

## Academic Procrastination and Academic Stress in Psychology Students

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The aim of this study was to see the relation between academic procrastination and academic stress on completing final research paper in psychology. Subjects were every psychology student in the 2011/2012 academic year (students from the 2004-2008 generation ( $N = 157$ )). Data were collected through surveys and inventories, while analysis conducted using Pearson and Spearman correlation technique on SPSS 16.0 for Windows. Results showed a positive and significant correlation between academic procrastination and academic stress. The positive correlation was also found between the three aspects of academic procrastination (frequency, problem, and the desire to reduce) and academic stress. Those correlations were based on the Temporal Motivational Theory (TMT). The three aspects of academic procrastination have a positive correlation with academic stress in the value aspect (task aversiveness) in TMT. This shows that the higher the value score (task aversiveness), the higher the academic procrastination level, resulting in academic stress

*Keywords:* academic procrastination, academic stress

Tujuan penelitian ini adalah melihat hubungan antara prokrastinasi akademik dan stres akademik pada penyelesaian skripsi mahasiswa Subjek penelitian ini adalah seluruh mahasiswa psikologi yang sedang menyelesaikan skripsi pada semester gasal 2011/2012 (berasal dari angkatan 2004 hingga 2008 ( $N = 157$ )). Data diperoleh melalui survei dan inventori, dan dianalisis menggunakan teknik korelasi Pearson dan Spearman program *SPSS 16.0 for Windows*. Hasil menunjukkan adanya korelasi positif dan signifikan antara prokrastinasi akademik dan stres akademik. Hasil korelasi positif juga didapatkan dari ketiga aspek prokrastinasi akademik (frekuensi, masalah, dan keinginan mengurangi) dan stres akademik. Hubungan antara prokrastinasi akademik dan stres akademik didasarkan pada Teori Motivasi Temporal (TMT). Ketiga aspek prokrastinasi akademik berkorelasi positif dengan stres akademik melalui aspek *value (task aversiveness)* pada TMT. Hal ini menunjukkan makin tinggi *value (task aversiveness)*, maka makin tinggi pula prokrastinasi akademik, yang pada gilirannya akan memicu munculnya stres akademik.

*Kata kunci:* prokrastinasi akademik, stres akademik

Procrastination, according to the Merriam-Webster University Dictionary (Van Wyk, 2004), means the intentional delaying in finishing a task that is normally able to be finished in time. Procrastination can happen in daily life, but academic procrastination has the highest frequency compared to procrastinations on other subjects and is considered to be a significant factor that bothers the development of academic advances and success (Alexander & Onwuegbuzie, cited in Rosario et al, 2009).

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The author thanks Ide Bagus Siaputra for his helpful guidance with the statistical analyses and Listyo Yuwanto for his guidance on previous drafts of this article.

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The author has conducted a preliminary survey regarding academic procrastination. The results showed that most subjects procrastinate in their studies, including the studies before a test (24.44%) and reading assignments (22.22%). This is different from the research conducted by Solomon and Rothblum (1984) that showed that most procrastination was done on assignment tasks (46%) and reading assignments (30.1%).

Aside from the effects, there were also consequences that were experienced by the procrastinator. Burka and Yuen (1983) stated two consequences of procrastination, which were internal consequences and external consequences. Several internal consequences are for example: the feeling of anxiety, guilt, depression, unsure of one's self, and stress. As for the external consequences, the

examples were: low grades or quality, the loss of chance, the unfinished academic program, and low responsibilities. Academic procrastination also results in negative effects, according to Tice and Baumeister (1997) the short term negative effect of academic procrastination is the low academic grades, while the long term negative effect is being unable to finish their studies on time (Siaputra, 2011).

Aside from the effects of procrastination related to academic achievements, procrastination can also have negative effects to the subject's health. Tice and Baumeister (1997) stated that procrastinators have the tendency to get sick more often compared to non-procrastinators. This is caused by the fact that while the procrastinator will not have health problems when the deadline is still far away, but when the deadline is getting closer, the procrastinator will start getting more health risks and problems compared to non-procrastinators.

