

Procrastination: the poor time management among university students

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Abstract

Academic procrastination is a fact related to the delay or postpone of academic work until last minute. This phenomenon is evident in a vast majority of university students, and its occurrence is increasing. In order to analyse possible causes and/or solutions, we studied if longer time for accomplishing an assignment incentives or avoids procrastination among university students. Results showed that both short and long time-frame groups tended to procrastinate in the same way. Additionally, academic grades did not revealed differences between groups, as the procrastination was the same between groups. Thus, this study shows that even with longer period of time to accomplish a task, university students tend to procrastinate, and thus seem to have a negative effect on their assignment grades. Therefore, it seems a current problem and measures should be developed in order to solve it.

Keywords: *Time management; Procrastination; assignments; educational outcomes.*

1. Introduction

Procrastination has been considered a dysfunctional behaviour or an irrational delay of behaviour (Ellis & Knaus, 1977; Silver & Sabini, 1981) associated with negative outcomes. Academic procrastination was defined as: “to leave academic tasks (preparing for exams and doing homework) to the last minute and to feel discomfort out of this (Slomon & Rothblum, 1984). Academic procrastination is estimated to occur in 80-95% of college students (O’Brien, 2002) or at least half of the students (Ozer et al. 2009). Interestingly, this phenomenon seems to be growing (Steel, 2007). Also, procrastination has been negatively correlated with academic performance (Ariely & Werntrnrich, 2002; Wong, 2008; Kim & Seo, 2015). Negative effects have been traditionally related to students’ grade point average (GPA), assignment grades, quiz scores and course grades (Steel et al. 2001; Kim & Seo, 2015).

In academic context, procrastination trait includes achievement motivation or hope for success, planning and time manage skills, work discipline, study motivation, and self-control and cognitive study-skills (Schouwenbrug, 1995). Therefore, it has particularly important consequences for university students, such as waste of time, poor performance, increased stress, anxiety and depression (Chu & Choi, 2005, Essau et al. 2008). These factors led to an increase in pressure due a time reduction which reduces accuracy and consequently a reduction in academic performance (Van Eerde, 2003).

Previous studies have suggested that the relationship between procrastination and academic performance is influenced by the ability of the students. Previously, Ferrari (1991) showed that students with greater ability tend to procrastinate more tan those with lower ability. However, it has been recently published that these students with high cognitive abilities may obtain worse educational outcomes or fail to accomplish the educational program if they procrastinate (De Paola & Scoppa, 2015).

The study was conducted with the objective of analyzing the time management in deferring academic activities among university students.

2. Methods

2.1. Context

The present study was delimited to the School of Agricultural Engineering and Environment of The Universidad Politécnica de Valencia, Spain. The population of the study consisted on undergraduated students. The samples of the study involved 106 students divided in two different classroom groups named A and B.

2.2. Procrastination trial: indices of academic performance

The day of the subject presentation (26/01/15), both groups of students were told about the assignment which would count as a 5% of the final grade of the subject. The assignment was a bibliographic report in the topic of animal models in biological and biomedical research. Table 1 shows the guidelines of the assignment provided for both groups of students.

Table 1. Guidelines for the Animal Model assignment

Assignment: Animal Model	Bibliographic report about the appliance of an animal specie as animal model
Type	Work in pairs
Structure	Title & authors Abstract & keywords Body text (including figures and tables) Conclusions References
Format	A4 size Paper length: 5 pages Font: arial, 11, 1.5 spacing

In order to evaluated the time management between students of both groups, different deadlines were established. In group A deadline was the 15/03/2015 (1 month and a half after the communication), while group B deadline was 31/05/2015 (almost 3 months later)(figure 1). The number of weeks a student takes to accomplish the enrollment procedure after notification was considered as a proxy of individual procrastination. The theoretical estimation of an average student to accomplish the task was within 10 hours.

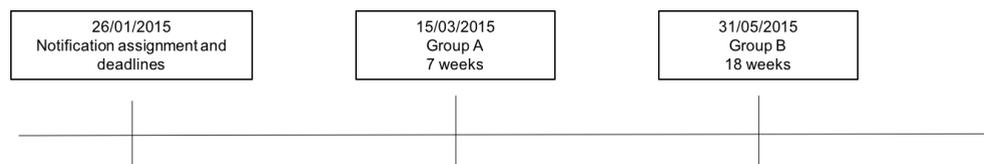


Figure 1. Timeline of the assignment

Additionally, the students' assignment grades was analysed in order to analyse the effect of procrastination in academic outcomes. A scoring guide was used to evaluate the quality of students' assignments (table 2). This rubric was communicated to the students the first day of lessons.

