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January 2000

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Recommended Citation

Scher, Steven J. and Ferrari, Joseph R., "TOWARD AN UNDERSTANDING OF ACADEMIC AND NONACADEMIC TASKS PROCRASTINATED BY STUDENTS: THE USE OF DAILY LOGS" (2000). *Faculty Research and Creative Activity*. 28.
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TOWARD AN UNDERSTANDING OF ACADEMIC AND NONACADEMIC TASKS PROCRASTINATED BY STUDENTS: THE USE OF DAILY LOGS

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Abstract: For five consecutive days, at either the beginning or the end of a term, college students (30 women, 7 men) listed daily academic and nonacademic tasks they intended to complete and whether they actually completed them. Students reported nonacademic tasks (e.g., household chores, making telephone calls, exercising, and playing sports) as completed most often regardless of the time within the term. Results from 2 (early vs. later sessions) by 2 (completed vs. not completed tasks) by 2 (academic vs. nonacademic tasks) ANOVAs found that procrastinated tasks early in the term were more effortful and anxiety provoking than any other task during the term. Procrastinated academic tasks (e.g., homework, reading assignments, studying) in the early part of a term were rated as unpleasurable, while students reported later in the term that pleasantness of the task did not affect whether it was procrastinated or completed. These results imply that academic and nonacademic tasks should be challenging, yet fun, to heighten the likelihood that they are completed by students.

Students at both selective and nonselective institutions frequently engage in academic procrastination regardless of their gender, race, or learning style (Ellis & Knaus, 1977; Ferrari, Keane, Wolfe, & Beck, 1998; Ferrari, Parker, & Ware, 1992; Ferrari, Wolfe, Wesley, Schoff, & Beck, 1995; Hill, Hill, Chabot, & Barrall, 1978). In fact, it has been found that doctoral students are likely to delay completing their dissertations, and even many beginning faculty engage in frequent procrastination of scholarly writing, thereby sabotaging their chances for tenure and promotion (Boice, 1992, 1993, 1995, 1996).

Academic procrastination by college students is associated with missing deadlines for submitting assignments and delaying the taking of self-paced quizzes. Academic procrastinators claim test anxiety and obtain low course and semester grades, as well as a lower cumulative GPA (Beswick, Rothblum, & Mann, 1988; Clark & Hill, 1994; Lay & Burns, 1991; Rothblum, Solomon, & Murakami, 1986; Wolfe & Johnson, 1995). College students report procrastinating more often when writing a term paper than when reading an assignment, studying for an exam, or attending to academic and administrative tasks (Rothblum et al., 1986; Solomon & Rothblum, 1984).

Studies indicate that fear of failure, aversiveness of the task, and fear of social

disapproval by peers are primary motives for academic procrastination (Ferrari et al., 1998; Milgram, Batori, & Mowrer, 1993; Schouwenburg, 1995; Solomon & Rothblum, 1984). Students also reported generating a variety of fraudulent excuses for their delays (Ferrari et al., 1998), and they felt guilt and remorse for using a lie to “get away” with procrastinating (Ferrari & Beck, 1998). These studies indicate that diverse populations of students in higher education engage in academic procrastination to escape immediate tasks (Ferrari, Johnson, & McCown, 1995). However, none of these previous studies explored the types of tasks college students may or may not complete during an academic term. It is not known whether college students procrastinate only on academic tasks, or across a variety of both academic and nonacademic tasks.

Several studies have explored the daily tasks that people delay versus those they complete. People report delaying the completion of aversive, difficult, and unpleasant tasks (Scher & Ferrari, 1999, in press). Scher and Ferrari (1999) factor analyzed over 760 procrastinated and completed tasks, yielding three task dimensions: how effortful and anxiety provoking the task was, whether the task created skills and self-confidence, and the level of pleasure and relaxation created by the task. Chronic procrastinators avoid activities that may contain information concerning their true abilities (Ferrari, 1991a) and prefer to work on easy, unchallenging tasks (Ferrari, 1991b; Scher & Ferrari, 1999). Procrastinators make poor estimates about the amount of time needed to complete activities (Lay, 1988), do not act on their intentions to perform a task (Lay & Burns, 1991), and prefer to engage in pleasurable activities earlier in the day, postponing unpleasant tasks until the evening (Ferrari, Harriott, Evans, Lecik-Michna, & Wenger, 1997).

