Walking through different paths: Academic self-efficacy and academic procrastination behaviors of pre-service teachers*

Zekiye Özer a†, Ramazan Yetkin b

a Hacettepe University, Ankara, Turkey
b Hacettepe University, Ankara, Turkey

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Abstract
The present study was conducted to scrutinize the relationship between academic procrastination behaviors and academic self-efficacy beliefs of pre-service English language teachers. The study also sought to explain whether gender and grade levels of the participants have an effect on their academic procrastination behaviors and academic self-efficacy beliefs. The sample of the study consisted of (N=98) pre-service English language teachers studying at an English Language Teaching (ELT) program. The most obvious finding to emerge from this study was that there was strong negative correlation between academic self-efficacy levels and academic procrastination behaviors of participants. The research also showed that the factors such as gender and grade levels of students have no significant effect on participants’ academic procrastination behaviors. However, it was found that these factors impact academic self-efficacy beliefs of candidate teachers.

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Keywords: academic procrastination; academic self-efficacy; ELT; pre-service teacher

1. Introduction

Procrastination is one of the common behaviors that almost all people experience sometimes in their lives by putting off their responsibilities or tasks needed to be completed in a certain time. As in all aspects of human life, procrastination is one of the most frequently stated problems in educational setting. Hence, recently, researchers have shown an increased interest in academic procrastination and they have tried to find out the factors explaining procrastination behavior. (Aydoğan, 2008; Çakıcı, 2003; Hannok, 2011). It is necessary here to clarify exactly what is meant by academic self-efficacy and academic procrastination. Academic self-efficacy can broadly be defined as confidence that a person has to accomplish an academic task as planned (Schunk, 1991). Numerous terms are used to describe academic procrastination. Rothblum, Solomon and Murakami (1986) use the academic procrastination to refer to “self-reported tendency to put off academic tasks nearly always and always (b) the experience nearly always and always problematic levels of anxiety associated with procrastination” (p. 388). Academic procrastination behavior is a major problem

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† Corresponding author. Tel.: +0-312-297-8575
E-mail address: zekiyeozert19@gmail.com
among students; that is why, explaining academic procrastination behavior is a major area of interest within the field of education.

1.1. Literature review

The existing literature on academic procrastination is extensive and focuses particularly on identifying factors causing procrastination, its frequency among students, and the effects of procrastination students’ academic lives. There is a large number of published studies (e.g., Akinsola, Tella & Tella, 2007; Balkıs & Duru, 2009; Çakıcı, 2003; Çetin, 2009; Rothblum, et al., 1986) finding out that academic procrastination has a negative effect on students’ learning process. All of the studies reviewed here support the hypothesis that there is a negative correlation between academic procrastination behavior and academic achievements.

To date, several studies have investigated whether there is a relationship between gender and academic procrastination behavior (Çakıcı, 2003; Kandemir, 2010; Tufan & Gök, 2009). Çakıcı (2003) conducted a study in order to investigate procrastination behavior among high school and university students. She found out that there was no difference between university students’ academic procrastination behavior and their gender; however, males studying at high school showed higher level procrastination than girls. Similarly, in another study which set out to identify factors affecting academic procrastination behavior among students in Israel, Milgram and Marshevsky (1995) found that male students had more tendencies to procrastinate their academic responsibilities. However, Tufan and Gök (2009), in their study conducted with pre-service teacher studying at department of musical education, highlighted that females procrastinate more than males. On the other hand, there is a growing body of literature revealing that there was no relationship between gender and procrastination behaviors of students (Joubert, 2015; Solomon & Rothblum, 1984; Uzun-Özer, 2011; Yiğit & Dilmaç, 2011). Previously published studies on the effect of gender on procrastination are not consistent. That is why, it can be stated that we need more studies on gender issue in this field.

Various studies have scrutinized the effect of grade levels on procrastination behavior (Arslan, 2013; Çelik & Odacı, 2015; Çetin, 2009; Joubert, 2015; Milgram & Toubuiana, 1999; Yiğit & Dilmaç, 2011). Most of the previous studies revealed that procrastination levels of students differ in terms of their grade levels (Balkis, 2007; Çelik & Odacı, 2015; Yeşil & Şahan, 2012). However, in contrast to other findings, Çetin (2009), in his study conducted to reveal the opinions of students studying at faculty of education, ascertained that there is no grade difference in procrastination levels of participants.

A considerable amount of literature has been published on academic procrastination. These studies pointed out that there are different reasons of academic procrastination behavior. In this regard, the issue of perfectionism has been the subject of many studies related to procrastination. For example, Ferrari (1992) administered a study to explore the relationship between procrastination and perfectionism levels of university students. His findings revealed that there is a positive relationship between procrastination and perfectionism. In the same vein, Çakıcı (2003) found that self-oriented perfectionism is one of the predictors of procrastination behavior among both high school and university students.

