The Relationship between Academic Procrastination, Academic Motivation and Perfectionism: A Study on Teacher Candidates

Emrah SERDAR
Istanbul University-Cerrahpasa, Faculty of Sports Sciences, Istanbul/Turkey
serdar-emrah@hotmail.com https://orcid.org/0000-0003-2438-6748

Duygu HARMANDAR DEMİREL
Necmettin Erbakan University, Ahmet Keleşoğlu Education of Faculty, Konya/Turkey
daygaharmandar@gmail.com https://orcid.org/0000-0003-4090-7929

Mehmet DEMİREL
Necmettin Erbakan University, Tourism of Faculty, Konya/Turkey
mehmetdemirel78@gmail.com https://orcid.org/0000-0003-1454-022X

ABSTRACT
The study aimed to examine the academic procrastination, academic motivation and perfectionism levels of teacher candidates. In this context, the sample group of the study consisted of 209 participants who were studying at Necmettin Erbakan University Physical Education and Sports Department and selected by the purposeful sampling method. In addition to the "Personal Information Form", the "Academic Procrastination Scale (APS)" the "Academic Motivation Scale (AMS)", and "Multidimensional Perfectionism Scale (MPS)" were used as data collection tools. In analyzing the data, independent t-test, ANOVA, MANOVA and Pearson Correlation analysis were used. According to the analysis results, gender variable the main effect on AMS was significant and it was found to be significant only in the "Self-Transcendence" sub-dimension at the sub-dimensions level. According to the academic achievement status, the main effect on AMS was significant, and it was only significant in the "Using Knowledge" sub-dimension at the level of sub-dimensions. APS and AMS only positively and lowly correlated with the "Self-Transcendence" sub-dimension, and a statistically significant difference between APS and MPS was found. Between APS and MPS sub-dimensions found low level and positive relationship. As a result, according to social demographic data it was found diffire that the academic procrastination, motivation and perfectionism. Moreover, while there was no relationship between APS and MPS, there was a low-level and positive relationship was found between APS and AMS, and AMS and MPS here to enter text.

Keywords: Academic Procrastination, Academic Motivation, Perfectionism

INTRODUCTION
In order for prospective teachers to be actively involved in the learning process, they must be willing, in other words, motivated to participate in this process. The motive, the force that drives behaviour and energy, activates the organism for a purpose. The success of school learning depends to a large extent on both the teaching process and the qualifications of the learner involved in this process. Although the objectives are appropriate to the pre-service level and the techniques used in the learning-teaching process, pre-service teachers' reluctance to learn may cause the process to fail. Therefore, it is possible to say that one of the most important factors affecting the learning-teaching process is motivation (Kelecioglu, 1992). The concept of motivation has a very important status in education since learning perform by motivating students to learn. According to Morgan (1982), motive comes from the Latin word meaning motiv (to act), and it is the power that drives the organism and gives energy and direction to behaviour. Motivation, which is called a general concept that includes desires and wishes, needs, impulses and interests in human nature, can be defined as an internal power that pushes the individual to act in order to concentrate and reach a goal, stimulates, strengthens, activates and manages the behaviour of the individual (Mowen et al., 2007). Concept of motivation is used in more than one sense. Although a complete and definitive definition cannot be made, it can be expressed as “the internal state that causes the emergence of human behaviours and directs behaviours” (Lumsden, 1994; Dilts, 1998; Balaban Salı, 2006). Pintrich and Schunk (2002) have expressed motivation as the effort, persistence and skill management of an individual in performing a job (Bozanoğlu, 2004).

Motivation determines the amount of energy devoted to cognitive and behavioural activities required for success. An individual with a high level of motivation can be more successful while performing the necessary duties throughout his/her life (Akbay & Gizir, 2010), and he/she can perform more successful process while fulfilling the necessary responsibilities (preparing for the exam, realizing a project, preparing homework and reading
homework, etc.). When lack of academic motivation occurs, incompatible academic behaviours such as giving up immediately, impatience, insistence, and not enjoying the work can emerge in the face of difficulties (Colangelo, 1997). Incompatible academic behaviour raises the problem we call academic procrastination in motivation. In literature, it is common to find research results that procrastination behaviour is an anti-motivation phenomenon and that the more the individual's motivation decreases, the more he/she tends to procrastinate (Balkus et al., 2006; Bond and Feather, 1988; Klassen et al., 2008; Lee, 2005; Lekich, 2006; Orpen, 1998; Senecal et al., 1995).

