Why Do It Later? Goal Orientation, Self-efficacy, Test Anxiety, on Procrastination

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PERCHÉ RIMADARE? ORIENTAMENTO ALL'OBIETTIVO, AUTO-EFFICACIA, ANSIA DEL TEST ED EFFETTI SULLA PROCRASTINAZIONE

Abstract

Procrastination is a phenomenon that has a double connotes, positive and negative and can occur in all individuals, not least students. Why do individuals procrastinate work completion? There are many factors that cause individuals to procrastinate their works, both external or situational factors and internal or personal factors. The aim of this study was to examine the role of the personal factor in procrastination. Three hundred and sixty-five undergraduate students completed questionnaires that assessed the motivation type of the students' learning, the level of test anxiety, the level to which they procrastinate on doing tasks, and their self-efficacy regarding tasks and tests. The results of this study indicated that procrastination was negatively related to learning-goal orientation and self-efficacy and was positively associated with test anxiety. The results of structural equation modeling testing indicated that self-efficacy mediated the relations between goal orientation and procrastination and between test anxiety and procrastination. These results highlighted the importance of multiple students' type of goal orientation motivation. Self-efficacy and test anxiety consistently affected procrastination with different characteristic. Self-efficacy effected significantly negative on procrastination, while test anxiety effected significantly positive on procrastination. Detailed discussion is presented in this study.

Keywords: Academic procrastination; Learning-goal orientation; Performance-goal orientation; Self-efficacy; Test anxiety.

1. Introduction

Empirical studies on procrastination have used a variety of theories to test the constructs. Procrastination has been studied within the framework of temporal motivational theory (Steel, 2007), goal theory (Wolters, Yu, & Pintrich, 1996), self-efficacy theory (Klassen, Krawchuk, & Ranjani, 2008), self-regulation theories (Wolters, 2003), and self-determination theory (Deci & Ryan, 1985). Moreover, although the negative consequences in a study, procrastination is common for university students (Harriot & Ferrari, 1996; Steel, 2007). In addition, although procrastination is often analyzed associated with negative outcomes, Chu and Choi (2005) showed that procrastination has a positive relationship for individual self-inefficacy, depression, and performance. However, Tice and Baumeister (1997) stated that procrastination does not have an influence on task performance. This is due to whether the task is done well before the deadline or get close to the deadline, it does not make a difference in the quality of work. According to Bandura (1997), there is a relationship between procrastination and self-efficacy. This is due to self-efficacy was able to play an important role in initiating tasks and affect persistence in doing the task (Cao, 2012). The negative relationship between self-efficacy and academic procrastination has been demonstrated by previous researchers (Ferrari, Parker, & Ware, 1992).

Besides self-efficacy, procrastination is also associated with motivation (McGregor & Elliot, 2002; Wolters, 2003; Howell & Watson, 2007; Steel, 2007). One of the motivational variables that are often tested its relationship with procrastination is self-efficacy (Ferrari, Parker, & Ware, 1992; Van Eerde, 2003; Steele, 2007). Lack of self-efficacy significantly predicted self-reported procrastination. Steel (2007) and Van Eerde (2003) stated that self-efficacy is strongly negative associated with procrastination. Aside from being a motivational variable, self-efficacy is also one personality characteristics. Motivation has long been rated as the most important concepts in education. The goal orientation theory of achievement motivation is one of motivational theory that is successfully applied in education to explain the behavior (Nicholls, 1984). The reason of students learning or purpose of their learning is referred to as goal orientation (Elliot & Harackiewicz, 1996). The goal orientation theory of achievement motivation is a social cognitive theory, which stated that variations in behavior are not needed in high generating low motivation

(Cumming & Hall, 2004). These goals will influence the actions, reactions, and motivation to learn (Shim & Ryan, 2005).

Goal orientation is also another motivational component that has been tested relationship with academic procrastination (McGregor & Elliot, 2002; Wolters, 2003; Howell & Watson, 2007). Based on the results of previous studies, procrastination was negatively correlated with the goal orientation approach, particularly learning-goal orientation which was an adaptive self-regulatory process that includes a desire to improve competence. Procrastination is positively related to performance-goal orientation (Wolters, 2003) and negatively with the learning-goal orientation (Wolters, 2004; Howell & Watson, 2007). However, some studies have also found that procrastination is not related to that performance goal orientation (McGregor & Elliot, 2002; Wolters, 2004; Howell & Watson, 2007).

Test anxiety is also other variable that may be associated with procrastination. Some researchers were studying test anxiety stated that high anxiety students will not be persistent or want to avoid tasks that are difficult, or delaying the start and complete its work (Tan *et al.*, 2008). Solomon and Rothblum (1984) proved that students who view the task as an opponent and show fear or anxiety about the failure of the task will procrastinate the tasks. Academic procrastination is an amotivation associated with lower self-regulation, academic self-efficacy and self-esteem, and is associated with high levels of anxiety and stress (Tice & Baumeister, 1997; Sirois, 2004; Howell *et al.*, 2006). This study aimed to test the model of the relationship between academic procrastination, goal orientation, self-efficacy, and test anxiety.

