This finding supported Bandura's (1997) consideration that self-efficacy has a mediating role over behavior.

So, does the effect of academic procrastination on academic achievement differ depending on the level of students' academic efficacy? The answer given to this question may serve as a basis to make up psycho-educational workshops to improve students' academic achievement and reduce the level of academic procrastination

within the school setting. The purpose of this study is to investigate whether academic efficacy has moderating and mediating roles in relation to academic procrastination and academic achievement. On the basis of the hypothetical explanations made by Bandura (1997) and research showing negative relationships between academic procrastination self-efficacy, and academic achievement, and positive relationships between academic self-efficacy and academic achievement, the hypothesis of this study is that academic efficacy has mediating and moderating effect of academic procrastination on academic achievement.

## Method

### *Participants*

The sample included a total of 364 undergraduate students (60.2% women (219) and 39.8% men (145)) ranging in age from 18 to 27 years ( $M = 21.15$ ,  $SD = 1.76$ ) from Pamukkale University. Participants were 8.8 % freshmen, 43.1 % sophomores, 25 % juniors, and 23.1 % seniors.

### *Measures*

*Aitken Procrastination Inventory (API)*. The API is a 19-item self-report measure of academic procrastination (Aitken, 1982). Participants indicated the extent to which they believe the statements such as "If I had an important project to do, I'd get started on it as quickly as possible". The statements are rated on a 5- point Likert scale with response options of false, mostly false, sometimes false/sometimes true, mostly true, and true. Aitken (1982) reports adequate internal consistency of the measurement with a coefficient alpha of .82. Aitken (1982) reported high correlations of the API with three objective measures: (a) the number of late papers that students had turned in during the academic year ( $r = .48$ ,  $p < .001$ ); (b) when the students completed their term paper ( $r = .45$ ,  $p < .001$ ); and (c) when the students began to study for assigned tests in the class (first test:  $r = .46$ ,  $p < .001$ ; second test:  $r = .37$ ,  $p < .001$ ). These results indicate a high degree of predictive validity for API.

Balkis (2006) examined psychometric characteristics of API for the Turkish population. The author reported that the internal consistency coefficient for the API was  $\alpha = .89$  and four weeks of test-retest reliability correlations for the API were .87. API has been related positively with avoidance ( $r = .618$ ,  $p < .001$ ) and spontaneous decision-making styles ( $r = .289$ ,  $p < .001$ ) and negatively with rational decision-making style ( $r = -.390$ ,  $p < .001$ ) (Balkis, 2006).

*Academic Efficacy*. An academic efficacy subscale of the Maslach Burnout Inventory-Student Survey (Schaufeli, Martínez, Marqués-Pinto, Salanova, & Bakker, 2002) was used to assess participants' academic efficacy. An example of the academic efficacy measure includes "I can effectively solve the problems that arise in my studies, and during class I feel confident that I am effective in getting things done". Students must indicate the level of agreement with each item, which were scored on a 7-point Likert response scale from 1 (never) to 7 (always). They report adequate internal consistency of the measure with a coefficient alpha of .67 for academic efficacy.

Uludağ and Yaratan (2010) examined psychometric characteristics of MBI-SS for the Turkish population. The authors reported that the internal consistency coefficient for the exhaustion was  $\alpha = .90$ , internal consistency coefficient for the cynicism was  $\alpha = .89$  and consistency coefficient for the academic efficacy (also known as professional efficacy) was  $\alpha = .95$  (Uludağ & Yaratan, 2010). The internal consistency coefficient for academic efficacy scale, considering the sample of this study, was  $.73$

*Demographic Information Sheet.* The demographic information sheet, prepared for this study, includes personal information such as gender, age, and academic achievement.

#### **Procedure**

Permissions to approach the participants were obtained from related departments in the university. The study was voluntary and anonymous. An informed consent form was given to the students along with a questionnaire booklet containing the two measures described above as well as a short demographic measure. The data collection was done during students' class meetings by receiving permissions from the instructors.

#### **Data Analysis**

For analysis of the data, an SPSS 15 program was used. A Pearson Correlation was utilised to set the relationships between variations. To test the role of academic efficacy in relation to the academic procrastination and reported academic achievement, mediation and moderation analyses were used. In the research, the meaningfulness level was set at a minimum of 0.05, and other meaningfulness levels were indicated as (0.01 and 0.001).

