

How Conducive Is Facebook To Academic Procrastination?

Julianne Ignacio

Hunter College of the City University of New York

### Abstract

The use of social networking sites such as Facebook has become increasingly popular over recent years. It was hypothesized that college students tended to use Facebook as an outlet for temporarily relieving the stress that comes from procrastination. This correlational study was meant to explore the extent to which college students would procrastinate on three different academic tasks (writing a term paper, studying for an exam, keeping up with weekly reading assignments) while also logging in and using Facebook, using Solomon & Rothblum's 1984 Procrastination Assessment Scale – Students (PASS). Results showed that students tended to feel stress from procrastination regardless of the nature of the academic task. The more students procrastinated, the more the students wanted to decrease their behavioral tendency to procrastinate. Also, students might not necessarily use Facebook alone to delay the completion of their academic tasks, as measured in the amount of time that students would spend on Facebook on a daily basis.

*Keywords:* procrastination, Internet, Facebook, technology, stress, coping

### How Conducive Is Facebook To Academic Procrastination?

Procrastination is an all too common experience for college and university students. Completing academic assignments such as researching a topic for a term paper, may require work on a computer and most often a computer with Internet access. If a student works diligently and does not stray from the task, then the Internet can become the student's best learning tool to retrieve and produce information relevant to the assignment. However, the Internet can also become a welcome distraction from completing assigned tasks, especially if one is involved with a popular social networking site (SNS) such as Facebook.

Procrastination, simply put, is the tendency to put off tasks for a later time of completion, often to the very last minute. Researchers have defined procrastination as the tendency to delay initiation or completion of important tasks (Lay, 1986). Some researchers have defined it as a time management problem, and procrastinators are described as having problems with or having a bias in their time estimation (Pychyl, Morin & Salmon, 2000). Others have defined procrastination as "delaying tasks to the point of discomfort" (Solomon & Rothblum, 1984).

Solomon et al. (1984) stated that procrastination involves more than deficient time management and study skills. Rather, procrastination is a complex interaction between behavioral, cognitive, and affective components. They suggested that there are possible reasons behind the behavioral pattern, which includes evaluation anxiety, difficulty in making decisions, rebellion against control, lack of assertion, fear of the consequences of success, perceived aversiveness of the task, and holding one's self to high standards of perfectionism. The researchers conducted a factor analysis of subjects' reasons for procrastination and found that the primary independent reasons for delaying academic assignments are aversiveness to the task and fear of failure. After correlating the Procrastination Assessment Scale–Students (PASS) with

depression scores and self-esteem scores, Solomon et al. (1984) found that there were two main groups of procrastinators: “a relatively small but extremely homogenous group of students” who reported procrastinating as a result of fear of failure and “a large and relatively heterogeneous group” of students that reported procrastinating as a result of aversiveness of the task.

Fear of Failure included items on the PASS relating to evaluation anxiety, overly perfectionist standards for one’s performance, and low self-confidence (Solomon et al., 1984). Students procrastinate as a result of the fear of failure because they cannot meet their own or others’ expectations, or because of concerns about poor performance. On the other hand, aversiveness of the task was found to rarely be the only reason that students procrastinated. Aversiveness of the task was related to a dislike of engaging in academic activities and a lack of energy. Students who endorsed these items on the PASS were also presumed to endorse items that reflected difficulty in decision-making and time management. Students who reported procrastinating because of a fear of failure also reported high anxiety and low self-esteem.

Pychyl et al. (2000) have found that students scoring high on procrastination started studying later and studied significantly less than students who scored low on procrastination. The researchers explored a form of optimistic bias known as the “planning fallacy,” which they describe as “the tendency to make optimistic estimates of task completion despite the fact that most similar tasks have been completed later than anticipated.” They found that students tended to ignore past instances of when they inaccurately estimated the time that they would complete an assignment. Interestingly enough, Solomon et al. (1984) had found that time management was not an independent factor, since students would simultaneously endorse other cognitive, affective, and behavioral reasons for procrastinating.