2. Literature review and hypotheses

2.1. *Academic procrastination*

Academic procrastination is the irrational postponement or avoidance of academic tasks and the failure of self-regulation in the learning process (Senecal, Koestner, & Vallerand, 1995; Steel, 2007). The desire to procrastinate is to get away from the tasks and completion of tasks (Nicholls, Patashnick, & Nolen, 1985; Elliot, 1999). In schools and workplaces, procrastination is defined as a postponement activity freely deliberate or unconscious its losses in the future (Steel, 2007). Academic procrastination associated with a variety of deviant behavior, leave your work, do not set up tasks, and do not want to learn or not to learn to give up (Tice & Baumeister, 1997). Therefore,

procrastination associated negatively with academic achievement. Academic procrastination is also often referred to as the failure of self-regulation. Self-regulated learning generally comprises the preparation of objectives and an effective learning strategy.

Chu and Choi (2005) found that some people with a specific purpose choose to put off duties because they believe that the procrastination may provide contribution in the best performance. Choi and Moran (2009) distinguished between active and passive procrastinators. Passive procrastination is a traditional procrastinator who put off their duties until the last minute because of an inability to make a decision to act in a timely manner. Meanwhile, active procrastination made a deliberate decision to procrastinate, have a strong motivation under pressure of time, and was able to complete the task before the deadline and achieve satisfactory results. The findings of previous research stated that active procrastination is a type of positive procrastination, while passive procrastination is a negative type of procrastination (Chu & Choi, 2005).

According to Chu and Choi (2005), there are three aspects that differentiate between active and passive procrastination. Behaviorally, active procrastinators able to complete tasks according to deadline and do not believe that the faster the work completed was more qualified. While passive procrastinator prefers to give up that failed to complete its task. Cognitively, active procrastinators are able to take a decision by postponing the task to maximize resources for accomplishing its objectives and focusing on more important tasks. Passive procrastinators do not want to delay, but because of his inability to work or duties then be delayed. Affectively, active procrastinators are more motivated when working under pressure. Meanwhile, passive procrastinators feel depressed and pessimistic because their ability is not satisfactory. The research results showed the similarity between the passive and active procrastinators (Cao, 2012).

Active procrastinators use the time for a specific purpose, have greater perception in the control of time, show higher self-efficacy and use task-oriented strategy (Park & Sperling, 2012). Active procrastination is more indicating desirable motivational and behavioral characteristics rather than negative consequences (Wang, Sperling, & Haspel, 2015). Research on active procrastination is rarely done because there are inconsistencies in the results of research on whether the active procrastination is valid and independent construct or not (Cao, 2012; Seo, 2012). According to Park and Sperling (2012), passive procrastinators are those who they do not procrastinate deliberately the task, get overwhelmed, and become pessimistic in regard to the deadline approaches. Passive procrastinators are people who have problems in weak capabilities of time planning and management (Wolters, 2003; Bem-

benutty & Karabenick, 2004). Passive procrastinators also have difficulty in implementing the plan and often fail to meet the long-term liability (Steel, 2007).

The main factor affecting passive procrastination is self-efficacy, namely the individual's confidence to be able to finish his job well (Zimmerman, 2000). Walters (2003) reported that students with low confidence in their academic abilities will more often put off tasks than students with higher self-efficacy. Passive procrastinators not only showed lower self-efficacy in academic skills, but it also shows insufficient efficacy in setting himself well (Klassen, Krawchuk, & Ranjani, 2008; Klassen *et al.*, 2010). According to Chu and Choi (2005), self-efficacy was negatively correlated with passive procrastination, but correlates positively with active procrastination.

2.2. *Self-efficacy*

Self-efficacy or belief of one's ability to complete the task has demonstrated a key role in the effort, perseverance, and interest in the training (Gist, 1987; Gist & Mitchell, 1992). Self-efficacy can not be regarded as a stable variable because it can be affected by a number of factors or referred to quasi-dispositional variables (Marakas, Yi, & Johnson, 1998). The main factor affecting passive procrastination is self-efficacy, the belief of individuals against the ability to complete the job well (Zimmerman, 2000). Walters (2003) reported that students who lack confidence in their academic abilities will more often put off tasks than students with higher self-efficacy. Passive procrastinators not only showed lower self-efficacy in academic skills, but it also shows insufficient efficacy in setting himself well (Klassen, Krawchuk, & Ranjani, 2008; Klassen *et al.*, 2010). According to Chu and Choi (2005), self-efficacy was negatively correlated with passive procrastination, but positively correlates with active procrastination.