### **Findings and Results**

Descriptive statistics and bivariate zero-order correlations for measured variables are presented in Table 1. Results from the correlation analyses showed statistically significant correlations between academic efficacy scores, academic procrastination scores, and reported academic achievement. Academic procrastination was negatively correlated with academic efficacy and reported academic achievement, and academic efficacy was positively correlated with reported academic achievement.

**Table 1**

*Descriptive Statistics and Correlations (N=364)*

	M	SD	1	2	3
1. Academic Procrastination	35.72	9.72	-	-.474**	-.458**
2. Academic Efficacy	32.58	5.31		-	.437**
3. Reported Academic Achievement	2.47	.39			-

\*\* $p < .01$

In order to test the mediator role of academic efficacy in relation to academic procrastination and reported academic achievement, mediation analyses were used. Baron and Kenny (1986) proposed a four-step procedure to test the mediation analyses. According to this procedure, mediation is established only if four conditions can be met. The first two conditions require a demonstration in two separate regression equations that independent variables are related both with the dependent variable (first condition) and the mediator (second condition). The third condition requires that the mediator have an effect on the dependent variable after the effects of predictors on the dependent variables are taken into account. The fourth condition involves a comparison between results obtained under conditions 1 and 3. In this case, empirical support for mediation is provided if the effect of the mediator variable on the dependent variable is reduced when the effect of the mediator on the dependent variable is accounted for. In the present study, the key mediator was academic efficacy, whereas the dependent variable was reported academic achievement. Finally, the independent variable was academic procrastination.

The model was tested in four regression equations. Results are presented in Figure 1. The first regression equation was evaluated to ascertain if academic procrastination was related to the dependent variable of reported academic achievement. Results showed that the reported academic achievement was regressed by academic procrastination ( $R^2 = .21$ ,  $\beta = -.458$ ,  $p < .001$ ). These results suggested that academic procrastination had a negative contribution to predicting reported academic achievement (first condition). The second equation was used to evaluate if academic procrastination was related to academic efficacy. Results showed that academic efficacy was regressed by academic procrastination ( $R^2 = .23$ ,  $\beta = -.474$ ,  $p < .001$ ). The results also revealed that academic procrastination had a negative contribution to predicting academic efficacy (second condition). The third equation was evaluated to find if the mediator variable, academic efficacy was related to the reported academic achievement. Reported academic achievement was regressed onto academic efficacy ( $R^2 = .19$ ,  $\beta = .437$ ,  $p < .001$ ). Results revealed that reported academic achievement was significantly and positively predicted by academic efficacy (third condition). Finally, the fourth equation was used to test whether academic efficacy mediated the relationship between academic procrastination and reported academic achievement. Academic procrastination and academic efficacy were entered together. Academic procrastination ( $\beta = -.324$ ,  $p < .001$ ) was negatively related to the change in reported academic achievement and academic efficacy ( $\beta = .283$ ,  $p < .001$ ). The regression model contributed a significant amount of variance to reported academic achievement (.27%). Moreover, the regression coefficient for academic procrastination decreased from  $-.458$  to  $-.324$  with a reduction of 30%. This finding implies that the relationship between academic procrastination and reported academic achievement was mediated 30% by academic efficacy. Sobel test analyses were statistically significant. Results from the Sobel test analyses were ( $Z = 12.46$ ,  $p < .001$ ). These results indicated that academic efficacy partially mediated the relationship between academic procrastination and reported academic achievement.