Lavoie and Pychyl (2001) hypothesized that Internet-based procrastination would be related to the perception that the Internet is “an important tool despite self-acknowledged procrastination through Internet use” and the perception of the Internet as a form of entertainment. They cited studies done by Ellis and Knaus (1977), McCown and Johnson (1991), and Ferrari, Johnson, and McCown (1995) that demonstrated that “procrastinators will engage in activities they find pleasant while actively postponing the completion of a task.” Milgram, Marshevsky, and Sadeh (1995) also found that students delayed more on academic tasks that they deemed unpleasant. Depending on how adverse the anxiety of completing a task becomes, procrastinators will engage in some other less stressful task to relieve experiences of anxiety. For example, attempts to complete assigned work on the computer (e.g. writing) can be thwarted by engaging in Internet distractions (e.g. Web surfing on Facebook).

Facebook’s popularity as a social networking site, for instance, suggests implications about the website’s impact on college student life. Although Facebook use has expanded over the years to include individuals outside the college and university system, the website still remains as primarily “a college-age and emerging adult phenomenon” (Kirschner & Karpinski, 2010). Currently, there are more than 500 million active users with 50% of active users logging onto Facebook in any given day, and over 700 billion minutes spent per month on the website worldwide each day (<http://www.facebook.com/press/info.php?statistics>). Other statistics found on the website include over 900 million objects that people can interact with (pages, groups, events, and community pages) and more than 30 billion pieces of content (web links, news stories, blog posts, notes, photo albums, etc.) are shared each month. Facebook is a popular time-consuming Internet activity that holds some impact on college student life.

It could be likely that Facebook is being used as a way for college students to not only connect with each other in an online community but also to pass the time during stressful situations like writing a term paper or studying for an exam. This study is interested in finding out how likely college students are likely to procrastinate on academic tasks using Facebook as a distraction with the hypothesis that students will log onto Facebook when they feel pressured from procrastination. Facebook could possibly provide students temporary relief from stress, so if the academic task is perceived as too boring or too difficult (e.g., fear of failure and aversiveness to the task, as pointed out in Solomon et al., 1984), students might delay completing their work by logging onto Facebook.

## **Methods**

### **Participants**

Participants were a convenient sample of forty-two individuals from various backgrounds currently who were matriculated in an undergraduate program at a college or university and who owned Facebook accounts.

### **Materials & Procedure**

The procrastination scale used in this study was taken from an abbreviated version of the Procrastination Assessment Scale –Students (PASS), developed by Solomon and Rothblum (1984). This version of the PASS consists of two sections. The first section assessed the prevalence of procrastination in three areas of academic functioning: (a) writing a term paper, (b) studying for an exam, and (c) keeping up with weekly reading assignments. Other versions of the PASS contained three additional areas of academic functioning: (d) performing administrative tasks, (e) attending meetings, and (f) performing academic tasks in general). Rothblum created an abbreviated version of the PASS using only the areas of writing a term paper, studying for an

exam, and keeping up with weekly reading assignments because the 1984 study showed that these areas had the highest frequency of self-reported procrastination. This indicates that these tasks (writing a paper, studying for an exam, and keeping up with reading assignments) are likely to be viewed as the most important by college students, since these tasks are probably ones that have the greatest effect on academic performance.

For the first section of the PASS, participants were asked to indicate on a 5-point Likert scale the degree to which they procrastinated on the task with 1 = *never procrastinate* and 5 = *always procrastinate*, as well as the degree to which procrastination on the task is a problem for them with 1 = *not at all a problem* and 5 = *always a problem*. The degree of procrastination and the degree to which it becomes a problem are summed for each academic task (for a score ranging from 2 to 10) and across the three areas of procrastination (for a total score ranging from 6 to 30). Participants were also asked to indicate on a 5-point Likert scale the extent to which they wanted to decrease their procrastination behavior on each academic task (1 = *do not want to decrease*; 5 = *definitely want to decrease*).

Meanwhile, the second section of the PASS provided a procrastination scenario (specifically, delay in writing a term paper) and then listed a variety of possible reasons on the task, such as evaluation anxiety, perfectionism, difficulty making decisions, aversiveness of the task and low frustration tolerance, lack of self-confidence, and laziness, fear of success, the tendency to feel overwhelmed and poorly manage time, etc. Two statements are listed for each of these reasons, such as “You really disliked writing term papers” and “You felt it just takes too long to write a term paper” as statements pertaining to aversiveness of the task. Students were asked to rate each statement on a 5-point Likert scale according to how much it reflected why they procrastinated the last time they were in this situation.