The present study extends this research by examining whether students are more likely to delay completion of academic or nonacademic tasks. Furthermore, task completion in the present study was evaluated at the beginning or end of an academic term. These results may provide useful information for educational personnel who design intervention programs for college students. Determining whether students report they procrastinate on academic tasks more or less than on nonacademic tasks during an academic term may facilitate implementing effective time- and life-management strategies. Thus, participants in the present study were asked to record the daily academic and nonacademic tasks, both completed and not completed, at either early or late in a 10-week academic quarter.

Methods

Participants

Forty undergraduates from a medium-sized, private, urban, Midwestern university were recruited to participate in the study. All participants were first- or second-year college students (age ranged from 18 to 21). Twenty-five persons participated during the second week, and fifteen persons participated in the second to last week of two academic terms. Three of the students dropped out before the completion of

the study; therefore, only 37 participants (30 women, 7 men) provided complete data for the task-level analysis. Participants in the early part of the term were paid \$35 for their participation, while participants in the later part of the term were paid \$50 to complete the study.

Overview

On five consecutive days, participants reported on tasks that they intended to complete within the coming 24 hours, and indicated which of the tasks reported the previous day they had actually completed. Both completed and noncompleted tasks were rated on 17 dimensions. Participants also completed other self-report inventories; however, those measures are not reported here because the present study focused on academic and nonacademic tasks that students either procrastinated or completed (see Scher & Ferrari, 1999, in press, for details).

Procedure

Participants were required to report to the laboratory for five consecutive days. On Day 1, after completing informed consent forms and other associated administrative, participants were instructed to complete for each task that they intended to do within the next 24 hours one Future Intended Activity Report (FIAR), which was created for this project. The FIARs asked participants to provide a task name and a description of the task, and to indicate how important it was that they accomplish “the part of this task you intended to complete within the next 24 hours.” Responses were made on a 27-point Likert-type scale, with the end-points labeled (i.e., “not at all important” and “very important”). Participants also were asked to indicate the percentage of the task they intended to complete within the next 24 hours. These responses were made by circling a percentage, with choices ranging from 5 to 100%, in increments of 5%.

On each of the next three days (Days 2–4), participants reported to the lab at the same time and were asked to list all activities they had reported on the previous day. These data were subsequently compared to the actual list of tasks they had provided on the previous day (Scher & Ferrari, in press). Following this recall task, participants were provided with a series of Past Intended Activity Reports (PIARs)—also created for this projects—filled out with each of the tasks that they had reported on FIARs the day before. These forms listed the task name they had given on the previous day’s FIAR, and asked participants to indicate how much time they actually spent on the task (on an 11-point scale, with endpoints labeled “no time at all” and “very much time”). They also indicated the percentage of what they intended to accomplish from among all the tasks they actually did accomplish. Responses to this latter question were made by circling a percentage, with choices beginning at 0%, increasing in increments of 5% up to 100%. An option of > 100% also was included.

Participants next were given rating forms filled in with each of the tasks that they

had reported on the previous day's FIARs. Participants rated each task on the degree to which it was anxiety provoking, pleasurable, stimulating, provided an opportunity to show skill, created self-confidence, required effort, requires thought, is difficult, takes a long time to finish, is relaxing, is creative, is an active task, is important to me, is an important task in the eyes of my close friends, and is an important task in the eyes of my family. Each rating was made on a scale ranging from 1 ("does not apply at all") to 6 ("applies very much"). Each day participants finished the session by completing FIARs for the tasks they intended to complete within the next 24 hours. On Day 5, participants completed the free-recall task, the PIARs, and the rating of their intended tasks from the previous day. All participants then were thanked, paid, and provided with a brief description of the purpose of the study.