Tice and Baumeister (1997) also found that there is a relation between procrastination and performance quality, sickness, and stress. The relation shows that procrastination will have less stress and sickness on the start of a semester ( $r = -.31$ ), but more stress and sickness as time goes by, especially nearing the end of the semester ( $r = .68$ ). There is also the research by Stead, Shanahan, and Neufeld (2010) regarding procrastination, stress, and health. The results showed that the higher the procrastination level, the higher the stress experienced ( $r = .22$ ). This can be caused by the decrease in the cognitive function of the procrastinators. The decrease is the cause of the symptoms experienced by the individuals, often having a negative effect on the individuals' health. Both researches by Tice and Baumeister (1997) and Stead, Shanahan, and Neufeld (2010) were supported by the research by Holmes (2000) that found that the longer a student's term year is, the higher the stress level of that student would be, because the student is nearing the deadline to finish his studies, while the final research paper is not yet finished ( $r = .30$ ).

Stress can also have both short term and long term negative effects. The short term negative effect is the appearance of illness or sickness that bothers the individual (Leka, Griffiths, & Cox, 2003). While the long term negative effect is capable in altering an individual's life quality negatively (Holmes, 2000).

The relation between variables in this study will be analyzed using TMT which bridges procrastination with the second variable, which is academic stress. TMT can also be used to find how important a task is for individuals.

TMT consists of four aspects, which are expectancy,

value, impulsiveness, and delay. A final research paper has different meanings for each student. Pahala (2004) stated that there are students that consider their final research paper as a challenge, but some others consider it to be a burden. These differences will determine their attitude and behaviour during the process of working the said paper. Because of this concept, the process of working on the final research paper can be categorized into the value aspect of TMT. If the individual doesn't consider his final research paper as something important, then the individual will have the tendency to delay on working on the paper. As for the opposite, if the individual consider his final research paper as something important, then he will not procrastinate in working on the paper.

This study was conducted because there are no other researches that directly test the correlation between academic procrastination and academic stress. Based on the literatures that the author has studied, there was a research that correlates general procrastination and academic stress, but not specific procrastination which is academic procrastination. Aside from that, there was also a research that correlates academic procrastination and general stressor, not specific stressor such as academic stress.

## Academic Procrastination

Procrastination originated from the latin word "pro", meaning moving forward and "crastinus", meaning tomorrow (Klein, n. d.). Procrastination is the delaying on working on a task that can cause a subjectively uncomfortable feeling (Solomon & Rothblum, 1984). Haris and Sutton (1983) defined procrastination as the delaying of a task that's originally supposed to be able to be finished soon.

Milgram, Mey-Tal, and Levison (1998) stated that procrastination is often to be defined as a characteristic or attitude of delaying the working of a task. Procrastination is divided into five categories, one of it being academic procrastination. Burka and Yuen (1989) stated that procrastination can be done by anyone, especially students. Students have the tendency to delay the working of their papers and studying for exams, often choosing to study at the last minute and doing their assignments when the deadline is near.

Based on several definitions of procrastinations stated earlier, the author chose the definition by Solomon and Rothblum (1984). This is due to the fact that the definition is compatible and relevant with the theme and inventories used in this research. Therefore, academic procrastination is the act of delaying the working of academic

tasks or assignments that can result in uncomfortable feelings and emotions on most people.

The aspects of academic procrastination used as the benchmark of this study are the aspects from the PASS-1 inventory by Solomon and Rothblum (1984), adapted by Siaputra (2011). PASS-1 is a multidimensional construct, consisting of several aspects. Those PASS-1 aspects are frequency, problem, the desire to reduce, and six aspects of academic procrastination area.

Siaputra (2011) adapted the procrastination area of PASS-1 into five areas of academic procrastination, related to the final research paper, which are the final research paper writing task, the reference searching task, the administrative task, the scheduling with tutors task, and the revision based on the tutors' feedback task. This study was conducted using PASS-1 that is adapted by Siaputra with five areas of academic procrastination, consisting of the total of 15 items with three items for each areas.

There are five indicators of delaying the working of an academic task or assignment to categorize a behaviour as academic procrastination (Steel, 2002). First, the existence of a task that must be finished. Second, the existence of a deadline for the said task. Third, consequences if the said task is not finished in time. Fourth, the appearance of extra consequences outside of the default consequences. Fifth, the act of repeating the delaying continuously.

## Academic Stress

Stress is a term that originated from the latin word "singere", meaning strict (stricus). Stress is the result of the reaction (physical, psychological, and emotional) coming from an individual's response towards pressure and conflict from the environment (Pfeiffer, 2001). Nemey (cited in Syofia, 2010) defined stress as the physical, mental, and chemical reaction of the body towards a situation that is scary, surprising, confusing, dangerous, and prone to making something concerned. Stress is the result of the interaction between stimulus with the individual's reaction towards the experienced pressure, resulting in a negative effect on someone's health and the decline of that person's academic achievements (Romano, as cited in Holloway, 2009). Meanwhile according to Wilks (2008), academic stress is the results of the combination between academic pressure and an individual's academic abilities.