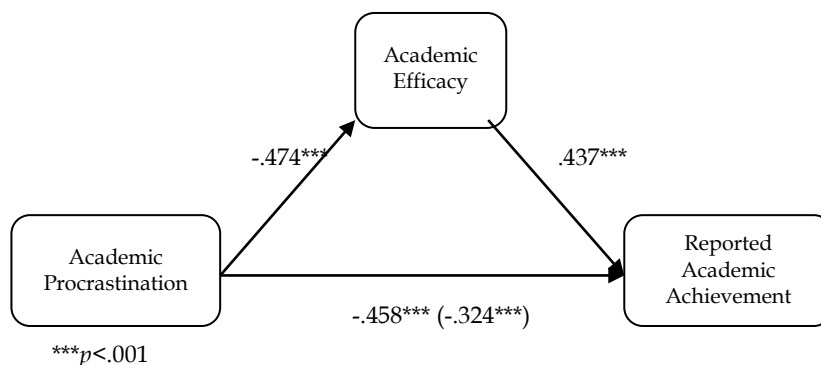


Figure 1. Model of mediating role of academic efficacy on the relationship between academic procrastination and reported academic achievement

Note: Value in the parentheses is the reduced beta coefficient when mediator is added to model with academic procrastination.

Secondly, to test the moderator role of academic efficacy in relation to academic procrastination and reported academic achievement, hierarchical regression analyses were used. In order to test interaction effects of academic procrastination and academic efficacy, these variables were standardised. In order to reduce problems associated with multicollinearity between the interaction term and the main effects when testing for moderator effects (Frazier, Tix, & Baron, 2004), z-scores were calculated for academic procrastination and academic efficacy. In the hierarchical regression model, first at Step 1 and Step 2, the predictor (academic procrastination) and moderator (academic efficacy) were entered successively into the regression equations. At Step 3, interactions of academic procrastination  $\times$  academic efficacy were added. In the model, a significant change in  $R^2$  for the interaction term indicates a significant moderator effect. Results are presented in Table 2 and Figure 2. Results showed that reported academic achievement was predicted by academic procrastination ( $\beta = -.458, p < .001$ ), academic efficacy ( $\beta = .283, p < .001$ ), and by the interaction of academic procrastination  $\times$  academic efficacy ( $\beta = -.146, p < .001$ ). These findings showed that academic efficacy had a moderating effect on the relationship academic between procrastination and reported academic achievement. Regarding interaction effects, the change of  $R^2$  does not reach the conventional level of significance (from .27 to .29). To make the interpretation of these results clear, this significant interaction effect has been represented graphically. In order to determine the values of the variables,  $\pm 1$  SD with respect to the mean were taken. A high value in a variable corresponds to scores one standard deviation higher than the mean, while a low value corresponds to scores one standard deviation below the mean (Figure 2). These results showed that academic procrastination decreases and reported academic achievement increases when the level of academic efficacy is high. Briefly, this study shows that academic efficacy has a mediator and moderator role in relation to academic procrastination and reported academic achievement.

**Table 2**

*Hierarchical Regression Analysis for Moderating Effects of Academic Efficacy on the Relationships between Academic Procrastination and Reported Academic Achievement (N = 364)*

Variables	B	SEB	$\beta$	R <sup>2</sup>	R <sup>2</sup> change	F change
Reported academic achievement						
Step1						
Academic procrastination	- .019	.002	-.458*	.21	.21*	96.085*
Step 2						
Academic procrastination	- .013	.002	-.324*			
Academic efficacy	.021	.004	.283*	.27	.27*	67.388*
Step3						
Academic procrastination	- .014	.002	-.349*	.29	.29*	49.672*
Academic efficacy	.021	.004	.279*			
Academic procrastination X Academic efficacy	- .052	.016	-.146*			

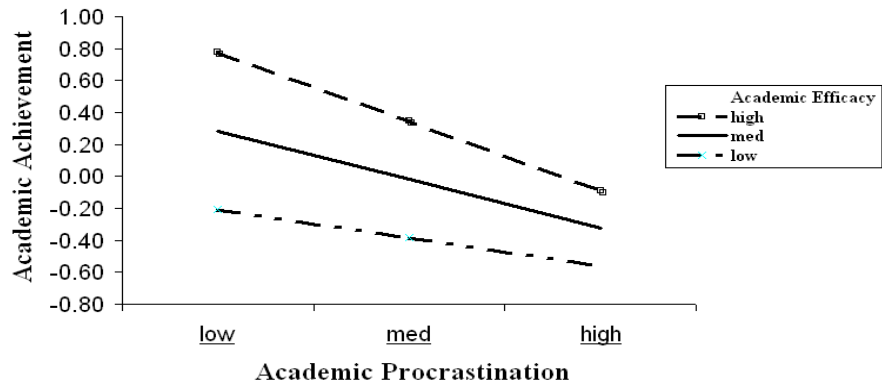


Figure 2. Model of the moderator role of academic efficacy on the relationship between academic procrastination and reported academic achievement