Questions regarding typical daily Facebook usage, particularly how much time one would usually spend logged into Facebook each day, were taken from a 28-item questionnaire developed by Ross, Orr, Sisic, Arseneault, Simmering, and Orr (2009) that was originally meant to correlate with items in the NEO-PI-R scale in order to assess personality along the Five-Factor Model domains. Since this study was not interested in studying aspects of personality or in correlating personality factors with privacy concerns, those particular personality questions were not included in the survey created for this study.

Participants were asked to complete the survey on the World Wide Web through Facebook, and submitted the questionnaire results through an electronic form created through Google Documents. Data from the second section of the PASS (reasons for procrastination) and from some questions regarding Facebook usage were collected and tabulated into percent frequencies.

Research for this study was separated into three parts. The first part was to see if students' scores on procrastination anxiety would predict their desire to decrease their delaying behaviors (i.e. procrastination). It was hypothesized that the more procrastination anxiety that the student felt, the more likely he or she would want to decrease his or her delaying behaviors.

The second part of the study pertained mostly to the three academic tasks posed in the PASS (writing a term paper, studying for an exam, keeping up with weekly reading assignments), to find out if students' procrastination anxiety differed between these tasks. The reason behind this was to find out if the task with the highest reported procrastination anxiety would somehow predict or possibly contribute to the likelihood of students logging onto Facebook in order to temporarily relieve that anxiety.

The third part of the study dealt with the question of whether students' procrastination anxiety could predict the amount of time that a student would spend on Facebook, based on the amount of time that students reported they would typically spend on Facebook each day.

### Results

For the first part of the study, a regression analysis was conducted with students' desire to decrease their delaying behaviors as the criterion variable and students' procrastination anxiety as the predictor. Student procrastination anxiety ( $M = 22.40$ ,  $SD = 4.33$ ) was found to be a significant predictor of the desire to decrease delaying behaviors ( $M = 12.14$ ,  $SD = 3.17$ ),  $\beta = .52$ ,  $t(41) = 3.9$ ,  $p = .000$ , and accounted for 27% ( $R^2 = .27$ ) of the variance in decreasing delaying behaviors related to procrastination. Looking at Figure 1, these results support the hypothesis that students who experience high levels of procrastination anxiety tend to want to decrease the delaying behaviors which lead them to procrastinate.

The second part of the study addresses the question of whether there were any differences in procrastination anxiety between the three academic tasks. A paired-samples t-test was run for any differences in students' procrastination anxiety between writing a term paper ( $M = 7.67$ ,  $SD = 1.82$ ) and studying for an exam ( $M = 7.21$ ,  $SD = 1.85$ ),  $t(41) = 1.855$ ,  $p = .07$ ,  $d = .29$ . A second paired-samples t-test was run for procrastination anxiety between writing a term paper ( $M = 7.67$ ,  $SD = 1.82$ ) and weekly reading assignments ( $M = 7.62$ ,  $SD = 2.01$ ),  $t(41) = .13$ ,  $p = .89$ ,  $d = .02$ . Finally, the third paired-samples t-test was run for students' procrastination anxiety between keeping up with reading weekly assignments ( $M = 7.62$ ,  $SD = 2.01$ ) and studying for an exam ( $M = 7.21$ ,  $SD = 1.85$ ),  $t(41) = -1.12$ ,  $p = .275$ ,  $p = .28$ ,  $d = -.17$ . Students' procrastination anxiety did not differ significantly between any of the pairs, which may suggest that students are

likely to feel procrastination anxiety as long as they actually have an academic task to complete, regardless of the type of assignment.

As for the third part of the study, a regression analysis was run to see if students' procrastination anxiety could possibly predict the prolonged amount of time (in minutes) that a student would spend on Facebook if they were to use the website as a form of temporary relief from stress or anxiety. Results show that students' procrastination anxiety was not a significant predictor of increased time spent on Facebook,  $\beta = .17$ ,  $t(41) = 1.09$ ,  $p = .28$ . Looking at Figure 2, the results suggest that although students may feel anxiety from procrastination, they might not necessarily sign into Facebook and use it as a way to delay completion of their academic tasks as there may be a host of other reasons for one to go on Facebook.