Results

The current study focused on identifying the characteristics associated with academic and nonacademic tasks that students, from either the early or later part of a term, reported as completed or not completed (i.e., procrastinated) from the previous day. An analysis of the factor structure related to what tasks people do or do not complete, as well as their accuracy in recalling those tasks, are reported elsewhere (Scher & Ferrari, 1999, in press). Scher and Ferrari (1999) factor analyzed the ratings (oblique rotation, $\geq .40$ loadings) and found that they loaded on three task dimensions (each with eigenvalues > 1.00) that were assessed in the present study. Obligue rotations were chosen in the factor analysis because there was no a priori reason to believe that characteristics of tasks should be uncorrelated. These three dimensions were interrelated significantly (Skills/self-confidence x Effort/anxiety, $r = 0.34$, $p < .01$; Skills/self-confidence x Pleasure/relaxation, $r = 0.54$, $p < .01$; Effort/anxiety x Pleasure/relaxation, $r = -0.10$, $p < .01$). Factor scores based on those three factors were fairly reliable with the present sample (Effort/anxiety, $\alpha = 0.79$; Skill/selfconfidence, $\alpha = 0.77$; and, Pleasure/relaxation, $\alpha = 0.83$).

Tasks were coded for status as "completed" if participants said they completed at least 80% of what they had intended to complete. Tasks were coded for category as "academic" or "nonacademic" by three independent raters instructed to categorize a task as academically related if it pertained to studying, reading, writing, doing exercises, or assignments related to a course. In addition, tasks such as meeting an advisor, registering for class, or researching topics in the library were considered academically related. Inter-rater reliability for this coding was quite high (Cohen's kappa = .88). For each of the 37 participants, we determined what proportion of the tasks that they intended to complete should be placed into each of the following categories: academic/completed, academic/not completed, nonacademic/completed, nonacademic/not completed. Table 1 presents a sampling of the most frequently listed tasks for each of these categories. Given the unequal representation of gender, we did not conduct any statistical analyses between men and women. In addition, research on gender comparisons in academic

procrastination consistently has reported no significant difference between men and women (see Ferrari, Johnson, & McCown, 1995).

Table 2 presents the mean proportions of each participant's tasks that fell into each of the four categories. These proportions were analyzed in a 2 (session: early vs. later) x 2 (task status: completed vs. not completed) x 2 (task category: academic vs. nonacademic) split-plot ANOVA with sessions as a between-subjects factor. There was a significant interaction between task status and task category, $F(1, 35) = 12.45, p < .001$. Students listed a significantly higher proportion of nonacademic tasks completed than academic tasks, or than noncompleted nonacademic tasks or academic tasks.

Comparing Ratings on Task Status and Category by Session

Table 3 presents the mean summary rating for each of the three task dimensions originally reported by Scher and Ferrari (1999) for completed or noncompleted academic and nonacademic tasks at the early or later session of a term. A 2 (session: early vs. later) x 2 (task status: completed vs. not completed) x 2 (task category: academic vs. nonacademic) between-subject ANOVA then was performed on these three task dimensions.

There was a significant three-way interaction on the level to which the task allowed one to show their skill and creates self-confidence, $F(1, 749) = 5.88, p < .02$. In the early academic session, academic tasks that were not completed (i.e., procrastinated) were rated as reflecting the least amount of skill/self-confidence, while in the later academic session nonacademic tasks that were procrastinated required the least amount of skill/self-confidence.

On the level to which the task required effort and provoked anxiety, there were significant two-way interactions between task status and session, $F(1, 749) = 5.55, p < .02$, and between task status and task category, $F(1, 749) = 11.36, p < .001$. Students rated procrastinated tasks in the early session as more effortful/anxiety provoking ($M = 14.54; SD = 7.07$) than noncompleted tasks in the later academic session ($M = 12.05; SD = 7.30$), or completed tasks in either the early ($M = 10.39; SD = 5.99$) or later sessions ($M = 10.26; SD = 6.68$). In addition, students perceived academic tasks they did not complete as being most effortful/anxiety provoking ($M = 16.50; SD = 6.66$) compared to academic tasks they did complete ($M = 13.12; SD = 6.10$) or nonacademic tasks that they either completed ($M = 8.45; SD = 5.84$) or did not complete ($M = 8.68; SD = 5.59$).