There are many duties and responsibilities to be fulfilled in university life where students have many responsibilities and one of his most important responsibilities is academic. However, probable procrastination in academic studies is one of the most important problems faced by university students (Özer, 2005). Procrastination behaviour is defined as postponing tasks to the last minute, leaving tasks or leaving decisions and responsibilities to the last minute (Haycock et al., 1998). In a different definition, academic procrastination has defined as “the tendency to leave academic tasks to a later time due to irrational reasons” (Senecal et al., 2003). Greco (1984) stated that an important job that an individual can do and previously decided to do can be defined as procrastination without a rational justification. Academic procrastination, which leads to negative consequences such as failing in a course, low academic average or being dismissed from the school, is increasing among students (Solomon and Rothblum, 1984; Steel, 2007). In the research conducted by Rothblum et al. (1986), it has found that more than 40% of the students had a high procrastination level. According to the studies on the causes of procrastination behaviour, it is seen that the main reason is the individual's inability to manage his/her time (McCown et al., 1987).

Another cause for procrastination behaviour is difficulty in focusing on a task or feeling a low-sense of duty. The third reason for procrastination behaviour is the anxiety and fear associated with the negative perception that the individual will constantly fail in his/her work. Having a sense of procrastination is seen as another reason for procrastination behaviour. Another reason for procrastination behaviour is unrealistic expectations, faulty cognitive attributes and perfectionism tendency of the individual about himself/herself and his/her performance (Yaakkub, 2000). In meta-analysis studies, procrastination has negative with responsibility, self-efficacy, achievement motive and academic average, avoidance of work has found to be positively associated with fear of failure and perfectionism (Van Eerde, 2003; Steel, 2007). Perfectionism is the individual’s self-determination of very challenging standards and effort to achieve them, although it causes problems (Shafran et al., 2017). Burns (1980) has stated that perfectionism is a negative feature and perfectionists are people who set unattainable goals for themselves, make great efforts to achieve these goals and determine their value according to the resulting product. Mitchelson (2009) has expressed perfectionism as an effort to reach high standards.

The most emphasized point in the definitions of perfectionism is setting extremely high standards on the performance and behaviour of the individual. However, the psychological effects of high standards are not always harmful. In this context, when defining perfectionism, it is seen that high standards are integrated with concepts such as regularity, cleanliness and regulation (Slaney et al., 2001). “All or nothing thinking style” is the most common cognitive distortion in individuals with perfectionist traits. It can be said that individuals with this cognitive distortion have high standards and set extremely difficult or unusual goals (Antony & Swinson, 2000). Hamachek (1978) has also examined perfectionism in two parts as normal and neurotic. According to Hamachek (1978), while normal perfectionists try to achieve a satisfactory result by putting a lot of effort into it, neurotic perfectionists are never satisfied with what they do because they think their work is not good enough. Hewitt and Flett (1991) have developed a multidimensional perfectionism scale by considering perfectionism as a pathological phenomenon and examined it in three dimensions as self-oriented perfectionism other-oriented and socially prescribed. Hamachek (1978) has stated that there are six symptoms of perfectionism as depression, feeling guilty, compulsive thinking, trying to save the situation, self-humiliation and procrastination. Frost et al. (1990) has stated that there are six dimensions of perfectionism as personal standards, family expectations, parental criticism, excessive interest in mistakes, suspicion of behaviour, and order. It is stated that perfectionism causes psychological symptoms related to maladjustment such as depression, eating disorders, self-esteem and loneliness in university students (Hibbard & Davies, 2011). The study aimed to determine the relationship between teacher candidates' academic motivation, academic procrastination and perfectionism levels.

METHOD
Research Model
The relational screening model was used in the research (Gürbüz & Şahin, 2016).