Frequencies were also collected from some questions on the questionnaire regarding reasons for procrastination based on questions in the PASS. These frequencies were collected in terms of the percentage of subjects who highly endorsed each item when they marked 4 or 5 on a 5-point scale in which 1 = *not at all reflects why I procrastinated* and 5 = *definitely reflects why I procrastinated* (see Table 1 for more details). Procrastination, it would seem based on the frequencies in Table 1, comes about mostly from a combination of feeling overwhelmed by the task, laziness, difficulties with time management, and the aversiveness of the task. Meanwhile, Table 2 shows the possible reasons students might like Facebook. It is interesting to note that 83% of the participants use Facebook on a daily basis for communicated with their peers. It is also quite interesting to point out that 72% of the participants reported using Facebook as a distraction from their schoolwork, which seems to contradict the results garnered from the third part of the study regarding procrastination anxiety possibly predicting prolonged Facebook usage to temporarily relieve anxiety.

### Discussion

Based on the results from the first part of this study, one can infer that students will feel some level of stress and anxiety if they are assigned an academic task. Perhaps one can even go so far as to say that for most college students, procrastination is inevitable. According to the results in the second part of this study, college students who reported having high procrastination anxiety tend to want to discontinue their delaying behaviors. They want to stop procrastinating, but they tend to procrastinate anyway.

One way that students may alleviate stress from the pressures of keeping up with their academic tasks, especially if their task requires work on the computer, is to go on the Internet and Web surf. The “de-contextualized facts” and information that one receives via the Internet are usually delivered “at speeds permitting only a moment’s thought” (Lavoie et al., 2000). Data delivered in a fragmented, informal manner transforms the knowledge gained from Web surfing into “snippets” deemed by the Internet user as a kind of entertainment. This probably has some implications for the capacity of human memory to learn and the cognitive functions necessary to stay focused on a particular task.

Short-term memory, sometimes called working memory, is a type of cognitive functioning in which the human mind retains a limited amount of information for a brief span of time. This type of memory often lasts for about 18 to 20 seconds (Peterson & Peterson, 1959), as it is prone to disruption or interference from other competing stimuli in the individual’s environment. Are students hindering their own memory storage potential by engaging with the fragmented format of the Internet? One must also wonder about the duration of the human attention span when paired off with a prolonged academic task such as writing a term paper or

studying intensively for a cumulative final exam. Perhaps this suggests that breaks are needed periodically in order to refresh the mind for the next step in completing an academic task.

Although the results from the second part of the study reveal that there is really no significant difference in predicting prolonged Facebook usage from students' procrastination anxiety, there is still the possibility that students log into the social networking site to relieve some of their stress. Students will often log onto Facebook to chat with their friends or update their status messages about their current emotional state or attitude toward a particular person, thing, or event. Often, activities such as writing on a friend's Wall or updating one's status message serve a cathartic purpose and release some of the procrastination anxiety that a person might be experiencing.

One of the limitations of this study could be attributed to having a relatively small sample size of only 42 college students. In the other research studies referenced throughout this study, sample sizes were much larger, ranging from about 100 to 350 participants. Greater statistical power might be attained if the sample size of participants was increased. Perhaps some of the data might not contradict each other, as in the instance with the percentage frequency of 72% of participants reporting that they used Facebook as a distraction from schoolwork while the results of the regression in the third part of the study suggested that students' procrastination anxiety was not a significant predictor of prolonged time spent on Facebook.