According to different researchers, fear of failure is another factor determining the level of procrastination behavior (Solomon & Rothblum, 1984; Özer & Altun, 2011; Schouwenburg, 1992). To better understand the relationship between procrastination and fear of failure, Kandemir (2012) carried on a study with students attending private teaching institutions to be prepared university entrance exam. He found that fear of failure is one of the important factors that impact the level procrastination behavior among student.
It is now well established from a variety of studies, that self-efficacy has a significant role on predicting the level of academic procrastination. As noted by Bandura (1986), having low self-efficacy affects a person’s motivation and expectation towards success in a negative way and this may lead to postpone starting or continuing a performance. Self-efficacy is a concept that is accepted as a determinant of the way people behave (Bandura & Adams, 1977). The ones who have high level of self-efficacy feel more confident and comfortable while trying to accomplish a difficult task. In addition, those people do not feel disappointed when they encounter with a problem or a failure because they try to handle with the problematic situation in order to reach their initial goals (Bandura, 1994).

In the literature, there are numerous studies attempting to explain the relationship between self-efficacy and procrastination (Klassen, Krawchuk & Rajani, 2007; Seo, 2008; Steel, 2007; Wang, Qian, Wang & Chen, 2011; Wolters, 2003). Almost all of these studies showed that there is a negative correlation between self-efficacy and procrastination. For that reason, in line with the self-efficacy theory, when a person think that s/he cannot accomplish a given task in certain period of time depending on low self-efficacy beliefs, s/he postpone his/her responsibility and use procrastination as a strategy to avoid the feeling of failure.

When the literature is analyzed, it can be seen that there are different factors associated with procrastination behavior. These are motivation (Brownlow & Reasinger, 2000; Senecal, Koestner, Vallerand, 1995), poor time management (Burns, Dittmann, Nguyen & Mitchelson, 2000), irrational beliefs, depression, and anxiety (Pychyl, Lee, Thibodeau, & Blunt, 2001; Solomon & Rothblum, 1984), as well as poor self-regulation (Tice & Baumeister, 1997). Considering all of this evidence, it seems that a large and growing body of literature has investigated the reasons of academic procrastination and its relationship with different factors such as self-efficacy, motivation, academic achievement, and general procrastination. A number of studies highlighted academic procrastination behavior among university students and also factors that are associated with their procrastination behavior. However, especially in Turkey, there are very few studies focusing on academic procrastination behaviors and academic self-efficacy believes of pre-service English language teachers. Therefore, this study set out to scrutinize the relationship between academic procrastination behaviors and academic self-efficacy beliefs of pre-service English language teachers. This study will fill a gap in the literature by enhancing our understating of academic procrastination behavior.

1.2. Research questions

The current study was designed to investigate the relationship between pre-service English teacher’s academic procrastination behavior and their academic self-efficacy beliefs. This study also sought to explain whether gender and grade level of the participants have an effect on their academic procrastination behavior and academic self-efficacy beliefs. In this respect, answers to the following research questions were sought:

1. What are the participants’ levels of academic procrastination and academic self-efficacy?
2. Is there a significant difference between participants’ academic procrastination behaviors according to their gender and grade levels?
3. Is there a significant difference between participants’ academic self-efficacy beliefs according to gender and grade levels?
4. Is there a relationship between academic procrastination behaviors of pre-service English teachers and their academic self-efficacy beliefs?
2. Method

2.1. Sample / Participants

The current study conducted in 2017-2018 academic year. The sample of this study consisted of (N=98) pre-service English language teachers studying at the English Language Teaching Program, Faculty of Education, Hacettepe University. As Table 1 illustrates, there were 32 male and 66 female participants in the study. Participants were first, second, and third graders. K-Means Cluster Analysis was conducted to classify students regarding their GPA as high, medium and low achievers. The table describing the participants was given below in order to provide more detailed information about the participants.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>32</td>
<td>32.7</td>
</tr>
<tr>
<td>Female</td>
<td>66</td>
<td>67.3</td>
</tr>
<tr>
<td>Grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st grade</td>
<td>32</td>
<td>32.7</td>
</tr>
<tr>
<td>2nd grade</td>
<td>30</td>
<td>30.6</td>
</tr>
<tr>
<td>3rd grade</td>
<td>36</td>
<td>36.7</td>
</tr>
<tr>
<td>GPA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>low</td>
<td>2</td>
<td>2.0</td>
</tr>
<tr>
<td>mid</td>
<td>28</td>
<td>28.6</td>
</tr>
<tr>
<td>low</td>
<td>39</td>
<td>70.4</td>
</tr>
<tr>
<td>missing</td>
<td>29</td>
<td>29.6</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17-19</td>
<td>34</td>
<td>34.7</td>
</tr>
<tr>
<td>20-22</td>
<td>59</td>
<td>60.2</td>
</tr>
<tr>
<td>23 and above</td>
<td>5</td>
<td>5.1</td>
</tr>
</tbody>
</table>