Finally, there was a significant three-way interaction on the level of pleasure and relaxation experienced from the task, $F(1, 749) = 9.59, p < .002$. In the early academic session, students reported they procrastinated on nonpleasurable academic tasks and completed pleasurable tasks. For nonacademic tasks, there was no significant difference between completed and noncompleted tasks associated with being pleasurable/relaxing. However, in the later academic term, students

claimed that pleasure did not affect completion of academic tasks, but pleasure/relaxation did affect completion of nonacademic tasks.

Table 1
Number of Items Listed for Task Category and Task Status

Academic Tasks			
Completed	<i>n</i>	Not Completed	<i>n</i>
Attend classes	39	Daily homework	48
Daily homework	36	Reading assignments	44
Write papers/reports	28	Write papers/reports	34
Studying	20	Studying	22
Read assignments	19	Class preparation	7
Talk/meet teacher	6	Talk/meet teacher	5
A-MISCELLANEOUS:	[32]	A-MISCELLANEOUS:	[12]
Nonacademic Tasks			
Completed	<i>n</i>	Not Completed	<i>n</i>
Household chores	61	Household chores	55
Making/returning calls	35	Exercise/playing sport	23
Exercise/playing sport	28	Making/returning calls	15
Eat/drink	26	Relaxing (TV, movies)	16
Socializing	25	Socializing	10
Employment/work-based	20	Employment/work-based	10
Practice music lessons	20	Eat/drink	8
Relaxing (TV, movies)	11		
NA-MISCELLANEOUS:	[16]	NA-MISCELLANEOUS:	[10]

Note. A-MISCELLANEOUS are Academic tasks not fitting into the other major categories (e.g., class registration and scheduling meetings), and NA-MISCELLANEOUS are Nonacademic tasks not fitting into other major categories (e.g., reading and visiting the doctor).

Table 2
Team Proportion of Tasks Listed as Academic or Nonacademic and Completed or Noncompleted

TASK CATEGORY	Task Status	
	Completed	Not Completed
Academic	.237 (.104)	.246 (.125)
Nonacademic	.321 (.132)	.196 (.125)

Note. Values in parenthesis represent standard deviations.

The present study indicates that college students complete or procrastinate (i.e., not complete) similar academic and nonacademic tasks. For instance, students reported that they procrastinated on nonacademic tasks, such as doing household chores (e.g., cleaning a bathroom or doing the laundry), exercising or playing sports, and making or returning telephone calls to family and friends. Interestingly, they also claimed that they would not procrastinate on the same types of tasks. These results support previous research (e.g., Rothblum et. al., 1986) where researchers listed a variety of tasks students' may procrastinate. The present study,

however, extended those studies because it used an ideographic approach, letting students list their own academic and nonacademic tasks, and then examined those lists in the early vs. later period of a quarter. The time frame within an academic quarter did not impact significantly in the students' report to either procrastinate or not procrastinate on academic and nonacademic tasks. Students reported a significantly higher proportion of nonacademic tasks as completed than academic tasks completed or procrastinated. It seems that college students do delay task completion, but they apparently procrastinate or complete similar types of academic and nonacademic tasks.

Table 3
Mean Summary Rating Across Dimensions by Task Status and Task Category for Both Academic Sessions

Dimensions	Early Session				Later Session			
	Academic Task		Nonacademic Task		Academic Task		Nonacademic Task	
	cmplt (n = 67)	n-cmplt (n = 58)	cmplt (n = 114)	n-cmplt (n = 47)	cmplt (n = 108)	n-cmplt (n = 115)	cmplt (n = 154)	n-cmplt (n = 101)
Skill & Self-Confidence	20.89 (6.04)	16.33 (6.71)	19.34 (6.13)	17.77 (6.22)	18.93 (5.03)	18.45 (5.93)	18.53 (7.23)	16.37 (5.34)
Effort & Anxiety	12.90 (5.08)	17.99 (5.99)	8.80 (5.84)	10.36 (5.97)	13.25 (6.66)	15.75 (6.88)	8.19 (5.85)	7.90 (5.25)
Pleasure & Relaxation	8.92 (3.71)	6.84 (3.92)	9.10 (4.60)	9.28 (5.09)	6.40 (3.09)	6.41 (3.11)	9.74 (5.24)	7.90 (4.77)

Note. cmplt = completed task; n-cmplt = not completed task.
 Values in parenthesis represent standard deviations.

