Examination of the Relation between Academic Procrastination and Time Management Skills of Undergraduate Students in Terms of Some Variables

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Abstract

Academic procrastination is seen to be quite common among undergraduates and time management is thought to be one of the possible reasons of it. Two surveys, academic procrastination and time management, were given to 332 undergraduate students in this correlational research. Students' academic procrastination is explained through frequencies and percentages and a correlation is questioned between academic procrastination and time management. Regression analysis is used to find out if time management predicts academic procrastination in a statistically significant way. Besides, students' level of time management (low, medium, high) is examined and covariance analysis has been carried out to see if time management level and gender, time management level and housing type (private or state dormitory or house), time management level and their major and time management level and where they live have a common effect on academic procrastination. Results indicate that students are generally indecisive about their behaviors of procrastination in academic tasks and are in middle level in terms of time management skills. There is a moderate level, negative sided and statistically significant correlation between academic procrastination and time management. Not a common effect of mentioned above variables is seen.

Keywords: academic procrastination, time management, university students

1. Introduction

People's delaying the things they are supposed to do is a very old human behavior and struggle for time management by people dates back to ancient Egyptian hieroglyphics even 1400 B.C. In 1750s when time and using it effectively became key terms due to developed production process, Dr. Samuel Johnson who prepared the first comprehensive American English dictionary (1751) described "procrastination" as ""The folly of allowing ourselves to delay what we know cannot be finally escaped" (as cited in Janssen, 2015, p. 2) and researches point out people procrastinate in six different aspects/domains of life: academic and work, everyday routines and obligations, health, leisure, family and partnership, and social contacts (Janssen, 2015, s. 15) Individuals might procrastinate various things and this can be delighting at the beginning.

For the students of today, the amount of information to be learned increases day by day together with the number and accessibility of distractors like online games, social media, game platforms etc. which might steal their time. Current distractors like social media have become an addiction among undergraduates (Andreassen, 2015) and this might be an important factor in their academic procrastination. Researches reveal that students do not take notice of short periods of time and as a result are overwhelmed with the common cliché "scarcity of time" and they should be warned that if they plan these short periods of time well then the other tasks will be easier (Bashir, Bashir, & Nazir, 2015).

2. Literature Review

Academic procrastination which is a kind of procrastination includes delaying school based tasks and can be described as procrastinating academic tasks due to some reason (Akbay & Gizir, 2010, p. 60). Assignments that are not done or tasks that are not fulfilled can cause negative consequences such as disturbed sleep, stress, anxiety to manage time effectively and might result in giving up or partially fulfilling the task (Deniz & Akdoğan, 2014, p. 30).

Klingsieck (2013) describes academic procrastination as postponing an academic task that is to be done voluntarily or

necessarily and/or which is personally important although a person is aware of possible positive short-term consequences will be overwhelmed by long-term negative ones. In another way, it is described as delaying the completion of an academic task/assignment or postponing to study for the examinations and this is very common among the students all over the world (Kim & Seo, 2015, p. 26). Although it is common nowadays, it not a new issue. Ellis and Knaus (1977) estimate that 95% of college students engage in procrastination and their tendency increases together with the time they spend in college (as cited in Solomon & Rothblum, 1984). The prevalence of this behavior which is performed consciously despite being aware of negative consequences was found to be around 20% (Harriot & Ferrari, 1996; p. 611); in another study 85% (Schouwenburg & Groenewoud, 2001) while another research predicts it is between 85-90% (Steel, 2007, p. 65). In their study in which they examine academic procrastination behavior of Turkish undergraduate students, Ozer, Demir ve Ferrari (2009) state that 405 students (52%) out of 784 perform academic procrastination while 379 (48%) do not. Besides this prevalence, students that procrastinate unnecessarily may not even be aware of it and feel disturbed (Lindblom-Ylänne, Saariaho, Inkinen, Anne-Haarala-Muhonen, & Hailikari, 2015) or some of them may not be volunteered to decrease the number of it (Grunschel & Schopenhauer, 2015). The reason why this behavior is more common among undergraduates rather than primary, secondary and high school students is the more flexible learning environment (You, 2015).