2.2. Instrument(s)

In the current study, a personal information form, Academic Procrastination Scale and Academic Self-Efficacy Scale were used to collect data. In the personal information form, participants are asked to indicate their gender, age, grade, and GPA.

*Academic Procrastination Scale* developed by Çakıcı in 2003 was administered in order to identify academic procrastination behaviors of the participants. In this scale, there were 19 items in 5-point Likert-type scale from “totally not reflect me” to “totally reflect me”. Çakıcı (2003) stated that totally, 12 out of 19 items were negative and 7 items were positive. According to Çakıcı (2003) academic procrastination scale had a good internal consistency with a Cronbach alpha coefficient reported of .92. In the present study, the Cronbach alpha coefficient was calculated as .91.

*Academic self-efficacy scale* developed by Kandemir (2010) consisted of a 5 point Likert- type of scale with 19 items from “strongly disagree” to “strongly agree”. This scale aimed to discover academic self-efficacy believes of the participants. Cronbach’s alpha value for academic self-efficacy scale was found .92 by Kandemir (2010). In the current study, Cronbach’s alpha coefficient was .96. Cronbach’s alpha coefficient value for both scales indicated that these scales were reliable to use in this study.
2.3. Data collection procedures

In the current study, data was collected through aforementioned three questionnaires. The researchers themselves were responsible for the delivery of the questionnaires. Researchers distributed the questionnaires to participant by visiting them in different courses. Before each data collection session, participants were informed briefly about the purpose of the study, application of the questionnaires and asked for their consents. Researchers meticulously chose different courses to make sure that different grade levels were represented in the data. The completion of each questionnaire lasted for 15 minutes in average and the whole data was collected by a week.

2.4. Data analysis

After receiving the data, it was entered and analyzed with Statistical Package for Social Sciences (SPSS) 21 software. Firstly, the assumption of normality and inter item reliability for both the academic procrastination and academic self-efficacy scales were checked. Test of normality and reliability analysis results indicated that the scales were parametric (normally-distributed) and they had satisfactory reliability values. Then, a Pearson product moment correlation, an independent samples t-test and one-way analysis of variance (ANOVA) tests were conducted to analyze collected data based on the research questions in order.

3. Results

RQ1- What are the participants’ levels of academic procrastination and academic self-efficacy?

In order to find out participants’ levels of academic procrastination and academic self-efficacy, descriptive statistics were examined. Higher mean value for academic procrastination scale means that students have higher tendency to procrastinate. For academic self-efficacy scale, higher mean value suggests that students have high level of academic self-efficacy. It can be seen from the data in Table 2, students’ academic procrastination behaviors (M=3.01, SD=.76) and academic self-efficacy believes (M=3.24, SD=.80) are at the moderate level.

<table>
<thead>
<tr>
<th>Table 2. Descriptive statistics for academic procrastination and academic self-efficacy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Procrastination</td>
</tr>
<tr>
<td>Self-efficacy</td>
</tr>
</tbody>
</table>

RQ2-Is there a significant difference between participants’ academic procrastination behaviors according to their gender and grade levels?

As to the effect of gender on academic procrastination behaviors of prospective teachers, an independent-samples t-test was conducted. As shown in Table 3, the results of t-test did not yield statistically significant difference in the academic procrastination behaviors for females (M=2.90, SD=.70) and males (M=3.13, SD=.86; t (98) =1.41, p=.16, two tailed).

<table>
<thead>
<tr>
<th>Table 3. T-test for gender and procrastination</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
A one-way between-groups analysis of variance was used to determine the impact of grade levels on academic procrastination behaviors of prospective teachers. The results of test of homogeneity of variances were revealed that assumption of homogeneity is not violated because the significance value of Levene’s test is greater than .05. Therefore, ANOVA table can be examined for further analysis. It is apparent form Table 4 that analysis of the one-way ANOVA did not yield a significant difference at the $p<.05$ level in academic procrastination for first, second, and third graders $F(2,95) =.074$, $p>.05$.

