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Computer Anxiety, Academic Stress, and Academic Procrastination on College Students

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Abstrak

Prokrastinasi akademik merupakan gejala yang umum terjadi di kalangan mahasiswa. Kurangnya pemahaman dalam menggunakan teknologi komputer dapat menimbulkan kecemasan dalam pengoperasian komputer, sedemikian sehingga menyebabkan penangguhan dalam menyelesaikan tugas-tugas perkuliahan yang berhubungan dengan operasi komputer. Di sisi lain, kegagalan dalam mencapai sasaran akademis tertentu sebagaimana diharapkan oleh orangtua dan/atau mahasiswa yang bersangkutan juga membuat mahasiswa kurang fokus dan menimbulkan kecenderungan penundaan penyelesaian tugas perkuliahan. Tujuan penelitian ini adalah guna menyelidiki kontribusi kecemasan penggunaan komputer dan stres akademis terhadap prokrastinasi pada mahasiswa. Enam puluh lima mahasiswa dengan bidang ilmu sosial (psikologi) menjadi partisipan penelitian ini. Hasil penelitian menunjukkan bahwa kecemasan pengoperasian komputer dan stres akademis berperan signifikan dalam mempengaruhi prokrastinasi akademik di kalangan mahasiswa ilmu sosial. Dalam hal kecenderungan prokrastinasi akademis, kecemasan pengoperasian komputer dan stres akademis, persentase mahasiswa laki-laki lebih banyak daripada mahasiswa perempuan.

Kata kunci: *prokrastinasi akademis, kecemasan penggunaan komputer, stres akademis, mahasiswa*

Abstract

Academic procrastination is fairly and commonly found among college students. The lack of understanding in making the best use of computer technology may lead to anxiety in terms of operating computer hence cause postponement in completing course assignments related to computer operation. On the other hand, failure in achieving certain academic targets as expected by parents and/or the students themselves also makes students less focused and leads to tendency of postponing many completions of course assignments. The aim of this research is to investigate contribution of anxiety in operating computer and academic stress toward procrastination on students. As much as 65 students of social science majoring in psychology became participants in this study. The results showed that anxiety in operating computer and academic stress play significant role in influencing academic procrastination among social science students. In terms of academic procrastination tendencies, anxiety in operating computer and academic stress, male students have higher percentage than female students.

Keywords: *academic procrastination, computer anxiety, academic stress, college students*

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Introduction

College students have many course assignments to be done related to the achievement of academic competencies as needed by them. The course assignments have varying levels of difficulty. Adaptation to the completion of the courseworks sometimes deteriorates over time. College students have many course assignments to be done within limited time (Sirin, 2011). Students can become lazy and tend to delay the completion of the course assignments. Such behaviour is referred to as procrastination or behavior that likes to delay completion of course assignments (Ferrari, O'Callaghan, & Newbegin, 2005). Several studies have specifically indicated students as group who are likely to do procrastination, especially academic procrastination (Babadogan, 2010; Kagan et al., 2010). Academic procrastination is commonly found among college students, regardless of whether they are students from public or private institutions (Yong, 2010).

For students majoring in social science, the use of technology is an obstacle that must be overcome. Unfamiliarity with the use of technology, especially in completing courseworks is sometimes a barrier in itself. One of the prevalent uses of technology in the completion of courseworks is computer operation. Students majoring in social science tend not to have same level of skills than students majoring in computer science. At this point, anxiety in operating computer is suspected to influence students majoring in social science in doing procrastination. Anxiety in operating computer becomes prevalent in academic field, not just among teaching staffs (Ekizoglu & Ozcinar, 2010; Rahimi & Yadollahi, 2011; 2011a), but also among school and college students (Hussain & Sultan 2010; Kurt & Gurcan, 2010).

Another reason that is suspected to play a role on students' academic procrastination is academic stress. Academic stress is often faced by students. Failure to achieve certain academic targets can be source of academic stress. In pursuing their study, students face expectations which are put upon him, especially from parents. Stress is very likely to occur when students' academic achievements are not in line with parents' expectations (Ang et al., 2009). Another source of academic stress is students' hope itself. Individual failure in achieving personal academic targets can lead to disappointment. In addition, although its impact is not very visible, expectations from lecturers to the students can also be a source of academic stress.

The purpose of this study is to investigate the role of anxiety in operating computer and academic stress toward academic procrastination among college students of social science.