## Discussion

The main focus of this study was to examine the mediator and moderator role of academic efficacy in relation to academic procrastination and academic achievement. Results of mediation and moderation analyses supported the hypothesis that academic efficacy mediates and moderates the effect of academic procrastination on academic achievement. Results from the mediation analyses showed that academic efficacy has a partial mediating effect in relation to academic procrastination and reported academic achievement. In other words, the effect of academic procrastination on academic achievement is changeable as to the level of academic efficacy. This result supported the view of Bandura (1997) that emphasised the strong mediating role of self-efficacy over behavior, but partially. However, the result of the present study suggests that academic efficacy affects the effect of academic procrastination on reported academic achievement; although its influential effect is low. Shortly, academic efficacy could be conceptualised as a mediator of the relationship between academic procrastination and reported academic achievement, as it is depicted in Figure 1.

Secondly, results from the moderator analyses showed that academic efficacy moderates the relationship between academic procrastination and reported academic achievement. In other words, academic efficacy influences relationships between academic procrastination and reported academic achievement by reducing academic procrastination levels and rising reported academic achievement. These findings suggest that the level of students' academic procrastination could be changed depending on the level of their academic efficacy. These results support Bandura's (1986, 1997) assertion that behavior avoidance can be a result of weak efficacy beliefs, whereas strong efficacy beliefs can promote behavior initiation and persistence. These results also show that students who reported high levels of academic efficacy are confident in their academic capacity to successfully complete their academic work on time and thus promote academic achievement. In other words students who were less confident in their ability to successfully complete their academic work reported that they would put off starting that work more frequently than students who were surer of their abilities. The finding of this study also supports the link between self-efficacy and procrastination as found by Ferrari et al. (1992), Haycock et al. (1998), Tuckman, (1991), and Tuckman and Sexton (1992), who suggest that students who are more confident in their abilities tend to procrastinate less often than other students do. The moderator role of academic efficacy could be understood from the perspective of the students' level of their sense of efficacy. Adeyemo (2007) stated that students with a high sense of efficacy evaluate their academic performance, make an effort for self-motivation, and employ more self-regulation strategies than other students. These factors also have a positive contribution to academic achievement, and reduce the level of academic procrastination.

When all findings of this study are evaluated, the current study supports self-efficacy theory as an approach to the procrastination study. The given variable may function as either a moderator or a mediator, depending on the self-efficacy theory

being tested. Academic efficacy could be conceptualised as a moderator or mediator of the relationship between academic procrastination and academic achievement. This would be the case if self-efficacy theory suggested that the effect of academic procrastination on academic achievement might be differentially effective for students with high or low levels of academic efficacy. In this case, the theory would suggest decreasing academic procrastination by increasing the levels of academic efficacy.

This study surveyed college students and explored their current experiences. However, students' procrastination behavior might be related to their previous experiences. Future research can be conducted with longitudinal studies and determine if earlier training (e.g. during elementary or middle school) regarding how to combat procrastination has an effect on college students' procrastination experiences. However, the mediating effect of academic efficacy is partial, given the theoretical implications of self-efficacy theory to the study of procrastination, and this finding should be replicated and overall the relation between academic efficacy and academic procrastination should be explored in future research.

### **Conclusion and Recommendations**

This study investigated the mediator and moderator role of academic efficacy in the relationship between academic procrastination and academic achievement. The significant contribution of this study is that it has, for the first time, examined the mediator and moderator role of academic efficacy in relation to academic procrastination and reported academic achievement. This finding indicates that the genesis and formulation of academic procrastination and academic achievement may be explained by the moderator role of academic efficacy and explained partially by the mediator role of academic efficacy. The findings of this study contribute to the growing body of literature suggesting that academic self-efficacy beliefs can be used to predict college students' academic performance and perseverance. The present study also contributes to the advancement of self-efficacy theory with respect to procrastination. Bandura's (1986, 1997) self-efficacy theory emphasises the role of self-efficacy as the mediator of behavior. Although a partial mediation effect was found in this present study, this present finding supports the role of self-efficacy as moderator and mediator, at least of academic procrastination. It could be concluded that self-efficacy theory merits further empirical consideration relative to the study of academic procrastination.