Academic procrastination is studied a lot due to its being common and having many negative aspects. Theories and findings related to this behavior are divided into two categories. One of them emphasizes the features related to task performance or realization of the goals while the other highlights individual differences and uses personal features to explain academic procrastination (Johnson & Bloom, 1995, p. 127). Researchers suggest various possible predictors like a tendency toward self-handicapping, low selfesteem, low academic self-efficacy, fear of failure, and distorted perceptions of available and required time to complete tasks as cognitive variables; anxiety, depression, and worry as emotional and lower conscientiousness and higher neuroticism as personality variables (Rabin, Fogel, & Nutter-Upham, 2011). According to findings of a meta-analysis that includes 121 studies, the strongest average correlations were those with conscientiousness (r_{mean} = -.63) and self-efficacy (r_{mean} = -.44); anxiety and depression were moderately related (r_{mean}= .21 and .30, respectively); performance outcomes, such as grade point average, were negatively related (r_{mean}= -.28) (Van Eerde, 2003). According to Dietz, Hofer and Fries (2007) procrastination might be regarded as a failure in self regulation and students with a high level of procrastination should take the adventage of time management strategies to reach their academic goals. There are other studies in the literature showing ineffective time management or lack of time management skilss as a possible reason of procrastination (Ajayi & Osiki, 2008; Díaz-Morales & Ferrari, 2015; Pang & Han, 2009; Swart, Lombard & Jager, 2010).

Time management is another common and one of the most important problems in the modern world. Examining many various definitions in the literature, Claessens, Van Eerde, Rutte and Roe (2007) define the time management as behaviours that intend to use the time effectively while performing certain goal directed activities which emphasize that the use of time is not the aim itself but it is like a "tool" while fulfilling a work or academic task. Successful time management which can be explained as realizing the best use of time in the highest level in a way that will provide productivity, balance and self-satisfaction can be really compelling because of foreseeing an insufficient amount of time to complete their duties/responsibilities or preferring the completion of short-term tasks with less gain to long-term but with more gain ones (Oettingen, Kappes, Guttenberg, & Gollwitzer, 2015). Time management is simply more than planning the time; it also includes a high level of awareness in terms of use of time and determining, planning, monitoring and organizing of goals and (Van Eerde, 2015, p. 313). Kirillov, Tanatova, Vinichenko & Makushkin (2015) group people into three in terms of their approach to time management: those who see it i) as necessary for success; ii) unnecessary as everything takes it course and iii) important but do not have enough concentration and sustainability to change. Undergraduates also fall in one of these groups according to them.

3. Problem of the Research

According to the findings in the literature, academic procrastination behavior is common among undergraduates and insufficient time management skills is thought to be one of the possible reasons of it. This is the problem of this research. The sub-problems are as follows:

1. What is the current situation of undergraduates in terms of academic procrastination?
2. What is the current level (low, moderate, high) of undergraduates in terms of their time management skills?
3. Is there a statistically significant relation between undergraduates' academic procrastination behaviors and time management skills?
4. Do the undergraduates' time management skills predict their academic procrastination?
5. Is there a common effect of the following variables on students' academic procrastination?
   a. Time management level and gender
   b. Time management level and their faculty

      c.   Time management level and their housing type
      d.   Time management level and their age
      e.   Time management level and where they live

4. Method

As the aim of the research is to find out if there is a relation between undergraduates' academic procrastination behaviors and time management skills, the study employs a correlational research method. The aim of this kind of research is to determine the relationship between variables in order to have a better understanding for important topics. The difference between experimental and correlational research in which it is common to investigate the relation between two variables while it possible to look for more is not manipulating the variables (Fraenkel & Wallen, 2006, p. 335-336).

4.1 Data Collection and Analysis

Two scales were used in the research to collect the data. Firstly, academic procrastination scale which is developed by Ocak and Bulut (2015) was used in order to determine undergraduates' academic procrastination behaviors. Ocak and Bulut state that their scale has four sub-dimensions: irresponsibility (19 items); perceived features of the academic task (10 items); negative perceptions towards lecturers (5 items) and academic perfectionism (4 items). These four dimensions explain 53.61% of the total variance. Reliability of the scale is 0.947. In this study, the scale shows a four sub-dimension form again but the number of items is different. In the same order of sub-dimensions given above, the number of items is 16, 11, 5 and 6 and total variance explained is 51.54%. The reliability of the scale is 0.923.

Secondly, time management questionnaire which is developed by Britton and Glynn (1989) and adapted into Turkish by Alay and Koçak (2002) is used to investigate undergraduates' time management skills. A total of 35% variance is explained by 27 items in total and in three sub-dimensions, namely: time planning (16 items; explained variance: 20%); time attitudes (7 items; explained variance: 9%) and time wasters (4 items; explained variance: 6%). In this study, there are three sub-dimensions again: 20 items in the first sub-dimension; 4 in second and 3 in the third and a total of 36.85% of the variance is explained. The reliability of the scale is 0.73.