Research Sample
The research group consisted of 209 people (108 females and 101 males), who were studying at Necmettin Erbakan University, Department of Physical Education and Sports, and selected by with aim sampling method.
38.7% of the participating in the research were studying in the "2nd grade", the welfare status of 47.8% was "Normal", and 26.8% had an academic success between "2.51 and 3.00".

Data Collection Tools
Personal Information Form: The form consisted of questions such as gender, age, class, well-being and academic success to gather information about the individuals who participated in the study and the form prepared by the researcher.

Academic Procrastination Scale (APS): The "Academic Procrastination Scale" developed by Çakıcı (2003) was used to determine the academic procrastination of the participants. The scale consists of 19 items, 12 of them were negative and 7 were positive. The items in the scale were answered as (1) "Does Not Reflect Me at all", (5) "Reflect Me Completely". The reliability coefficient of original scale 0.92. In this study, the reliability coefficient was determined as 0.81.

Academic Motivation Scale (AMS): "Academic Motivation Scale" developed by Bozanoğlu (2004) was used to determine the academic motivation levels of the participants. The scale consisted of 44 items and 3 sub-dimensions. The sub-dimensions were (1) "Perfectionism Towards Themselves", (2) "Perfectionism Towards Others" and (3) "Socially Determined Perfectionism". Items in the scale were answered as (1) "Absolutely Not Suitable", (5) "Absolutely Suitable". The reliability coefficient of the scale was determined as 0.87, and the internal consistency coefficients were 0.76 for the "Self-Transcendence" sub-dimension, 0.72 for the "Using Knowledge" sub-dimension and 0.73 for the "Discovery" sub-dimension. In this study, the reliability coefficient was determined as 0.74, and the internal consistency coefficients were 0.75 for the "Self-Transcendence" sub-dimension, 0.75 for the "Using Knowledge" sub-dimension, and 0.75 for the "Discovery" sub-dimension.

Multidimensional Perfectionism Scale (MPS): "Multidimensional Perfectionism Scale" developed by Hewitt and Flett (1991) and adapted to Turkish by Oral (1999) was used to determine the perfectionism levels of the participants. The scale consisted of 44 items and 3 sub-dimensions. The sub-dimensions were (1) "Perfectionism Towards Themselves", (2) "Perfectionism Towards Others" and (3) "Socially Determined Perfectionism". Items in the scale were answered as (1) "Absolutely Disagree", (7) "Completely Agree". The reliability coefficient of the scale was determined to be 0.91, the internal consistency coefficients were 0.91 for the (1) "Perfectionism Towards Themselves" sub-dimension, 0.73 for the (2) "Perfectionism Towards Others" sub-dimension, and 0.80 for the (3) "Socially Determined Perfectionism" (Asan, 2011). The reliability coefficient was determined as for this study 0.75, the internal consistency coefficients were 0.76 for the (1) "Perfectionism Towards Themselves" sub-dimension, 0.81 for the (2) "Perfectionism Towards Others" sub-dimension, and 0.78 for the (3) "Socially Determined Perfectionism" sub-dimension.

Data Analysis
Skewness and kurtosis tests were used to determine the distribution of the data. It was determined that the data had a normal distribution. MANOVA, Independent T-Test, ANOVA. For the reliability Cronbach Alpha coefficients were calculated.

FINDINGS

<table>
<thead>
<tr>
<th>Scale Sub-Dimensions</th>
<th>Number of Items</th>
<th>n</th>
<th>Mean</th>
<th>Sd.</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>APS</td>
<td>Academic Procrastination</td>
<td>19</td>
<td>209</td>
<td>3.45</td>
<td>1.30</td>
<td>1.09</td>
</tr>
<tr>
<td></td>
<td>Self-Transcendence</td>
<td>7</td>
<td>209</td>
<td>3.60</td>
<td>0.79</td>
<td>-0.66</td>
</tr>
<tr>
<td></td>
<td>Using Knowledge</td>
<td>6</td>
<td>209</td>
<td>2.72</td>
<td>0.88</td>
<td>0.46</td>
</tr>
<tr>
<td></td>
<td>Discovery</td>
<td>7</td>
<td>209</td>
<td>3.38</td>
<td>0.75</td>
<td>-0.27</td>
</tr>
<tr>
<td>AMS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Self-oriented</td>
<td>19</td>
<td>209</td>
<td>4.78</td>
<td>1.17</td>
<td>-0.76</td>
</tr>
<tr>
<td></td>
<td>Other-oriented</td>
<td>10</td>
<td>209</td>
<td>3.83</td>
<td>1.12</td>
<td>0.09</td>
</tr>
<tr>
<td></td>
<td>Socially prescribed</td>
<td>15</td>
<td>209</td>
<td>4.20</td>
<td>1.17</td>
<td>0.18</td>
</tr>
</tbody>
</table>

