

# The Effect of the Homework Process on Academic Procrastination Behavior in Higher Education

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This study aims to examine the effect of homework process on academic procrastination behavior in higher education. In this direction, the opinions of 300 pre-service teachers selected by convenience sampling method were consulted and the opinions of 287 students were included in the study. The research data were collected with the Homework Process in Higher Education Scale and Academic Procrastination Behavior Scale. The collected data were subjected to correlation analysis on the basis of both total score and sub-factors. In addition, simple linear regression analysis was applied to examine the effect of homework process on academic procrastination behavior in higher education. After the correlation analysis, a significant negative correlation was found between the homework process in higher education and academic procrastination behaviors. After the regression analysis, it was revealed that the homework process in higher education had an effect on academic procrastination behavior and explained 10% of the total variance.

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**Keywords:** Homework process, academic procrastination, higher education

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**INTRODUCTION**

One of the key elements of being successful in our daily life is to accomplish the tasks or things we need to do on time. However, especially today, it is seen that individuals postpone what they need to do to other times for different reasons, even though they have the time, opportunity or energy to work (Şengül & Seyfi, 2020). It is seen that not only students but also almost everyone postpones their daily tasks or work. For example, employees can postpone their work, housewives can postpone their homework, and students can postpone their homework (Balkıs, 2007). Procrastination can be defined as willingly and knowingly delaying taking action or completing a task (Grecco, 1984). In addition, procrastination is a behavioral tendency to delay decision-making, delay doing something, and procrastinate (Milgram et al., 1988). Individuals' inability to manage time, difficulty in concentrating on a job or having a low sense of responsibility, negative perception of being constantly unsuccessful in the work done, and unrealistic expectations developed by individuals about themselves and their performance (McCown et al., 1987) are the causes of procrastination. In the literature, there are different types of procrastination or procrastination behaviors such as general procrastination, academic procrastination, procrastination, neurotic procrastination, and compulsive procrastination (Milgram et al., 1998). Especially for students who are at the beginning of their life, academic procrastination can affect their future lives and even their performance in business life.

Academic procrastination is a common problem among students and negatively affects their academic performance (Onwuegbuzie, 2004). Academic procrastination can be defined as the tendency to delay starting or completing academic tasks for irrational reasons (Senecal et al., 2003). In other words, academic procrastination is defined as postponing school-related duties and responsibilities or leaving them to the last moment (Haycock et al., 1998). Academic procrastination behavior is also seen as delaying students' studying for their classes, leaving homework to the last minute, and delaying tasks to register for an exam related to their academic life or to return the books they bought from the libraries (Scher & Ferrari, 2000). As a result of these behaviors, it is a natural result that students see themselves as unsuccessful and feel that it will not be easy for them to achieve success. In addition, as a result of these thoughts, students may experience results such as alienation from the academic environment or negative attitudes towards the educational environment. In other words, individuals exhibiting academic procrastination are faced with many negative consequences such as academic failure, disruption in course continuity, poor performance in difficult lessons, and dropping out of school (Knaus, 1998). It is seen that there are different studies on academic procrastination in the literature. Balkıs and Duru (2009) concluded in their study that some of the university students showed procrastination behavior and that there was a negative relationship between procrastination behavior and academic success. In the study of Uzun Özer (2009), it was stated that more than half of the high school students participating in the study exhibited academic procrastination. Akdemir (2013), in his studies with

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young students, concluded that procrastinator students spend more time on social media and their academic success is lower. According to the results of Ferrari et al.'s (1997) research, individuals with a high procrastination tendency organize their time less effectively and prefer to leave work late. In addition, in studies investigating the relationship between academic procrastination and success, it was determined that there was a negative relationship between procrastination and academic success (Anthony & Owens, 1997; Ekinci, 2011; Seo, 2012). In addition, studies on the subject have found that academic procrastination behavior is associated with forgetting the deadline for homework, delaying preparation for exams, and low academic achievement (Clark & Hill, 1994; Lay & Burns, 1991; Wesley, 1994).