These definitions are still insufficient in stating the definition of academic stress. The definitions by Pfeiffer and Nemey only stated stress in the general meaning, not in the specific meaning such as academic

stress. The definition by Romano does not state the cause of academic stress. Lastly, the definition by Wilks lacks the explanation about the effects of academic stress. Based on the definitions used as the references, the author concludes that academic stress is the negative reaction that appears from academic pressure, related to the difference between an individual's ability and hope, resulting on negative effects on the individual's health and the decline of academic achievements.

The aspects of academic stress used as the benchmark on this study were the aspects taken from the ESSA inventory by Dunne et al (2010). ESSA was divided into five aspects, which are: pressure from study, worry about grades, despondency, self-expectation, and workload. Pressure from study refers to both internal and external pressure. Internal pressure is the anxiety regarding the future, in studies and work, while external pressure is the pressure from parents and friends, such as the parents demands in academic grades and the rivalry with friends. Worry about grades is the anxiety regarding the failure of achieving sufficient academic grades in order to satisfy parents and tutors, appearing when the individual failed to achieve sufficient grades.

Individuals who were not satisfied with their academic grades and suffer from lack of confidence was categorized into despondency. This aspect also refers to individuals that suffer from the inability to concentrate during classes. Self-expectation is the goal-setting of an individual and whether the individual is capable of achieving that goal or not in the future. Workload is related to the amount of tasks, homeworks, or exams that was demanded on the individual.

## TMT (Temporal Motivation Theory)

TMT is the motivational theory developed by Steel and Konig (cited in Steel, 2007). In this study, TMT was used as the bridge between the variables used, which were academic procrastination and academic stress. TMT itself was used to measure how important a task or assignment is for an individual, a concept known as task utility. If the task utility level is high, an individual will tend to prioritize that task. There are several aspects that affect task utility: expectancy, value, impulsiveness, and delay. The task utility score will increase if the expectancy and value score increase. If the impulsiveness and delay score increase, the task utility score will decrease.

The expectancy aspect is the individual's hope or belief regarding his ability to achieve success or finish a task. The value aspect measures how important a task is for an individual, closely related to self-satisfaction

(Steel, 2007). A task will have a high value score if it gives the individual pleasure or enjoyment in doing it.

The third aspect, impulsiveness, refers to the amount of attention given by the individual on the delay. Impulsiveness is closely related to self-regulatory (Steel, 2007). Individuals with high impulsiveness level will tend to delay the working of a task and prefers to do something else. Delay is the last aspect of TMT, related to the timing of reward. If the timing of reward is considered to be far away by the individual, he/she will have the tendency to delay the working of the task.

## Method

The population of the study is every psychology student of Universitas Surabaya from the 2004-2008 generation, who were working on their final research paper. In this study, the author did a population study on five term years, collecting data from every active psychology student during the five term years. Inventories are used as the measuring instrument, using both open and closed inventories. Open inventory is used in order to collect data regarding the subjects' identity, while the closed inventories being used as PASS-1 (Solomon & Rothblum, 1984), EVID II (Siaputra & Ursia, 2011), and ESSA (Dunne et al, 2010).

The two variables used in the study were analyzed through several stages, which were the reliability test, the normality test, and the hypothesis test. An inventory is considered to be reliable if the Cronbach alpha  $\geq .7$  (Kline, as cited in Parmenter & Wardle, 1999). After the reliability test, the next step was the normality test, done to check whether the collected data was normally distributed or not. If the  $p$  score  $> .05$ , the data is considered to be normally distributed. If the  $p$  score  $< .05$ , the data was considered not normally distributed (Patria, n. d.). Hypothesis test was conducted to test the hypotheses used in the study. If the  $r$  score  $> .3$ , there should be a significant correlation between the variables used in the research (Jusuf, n. d.). This study uses the one tailed hypothesis test.

Table 1  
*Hypothesis Test Results*

PASS-1 \ ESSA	Total ( $r/p$ )
F ( $r/p$ )	.146 / .034
M ( $r/p$ )	.299 / .000
K ( $r/p$ )	.242 / .001
Total ( $r/p$ )	.271 / .000

## Results

### Subjects

The subjects in this study were 157 individuals in total. Most of the subjects were females, in total of 138 individuals (87.9%) while the rest 19 individuals (19.1%) were males. Subjects of this study are mostly 21-23 years of age (77.1%).