Table 2. Animal Model Assignment Rubric

Content	70
Model originality (mouse=5, horse=20)	20
Physiological description of the specie	20
Model appliance	20
Scientific quality and depth	10
Formal aspect	30
Compliance with the guideline (deadline, length, etc.)	10
Figures and tables	10
Reference	10

Finally, the numer of consultations about the task of each group were recorded.

2.3. Data analysis

We recorded the week on which students accomplished their assignment and we built a measure of procrastination by considering how close this date was to the deadline. To be more precise, the main variable procrastinatin took values from 1 to 5 depending on the week the students submitted with their assignment (Table 3).

Table 3. Procrastination variable distribution

Group	Week of accomplishment	Procrastination variable
A	3	1
	4	2
	5-6	3
	7	4
	Out of time	5
B	1-5	1
	6-10	2
	11-16	3
	17-18	4
	Out of time	5

To measure the level of procrastination among these students, a descriptive analysis by a chi-square test was performed. To compare assignment grades among groups a General Linear Model was performed. The consultations during the assigment duration were analysed using a probit link function. Differences of $p < 0.05$ were considered significant. All analysis were performed with a SPSS 21.0 software package (SPSS In., Chicago, IL, USA, 2002).

3. Results

Firstly, the number of consultations revealed no differences between groups (0.17 ± 0.07 and 0.29 ± 0.093 consultations for the A and B groups, respectively). As indicate in table 4, students on average accomplished their assigment on the last period. The mean procrastination variable for both groups was 4 (4.0 ± 0.09 and 3.9 ± 0.09 , for the A and B groups, respectively), with the 78.8% of students submitting the assignments on the last week. None of teams among different groups were non-procrastinators, as there were no assignments submitted in the procrastination variable 1 and 2. Slight procrastinators would be those submitting in procrastination variable 3, with only 11.5% of students. Additionally, it should be highlighted that no team of B group students submitted the assigments after the deadline, while almost 10% of the students from the A group submitted their work late.

The mean grade in assigments neither reported differences between groups. The A group reported an average grade of 6.4 ± 0.29 , while the B group average grade was 6.2 ± 0.31 .

Table 4. Descriptive analysis

Groups	Procrastination variable (%)				
	1	2	3	4	5
A	0	0	7.7 (4)	38.5 (20)	9.6 (5)
B	0	0	3.8 (2)	40.4 (21)	0
Total	0	0	11.5 (6)	78.8 (41)	9.6 (5)

(n): number of assignments for each %

4. Discussion

In education, the term academic procrastination is commonly used to denote a postpone in students' academic work. It has been widely reported that academic procrastination produces negative effects on students' performance (Ariely & Wertenbroch, 2002; Wong, 2008; De Paola & Scoppa, 2015; Kim & Seo, 2015). In fact, high levels of procrastination make students unable to regulate and organize them achieve their academic goals (Essau et al. 2008). Different factors appear to contribute towards procrastination among university students as lack of commintment, lack of encouragement or inappropriate time management skills (Hussain & Sultan, 2010).

The overall results of our study showed no differences neither in procrastination nor in assignments' mean grade between both groups. Although it has been previously reported that longer times for completing a task promote procrastination (Goode, 2008), we

observed similar tendency to procrastinate between both groups of students. Thus, the tendency to procrastinate between B group students could be explained by the longer time to accomplish with their assignment (18 vs 7 weeks for the B and A groups, respectively). Nevertheless, it is interesting to highlight that none of the B group students submitted the assignment out of time, while almost 10% of the A group students did. Another point to consider is if B students deliberately decide to procrastinate (Kim et al. 2017). Nonetheless, this may not be the case, as the deadline for B groups students coincided with the final term exams. In fact, this could explain two of the studied factors: on the one hand, B students tend to procrastinate as much as A students in spite of the length of the deadline and the proximity of final exams; on the other hand, procrastination may be the consequence of the low assignment grade of groups, and determines the harmful effect of delaying on academic achievements.

Tuckman (2002) proposed a long time for accomplishing a task as a measure to battle procrastination. That work suggested that tasks far away in time may reduce procrastination. However, our study shows that even longer time for accomplishing (almost 4 months) and the proximity of the final exams did not persuade students to procrastinate. Therefore, as independently of the time task all students seem to procrastinate, measures against procrastination between university students should be carried out by the academic institutions. Previous studies have proposed some remedial measures such as guidance and counselling services (Hussain & Sultan, 2010).

In addition, we studied if procrastination was correlated with educational performance. We determined that no differences exist on assignment average mark between groups, being the same mean grade for A and for B groups. Although De Paola & Scoppa (2015) described that students who procrastinate may obtain a low academic outcome, the lack of differences observed in our study could be explained based on the similar mean procrastination variable observed for both groups.

In conclusion, this study shows that even with longer deadline times and the proximity of the deadline to their final term exams university students tend to procrastinate.

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