There is a negative relationship between procrastination and time management. It is concluded that people who show procrastination behavior cannot use their time effectively. The person prefers and postpones pleasurable activities instead of the academic tasks they need to do, and this situation brings low academic achievement (Schouwenburg et al., 2004; Demirtaş & Özer, 2007). Saddler and Buley (1999) considered academic procrastinators as students who fear negative evaluation, set low personal standards for achievement, and do not engage in learning activities. Pychyl et al. (2000) concluded that students who postpone academic tasks for other activities they perceive as pleasant do not experience positive emotions. They stated that this negativity may be due to the guilt of avoiding the task rather than emotions such as unhappiness, anger, frustration, anxiety. Lufi et al. (2003) examined attendance in higher education and its relationship with other personality variables and found that students who attended the courses had higher year-end grades than students who were absent. The study emphasizes that while success in university education contributes to attendance, low grades prevent attendance.

When the results of the studies in the literature are examined, it is seen that students of almost all ages exhibit academic procrastination behavior and this behavior negatively affects the academic success of the students. It should be emphasized how important it is to carry out the necessary studies to prevent students from engaging in such behaviors, and to do all the work on time, which is one of the important factors in increasing success. In particular, students should be made to feel how the timely completion of their homework affects their academic success. In this study, the effect of homework processes on academic procrastination behavior was also examined.

Students are now more active in educational environments due to developing educational environments, easier access to information by students, and student-centered education being at the forefront of teacher-centered education today. In other words, students are now involved in learning activities by doing and experiencing. For this reason, students are given more homework and thanks to these assignments, students can have the opportunity to learn on their own. However, in such a case, if students delay or delay the tasks assigned to them, they may not be able to complete their homework and may be behind in their learning. From this point of view, it is also important to examine the homework given to the students and the relationship between homework processes and academic procrastination.

## **METHOD**

### **The Aim of the Study**

In this study, it is aimed to examine the effect of the homework process in which pre-service teachers who continue their education at the university during their education period, on their academic procrastination behaviors. In accordance with this purpose, the opinions of prospective teachers about the homework process in higher education were collected and it was planned to reveal the effect of this process on academic procrastination behaviors.

### **Design of the Study**

In line with the purpose of the research, the independent variable was determined as the homework process in higher education, and the academic procrastination behaviors of the pre-service teachers as the dependent variable. For this purpose, a correlation analysis was conducted between the homework process and academic procrastination behaviors and sub-dimensions in higher education. Simple linear regression modeling was applied to determine to what extent the homework process in higher education affected academic procrastination behavior.

## Population and Sample

The population of the research consists of pre-service teachers who graduated from different faculties of universities that provide pedagogical formation in Turkey. As a sample, pedagogical formation students studying at a state university in the Marmara Region were included in the study with the convenience sampling method. 409 of the students who were continuing their education in the Spring Semester of the 2021-2022 Academic Year, those who volunteered to participate in the research were determined and the answers of 300 students to the scales participated in the research. After the answers given were scored, the answers of 13 students were excluded from the study according to the standardized z-scores. Thus, the answers given by 287 students were included in the study.

## Data Collection Instruments

In the research, 2 scales were used in order to obtain the data. Details of these scales are given below.

### *Homework Process in Higher Education Scale*

The Homework Process Scale in Higher Education, developed by Yar Yıldırım (2021), is designed to measure the process of getting and completing homework from the students' perspective. The process was carried out with 368 students for Exploratory Factor Analysis (EFA) and 400 students for Confirmatory Factor Analysis (CFA). In EFA, it was determined that the scale had a 28-item five-factor structure, and this structure was evaluated using CFA. When the fit indices of the resulting model are examined,  $\chi^2/df = 2.36 < 4$ ; CFI=0.91; TL=0.90; RMSEA=0.05, it is seen as SRMR = 0.05. The Cronbach Alpha reliability coefficient results calculated for the scale were verified with the composite reliability coefficients. Convergent validity was tested by calculating the mean variance (AVE) of each factor, and the results of the validity and reliability study of the Homework Process Scale in Higher Education were revealed as a five-factor and 28-item scale. In the five-factor structure of the scale, "process of doing homework (Ex: Feedbacks on the homework should be positive.)", "form of the homework (Ex: Homework should be interesting.)", "benefits of the homework (Ex: Homework improves self.) -respect.)", "outcomes of the homework (Ex: Homework helps to consolidate prior learning.)" and "characteristics of the homework (Ex: Homework contributes to make the lessons permanent.)". These results show that the Homework Process Scale in Higher Education is a valid and reliable measurement tool.