The total scores of the scales were used in statistical analysis and scores in sub-dimensions were not used. Normal distribution of the data set is examined through the significance of normality tests, skewness and kurtosis values (being close to zero) and mode-median-mean values' being close to each other. The data from 342 participants was not distributed normally in time management questionnaire, so extreme values are excluded from analysis to provide normal distribution. Normal distribution was achieved after excluding 10 extreme values (5 low and 5 high extreme values) in the time management questionnaire. Frequencies and percentages, simple linear correlation, simple regression and two-way anova are the statistical analysis used in the study. If there is a linear relationship between the two variables which is a precondition to do regression analysis (Can, 2014) was checked through scatter diagram and linear relation was seen.

4.2 Universe and Sample

The universe of the research includes undergraduates studying at Aksaray University central campus in five faculties (Engineering, Economics and Administrative Sciences (EAS), Education, Science and Literature (S&L) and Tourism) in 2015-2016 academic year. Random sampling was used as the sampling method. This kind of sampling includes using the sample you can directly reach at a moment (Walliman, 2006, p. 78). The table of sampling numbers which is developed by Yazıcıoğlu and Erdoğan (2011) was used in order to determine required number of samples. According to it, the number of samples for $\alpha = 0.05$ sampling error should be 370 when there are ten thousand participants (nearly ten thousand students in this research) in the universe. A total of 391 participants were reached but due to missing answers (and normality) only 332 were used in statistical analysis. Demographic information of the participants are given in Table 1 below:

Table 1. Demographics of the Participants

		N	%			N	%
Faculty	Engineering	57	17.2	Age	18	57	17.2
	Education	61	18.4		19	70	21.1
	Tourism	48	14.5		20	59	17.8
	EAS	106	31.9		21	75	22.6
	S&L	60	18.1		22 and above	71	21.4
	Total	332	100		Total	332	100
Housing	State Dorm.	110	33.1	Accommodation	Village/Town/District	85	25.6
	Priv. Dorm.	107	32.2		City	119	35.8
	House	115	34.6		Metropolis	128	38.6
	Total	332	100		Total	332	100
Gender	Female	175	52.7	Working	No	273	82.2
	Male	157	47.3		Yes	59	17.8
	Total	332	100		Total	332	100
Type of Study	Daytime	251	75.1				
	Evening	81	24.9				
	Total	332	100				

5. Findings

Findings related to the sub-problems of the study are given below.

I. Sub-problem: What is the current situation of undergraduates in terms of academic procrastination?

In order to show current situation of undergraduates in terms of their academic procrastination behaviors, their scores were given in frequencies and percentages and the mean was calculated. It is important to note that the higher scores from the academic procrastination scale indicate more procrastination or more tendency for procrastination. Mean for each item was calculated and result was drawn depending on this intervals: 1.00-1.79: Strongly Disagree; 1.80-2.59: Disagree; 2.60-3.39: Indecisive; 3.40-4.19: Agree and 4.20-5.00: Strongly Agree. According to mean scores of each item in the scale, only two results were indicated: Disagree (D) or Indecisive (Ind).

Findings related to this sub-problem are given below. Table 2 shows descriptive statistics on the first sub-dimension of academic procrastination scale which is "responsibility":

Table 2. Descriptive Statistics on Responsibility Sub-Dimension of Academic Procrastination Scale