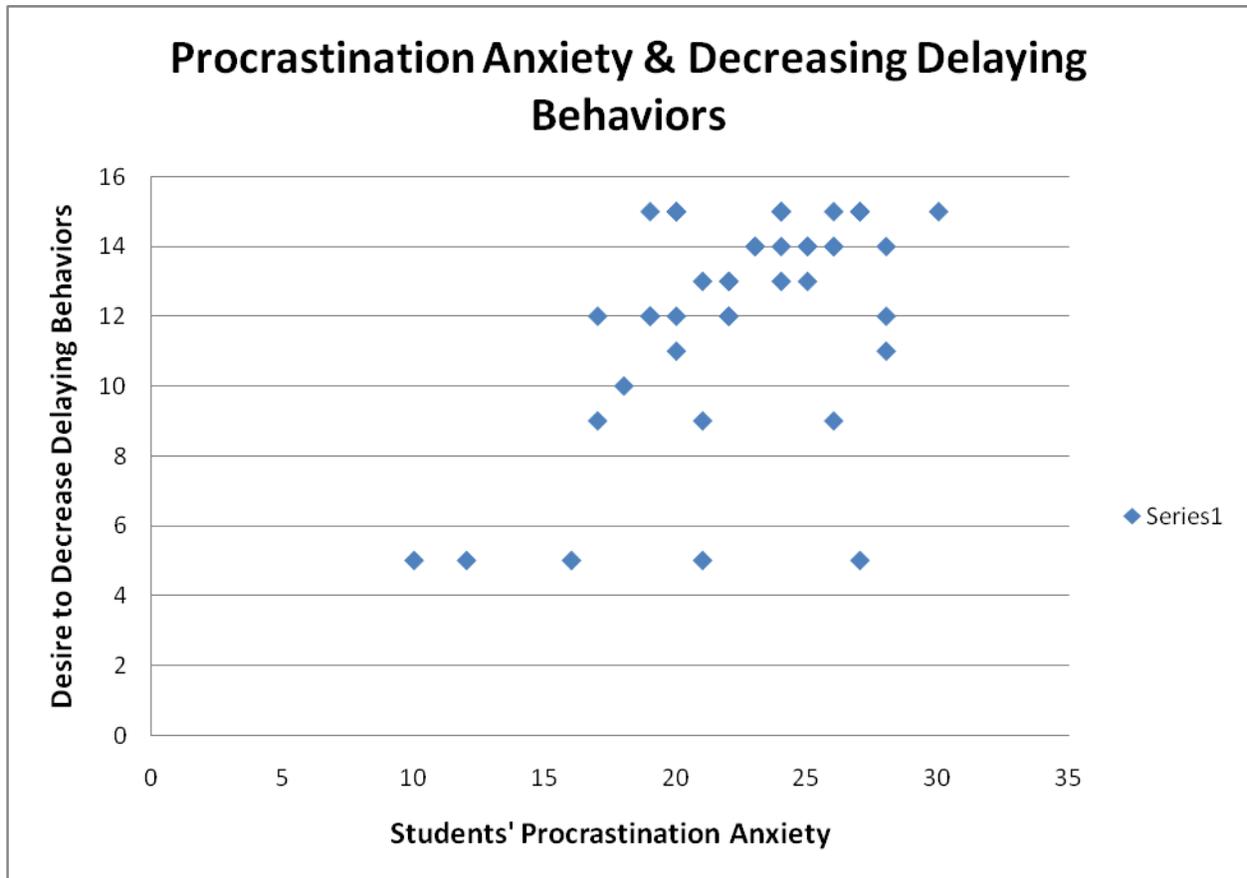
Another limitation of this study was measuring the prevalence of Facebook usage among college students in terms of time spent on the site. While a majority of Facebook users might access the site through their computers, others might access the social networking site through applications on their mobile phones. Measuring the amount of time spent accessing Facebook and its features was quite difficult, especially since one has to take into consideration the

possibility that people may not often use Facebook as much as others. Some people may sign in and out of the website periodically; others may check their accounts sporadically because they keep busy schedules and might not have time to engage in social networking. Many Facebook users might stay signed on for a prolonged period of time ranging from perhaps an hour to over three hours. It is difficult to systematically measure how much time a person might spend on Facebook. It seems that the only way a researcher might find this data is to have Facebook users self-report the amount of time they spend on the site. It is also difficult to measure how much time a student might spend on an academic task if he or she has a tendency to delay the completion of the task. Having said that, the amount of time invested in completing an academic task might often overlap with the time a student may have spent on the Internet as a way to procrastinate on their task.

Suggestions for future study would include exploring academic procrastination with other websites and social networking sites such as Twitter, Myspace, Tumblr, Internet forums catering to particular fan bases of pop culture, and blog sites. Researchers should keep in mind the limitation of measuring time expenditure on each of these websites. Perhaps one might find a way to systematically measure the pervasiveness of various Internet activities in other ways besides time expenditure.