### *The Scale of Academic Procrastination*

The Academic Procrastination Behavior Scale developed by Ocak & Bulut (2015) aims to measure students' procrastination for given academic tasks. The study group of the research consists of 381 pre-service teachers. As a result of the analyzes, it was determined that the developed scale consisted of four factors. The scale consists of 38 items and 4 factors in total. When looked at the sub-dimensions, The "Irresponsibility" factor consists of 19 items, the "Perceived Quality of Academic Task" factor includes 10 items, the "Negative Perception of Teachers" factor consists of 5 items and the "Academic Perfectionism" factor includes 4 items. As an example item for the irresponsibility factor, "I postpone my academic duties unnecessarily even though I do not have a more important job.", as an example item for the perceived quality of the academic task factor, "I do the academic tasks that interest me on time." I postpone doing the homework given by the teacher until the last minute." As an example item for the academic perfectionism factor, "There was a risk that I could not finish my homework on time because I made corrections on my homework over and over." can be shown as example items.

In line with the data obtained from the scales, the Cronbach  $\alpha$  reliability coefficient was calculated for the reliability of the data, and within the scope of this study, the Cronbach  $\alpha$  value for the Homework Process in Higher Education Scale was found to be .956, and the Cronbach  $\alpha$  value for the Academic Procrastination Behavior Scale was found to be .965. Based on this, it can be said that the reliability of the data obtained from the scales is high.

## Data Analysis

The obtained data were analyzed through the SPSS 27 package program. Examination of the relations between the variables is correlation analysis, and simple linear regression analysis was used to examine the effect of homework process on academic procrastination behavior in higher education. In addition, items

19,20,21,22,23,24,25,26,27,28, and 29 in the Academic Procrastination Behavior Scale were reverse-coded and analyzed in this way.

## FINDINGS

Information on the demographic findings of the participants participating in the research is given in Table 1.

**Table 1. Demographic Findings of Participants**

<b>Gender</b>	<b>N</b>	<b>%</b>	<b>Department</b>	<b>N</b>	<b>%</b>
Female	243	84,7	Verbal Sciences	69	24,0
Male	44	15,3	Arts and Music Sciences	18	6,3
<b>Total</b>	<b>287</b>	<b>100</b>	Numerical Sciences	32	11,1
<b>Age</b>	<b>N</b>	<b>%</b>	Sports Sciences	20	7,0
24 years old and under	143	49,8	Linguistics	81	28,2
25 - 29 years old	66	23,0	Theology	67	23,4
30 years and older	78	27,2			
<b>Total</b>	<b>287</b>	<b>100</b>	<b>Total</b>	<b>287</b>	<b>100</b>

When the demographic characteristics of the participants are examined, it is seen that 84.7% of them are female (n=243) and 15.3% are male (n=44). Pre-service teachers aged 24 and below made up 49.8% (n=143) of the group, pre-service teachers aged 25-29 made up 23% (n=66) of the group, and pre-service teachers aged 30 and over made up the group. It constitutes 27.2% (n=78). 24% (n=69) of the pre-service teachers were from the departments of verbal sciences, 6.3% (n=18) from the departments of art and music sciences, 11.1% (n=32) from the departments of numerical sciences, 7% from the departments of numerical sciences, (n=20) graduated from sports science departments, 28.2% (n=81) from linguistics departments and 23.4% (n=67) from departments of theology and received pedagogical formation.

### Findings Related to Correlation Analysis

In the context of the correlation analysis carried out within the scope of the research, the sub-factors and total score of the Homework Process in Higher Education Scale and the sub-factors of the Academic Procrastination Behavior Scale and the total score were subjected to correlation analysis. The result of the correlation analysis is given in Table 2.

