CRAMMING, ACTIVE PROCRASTINATION, AND ACADEMIC ACHIEVEMENT

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The purpose in this study was to examine whether or not the effect of active procrastination on academic achievement is significantly different according to how long before the examination students begin cramming and whether or not active procrastinators get a better grade than passive procrastinators when they begin to cram the day before an examination. The data were collected from 172 Korean undergraduates. The results show that there was no significant difference in academic achievement among the 3 groups of active procrastinators in terms of how much cramming they did, but there was a significant difference in academic achievement between active procrastinators and passive procrastinators in the group who began cramming only 1 day or less before the examination. The implications of this study are discussed.

Keywords: active procrastination, academic achievement, cramming.

Until now, most studies have been focused on the negative impact of procrastination on learning and achievement. Researchers have reported that procrastination is related to lower grades and course withdrawals (e.g., Beswick, Rothblum, & Mann, 1988; Tice & Baumeister, 1997). In spite of the negative effect of procrastination, both cramming and staying up all night to finish assignments that are due or overdue are fairly commonplace occurrences among students (Conti, 2000; Saddler & Buley, 1999). Even successful students have reported at least some cramming for examinations (Sommer, 1990).

In recent studies, researchers have suggested an alternative perspective of procrastination, namely, that not all procrastination behaviors are harmful and also that there is such a person as an adaptive type of procrastinator (Alexander...
Indeed, researchers have found that there is no significant relationship between procrastination and academic achievement (Ferrari, 1992; Lay & Schouwenburg, 1993; Solomon & Rothblum, 1984) and some researchers have reported that adaptive procrastination has a positive effect on academic achievement (Brinthaupt & Shin, 2001; Lay, Edwards, Parker, & Endler, 1989; Schraw, Wadkins, & Olafson, 2007; Sommer, 1990; Vacha & McBride, 1993). According to Ferrari (1991), students of greater ability procrastinate more than those with lower ability. Ferrari also found that procrastination tended to increase as students advanced in their academic careers and became more self-regulated.

How can procrastination have a positive effect on academic achievement? It may be because of active procrastination. Chu and Choi (2005) described two distinct types of procrastinators according to their ability to make intentional decisions to procrastinate. Passive procrastinators are traditional procrastinators who postpone their tasks until the last minute because of an inability to make the decision to act in a timely manner. In contrast, active procrastinators make intentional decisions to procrastinate and will even change their schedule at short notice (Choi & Moran, 2009). They use their strong motivation under time pressure to complete tasks before deadlines and achieve satisfactory outcomes.

Two questions arise from these previous studies. First, are active procrastinators always successful under any circumstances? I speculated about whether or not active procrastinators who start studying only on the day before an examination can achieve similar grades to active procrastinators who start studying a week before an examination. Chu and Choi (2005) and Choi and Moran (2009) did not take into consideration the influence of time in their examination of the effect of active procrastination. In their studies these authors applied the term academic procrastination to a wide variety of everyday goal-directed behaviors and indecisions, including completing writing assignments and preparing for examinations. They suggested the necessity for research that would expand their findings by using different samples to replicate the presence of active procrastinators in other populations.

Second, would active procrastinators receive a better grade than passive procrastinators even though the active procrastinators began to cram only the day before the examination? Choi and Moran (2009) insisted that, although active procrastinators procrastinate to the same degree as passive procrastinators, they are more likely to experience positive outcomes – including better academic performance – than are passive procrastinators. But I speculated about whether or not the difference between the two types of procrastinators is maintained under unfavorable conditions.

In the light of these two questions, my objectives in this study were: (a) to examine whether or not the effect of active procrastination on academic
achievement was significantly different according to how long before the examination the students began cramming, and (b) to explore whether or not active procrastinators received a better grade than passive procrastinators when they began to cram only on the day before the examination.