### Variables Description

The categorization in both study variables were conducted using frequency distribution. Based on the frequency distribution, 42.7% of the subjects have high procrastination levels, with 35.7% of the subjects having high academic stress levels.

### Reliability Test

The results of the reliability test showed that the PASS-1 inventory was quite reliable. The three aspects and total in PASS-1 have the Cronbach alpha score  $> .7$ , while the five task of PASS-1 did not have reliable scores. Based on the results, the study will use the aspect of frequency, problem, and desire to reduce on PASS-1. The reliability test on EVID II and ESSA can be considered to be reliable.

### Normality Test

The results of the normality test showed that the frequency aspect of PASS-1, the desire to reduce aspect of PASS-1, the academic procrastination total score of PASS-1, all aspects of ESSA, and some sub-aspects of EVID II do not have normal data distribution because the  $p$  score  $< .05$ . The problem aspect of PASS-1, the academic stress total score of ESSA and the sub-aspect of low self-efficacy and need for achievement of EVID II have normal data distribution ( $p > .05$ ).

### Hypothesis Test

Results of the hypothesis test showed that the procrastination total score and the three aspects did not correlate significantly with academic stress ( $r < .3$ ). The author used the Fisher test, resulting in the  $z$  score  $> 1.96$  or  $p < .05$ . The results of the hypothesis test on the total score and the three aspects of academic procrastination with academic stress can be seen in Table 1.

Table 2

*Correlation Test between PASS-1 (Total Score and Aspects) and ESSA (Total Score and Aspects) Results*

	ESSA	Total (r/p)	F (r/p)	M (r/p)	K (r/p)
PASS-1					
Total (r/p)		.271 / .000	.146 / .034	.299 / .000	.242 / .001
P (r/p)		.229 / .002	.110 / .085	.304 / .000	.145 / .035
WG (r/p)		.112 / .081	.010 / .448	.095 / .118	.174 / .014
D (r/p)		.303 / .000	.196 / .007	.235 / .002	.312 / .000
S (r/p)		.131 / .051	.114 / .077	.106 / .093	.113 / .080
WL (r/p)		.231 / .002	.154 / .027	.255 / .001	.168 / .018

### Extra Data

Table 2 shows the correlation test between PASS-1 (total score and the aspects) and ESSA (total score and aspects). It reveals that the total score of PASS-1 and ESSA have a non-significant correlation with a score of .271. This is similar to the four aspects of ESSA that have non-significant correlation with PASS-1's total score. The four aspects were pressure from study, worry about grades, self-expectation, and workload, each having the correlation coefficient score of .229, .112, .131, and .231. Only the aspect of despondency has significant correlation with the total score of PASS-1, with a score of .303.

Sufficient and significant correlation was found between the PASS-1's total score and the despondency aspect ( $r = .303$ ;  $p = .000$ ), the problem aspect of PASS-1 and the pressure of study aspect ( $r = .304$ ;  $p = .000$ ), the desire to reduce aspect of PASS-1 and the despondency aspect ( $r = .312$ ;  $p = .000$ ). Meanwhile the frequency aspect of PASS-1 does not correlation significantly with all aspects of ESSA. The hypothesis test on PASS-1 (total score and all three aspects) and ESSA (total score and aspects) are shown on Table 2.

### Discussion

The original hypothesis of this study states that there is a positive correlation between academic procrastination and academic stress. The results of the hypothesis test showed that the hypothesis was accepted, but with relatively insufficient correlation coefficient score ( $r = .271$ ;  $p = .000$ ). If the correlation coefficient score was insufficient, Fisher test can be used (Dahlan, 2008), resulting in the score of  $z = .277$  and  $p = .391$ . The Fisher test result shows that the differences between the correlation coefficient in the results with the needed score for significance is  $r > .3$  (Jusuf, n. d.), meaning that there is no significant differences.

The correlation coefficient between academic procrastination and academic stress shows that there is direct interaction between the variables, meaning that if the academic procrastination level changes, the academic stress level will change as well. The opposite works as well, meaning that a change in the academic stress level was caused by the change in the academic procrastination level.