Research Method

Participants in this study are 65 students of the Faculty of Psychology, Gunadarma University. By comparison, 45 are female students and 20 are male students.

Procrastination scale in this research was developed and modified based on the types of procrastination from Ferarri, O'Callaghan, and Newbegin (2005), namely (1) arousal procrastination, and (2) avoidant procrastination. This scale has 10 items with internal consistency for 0.934. Meanwhile, scale of anxiety in operating computer has 5 items with internal consistency of 0.932. On the other hand, the Academic Stress Scale was modified from Ang et al. (2009) based on two domains, namely (1) inability to meet the academic expectations from teachers and parents, and (2) inability to meet the academic expectations from themselves. This scale has 9 items with internal consistency of 0.908.

Results and Discussion

Based on the research results, it appears that correlation between the anxiety in operating computer with academic procrastination is $r = 0.88$ ($p < 0.01$). This suggests that the higher the anxiety in operating computer, the higher the tendency of committing academic procrastination among college students of social science. Contribution of anxiety in operating computer towards academic procrastination is quite significant, namely 76.5% (*adjusted R square* = 0.765, $p < 0.01$).

These results indicate that the lack of computer technology mastery is still commonly found today, even among college students. It is a matter that should be noted that individual familiarity with computer games does not necessarily coincide with the mastery of computer skills to work on specific course assignments. Certain course assignments may stimulate certain perceptions regarding level of difficulty hence students become anxious of whether or not they can operate computer as required by the assignments (Fakun, 2009).

Research by Perrewe and Thatcher (2002) stated that personality traits play a role against the anxiety in operating computer. Students realize that the skills in operating technology are associated with achievement of performance (Hassanbeigi et al., 2011). Tenacity and diligence in working on difficult course assignments may overcome anxiety in operating computer even if the individual does

not have enough skill to master it maximally. It is also tinged with cultural diversity in influencing viewpoint on how the role of computer technology assists works of man (Kalwar, 2010). This perception is important to see whether or not a particular skill should be mastered in accordance with the individual needs.

When computer is perceived as something that is unfamiliar and students feel anxious on their lack of ability in operating computer, there is tendency that college students will delay the completion of course assignments. Consequently, students become less confident that they can complete the assignments maximally and fall into thinking negatively on the outcome. These make academic procrastination ensues (Ferrari, O'Callaghan, & Newbegin, 2005). This research shows that fear of failure that causes procrastination does not happen only to students majoring in science (Onwuegbuzie, 2004), but also to students of social science. This tendency of procrastination becomes different from procrastination committed by employees with more complex factors, such as laziness, and the pleasure of working close to deadlines (Chu & Choi, 2005).

Correlation also appears between academic stress and academic procrastination ($r = 0.72, p < 0.01$). This shows that the higher academic stress felt by students, the higher the tendency of procrastination. Contribution of academic stress on academic procrastination is also quite significant, namely 62.6% (*adjusted R square* = 0.626, $p < 0.01$).

Human motive and behavior have driving and cause factors. Expectations carried by students to be academically success are also influenced by many important people in their lives, such as parents (Ang et al., 2009). Expectations to excel academically are then embodied in goal orientation and learning strategies (Kadivar et al., 2011). It is just that on several occasions, the expected outcome is often not in accordance with what is expected. Failure in achieving academic targets causes personal anxiety (Mohamadi, Farghadani, & Shahmohamadi, 2012) and feeling of distress that parents' expectations cannot be met.

This academic stress can affect students' self-esteem and self-confidence (Erturgut & Erturgut, 2010). Even in some cases, academic stress can lead to depression (Senecal, Koestner, & Vallerand, 1995). The lack of self-confidence caused by academic failure usually lead to behavior of withdrawing from matters related to the academic achievements, and one of these is completion of course assignments. Students will be reluctant, pessimistic and feel certain that their efforts would bear same failure. In the end students would prefer to postpone completion of their course assignments due to a priori that the results will not be much different although they have tried their best.

Statistical calculations, done jointly and simultaneously, also showed further results that the contribution of anxiety in operating computer and academic stress on academic procrastination is equal to 81.6% (*adjusted R square* = 0.816, $p < 0.01$). This reflects the fact that the tendency of procrastination among students of social science will be more apt to occur if students are experiencing anxiety about the use of computers as well as academic stress. Study by Rosario et al. (2009) stated that collaboration of personal, school, and family factors greatly affects student procrastination. Effects of these factors lead to clearer and stronger tendency of procrastination among the students.