The mean score of the Academic Procrastination Scale was determined as (3.45). The highest mean in the sub-dimensions of AMS was in the "Self-Transcendence" (3.60) sub-dimension, and the lowest average was in the "Using Knowledge" (2.72) sub-dimension. Moreover, at the level of sub-dimensions of MPS, it was determined that the highest mean was in the "self-oriented perfectionism" (4.78) sub-dimension, and the lowest mean was in the "Other-oriented perfectionism" (3.83) sub-dimension.
Table 2. Results of APS-AMS-MPS Scores According to Gender of Participants

<table>
<thead>
<tr>
<th>Scales</th>
<th>Female (n=108)</th>
<th></th>
<th>Male (n=101)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Sd.</td>
<td>Mean</td>
<td>Sd.</td>
</tr>
<tr>
<td>APS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic Procrastination</td>
<td>3.52</td>
<td>1.45</td>
<td>3.38</td>
<td>1.12</td>
</tr>
<tr>
<td>AMS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Transcendence</td>
<td>3.73</td>
<td>0.73</td>
<td>3.47</td>
<td>0.83</td>
</tr>
<tr>
<td>Using Knowledge</td>
<td>2.74</td>
<td>0.89</td>
<td>2.70</td>
<td>0.86</td>
</tr>
<tr>
<td>Discovery</td>
<td>3.42</td>
<td>0.68</td>
<td>3.34</td>
<td>0.82</td>
</tr>
<tr>
<td>MPS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-oriented</td>
<td>4.77</td>
<td>1.26</td>
<td>4.78</td>
<td>1.08</td>
</tr>
<tr>
<td>Other-oriented</td>
<td>3.81</td>
<td>1.16</td>
<td>3.86</td>
<td>1.08</td>
</tr>
<tr>
<td>Socially prescribed</td>
<td>4.20</td>
<td>1.23</td>
<td>4.21</td>
<td>1.10</td>
</tr>
</tbody>
</table>

According to the gender of the participants in the study. There were no significant differences between gender and APS and MPS scores (p>.05). MANOVA analysis results showed that the gender of the participants had a significant effect on sub-dimensions of AMS \( \lambda = 0.964, F_{(3,205)}=2.585; p<0.05 \). At the level of sub-dimensions, a statistically significant difference was found only in the "Self-Transcendence" sub-dimension \( F_{(1,207)} = 5.561; p <0.05 \).  

Table 3. Results of APS-AMS-MPS Scores According to Participants School Grades

<table>
<thead>
<tr>
<th>Scales</th>
<th>1. Grade (n=73)</th>
<th></th>
<th>2. Grade (n=84)</th>
<th></th>
<th>3. Grade (n=52)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Sd.</td>
<td>Mean</td>
<td>Sd.</td>
<td>Mean</td>
<td>Sd.</td>
</tr>
<tr>
<td>APS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic Procrastination</td>
<td>3.52</td>
<td>1.31</td>
<td>3.41</td>
<td>1.43</td>
<td>3.42</td>
<td>1.08</td>
</tr>
<tr>
<td>AMS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Transcendence</td>
<td>3.39</td>
<td>0.90</td>
<td>3.68</td>
<td>0.70</td>
<td>3.78</td>
<td>0.71</td>
</tr>
<tr>
<td>Using knowledge</td>
<td>2.68</td>
<td>0.82</td>
<td>2.76</td>
<td>0.88</td>
<td>2.73</td>
<td>0.95</td>
</tr>
<tr>
<td>Discovery</td>
<td>3.17</td>
<td>0.76</td>
<td>3.46</td>
<td>0.74</td>
<td>3.55</td>
<td>0.71</td>
</tr>
<tr>
<td>MPS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-oriented</td>
<td>4.77</td>
<td>1.19</td>
<td>4.71</td>
<td>1.21</td>
<td>4.88</td>
<td>1.09</td>
</tr>
<tr>
<td>Other-oriented</td>
<td>3.95</td>
<td>1.10</td>
<td>3.77</td>
<td>1.14</td>
<td>3.78</td>
<td>1.11</td>
</tr>
<tr>
<td>Socially prescribed</td>
<td>4.30</td>
<td>1.13</td>
<td>4.08</td>
<td>1.15</td>
<td>4.28</td>
<td>1.24</td>
</tr>
</tbody>
</table>