Positive correlation shows that there is a linear change between academic procrastination and academic stress. Individuals with high academic procrastination level will tend to also have high academic stress level. This was supported with the research done by Flett, Blankstein, and Martin (cited in Stead, Shanahan, & Neufeld, 2010) that showed that procrastination and stress have a positive correlation. The same research also stated that academic procrastination and daily tasks were related to health and sickness, such as anxiety, stress, and depression (Beswick, Rothblum, & Mann, as cited in Stead, Shanahan, & Neufeld, 2010).

Results of this study are also similar with the results of the research conducted by Tice and Baumeister (1997), that reveals a positive correlation between procrastination and stress. The difference was the correlation coefficient score. Tice and Baumeister's research resulted in  $r = .68$ , while this study resulted in  $r = .271$ . After Fisher test was done, the correlation between academic procrastination and academic stress can be considered to be sufficient ( $z = .277$ ;  $p = .391$ ).

The difference between the correlation coefficient score of this study and the earlier researches are caused by several factors. One of them being the fact that the inventories used to measure the variables were different. This study uses the PASS-1 inventory from Solomon and Rothblum (1984), while Tice and Baumeister's research used GPS (General Procrastination Scale) from Lay (1986). Another factor is the validation of the inventories used. This research uses ESSA from Dunne et al (2010) that was already validated, while Tice and Baumeister's research (1997) used a checklist with stress symptoms that

must be answered in 30 days after the checklist was given to their subjects. The process was then repeated at the end of the semester in order to find whether there was any change on the number of symptoms felt by the subjects.

The hypothesis test between the frequency aspect of academic procrastination and academic stress showed positive results with insufficient correlation ( $r = .146$ ;  $p = .034$ ). Fisher test was done and the result was  $z = 1.426$  and  $p = .077$ , meaning that there was no significant difference.

The hypothesis test between the problem aspect of academic procrastination and academic stress showed positive result with insufficient correlation ( $r = .299$ ;  $p = .000$ ). Fisher test was done and the result was  $z = .010$  and  $p = .496$ , meaning that there is no significant difference.

The hypothesis test between the desire to reduce aspect of academic procrastination and academic stress showed positive results with insufficient correlation ( $r = .242$ ;  $p = .001$ ). Fisher test was done and the result was  $z = .550$  and  $p = .291$ , meaning that there was no significant difference.

The correlation score between the total score of academic procrastination and academic stress was  $r = .271$ , showing that there is insignificant correlation. After the Fisher test, the results showed that there was no significant difference, meaning that the two variables have significant correlation. Similar results were gotten after the Fisher test of the other aspects of academic procrastination with academic stress, meaning that there were no significant differences between the variables.

The correlation score between the total score of academic procrastination and academic stress ( $r = .271$ ) is similar to the results of the research done by Stead, Shanahan, and Neufeld (2010) that showed that there is a positive correlation between procrastination and stress ( $r = .22$ ). Based on the results of the research done by Stead, Shanahan, and Neufeld (2010), it can be stated that when academic procrastination is at a high level, it will cause a high level of academic stress.

The worry about grades aspect and self-efficacy aspect of academic stress were not included because the two aspects do not correlate significantly with academic procrastination, prompting the author to use three aspects of academic stress. Meanwhile, the aspect of academic procrastination that has the highest correlation coefficient score with academic stress is the problem aspect ( $r = .299$ ). This shows that the main source of the correlation between academic procrastination and academic stress is the problem aspect. The other two aspects of academic procrastination also have a

contribution to the correlation, but in a lower percentage compared to the problem aspect.

There is a positive correlation between the frequency aspect of academic procrastination and academic stress, thought to be categorized into the value aspect (task aversiveness) in TMT ( $r = .345$ ). This is caused by the relation between the value aspect and task aversiveness (Steel, 2007). Task aversiveness is the avoidance of a task that is deemed to be uninteresting or not liked. Steel's research (2007) stated that task aversiveness correlates positively with academic procrastination. In this research, the value aspect is represented by the students' final research paper. If the students consider the final research paper as something that is important, then the students will tend to not procrastinate, not getting academic stress in the process. But if the students consider their final research paper as something that is unimportant, they will tend to procrastinate in working on it, resulting in them experiencing academic stress.

The correlation between the problem aspect of academic procrastination and academic stress is a positive correlation, considered to be categorized into the value aspect as well in the TMT ( $r = .352$ ). Steel (2011) stated that procrastination is also related to the phenomenon of the problems caused by the delaying done by the individuals. One of the problems were the decrease of performance quality (Beswick, Rothblum, & Mann, as cited in Steel, 2011), showing that procrastination causes a problem related to the delaying being done.