**Method**

**Participants**

The participants were 172 college students enrolled in an educational psychology course at two universities in South Korea. There were 155 women (90.1%) and 17 men (9.9%) in the sample, whose ages ranged from 20 to 26 ($M = 21.36, SD = 0.75$). The participants were studying a variety of academic majors and consisted of one freshman (.6%), 129 sophomores (75%), 26 juniors (15.1%), and 16 seniors (9.3%). The participants were classified into three crammer groups, according to the date they started to study for the midterm examination: extreme crammers ($n = 55$), light crammers ($n = 69$), and noncrammers ($n = 44$). The participants were also categorized as either passive procrastinators ($n = 82$) or active procrastinators ($n = 82$).

**Measures**

**Active procrastination.** Choi and Moran (2009) developed and validated the Active Procrastination Scale. It consists of 16 items in four dimensions: outcome satisfaction (four items, $\alpha = .95$), preference for pressure (four items, $\alpha = .96$), intentional decision (four items, $\alpha = .98$), and ability to meet deadlines (four items, $\alpha = .97$). A 7-point Likert-type scale (1 = *not at all true* to 7 = *very true*) is used for all items. The total coefficient alpha reliability estimate of active procrastination was .78 in this study.

**Cramming.** In order to categorize participants into three groups according to when they started cramming, after they had finished the midterm examination of the educational psychology course (held on 23 October), I asked participants when they started studying for the examination. Students’ responses were converted into scores with the baseline of 1 October, with possible scores ranging from 1 to 23. For example, if a student responded that she/he started to study for the examination on 20 October, her or his score was 20. The higher the score the higher the level of cramming.

**Academic achievement.** As a measure of academic achievement, at the end of the semester, the midterm examination scores for the educational psychology course were obtained from an instructor. The possible range for scores was 0 to 30 and scores ranged from 8 to 30.
Procedure and Data Analysis

After finishing the midterm examination, students enrolled in the educational psychology course were asked to complete a questionnaire measuring both the degree of cramming and active procrastination. To control the context variable, all questions in the questionnaire were limited to the educational psychology course because researchers have found that procrastination is substantially affected by contexts such as motivation for the course and aversiveness to the task (Csikszentmihalyi, 1990; Solomon & Rothblum, 1984).

I had classified participants into three groups according to when they started cramming. Students who started to study for the examination either one day before the examination or on the day of the examination were classified as extreme crammers. Students who started to study for the examination from between one week before to two days before the examination were classified as light crammers. Students who had started to study for the examination more than a week before the examination were classified as noncrammers. In order to define active procrastinators and passive procrastinators, I chose 3.66 (the median) as the cutoff point on the active procrastination scale, as in the study by Chu and Choi (2005). Participants who scored less than 3.66 were categorized as passive procrastinators. Participants who scored more than 3.66 were categorized as active procrastinators.

Results

Table 1 contains the means and standard deviations for academic achievement of the participants in this study.

<table>
<thead>
<tr>
<th>Groups</th>
<th>Academic achievement</th>
<th>Active procrastination</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
</tr>
<tr>
<td>Extreme crammer group $(n = 55)$</td>
<td>All</td>
<td>24.82 3.81</td>
</tr>
<tr>
<td></td>
<td>Active procrastinator $(n = 28)$</td>
<td>26.36 1.62</td>
</tr>
<tr>
<td></td>
<td>Passive procrastinator $(n = 27)$</td>
<td>23.22 4.72</td>
</tr>
<tr>
<td>Light crammer group $(n = 69)$</td>
<td>All</td>
<td>25.28 2.94</td>
</tr>
<tr>
<td></td>
<td>Active procrastinator $(n = 32)$</td>
<td>25.47 3.01</td>
</tr>
<tr>
<td></td>
<td>Passive procrastinator $(n = 34)$</td>
<td>25.26 2.93</td>
</tr>
<tr>
<td>Noncrammer group $(n = 48)$</td>
<td>All</td>
<td>25.60 3.36</td>
</tr>
<tr>
<td></td>
<td>Active procrastinator $(n = 22)$</td>
<td>26.64 2.36</td>
</tr>
<tr>
<td></td>
<td>Passive procrastinator $(n = 21)$</td>
<td>24.71 4.10</td>
</tr>
</tbody>
</table>
The correlation between active procrastination and academic achievement was .26 ($p < .01$) and active procrastination significantly accounted for academic achievement ($R^2 = .13$, $F = 5.78$, $p < .001$). Cramming was significantly related to academic achievement and active procrastination only in regard to intentional decision ($r = .26$, $p < .01$). In the extreme cramer group, academic achievement was positively related to active procrastination ($r = .45$, $p < .001$) and its subcomponents of outcome satisfaction ($r = .37$, $p < .01$) and preference for pressure ($r = .33$, $p < .01$), and active procrastination significantly accounted for academic achievement ($R^2 = .21$, $F = 3.31$, $p < .05$). However, active procrastination was not significantly related to academic achievement in the light crammer and noncrammer groups.