### Table 4. ANOVA for grade and procrastination

<table>
<thead>
<tr>
<th></th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>$F$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>.089</td>
<td>2</td>
<td>.044</td>
<td>.074</td>
<td>.929</td>
</tr>
<tr>
<td>Within Groups</td>
<td>56.803</td>
<td>95</td>
<td>.598</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>56.892</td>
<td>97</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

RQ3-Is there a significant difference between participants’ academic self-efficacy beliefs and their gender and grade levels?

An independent-samples t-test was conducted to compare the academic self-efficacy believes of prospective teachers for females and males. Table 5 provides the results obtained from t-test analysis. The results, as shown in Table 5, indicate that there was a significant difference in the academic procrastination behaviors for females ($M=3.11$, $SD=.73$) and males ($M=3.49$, $SD=.90$; $t(98)$ 2.21, $p<.05$, two tailed), with a moderate effect size (Cohen’s $d=.46$, Cohen, 1988).

### Table 5. T test for self-efficacy

<table>
<thead>
<tr>
<th></th>
<th>$N$</th>
<th>$M$</th>
<th>$SD$</th>
<th>Mean Difference</th>
<th>$t$</th>
<th>$df$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>66</td>
<td>3.11</td>
<td>.73</td>
<td>.37</td>
<td>2.21</td>
<td>96</td>
<td>.02</td>
</tr>
<tr>
<td>Male</td>
<td>32</td>
<td>3.49</td>
<td>.90</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In order to check whether there was any difference in academic self-efficacy beliefs of the pre-service English language teachers according to their grade levels; one-way Analysis of Variance (ANOVA) was conducted. Preliminary analysis was checked to reveal whether data met all assumptions of ANOVA. Since the significance value for Levene’s test calculated as .20, the results indicated in ANOVA table can be examined. As provided by Table 6, there was a statically significant difference at the $p<.05$ level in academic self-efficacy beliefs of students for three different grade levels $F(2,95) =3.55$, $p<.05$. The effect size was calculated as medium, using eta squared, was .06. In order to detect to differences, further planned comparisons were conducted. Planned comparison was applied since it is more robust to detect differences (Pallant, 2010). Due to multiple analyses, a more stringent alpha value of .017 was determined by Bonferroni correction. Results of the planned comparison indicated that the only significant difference were between first and second graders on their self-efficacy beliefs in which second graders presented higher level of self-efficacy, $F (1,95) =6.08$, $p=.015$.

### Table 6. ANOVA results for self-efficacy

<table>
<thead>
<tr>
<th></th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>$F$</th>
<th>Sig.</th>
<th>Group Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>4.403</td>
<td>2</td>
<td>2.202</td>
<td>3.55</td>
<td>.03</td>
<td>Second grade &gt; first grade, $p&lt;.05$</td>
</tr>
<tr>
<td>Within Groups</td>
<td>58.817</td>
<td>95</td>
<td>.609</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>63.221</td>
<td></td>
<td></td>
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</tbody>
</table>
RQ4-Is there a relationship between academic procrastination behaviors of prospective ELT teachers and their academic self-efficacy believes?

In order to check relationship between academic procrastination behaviors and academic self-efficacy beliefs of pre-service English language teachers, a Pearson product-moment correlation coefficient analysis was implemented.

Table 7. Bivariate Correlation Analysis for procrastination and self-efficacy

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Academic procrastination</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Academic self-efficacy</td>
<td>-.578**</td>
<td>1</td>
</tr>
</tbody>
</table>

**p <.01 level (2-tailed).

As Table 7 indicates, there was a large negative correlation between academic procrastination behaviors and academic self-efficacy beliefs of participants ($r (98) = -.578$, $p < .01$). The magnitude of the correlation was calculated as $r^2 = .32$, $p < .01$. It indicates that academic self-efficacy helps to explain nearly 32 % of the variance in participants’ academic procrastination behaviors which is quite a respectable amount.

4. Discussion

The data obtained from this investigation indicated that pre-service English teachers’ academic self-efficacy and academic procrastination levels were at moderate level. In the current study, the effects of gender and grade levels on students’ academic procrastination behavior were investigated. The findings of the current study revealed that there was no relationship between procrastination and students’ gender and grade levels. In terms of gender, this result corroborates the findings of a great deal of the previous work in literature (Çakıcı, 2003; Haycock et al., 1998; Solomon & Rothblum, 1984). It is difficult to explain this result, but it might be related to inconsistency in the number of male and female participants. One can infer that regardless of gender difference, pre-service English teachers stated that they postponed their responsibilities that they had to fulfill their academic lives. In addition, students’ procrastination behaviors did not differ according to their grade levels. This finding was contrary to previous studies which had suggested that there was a significant relationship between academic procrastination and grade levels of students (Balkıs, 2007; Çelik & Odacı, 2015; Yeşil & Şahan, 2012). However, in his study, Çelik (2009) reported similar results with the present study. He pointed out that students’ grade levels were not a determinant factor on their procrastination tendency. This result might be explained by the fact that participants’ grade levels were in a close range. It also verified the supposition that pre-service English teachers had tendency to procrastinate their academic duties without considering their grade levels.