Solaris's research (in Stead, Shanahan, & Neufeld, 2010) showed that procrastination has a negative contribution towards health. Based on the research, it can be concluded that repeated procrastination has a negative effect on health, including academic stress. The aspects of academic stress that correlates positively with the value aspect are pressure from study, dependency, and workload. Therefore, it can be stated that the low value score towards a task will cause the subject to procrastinate (Steel, 2007).

High levels of procrastination cause an individual's workload to increase over time, culminating in a large amount of assignments and tasks to be finished in a close deadline (Fischer, 1999). Cooper (cited in Prihatini, 2007) stated that the culminating of assignments or tasks can cause stress. This shows that the high level of academic procrastination will affect the workload aspect, resulting in academic stress. Most university students have not just their academic assignments to take care of, as they also have to attend class and deal with tasks at home. Then a student is close to the deadline of his final research paper, procrastinating students

tend to also have other assignments with a similar or close deadline with the final research paper, increasing their workload and resulting in academic stress.

Other than the findings so far, Michael (2004) stated that there is a negative correlation between academic procrastination and academic grades. The higher the level of academic procrastination, the lower the academic grades of an individual. Low grades tend to cause pressure and discontent, resulting in stress (Pfeifferd, 2001). Pfeifferd also stated that the higher the academic pressure regarding the discontent will cause academic stress. Students that are working on their final research paper tend to have difficulties when they are discussing with their tutors. This can cause pressure on the students, further making them less confident with their abilities, resulting in more academic stress.

Lastly, the positive correlation between the desire to reduce aspect and academic stress is considered to be categorized in the value aspect on TMT ( $r = .166$ ). This is because when an individual is tasked with an assignment that he does not enjoy, there is the tendency for the individual to avoid working on the task (Steel, 2007). When the individual experience stress because of the procrastination he is doing, then the individual desires to reduce his procrastination.

## Limitations

The limitations of this study lie on the data collection process and the inventories. The starting survey was conducted only when the semester was nearing the end. If the survey was conducted on both the start and the end of the semester, then the relationship dynamics between academic procrastination and academic stress would be further explored, especially the difference between the start and the end of the semester.

Limitations related to the inventories were regarding the number of items that the research subjects needed to answer, with a total of 192 items. This was caused by the fact that the inventory being used is a fusion of three surveys, and may cause boredom in the research subjects. The boredom factor possibly appeared during the PASS-1 inventory session as well, because most research subjects were already familiar with the inventory, prompting them to choose the neutral answer instead of their real opinion.

## Suggestions and Recommendations

For the next research that uses the same theme, it is advised to start the data collection from the start of the semester. The extra data can be compared with the

data collected at the end of the semester, showing more relationship dynamics between the two variables used.

The amount of items in the inventory is deemed to be too many for the subjects and can be divided into several sessions. Because PASS is already used often in researches related to procrastination, it is advised for future researches to use a different procrastination measuring inventory, hoping to be able to avoid the boredom factor appearing in the future research subjects, prompting them to answer the items more truthfully.

The recommendation for future research is regarding the usage of PASS-1 as a multidimensional inventory, meaning that PASS-1 is used not only to measure the total score, but also the total score of each aspect. This is due to the results that reveal that the correlation coefficient score of the problem aspect of the academic procrastination and academic stress having a higher score compared to the total score of PASS-1.

## Conclusion

Despite the limitations above the results of this study show that psychology students that procrastinate tend to experience academic stress. Procrastinating students will feel more pressure when they are nearing the deadline of their final research paper, further increasing if the students have other assignments that they also have to finish in close deadlines.

Academic procrastination in this study has three aspects, which were frequency, problem, and the desire to reduce. The highest correlation was between the problem aspect of academic procrastination and academic stress ( $r = .299$ ). This indicates that the problem aspect has an important role in the relation between academic procrastination and academic stress. Individuals that do not think of their procrastination as a problem will not experience academic stress while individuals that consider their procrastination as a possible source of problem will experience academic stress.

Positive correlation between the frequency aspect of academic procrastination and academic stress ( $r = .146$ ) can be caused by repetition of the procrastination done by the students, resulting in more tasks and assignments for them to finish before the close deadlines. This results in more burden and pressure for the students, especially as the deadlines for the assignments close in, making them experience academic stress.

Lastly, the correlation between the desire to reduce academic procrastination and academic stress shows

positive correlation ( $r = .242$ ). This can be caused by the fact that procrastinating students tend to be experiencing academic stress already, prompting them to aim to reduce their procrastination.

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