## References

- Kirschner, P., & Karpinski, A. (2010). Facebook® and academic performance. *Computers in Human Behavior*, *26*(6), 1237-1245. doi:10.1016/j.chb.2010.03.024.
- Lavoie, J., & Pychyl, T. (2001). Cyberslacking and the procrastination superhighway: A web-based survey of online procrastination, attitudes, and emotion. *Social Science Computer Review*, *19*(4), 431-444. doi:10.1177/089443930101900403.
- Milgram, N., Marshevsky, S., & Sadeh, C. (1995). Correlates of academic procrastination: Discomfort, task aversiveness, and task capability. *Journal of Psychology: Interdisciplinary and Applied*, *129*(2), 145-155. Retrieved from PsycINFO database.
- Pychyl, T., Morin, R., & Salmon, B. (2000). Procrastination and the planning fallacy: An examination of the study habits of university students. *Journal of Social Behavior & Personality*, *15*(5), 135-150. Retrieved from PsycINFO database.
- Ross, C., Orr, E., Sisic, M., Arseneault, J., Simmering, M., & Orr, R. (2009). Personality and motivations associated with Facebook use. *Computers in Human Behavior*, *25*(2), 578-586. doi:10.1016/j.chb.2008.12.024.
- Solomon, L., & Rothblum, E. (1984). Academic procrastination: Frequency and cognitive-behavioral correlates. *Journal of Counseling Psychology*, *31*(4), 503-509. doi:10.1037/0022-0167.31.4.503.
- Zuckerberg, M. (2010). Facebook.com. Retrieved December 9, 2010. Available from <http://www.facebook.com/press.php>.



*Figure 1.* Regression analysis of students' procrastination anxiety as the predictor and students' desires to decrease their delaying behaviors in academic tasks as the criterion. The scatterplot shows a strong positive relationship between the variables. The more anxiety students would feel about completing an academic task, the more likely they would want to discontinue behaviors that lead them toward the tendency to procrastinate.