This suggests that anxiety in operating computer and academic stress are not merely technical issues that can be addressed based on students' skills alone, but emotional intelligence is needed to overcome them. One between anxiety and stress has contributed significantly in creating academic procrastination, let alone combination of the two which add more effects to the stronger tendency of procrastination.

Correlation also appears between the ages of participants with all the three variables. Largest correlation appears between the ages of the participants with the anxiety in operating computer ($r = 0.79, p < 0.01$), followed by the correlation of age with academic procrastination ($r = 0.74, p < 0.01$), and academic stress ($r = 0.57, p < 0.01$). This shows that the older the age of the participants, the greater the anxiety in operating computer. This could be happening due to varying complexities of the course assignments and they become more difficult in the last years of study compared with the initial course of study. Boredom and increasing difficulty of the coursework are considered to be one of the reasons why the older the age of a student the higher the tendency of committing academic procrastination. Meanwhile, load of courses in last years of study, and possibility of frequent academic failures that have occurred become reasons why academic stress is likely to be experienced by senior students.

The results also revealed a quite interesting findings namely on the correlations between GPA with the three variables. The correlation between GPA with academic procrastination is the largest ($r = -0.81, p < 0.01$), followed by the correlation of GPA with the anxiety in operating computer ($r = -0.70, p < 0.01$), and academic stress ($r = -0.55, p < 0.01$). These findings suggest that GPA as a simple manifestation of the intelligence and diligence, correlates negatively with all the three variables. This means that the higher the students' GPA, the lower their tendency of procrastination, anxiety in operating computer, and academic stress. This could be happening because students with high

intelligence and diligence tend to have driving desire to get high academic achievement so that they do not want to delay completion of their courseworks, and are able to improve their mastery skills of computer technology in conjunction with the completion of coursework. Also, students with high GPA usually have a lot of academic targets achieved, so they do not feel stressed because they are able to meet academic targets as expected by themselves and parents.

There are significant differences regarding academic procrastination based on gender ($F(1,65) = 15.980, p < 0.01; r = 0.44, p < 0.01$) in which male students have higher procrastination scores ($M = 40.45, SD = 3.87$) than female students ($M = 34.17, SD = 6.50$). It means that tendency to delay the completion of the coursework is higher on male students than on female students. This is consistent with research by Klassen et al. (2009) which stated that male students prefer to delay the completion of course assignment than female students. Cohesiveness and peer conformity of the activity are alleged to be the cause of such finding.

Differences based on gender also appeared on the anxiety in operating computer ($F(1,65) = 14.277, p < 0.01; r = 0.42, p < 0.01$) in which anxiety among male students is higher ($M = 19.35, SD = 2.42$) than female students ($M = 15.75, SD = 3.79$). This result shows interesting fact. Usually women are less familiar with technology than men, as a result women's anxiety about the use of technology is higher than men, but this result of study indicates the opposite. This could be happening because women who tend to be more diligent in learning are better to master the computer related to the completion of coursework. Meanwhile, male students may have the same difficulty in mastering the computer skills but they just do not have enough patience and diligence to master the computer.

On the other hand, there are also gender differences in academic stress ($F(1,65) = 13.502, p < 0.01; r = 0.41, p < 0.01$) in which male students also have higher academic stress ($M = 34.90, SD = 3.32$) than female students ($M = 29.73, SD = 5.86$). This could happen because men are often perceived as a role model of success. Many parents rely hope on their son(s). As a result, when a male student fails in achieving academic targets, his anxiety and feeling of inability in meeting parents' expectations are greater than his regrets in failing to achieve personal academic targets (Rosario et al., 2009).

Conclusion and Suggestion

Conclusion

Computer operation in academic field related to completion of course assignments has not been as intimate as the operation of computer to play games. Anxiety in operating computer is a minor matter that can make students delay their completion of assignments. Meanwhile, on the other hand, academic stress appears to become very important. Although failure in achieving academic targets is a common phenomenon happens to every student but it seems that parents' expectations as significant other, and disappointment of unfulfilled personal academic targets make the students' burden heavier.

Suggestion

Students of social science should further enhance their skills in operating computer and become more familiar with it so any course assignments can be done more optimally. A more positive perception should be put forward regarding possibility of failure in achieving academic targets. It is needed so students can stay focused and not lose energy in order to keep trying to get the most out of the best academic performance.

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