		1	2	3	4	5	X	Result
1- I procrastinate my academic tasks despite not having a more important thing to do.	F	120	65	52	59	36	2.48	D
	%	36.1	19.6	15.7	17.8	10.8		
2- I procrastinate my academic tasks to the last minute as I am an unplanned person.	F	94	89	47	67	35	2.58	D
	%	28.3	26.8	14.2	20.2	10.5		
3- I procrastinate the tasks like doing the assignments or studying for an exam because I have a low level of concentration for studying.	F	83	86	53	75	35	2.68	Ind
	%	25.0	25.9	16.0	22.6	10.5		
4- I procrastinate studying for the exams to the last day because of unnecessary reasons.	F	83	91	48	68	42	2.68	Ind
	%	25.0	27.4	14.5	20.5	12.7		
5- I procrastinate my academic tasks to another day as there is not a motivating force that will activate me.	F	82	81	61	65	43	2.72	Ind
	%	24.7	24.4	18.4	19.6	13.0		
6- I leave fulfilling academic tasks to the last day as I do not arrange them according to their priorities.	F	80	102	555	57	38	2.61	Ind
	%	24.1	30.7	16.6	17.2	11.4		
7- I am not willing to do the assignments even when the due is close.	F	80	85	46	76	45	2.76	Ind
	%	24.1	25.6	13.9	22.9	13.6		
8- I leave doing my academic tasks to the last minute since I am not motivated to do them.	F	83	84	53	68	44	2.72	Ind
	%	25.0	25.3	16.0	20.5	13.3		
9- I spend most of my time on entertaining activities instead of studying although I regret.	F	89	83	45	64	51	2.71	Ind
	%	26.8	25.0	13.6	19.3	15.4		
10- I study the exams on the last day because of insufficient motivation.	F	54	98	54	84	42	2.89	Ind
	%	16.3	29.5	16.3	25.3	12.7		
11- I am a person who says her/himself I will start studying this time but doesn't.	F	64	89	63	68	48	2.84	Ind
	%	19.3	26.8	19.0	20.5	14.5		
12- I am a time-waster.	F	83	88	71	49	41	2.63	Ind
	%	25.0	26.5	21.4	14.8	12.3		
13- I leave the academic tasks that require much effort to the last minute.	F	85	93	75	47	32	2.54	D
	%	25.6	28.0	22.6	14.2	9.6		
14- I leave fulfilling academic tasks to the last minute as I spend much time on social activities like watching movie, playing games, etc.	F	64	117	54	59	38	2.67	Ind
	%	19.3	35.2	16.3	17.8	11.4		
15- I do even my important academic tasks in the last minute.	F	86	109	69	44	24	2.43	D
	%	25.9	32.8	20.8	13.3	7.2		
16- I can't motivate myself when I start doing my academic tasks.	F	73	107	74	56	22	2.54	D
	%	22.0	32.2	22.3	16.9	6.6		

The items number 1 (I procrastinate my academic tasks despite not having a more important thing to do.) and 2 (I procrastinate my academic tasks to the last minute as I am an unplanned person.) that participants do not agree are negative items in meaning but carry a positive attitude or tendency towards academic procrastination. Participants do not agree with two items number 13 (X=2.54) and 15 (X=2.43) which are about showing academic procrastination behavior for academic tasks that require much effort or which are important. Another item that participants disagree is number 16 which is about having difficulty in self-motivating for academic tasks. On all other 11 items, participants are indecisive.

The second sub-dimension of the academic procrastination scale is perceived quality of the academic task. There are 11 items in this dimension and statistical finding about them are given below in Table 3:

Table 3. Descriptive Statistics on Perceived Quality of the Academic Task Sub-Dimension of Academic Procrastination Scale

		1	2	3	4	5	X	Result
17- I procrastinate my responsibilities like studying the lessons or preparing for an exam because of failure concerns.	F	89	96	70	48	29	2.49	D
	%	26.8	28.9	21.1	14.5	8.7		
18- It takes a long time even to start studying.	F	62	98	53	74	45	2.83	Ind
	%	18.7	29.5	16.0	22.3	13.6		
19- I plan how much time I will spend on academic tasks in advance.	F	53	74	82	75	48	2.97	Ind
	%	16.0	22.3	24.7	22.6	14.5		
20- I quickly start doing assignments that require much time.	F	80	91	74	49	38	2.62	Ind
	%	24.1	27.4	22.3	14.8	11.4		
21- I quickly start and finish academic tasks that are easy to do.	F	84	97	53	63	35	2.60	Ind
	%	25.3	29.2	16.0	19.0	10.5		
22- I do the academic tasks that require thinking over on time as I love them.	F	60	108	68	59	37	2.71	Ind
	%	18.1	32.5	20.5	17.8	11.1		
23- I do the assignments that I can handle on time.	F	89	113	56	45	29	2.43	D
	%	26.8	34.0	16.9	13.7	8.7		
24- I show enough effort to hand my assignment on time.	F	89	118	63	36	26	2.37	D
	%	26.8	35.5	19.0	10.8	7.8		
25- I quickly do the assignments that I enjoy while doing.	F	113	116	49	27	27	2.21	D
	%	34.0	34.9	14.8	8.1	8.1		
26- I quickly start doing academic tasks if they are enjoyable to do.	F	113	116	45	25	33	2.24	D
	%	34.0	34.9	13.6	7.5	9.9		
27- I do the academic tasks that attract me on time.	F	106	117	60	23	26	2.23	D

The results show that participants (N=332) disagree with 6 items and are indecisive about 5 items out of 11. The item with lowest mean was number 25 that says "I quickly do the assignments that I enjoy while doing." (X=2.21) and items number 26 and 27 that are close in meaning to it are also among the ones with lowest means. Another item that participants disagree is number 24 (X=2.37) that tells "I show enough effort to hand my assignment on time." The other items that participants do not agree are numbers 25, 26 and 27 all of which are about the feeling that the assignment gives and close in meaning show tendency towards academic procrastination.