Furthermore, students rated their tasks along the dimensions of effortful and anxiety producing, allowing the expression and development of skills and self-confidence, and the experience of pleasure and relaxation. Although these factors were correlated, the magnitude of these correlations was not so high as to suggest that the dimensions were not independent. For instance, one may expect that tasks that allowed someone to be creative, show their skills, and reflect their self-confidence also would be more pleasurable or fun, yet require more effort.

Early in the academic term, college students reported that they completed academic and nonacademic tasks that created mastery (i.e., the use or expansion of their skills and abilities and the facilitation of their self-confidence). Later in the academic term, the development of mastery did not discriminate between tasks college students completed and those tasks they procrastinated. Perhaps, students were experiencing the pressures of end-of-term deadlines in the later session and, therefore, were not free to make such a discrimination. A sense of skill/self-confidence (i.e., mastery) may be perceived by students as an incentive to perform the target task. Students also rated academic tasks not completed as the most effortful and anxiety provoking. For nonacademic tasks, pleasure seemed to make a difference in the later academic session, but did not seem to be a factor earlier in the term. Thus, mastery seems to make a difference in both the earlier and later periods of an academic session.

Of course, all the data in this study was self-report. The study would have benefited from collateral respondents verifying the reports of completed and uncompleted tasks across students. Although results reported elsewhere indicated that the respondents were quite accurate in their recall and listing of tasks on a daily basis (see Scher & Ferrari, 1999, in press), no external criteria existed to evaluate their performance. In addition, the assessment of tasks lasted for only five consecutive school days. Future studies need to record collateral verification of completed and procrastinated tasks over a longer measurement period (including weekends).

For school officials concerned with student development and achievement, the results of the present study focusing on tasks as opposed to individual differences (i.e., personality styles) has important treatment implications. It seems that college students procrastinate on a vast variety of tasks, particularly if they are perceived as effortful and anxiety producing. Not surprisingly, pleasurable tasks are more likely to be completed. It may be useful for instructors and administrators to design tasks that increase academic rigor, yet are perceived as less anxiety provoking and fun to perform. A student's perception of mastery and self-confidence also influences task procrastination during an academic term. Instructors may keep from procrastinating by instructors making academic tasks appear to develop a sense of self-mastery. Students may be more likely to finish tasks on time if the tasks reflected their ability in a nonthreatening, engaging way, especially early in the academic term. Thus, the goal of school officials and faculty may be to explore ways to make effortful tasks more appealing and rewarding, encourage the delay of pleasurable activities, and facilitate academic motivation through heightening the perception of task mastery (Dweck & Leggett, 1988; Harackiewicz & Sansone, 1991).

Consistent with popular notions, college students do procrastinate on academic tasks. However, the results of the present study also indicate that they procrastinate on nonacademic tasks, regardless of the time period of a term. Perhaps, the atmosphere in higher education today facilitates the procrastination of tasks. Previous research has indicated students most often report fraudulent excuses for task delays since instructors nearly always accept their reason without proof (Ferrari et al., 1998). These excuses are repeated even though students claim to feel guilt and remorse at the time of stating the lie (Ferrari & Beck, 1998). Administrations and faculty must assess the importance of deadlines for tasks to decrease the acceptance of academic lies among students. If a goal of higher education is to instruct and develop skills for life, then it seems there must be an emphasis on meeting one's obligations and commitments within a timely framework. The present study indicates that college students may be procrastinating on a variety of tasks across a school term. Clearly, attention to procrastination among college students needs further attention by faculty and school officials.

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