In terms of the implications of the current study, educators, counselors, and psychologists working at university or school counseling centers can use the present study to understand those students complaining about academic procrastination and how to better help them. The results of this study show that reducing academic procrastination and raising academic efficacy are important for academic achievement. Counseling centers could utilise a measure of procrastination to help students determine their level of procrastination and determine whether or not they may need to work with a counselor to gain skills to combat their procrastination.

The results of this study also show that academic procrastinators may perceive themselves as lacking in sufficient academic efficacy needed to complete their academic tasks successfully; however, counselors can incorporate various self regulatory, self control, self evaluation, time structuring, priority design, and cognitive restructuring strategies into treatment. It is anticipated that students will become more academically efficacious with respect to task completion.

Educators should realise that academic achievement is affected by several factors, of which academic procrastination and academic efficacy are the critical components. Students' academic achievement could also be enhanced by exposing them to academic efficacy intervention programmes. This could be competently handled by the counseling and educational psychologists working within the school setting.

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## Akademik Erteleme Eğilimi Akademik Başarı İlişkisinde Aracı ve Arabulucu Bir Değişken Olarak Akademik Yeterlik (Özet)

### *Problem Durumu*

Üniversite öğrencilerinin akademik başarılarını olumlu ve olumsuz yönde etkileyen birçok faktör vardır. İlgili alan yazın incelendiğinde, ders çalışmaya ayrılan zaman, ders çalışma alışkanlığı, motivasyon, tükenmişlik sendromu, öz yeterlik, erteleme eğilimi, benlik saygısı ve stres gibi birçok faktör yer almaktadır.

Öğrencilerin akademik başarılarını olumsuz yönde etkileyen önemli faktörlerden biri olan erteleme eğilimi, bir bireyin kontrolü altında olan bir görevi yapmayı, davranışlarını düzenleme yoksunluğundan dolayı ileri bir zamana ertelenmesi olarak tanımlanmaktadır. Erteleme eğiliminin bir diğer formu olan akademik erteleme eğilimi ise, ev ödevlerinin, sınavlara hazırlanmanın ya da dönem sonunda teslim edilecek ödevlerin son dakikada yapılması olarak tanımlanmaktadır. Son yıllarda yapılan çalışmalar incelendiğinde erteleme eğiliminin üniversite öğrencileri arasında yaygın bir problem olduğu görülmektedir. İlgili alan yazın incelendiğinde, erteleme eğiliminin düşük akademik başarı, düşük performans ve görevleri ele alma sorumluluğu ile ilişkili olduğu görülmektedir.

Üniversite öğrencilerinin akademik başarılarını etkileyen diğer bir önemli faktör de öz yeterlik inancıdır. Yeterlik inancı, bireyin belli bir performansı göstermek için gerekli etkinliği organize edip, başarılı olarak yapma kapasitesine duyduğu inanç olarak tanımlanmaktadır. Akademik yeterlik ise, bir bireyin belirlediği öğrenim amaçlarına ulaşmak için gerekli eylemleri organize etme ve yürütme yeterliliğine yönelik yargıları olarak tanımlanmaktadır. İlgili alan yazın incelendiğinde üniversite öğrencilerinin akademik yeterlik düzeyleri ile akademik başarı düzeyleri arasında olumlu bir ilişkinin olduğu görülmektedir. Akademik yeterlik düzeyi yüksek olan öğrencilerin akademik başarılarının, akademik yeterlik düzeyi düşük olan öğrencilerin akademik başarılarından daha yüksek olduğu görülmüştür. Akademik başarı akademik yeterlik ilişkisine ek olarak, yeterlik düzeyi ile erteleme eğilimi arasındaki ilişkiye bakıldığında birçok çalışma öz yeterlik düzeyi ile erteleme eğilimi düzeyinde olumsuz bir ilişki olduğu rapor edilmiştir. Diğer bir ifadeyle, öz yeterlik düzeyi yüksek olan öğrencilerin görev ve sorumluluklarını daha az erteleme eğiliminde oldukları görülmüştür.