The present study was also designed to determine the effect of gender and grade levels on students’ academic self-efficacy beliefs. First of all, the findings of the study suggested that there was a significant difference between academic self-efficacy beliefs of students and their gender. A further investigation of mean values indicated male participants had higher level of self-efficacy than females. This result was likely to be related to culture structure of Turkish society. In Turkey, because of the male dominated society, girls and boys are raised according to different gender roles. While parents raise male children in more relax atmosphere by showing tolerance whatever they do, female children have more oppressive and controlled environment. Because of this reason, males have more self-confidence and higher level of self-efficacy than females. The results of the present study also
specified that students’ self-efficacy differs according to their grade levels. A further investigation conducted to identify difference between groups was pointed out that second graders had higher level of self-efficacy than the first graders. One possible explanation of this result could be anxiety levels of first graders. Since it was their first year in the university, they might not be accustomed to their department, instructors, courses, and also their friends. That is why, they might feel anxious and this might lead to have fear of failure. For that reason, there was low self-efficacy among first graders. Second graders; on the other hand, had higher level of self-efficacy because they were familiar with the instructors, courses, academic life, and also they developed their own learning strategies. For that reason, they felt less anxious and depending on this, their self-efficacy levels increased.

Moreover, on the question of the relationship between academic procrastination and academic self-efficacy, this study found that there was negative large correlation between students’ academic procrastination behaviors and academic self-efficacy beliefs. In other words, students who had high self-efficacy did not postpone their academic responsibilities. As mentioned in the literature review, the previous studies had yielded similar results with the current study (Klassen et al., 2007; Wang et al. 2011; Wolters; 2003). It seemed possible that this result was due to the fact that students used procrastination behavior as an avoidance strategy. To clarify, high level of academic self-efficacy increased students’ motivation to accomplish a given academic task. On the other hand, having low self-efficacy level accompanied with fear of failure and this situation might increase students’ anxiety and feeling of stress in their academic lives. For that reason, they had tendency to procrastinate.

5. Conclusions

The present study was designed to investigate the relationship between academic procrastination behaviors and academic self-efficacy beliefs of pre-service English language teachers. Another goal of the study was to determine the effect of gender and grade of participants on their procrastination behaviors and self-efficacy beliefs. The findings of the study showed that there was a strong negative correlation between academic self-efficacy and academic procrastination. The research also showed that the factors such as gender and grade levels of students had no significant effect on participants’ academic procrastination behaviors. However, it was found that these factors might impact academic self-efficacy beliefs of candidate teachers.

Overall, this study strengthens the idea that the objective of our education system should be to increase students’ self-efficacy levels because students having high self-efficacy are more motivated to accomplish their academic tasks and they can overcome the problems that they encounter in their academic lives. If the strong relationship between procrastination and self-efficacy is considered, it can be stated that when students’ self-efficacy level heightens, their procrastination tendency decrease and in conjunction with this, their academic achievement can increase. Taken together, it is essential to find ways to foster students’ academic self-efficacy beliefs in order to increase their motivation. In this sense, further studies should be conducted to discover the factors that affect their self-efficacy beliefs and offer suggestions to make them more confident to increase their self-efficacy. Moreover, since procrastination have a negative impact on students’ success, further research should be undertaken in this field in order to identify reasons related to academic procrastination behaviors of students and also to suggest solutions to overcome their procrastination tendency.

The current study was conducted 98 students studying at a state university in Turkey. Since the study was limited to certain group of participants, it was not possible to generalize the findings. Further research could also be conducted to determine relationship between academic procrastination and academic self-efficacy with participants studying different universities.
References


İngilizce öğretmen adaylarının akademik öz yeterlik ve akademik erteleme davranışları

Öz

Anahtar sözcükler: akademik erteleme; akademik öz yeterlik, İngiliz Dili Eğitimi, öğretmen adayları

AUTHOR BIODATA
Zekiyede ÖZER is currently working as a research assistant and having her PhD at Hacettepe University, English Language Teaching Department.

Ramazan YETKİN is a PhD student at Hacettepe University. He is interested in TEFL, assessment, willingness to communicate, and anxiety.