**Table 2. Correlation Table for Dependent and Independent Variables**

<b>Variables</b>	<b>Irresponsibility</b>	<b>Perceived Quality of Academic Task</b>	<b>Negative Perception of Teachers</b>	<b>Academic Perfectionism</b>	<b>Academic Procrastination</b>
Process of Doing Homework	-,239**	-,317**	-,169**	,013	-,268**
Form of the Homework	-,229**	-,267**	-,124*	,004	-,240**
Benefits of the homework	-,212**	-,230**	-,129*	,004	-,220**
Outcomes of the homework	-,273**	-,368**	-,200**	-,008	-,323**
Characteristics of the homework	-,277**	-,358**	-,193**	-,088	-,315**
<b>Homework Process in Higher Education</b>	-,292**	-,367**	-,193**	-,022	-,324**

\*\* p<0,01 \*p<0,05

As a result of the correlation analysis performed to determine whether there are significant relationships between the variables, negative significant relationships were found between the sub-factors of the homework process in higher education and the sub-factors of academic procrastination behavior, except for the sub-factor of academic perfectionism. In addition, a negative and significant relationship was found between the total score of the homework process in higher education and the total score of academic procrastination. From this point of view, it can be said that not structuring the homework process correctly in higher education is related to academic procrastination behavior.

### Findings Related to Regression Analysis

Simple linear regression modeling was carried out in order to examine the effect of homework process on academic procrastination behavior in higher education. Findings related to the regression analysis are given in Table 3.

**Table 3. Linear Regression Table for Dependent and Independent Variables**

Dimensions Variable	Predicted Variable: Academic Procrastination				
	B	Standard Error	$\beta$	t	p
Homework Process in Higher Education	141,587 -,523	10,073	-,324**	14,076	,000

R= ,324, R<sup>2</sup>=,105  
F=33,441, p=,000

As a result of simple linear regression analysis, it can be said that the homework process in higher education is effective on academic procrastination behavior ( $p < 0.001$ ). As can be seen from the table, if the homework process in higher education is not structured correctly, it causes academic postponement. The structure of the homework, its perception by the students, and the contribution of the instructor to the homework process play a role on the academic procrastination behavior. The homework process in higher education explains about 10% of the total variance in academic procrastination ( $R^2 = .105$ ).

**DISCUSSION**

The current study aims to examine the effect of the homework process in which the pre-service teachers who continue their education at the university during their education period, on their academic procrastination behaviors. In accordance with the purpose, the opinions of prospective teachers about the homework process in higher education were collected and analyzed to reveal the effect of this process on academic procrastination behaviors. In the discussion part, the current study’s findings will be discussed with the related literature. First of all, as a result of correlational analysis, it was found that negative significant relationships were found between the sub-factors of the homework process in higher education and the sub-factors of academic procrastination behavior, except for the sub-factor of academic perfectionism. These findings are also supported by other studies (Fulano et al., 2018; Tas et al., 2016). To illustrate, Yilmaz (2017) investigated the correlation between the assignment and exam performances of university students and their academic procrastination. Thus, it was found that there is a negative correlation between academic procrastination and assignment scores in both online and face-to-face education. From this point, it was possible to say that both of the studies share parallel results. In addition to this results, in literature there are other studies that provide opposite findings especially for the academic perfectionism. For example, Solomon and Rothblum (1984) found a significant positive relationship between academic procrastination and irrational beliefs in a study conducted with university students. Students avoid doing academic tasks such as writing homework, preparing for exams, and doing reading assignments because they perceive that they cannot perform their academic tasks adequately. Similarly, in a study conducted by Haghbin et al. (2012) on procrastination, fear of failure was found to be the most common factor among the reasons for postponing an important task. In other words, it can be said that irrational beliefs about fear of failure cause students to exhibit procrastination behavior. In a study examining cognitions related to procrastination, it was found that procrastination was associated with negative automatic thoughts, thoughts related to perfectionism and fear of failure (Flett et al., 2012). With the consideration of these studies, it is possible to conclude that when students have concerns about preparing the perfect homework, they tend to procrastinate the homework process. Even if the current study did not reveal such relationship, the future studies can focus on academic perfectionism with qualitative perspective for detailed explanation. It is also argued that academic procrastination tendency is related to negative task management and task delay (Balkis et al., 2006; Steel, 2007; Yamada et al., 2016). The negative relationship found in the current study can be supported by this idea. Insufficient self-regulatory skills might be one of the possible results of the negative relationship (Yilmaz, 2017).