According to school grades of the participants in the study. There were no significant differences between participants school grade and APS and MPS scores (p>.05). The results of the MANOVA analysis showed that the main effect of the classes in which the participants were educated on the sub-dimensions of AMS was not significant \( \lambda = 0.947, F_{(6,408)}=1.861; p> 0.05 \). At the sub-dimension level, in the “Self-Transcendence” sub-dimension \( F_{(2,206)} = 4.408; p <0.05 \) and in the "Discovery" sub-dimension \( F_{(2,206)} = 4.860; p <0.05 \) significant difference was found.

Table 4. Results of the APS-AMS-MPS Scores According to Academic Achievement Status

<table>
<thead>
<tr>
<th>Scales</th>
<th>2.00 and below (n=63)</th>
<th></th>
<th>2.01-2.50 (n=54)</th>
<th></th>
<th>2.51-3.00 (n=56)</th>
<th></th>
<th>3.00 and above (n=36)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Sd.</td>
<td>Mean</td>
<td>Sd.</td>
<td>Mean</td>
<td>Sd.</td>
<td>Mean</td>
<td>Sd.</td>
</tr>
<tr>
<td>APS</td>
<td>Academic Procrastination</td>
<td>3.79</td>
<td>1.80</td>
<td>3.60</td>
<td>1.29</td>
<td>3.04</td>
<td>0.71</td>
<td>3.27</td>
</tr>
<tr>
<td>AMS</td>
<td>Self-Transcendence</td>
<td>3.47</td>
<td>0.87</td>
<td>3.55</td>
<td>0.75</td>
<td>3.66</td>
<td>0.64</td>
<td>3.82</td>
</tr>
<tr>
<td></td>
<td>Using knowledge</td>
<td>2.51</td>
<td>0.85</td>
<td>2.55</td>
<td>0.82</td>
<td>2.91</td>
<td>0.86</td>
<td>3.06</td>
</tr>
<tr>
<td></td>
<td>Discovery</td>
<td>3.30</td>
<td>0.76</td>
<td>3.24</td>
<td>0.76</td>
<td>3.47</td>
<td>0.70</td>
<td>3.59</td>
</tr>
<tr>
<td>MPS</td>
<td>Self-oriented</td>
<td>4.82</td>
<td>1.11</td>
<td>4.79</td>
<td>1.07</td>
<td>4.71</td>
<td>1.16</td>
<td>4.79</td>
</tr>
<tr>
<td></td>
<td>Other-oriented</td>
<td>3.80</td>
<td>1.01</td>
<td>3.76</td>
<td>0.82</td>
<td>3.75</td>
<td>1.18</td>
<td>4.15</td>
</tr>
<tr>
<td></td>
<td>Socially prescribed</td>
<td>4.08</td>
<td>0.90</td>
<td>4.01</td>
<td>0.97</td>
<td>4.32</td>
<td>1.18</td>
<td>4.53</td>
</tr>
</tbody>
</table>

According to academic achievement status of the participants in the study. There were no significant differences between participants academic achievement status and APS and MPS scores (p>.05). The results of MANOVA analysis showed that the main effect of the participants' academic achievement on the sub-dimensions of AMS was not significant. 