The third sub-dimension of the academic procrastination scale is negative perception towards the lecturer. There are 5 items in this dimension and statistical finding about them are given below in Table 4.

Table 4. Descriptive Statistics on Negative Perception towards the Lecturer Sub-Dimension of Academic Procrastination Scale

		1	2	3	4	5	X	Result
28- I do the academic tasks on time even if they are compelling.	F	72	98	79	54	29	2.61	Ind
	%	21.7	29.5	223.8	16.3	8.7		
29- I do the academic tasks on time even if they are difficult.	F	72	103	80	40	37	2.60	Ind
	%	21.7	31.0	24.1	12.0	11.1		
30- I procrastinate academic tasks that are given by a lecturer who I think will not teach me something.	F	77	81	54	76	44	2.79	Ind
	%	23.2	24.4	16.3	22.9	13.3		
31- I procrastinate academic tasks that are given by an oppressive lecturer.	F	60	86	61	74	51	2.91	Ind
	%	18.1	25.9	18.4	22.3	15.4		
32- I procrastinate academic tasks that are given by lecturers who waste the time instead of teaching the students to the last minute.	F	53	84	54	76	65	3.05	Ind
	%	16.0	25.3	16.3	22.9	19.6		

There are two items in which participants' mean is just above three. The mean of item number 32 that tells "I procrastinate academic tasks that are given by lecturers who waste the time instead of teaching the students to the last minute." is 3.05 and the mean of item number 34 which is close in meaning to number 32 and tells "I procrastinate the assignments given by lecturers who do not give enough importance to their lectures to the last minute." is 3.06. The other items with high means are number 31 (X=2.91) and 33 (X=2.95) and all these four items are related to the lecturers.

The fourth sub-dimension of the academic procrastination scale is academic perfectionism. There are 6 items in this dimension and statistical finding about them are given below in Table 5.

Table 5. Descriptive Statistics on Academic Perfectionism & Reaction to Teacher Sub-Dimension of Academic Procrastination Scale

		1	2	3	4	5	X	Result
33- I don't do the assignments given by lecturers that I don't like on time.	F	58	70	85	68	51	2.95	Ind
	%	17.5	21.0	25.6	20.5	15.4		
34- I procrastinate the assignments given by lecturers who do not give enough importance to their lectures to the last minute.	F	51	83	58	75	65	3.06	Ind
	%	15.4	25.0	17.5	22.6	19.6		
35- I am late for studying other exams as I study over and over for an exam.	F	55	74	85	69	49	2.95	Ind
	%	16.6	22.3	25.6	20.8	14.862		
36- There have been risks of late returns as I do corrections on assignments again and again.	F	63	92	83	66	28	2.71	Ind
	%	19.0	27.7	25.0	19.9	8.4		
37- I keep doing the assignments to the last day as I want to do them in the best way.	F	56	97	73	75	31	2.78	Ind
	%	16.9	29.1	22.0	22.6	9.3		
38- Even thinking of doing the best procrastinates starting to study.	F	52	96	76	71	37	2.83	Ind
	%	15.7	28.9	22.9	21.4	11.1		

The results show that participants are indecisive with all the 6 items in this sub-dimension. The highest mean is 3.06 in item number 34 that is about the lecturer attitude towards his/her own lesson. The other items' mean scores are also relatively high and close to three. Last four items in this category is about perfectionism and tries to present if search for better results in procrastination.

II. Sub-Problem: What is the current level (low, moderate, high) of undergraduates in terms of their time management skills?

Participants' score means in time management questionnaire were calculated to present their level of time management and findings related to it were given in Table 6.

Table 6. Time Management Level of Participants

Level	N	%
Low	21	6.3
Intermediate	294	88.6
High	17	5.1
Total	332	100

Participants are classified into three categories as low, intermediate and high depending on their total score in time management questionnaire. As can be seen in the table, a big majority of the participants have intermediate (N=294), while 21 have low and 17 have high level of time management skills.