In addition to the correlational analysis, regression analysis was applied in the current study. Thus, it was found that the homework process in higher education is effective on academic procrastination behavior. That is, if the homework process in higher education is not structured correctly, it causes academic postponement. According to Bandura (1986), people tend to approach tasks that they think they can accomplish, while they tend to avoid or fail at tasks that exceed their perceived competence. In addition to individuals’ perceptions about themselves, the structure of the homework, its perception by the students, and the contribution of the instructor to the homework process play a role in academic procrastination behavior. According to related literature, academic procrastination can be affected by several factors such as being encouraged and motivated

by the teacher (Michinov et al., 2011), being informed about their peers' performance (Michinov & Primois, 2005), and motivating by using social media (Rinaldo et al., 2011). In addition to these studies, Akram et al. (2019) share that teachers' preferences and awareness of homework affect students' academic procrastination. The regular feedback provided by the teachers related to the homework found another factor affecting the academic procrastination behavior of the students (Doherty, 2006; Tuckman, 2002). From this point, teachers and how they manage the homework process becomes essential for students' academic procrastination. As a result, it is possible to say that the current study's findings are supported by the previous studies.

When the importance of academic procrastination behaviors on students' academic achievement, the factors that might have an influence on it become an important question mark. In the scope of the related study, the homework process is found as a possible effect of procrastination with the support of the related literature.

## CONCLUSION AND SUGGESTION

To conclude, to support student's academic success, it is not enough to provide information to the students. Teachers should also learn about other factors that might affect students' success. Related literature suggests that academic procrastination is one of the reasons for academic success. According to related studies, it is possible to see several sources that affect students' academic procrastination. The homework process is one of these sources according to the current study. The homework process is mainly maintained by the teacher. Therefore, how providing planned, detailed and student-centered homework might obstruct academic procrastination when compared to loose assessment processes. As a result, the current study's findings can be seen as a source for teachers to increase awareness of maintaining the homework process in a more effective way to decrease students' academic procrastination, and implicitly academic success. Because teachers are the main characters that manage this process their theoretical and practical knowledge might be improved with supportive courses. Thus, policymakers might be made policy changes on improving teachers' assignment and evaluation abilities. In this way, teachers might be able to maintain this process by considering the course and student characteristics. Even if the current study provides a framework related to the correlation between academic procrastination and homework process, for the detailed explanation and understanding about these variables further studies are required. For example, some demographic variables such as gender, age, cultural characteristics, etc. and it is possible influence on these variables should be also discussed in future studies. Moreover, the current study used quantitative research designs. However to learn deeper information about students' academic procrastination behavior and their perceptions on homework, qualitative research designs should be included in the future studies. And so, the ways to obstruct students' academic procrastination behaviors and the ways to provide more meaningful homework processes for students can be found by the educators and researchers.

## Declarations

### Conflict of Interest

No potential conflicts of interest were disclosed by the author(s) with respect to the research, authorship, or publication of this article.

### Ethics Approval

The formal ethics approval was granted by the Educational Sciences Research and Publication Ethics Committee of Sakarya University. We conducted the study in accordance with the Helsinki Declaration in 1975.

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### Research and Publication Ethics Statement

The study was approved by the research team's university ethics committee of the Sakarya University (Approval Number/ID: E-61923333-050.99-188844. Hereby, we as the authors consciously assure that for the manuscript "The effect of the homework process on academic procrastination behavior in higher education" the following is fulfilled:

- This material is the authors' own original work, which has not been previously published elsewhere.
- The paper reflects the authors' own research and analysis in a truthful and complete manner.
- The results are appropriately placed in the context of prior and existing research.
- All sources used are properly disclosed.

## Contribution Rates of Authors to the Article

The authors provide equal contribution to this work.

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