Yukarıdaki açıklama ve araştırma sonuçlarının özetlenmesinden de anlaşılacağı gibi, gerek erteleme eğilimi-akademik başarı, gerekse erteleme eğilimi-öz yeterlik ve akademik yeterlik- akademik başarı değişkenlerinin ilişkilerini anlamaya yönelik alan yazında oldukça fazla çalışma yer almaktadır. Bu çalışmalarda erteleme eğilimi yüksek bireyler daha düşük öz yeterlik düzeyi ve daha düşük akademik başarı rapor etmektedirler. Bununla beraber, bu araştırmaların çoğunun erteleme eğilimi ve akademik yeterliğin, akademik başarı üzerine temel ve doğrudan etkileri üzerine

odaklandığı görülmektedir. Oysaki erteleme eğilimi-akademik başarı ilişkisinde farklı örtük, aracı değişkenlerin de olabileceği beklenebilir.

Erteleme eğiliminin akademik yeterlik ve akademik başarıyla olumsuz, buna karşın akademik yeterliğin akademik başarı ile olumlu yönde ilişkili olması göz önünde bulundurulduğunda, akademik yeterliğin akademik erteleme eğiliminin akademik başarı üzerine etkisini öngörmeye ne gibi dolaylı rolü ya da rolleri olduğu sorusunu akla getirmektedir. Bu soruya verilecek yanıt, okul ortamında öğrencilerin akademik başarılarını artırmaya yönelik düzenlenecek çalışmalar için önemli bir temel teşkil edebilir.

#### ***Araştırmanın Amacı***

Bu çalışmanın amacı, akademik erteleme eğiliminin akademik başarı üzerindeki etkisinde, akademik yeterliğin aracı ve arabuluculuk rolünü incelemektir.

#### ***Araştırmanın yöntemi***

Araştırmaya Pamukkale Üniversitesi Eğitim Fakültesinde farklı alanlarda öğrenim gören 364 öğrenci katılmıştır. Araştırmada veri toplamak için, Aitken Erteleme Eğilimi Ölçeği, Akademik Yeterlik Ölçeği ve Kişisel Bilgi Formu kullanılmıştır.

#### ***Araştırmanın Bulguları***

Araştırma bulguları, erteleme eğiliminin akademik başarı ve akademik yeterlik düzeyi ile anlamlı düzeyde olumsuz ilişkili olduğunu, bunun yanında akademik yeterlik düzeyi ile akademik başarı arasında anlamlı düzeyde olumlu ilişki olduğunu göstermektedir. Akademik erteleme eğilimi akademik başarı ilişkisinde akademik yeterliğin dolaylı rollerini test etmek için yapılan analizler, akademik yeterliğin akademik erteleme eğilimi ve akademik başarı ilişkisinde kısmi aracı ve arabuluculuk rolünü üstlendiğini göstermektedir. Diğer bir değişle, akademik erteleme eğiliminin akademik başarı üzerindeki etkisinin, öğrencinin akademik yeterlik düzeyinin yüksek ya da düşük olmasına göre değiştiği görülmüştür.

#### ***Araştırmanın Sonuçları ve Öneriler***

Sonuç olarak, akademik erteleme eğiliminin akademik başarı üzerindeki olumsuz etkisini azaltmada akademik yeterliğin aracılık ve arabuluculuk rolü dikkate alındığında, öğrencilerin akademik yeterliğini destekleyecek çalışmaların yapılmasının, hem akademik erteleme eğiliminin düzeyini düşürmede hem de akademik erteleme eğiliminin akademik başarı üzerindeki olumsuz etkisini azaltmada etkili olacağı düşünülebilir. Bu konuda yapılacak olan psiko- eğitim programları kapsamında öğrencilere olumlu geribildirimler verilerek ve olumlu yaşantılar sağlanarak, öğrencilerin akademik yeterlik düzeyleri yükseltilebilir.

***Anahtar Sözcükler:*** Akademik erteleme eğilimi, akademik başarı, akademik yeterlik.