Copyright © The Turkish Online Journal of Educational Technology
was significant [λ = 0.886, F (9,494) = 2.793; p <0.05]. At the level of sub-dimensions, a statistically significant difference was found only in the "Using Knowledge" sub-dimension [F (3,205) = 4.779; p <0.05]

| Table 5. Analysis Results Between APS, AMS and MPS Scores |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| F1 | F2 | F3 | F4 | F5 | F6 | F7 |
| 1 | .061* | .160 | .067 | -.025 | -.024 | -.020 |
| F2 | 1 | .765** | .745** | .317** | .179** | .196** |
| F3 | .765** | 1 | .096 | .077 | .247** | .315** |
| F4 | .067 | .745** | 1 | .110 | .608** | .664** |
| F5 | -.025 | .317** | .077 | 1 | .096 | .745** |
| F6 | -.024 | .179** | .247** | .110 | 1 | .608** |
| F7 | -.020 | -.024 | -.025 | -.024 | -.020 | 1 |

(P<0.01)** (p<0.05)* F1 = Academic Procrastination, F2 = Self-Transcendence, F3 = Using Knowledge, F4 = Discovery, F5 = Self-oriented, F6 = Other-oriented, F7 = Socially prescribed

Pearson Correlation analysis performed to determine the relationship between the sub-dimensions of APS, AMS and MPS were given. According to the analysis results, a positive and low-level relationship was found between APS and only the "Self-Transcendence" sub-dimension of AMS, and a statistically significant difference was not found between APS and MPS. Moreover, it was determined that there was a positive and low-level relationship between the sub-dimension of AMS and the sub-dimensions of MPS.

DISCUSSION and CONCLUSION
This study aimed to determine the relationship between teacher candidates' academic procrastination, academic motivation, and perfectionism levels. Results obtained for this purpose were discussed and interpreted in this section.