One-way analysis of variance (ANOVA) was carried out in this study for two reasons. Results from the analysis indicated that there was no significant difference in active procrastination among the three crammer groups ($F = .20$, $p > .05$). There was no significant difference in academic achievement among the three crammer groups ($F = .72$, $p > .05$). However, there was a significant difference in academic achievement between active procrastinators and passive procrastinators ($F = 10.13$, $p < .01$). There was no significant difference in academic achievement among extreme cramers, light cramers, and noncrammers in either the active procrastinator group ($F = 1.77$, $p > .05$) or the passive procrastinator group ($F = 2.14$, $p > .05$). However, there was a significant difference in academic achievement between active procrastinators and passive procrastinators in the extreme cramer group ($F = 11.03$, $p < .01$), but there
was no significant difference in academic achievement between active procrastinators and passive procrastinators in the light crammer ($F = .08, p > .05$) and noncrammer groups ($F = 3.59, p > .05$).

**Discussion**

The purpose in this study was to examine whether or not the effect of active procrastination on academic achievement was significantly different according to how long before the examination the students started cramming and whether or not active procrastinators got a better grade than passive procrastinators when they began to cram the day before the examination. Three major findings emerged from this study.

First, according to my findings, active procrastinators who start to study on the day of the examination or one day before it can get grades that are as good as the grades of those who start to study for the examination two days before it. I found that there was no significant difference in academic achievement among extreme crammers, light crammers, and noncrammers in the active procrastinator group. I conjectured that although an individual might be an active procrastinator, he or she would not achieve a good result in the examination if he/she started to study very late. However, the results show that although there was no significant difference in academic achievement among the three crammer groups, there was a significant difference in academic achievement between active procrastinators and passive procrastinators. The results support prior findings that crammers perform just as well as the other groups (Brinthaupt & Shin, 2001; Sommer, 1990; Vacha & McBride, 1993). These findings imply that whether or not an individual is an active procrastinator is a more powerful factor in academic achievement than how long before the examination an individual starts to study. I found that active procrastinators were able to get satisfactory outcomes even when they delayed starting studying until the night before the examination.

Second, according to my findings, active procrastinators can get a better grade than passive procrastinators when both groups start studying for the examination on the day of, or one day before, the examination. Although there was no significant difference in academic achievement between the light crammer and noncrammer groups, in my study active procrastinators in the extreme crammer group achieved better grades than did passive procrastinators. My findings imply that active procrastinators are at their best under extreme cramming circumstances. I found the effect of active procrastination on academic achievement was small with light crammers and noncrammers.

Third, active procrastination is distinct and different from traditional procrastination. My results in this study indicate that there is no significant difference in active procrastination among the three crammer groups, which supports the
findings of Choi and Moran (2009) in regard to decision making and motivation of active procrastinators. Henceforth, researchers need to accept an alternative view of procrastination, namely that there is a type of procrastination that has a positive effect on achievement. As claimed by Brinthaupt and Shin (2001), cramming may be an effective study strategy for some.

The most significant limitation in this study is that most of the participants were female college students in an educational psychology course. Therefore, it is hard to generalize this finding to other student populations or to males. Another limitation is that the context was limited to studying for a midterm examination of the course. Therefore, further research is needed to determine whether or not these findings could be generalized to other academic or nonacademic settings.

References