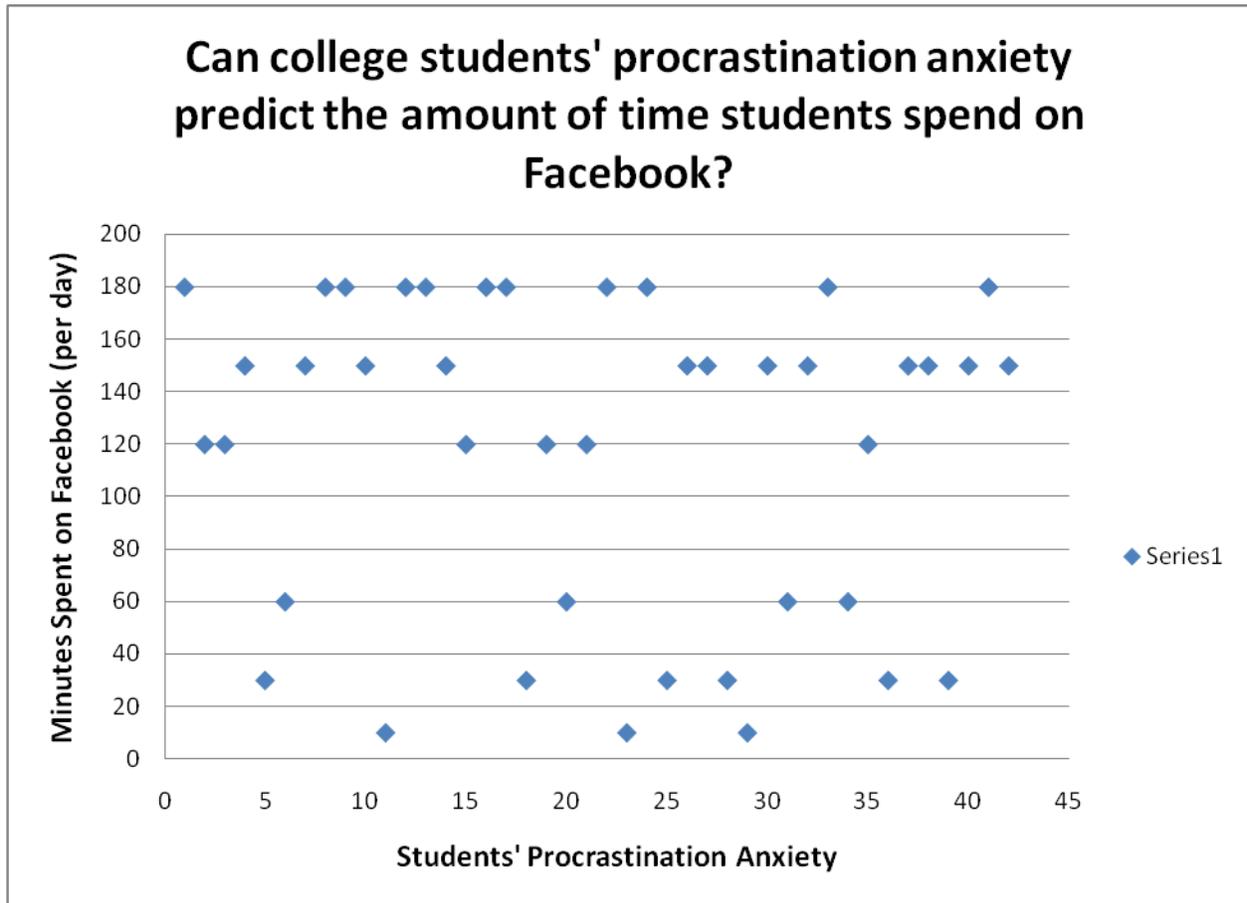


Figure 2. Regression analysis of students' procrastination anxiety as the predictor and the amount of time (in minutes) that students would spend on Facebook each day as the criterion. Students' procrastination anxiety was found to not be a significant predictor of how much time students may spend delaying their work by procrastinating on Facebook.

**Table 1****Percent Endorsement of Procrastination Antecedents on the PASS**

<b>Item</b>	<b>Percent of Subjects Highly Endorsing Item</b>
Set very high standards for yourself and worried that you wouldn't be able to meet those standards (Perfectionism)	21%
Were concerned you wouldn't meet your own expectations (Perfectionism)	18%
Worried you would get a bad grade (Evaluation anxiety)	18%
Didn't trust yourself to do a good job (Low self-esteem)	9%
Concerned that the professor wouldn't like your work (Evaluation anxiety)	4%
Really disliked writing term papers (Aversiveness of Task)	49%
Didn't have enough energy to begin the task (Laziness)	47%
Felt it just takes too long to write a term paper (Aversiveness of Task)	42%
Had too many other things to do (Time Management)	61%
Just felt too lazy to write a term paper (Laziness)	68%
Felt overwhelmed by the task	61%
Hard time knowing what to include and what not to include in your paper (Difficulty in making decisions)	51%
Couldn't choose among all the topics (Difficulty making decisions)	26%
Didn't think you knew enough to write the paper (Low self-esteem)	33%
Knew that your classmates hadn't started the paper either (Peer pressure)	25%
Waited to see if the professor would give you some more information about the paper (Dependency)	26%
Friends were pressuring you to do other things (Peer pressure)	21%
Needed to ask professor for information, but felt uncomfortable approaching him/her (Lack of assertion)	28%
Had difficulty requesting information from other people (Lack of assertion)	5%
Looked forward to the excitement of doing this task at the last minute (Risk-taking)	14%
Liked the challenge of writing until the deadline (Risk-taking)	19%
Resented people setting deadlines for you (Rebellion against control)	4%
Were concerned that if you got a good grade, people would have higher expectations of you in the future (Fear of success)	11%
Waited until a classmate did his/hers to get some advice (Dependency)	18%
Resented having to do things assigned by others (Rebellion against control)	4%
Concerned that if you did well, your classmates would resent you (Fear of Success)	2%

**Table 2**

**Percent Endorsement of General Statements and  
Possible Reasons for Liking Facebook**

<b>Item</b>	<b>Percent of Subjects Highly Endorsing Item</b>
Facebook is part of my everyday activity.	83%
I feel out of touch when I haven't logged on to Facebook for a while.	74%
<b>Why do you like Facebook?</b>	<b>Percent of Subjects Highly Endorsing Item</b>
It is how I communicate with my current friends.	95%
It provides a distraction from my schoolwork.	72%
It allows me to communicate with people from my past.	93%
It allows me to collect information on people I am interested in.	70%
It provides me with information (e.g. in groups).	47%
Other	2%