APS scores of individuals did not differ significantly according to their gender. The results of the research seemed to be in parallel with some research results (Saracaloğlu et al., 2020; Sula Ataş and Kumcağız, 2019; Çeri et al., 2015; Kınık, 2015; Ulukaya and Bilge, 2014; Motie et al., 2012; Yiğit and Dilmacı, 2011; Ekşi and Dilmacı, 2010; Kandemir, 2010; Akbay, 2009; Alexander and Onwuegbuzie, 2007; Çakıcı, 2003; Gülebağlan, 2003; Watson, 2001; Ferrari, 2001; Hess et al., 2000; Johnson and Bloom, 1995; Solomon and Rothblum, 1984). On the other hand, while it was observed that academic procrastination was more common among female students (Mişê & Hançer, 2019; Şeker and Saygı, 2013; Washington, 2004; Dolye and Paludi, 1998) in some of the studies that determined academic procrastination gender differences, in other studies on gender differences in academic procrastination, it was more common in male students (Vural and Gündüz, 2019; Saracaloğlu et al., 2018; Gür et al., 2018; Sirin and Duman, 2018; Bulut and Ocak, 2017; Terzi et al., 2017; Yaycı and Düşmez, 2016; Kutlu et al., 2015; Çelikkaleli and Akbay, 2013; Aydoğan and Özbaş, 2012; Uzun-Özer and S anarchist, 2011; Akbay and Güzergah, 2010; Çakıcı, 2003). It was determined that the gender of the participants had a significant effect on the sub-dimensions of AMS. It was determined that there were studies that supporting the result of the study in the literature (Alemdağ et al., 2014; Gömlekşiz and Serhatoglu, 2013). On the other hand, it was seen that some studies concluded that AMS did not make a significant difference according to gender (Saracaloğlu et al., 2020; Makhabbat et al., 2018; Şeker, 2017; Terzi et al., 2017; Şahin ve Çakar, 2011 and Saracaloğlu et al., 2009). In the study conducted by Büyükbayraktar (2011), it was found that male student's sub-dimension of social perfection was significantly higher than female students. According to the class variable, there was no significant difference between the APS scores of the individuals. This result was parallel with the results of studies conducted by Saracaloğlu et al. (2020); Sula Ataş and Kumcağız (2019); Kutlu et al., (2015). On the other hand, it was concluded that the APS scores differed significantly according to the classes in the studies conducted by Terzi et al., (2017); Şeker and Saygı (2013); Çelikkaleli and Akbay (2013) and Ekşi and Dilmac (2010). It was determined that the main effect of the classes of the participants on the sub-dimensions of APS significantly differed in the "Self-Transcendence" sub-dimension and the "Discovery" sub-dimension. On the other hand, the studies conducted by Şeker (2017); Ulusşik et al., (2016), and Gündüz (2015) it was seen that the academic motivation scores of the participants did not differ significantly depending on their grade levels. In the studies conducted by Saracaloğlu et al. (2020); Terzi et al., (2017); Gömlekşiz and Serhatogl (2013), and Demar (2008), it was found that students' academic motivation levels showed a statistically significant difference according to the class variable, these results were parallel to the results of this study. The main effect of the classes in which the individuals were educated on the sub-dimensions of MPS was not significant, and there were no differences found in the sub-dimensions. On the other hand, in the study conducted by Büyükbayraktar (2011), it was observed that there was a statically significant relationship between grade level and perfectionism sub-dimension. It was determined that the APS
scores of the participants did not differ significantly according to their academic achievement. On the other hand, in the studies conducted by Balkis et al., (2006); Fritzschke et al., (2003); Orpen (1998); Tice and Baumeister (1997), and Beswick et al., (1988), it was concluded that there was a negative relationship between academic procrastination and academic achievement. According to the analysis results, it was determined that the main effect of the academic achievement of the participants on the sub-dimensions of AMS was significant. It was determined that there was no significant relationship between the main effect of the academic achievement of individuals and the sub-dimensions of the MPS, and there was no statistically significant difference at the level of sub-dimensions. In the study conducted by Altun and Yazıcı (2010), it was found that there was a positive significant relationship between students' positive perfectionism and their academic achievement. Similarly, Saracaloğlu et al. (2016) were stated that there was a positive and low level of relationship between academic mean and perfectionism. In the result of the study, there was no relationship found between APS and AMS. In their study, Akbay and Gizir (2010) concluded that while the academic motivation of university students increased, their academic procrastination behaviour decreased. Similar results were obtained in other studies on the subject (Kağan, 2009; Klassen et al., 2008; Balkis et al. 2006; Balkis, 2006; Lee, 2005; Senecal et al., 2003; Steel, 2007; Watson, 2001; Ferrari and Scher, 2000; Brownlow and Reasinger, 2000; Cohen et al., 2008; Senecal et al, 1995; Tuckman, 1998; Tuckman and Sexton, 1992), and they found that academic motivation was a significant predictor of academic procrastination. Putri and Siregar (2019) stated that the higher the motivation for success, the lower the student's academic procrastination tendency, on the contrary, the lower the motivation for success, the higher the student's academic procrastination tendency. According to the analysis results, a positive and low-level correlation was found between APS and only the "Self-Transcendence" sub-dimension of AMS. The results of the study conducted by Azar (2013) showed that there was a significant negative correlation between academic procrastination and academic motivation, and also multiple regression, in contrast to procrastination, was an important predictor of academic studies. In the studies conducted by Doğan (2015); Kandemir (2014); Cerino (2014); Şirin (2011), and Rakes and Dunn (2010), it was concluded that there was a non-significant inverse relationship between academic procrastination and academic motivation. It was found that there was a positive and low-level relationship between sub-dimensions of AMS and sub-dimensions of MPS. As a result of the research, it was seen that there was no significant relationship between APS and MPS. Studies (Burnam et al., 2014; Çakıcı, 2003; Flett et al., 1995; Uzun-Özer et al., 2014) determined that sub-dimensions of perfectionism negatively predict academic procrastination behaviour. According to the analysis results, it was determined that there was a positive and low-level relationship between AMS and MPS. According to the results of the study, the APS score means of the participants (56.59) showed that academic procrastination behaviours were means were medium-level. Bulut and Ocak (2017) stated that it can be said that the academic procrastination behaviour demonstrated by teacher candidates was partly due to academic perfectionism. Wu and Fan (2017) stated that students with a low belief in their academic abilities were more likely to postpone academic tasks. The study conducted by Vural and Güldüz (2019), it was found that teacher candidates showed "medium-level" academic procrastination.

REFERENCES


Copyright © The Turkish Online Journal of Educational Technology


Copyright © The Turkish Online Journal of Educational Technology

147