III. Sub-Problem: Is there a statistically significant relation between undergraduates' academic procrastination behaviors and time management skills? Findings related to this problem is given below in Table 7.

Table 7. The Relation between Academic Procrastination and Time Management

	Correlation Coefficient (r)	p
Academic Procrastination Time Management	-.309	.000

The result of simple linear correlation analysis carried out to see if there was a statistically significant correlation between academic procrastination and time management shows that there is a significant (p=.000; p<.05) and moderate level and negative sided (r=-.309) relation between the two variables. This result indicates that increase in time management scores is likely to come with decrease in academic procrastination scale scores.

IV. Sub-Problem: Do the undergraduates' time management skills predict their academic procrastination?

The relation between time management and academic procrastination is questioned here and findings are given below in Table 8.

Table 8. Predictive Role of Time Management on Academic Procrastination

	Sum of Squares	Df	Sum of Squares	F	p
Regression	20640.373	1	20640.373		
Constant	194841.516	330	590.429	34.958	.000
Total	215481.889	331			
R=.309; R^2=.096; Adjusted R^2=.093					

Simple regression analysis were done to see if time management was a statistically significant predictive of academic procrastination and results show that there is significant relation between the two (R=0.309; R^2=0.096) and time

management is a significant predictor of academic procrastination ($F_{(1-330)}$=34.958; p=.000; p<.05). Time management predicts 9.6 per cent of academic procrastination.

V. Sub-Problem: Is there a common effect of time management and other variables (gender, faculty, housing, accommodation) on academic procrastination?

Findings related to this sub-problem are given in Table 9.

Table 9. Analysis on the Common Effect of Variables on Academic Procrastination

Variables	Sum of Squares	Df	Mean of Squares	F	p
Time Management*Gender	2636.623	2	1318.312	2.130	.120
Time Management*Housing	2095.824	4	523.956	.844	.498
Time Management*Faculty	5690.492	8	711.311	1.147	.331
Time Management* Accommodation	5473.855	4	1368.464	2.205	.068

Two-way Anova results show that there was not a statistically significant common effect of the given variables on the academic procrastination (p> .05).

6. Results and Discussion

According to the results, undergraduates are seen to have moderate level of tendency for academic procrastination. Lack of motivation and attraction are two major reasons for academic procrastination as the participants are not volunteered to do the academic tasks even if they are enjoyable and attractive. Similarly, Klassen, Krawchuk and Rajani (2008) and Klassen and Kuzucu (2009) state the existence of a relation between motivation and procrastination. Besides, Lee (2005) explains that students who motivate themselves better show less tendency towards academic procrastination. Şirin (2011) and Stewart, Stott and Nuttall (2015) also indicate that academic motivation is a predictor of the academic procrastination behavior. Among the highest scores which indicate higher tendency towards academic procrastination are items related to lecturers. Participants are tended to show more tendency on procrastination when they think the lecturers do not give enough importance to their lectures or intend to teach their students. Similarly, they are not willing to fulfill academic tasks given by lecturers who are oppressive or of whom they think they can't learn anything. In the light of these findings, lecturer attitudes and behaviors can be said to effect the academic procrastination importantly. Participants are generally in moderate level in terms of their time management skills and their mean in the time management questionnaire is 80.80 (standard deviation: 11.41). Similarly, Zekioğlu, Erdoğan and Türkmen (2015) find time management score mean as 81.10 (standard deviation: 14.69) of 74 sports students and Yavaş, Öztürk, Açıkel and Özer (2012) find 79.06 (standard deviation: 14.07) of 420 medical students. There is a statistically significant and moderate level negative relation between academic procrastination and time management. As a result, students with a higher time management skill might be expected to show less tendency towards academic procrastination. However, Glick and Orsillo (2015) state that although undergraduates with a better time management skill fulfill more academic tasks, there is not a statistically significant difference between the two groups in terms of academic procrastination. In their study on undergraduates, similarly, Miqdadi, ALMomani, Masharqa and Elmousel, (2014) explain that the minority of students with a better time management are not successful and the majority of them who show academic procrastination are more successful students although they start doing the tasks close to due. We can infer that even though effective time management decreases academic procrastination, it does not guarantee the success; students with academic procrastination behavior can be successful also. Another finding indicates that the time management predicts academic procrastination in a statistically significant way as much as nearly ten per cent. Participants are generally in moderate level in terms of their time management skills. There is not a common effect of time management together with gender, housing, faculty and accommodation on academic procrastination.

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