One of the main issues in the self-efficacy is the relationship between goal orientation and perceived competence (self-efficacy). Stevens and Gist (1997) suggested that self-efficacy (perceived capability for task performance) and goal orientation (approaches in learning) conceptually are two different things, but can interact for difficult tasks. The interaction between goal orientation and self-efficacy will influence the motivation process has been tested by Dweck and colleagues. Individuals with high self-efficacy will be looking for a challenge and show persistence regardless of goal orientation although individuals with low self-efficacy will be motivated when they have a strong learning-goal orientation (Dweck, 1986; Dweck & Leggett, 1988; Elliot & Dweck, 1988).

According to Stevens and Gist (1997), self-efficacy correlated strongly with the goal orientation. Researchers previously have found that higher self-efficacy associated with higher learning-goal orientation (Elliot & Church, 1997; Stevens & Gist, 1997). However, the relationship between self-efficacy and performance-goal orientation is less clear. Bell and Kozlowski (2002) found that performance-goal orientation is not related to self-efficacy. However, Elliot and Church (1997) actually found that people with higher self-efficacy will be oriented on the successful approach and adopt performance-goal orientation. Previous research supports the model that learning-goal orientation positively affected self-efficacy beliefs (Phillips & Gully, 1997; Steele-Johnson *et al.*, 2000). Phillips and Gully (1997) also stated that performance-goal orientation was negatively related to self-efficacy beliefs.

2.3. *Goal orientation*

Goal orientation is defined as a set of intention to behave determines how students engaged in learning activities (Meece, Blumenfield, & Hoyle, 1988). Goal orientation can also be described as a set of students' beliefs associated with the goal that explain why the goal is important to them. Dweck and colleagues (Dweck & Leggett, 1988; Elliot & Dweck, 1988) found that students have two different goal orientation, which aim to develop and to demonstrate their ability items, namely, a learning-goal orientation and a performance-goal orientation. Nicholls (1984) referred to as task-involved and ego-involved, while Ames (1992) referred to as mastery-focused and ability-focused. Results of the learning-goal orientation were increasing self-efficacy (Bandura, 1997).

Experts identified two types of goal orientation, that is learning-goal orientation that focuses on the development of competence through learning and mastering new skills, and performance-goal orientation that focuses on demonstrating competence relative to others and avoid deemed incapable by others (Ames, 1984; Nicholls, 1984; Dweck, 1986). Nicholls (1984) termed the task and ego. Task-involved goal is defined as focusing on developing competencies, while ego-involved goal is defined as showing competence to others and avoid being tagged incompetent. Individuals with task-oriented goals are confident that the business be a determinant of success. Therefore they tend to try harder and more persistent when facing difficulties. Ego-oriented individuals are unwilling rated as incompetent, tend to withdraw when encountered difficulties.

Goal orientation is treated as a situational variable that can be manipulated for specific research purposes (Ames & Archer, 1988; Elliot &

Dweck, 1988; Steele-Johnson *et al.*, 2000). Goal orientation can also be treated as dispositional variables that are stable and can be measured that affect the model individual responses among various situations (Nicholls *et al.*, 1990; Button, Mathieu, & Zajac, 1996; Phillips & Gully, 1997). Students who have a learning-goal orientation will seek challenging tasks that may provide an opportunity to develop competencies (Seijts *et al.*, 2004). Students who have performance-goal orientation focus on the end results, have fear of failure, and focus on the consequences of their poor performance. The researchers found that both types of goal orientation, indicating two-dimensional independent goals (Button, Mathieu, & Zajac, 1996).

2.4. *Test anxiety*

Test anxiety refers on the anxiety experienced by students in the assessment context such as examination (Putwain, Wood, & Symes, 2010). Anxiety or worries about exam is a cognitive component that shows the negative thoughts that can interfere with the performance of students. In addition, the test anxiety is also an emotional component that shows the passion of an affective and psychological aspect of anxiety. High levels of anxiety towards exams associated with low performance or achievement test. Some researchers suggest that anxiety about the exam includes phenomenological, physiological, and behavioral responses to the procedure of assessment and can create adverse reactions, which is getting lower than expected performance or achievement.

Previous researchers had stated that the fear of failure or test anxiety positively related to procrastination (Solomon & Rothblum, 1984; Van Eerde, 2003; Alexander & Onwuegbuzie, 2007). It can be explained that the individuals who are afraid to fail or feel anxious will be more interested to create reason for a reasonable failure, so they want to procrastinate. In addition, previous studies showed that test anxiety is not associated with both mastery-goal orientation and learning-goal orientation (Elliot & Church, 1997; Middleton & Midgley, 1997). Meanwhile, the relationship between test anxiety and performance-goal orientation is weak or insignificant (Elliot & Church, 1997; Middleton & Midgley, 1997; Sideridis, 2005).

Social learning theory states that there is a mutual relationship between anxiety and self-efficacy (Bandura, 1997). The test anxiety was negatively related to self-efficacy (Saks, 1994). Other researchers found test anxiety can related to the perception of its competence (Nicholls, 1984). Pintrich and De Groot (1990) proved that students with higher levels of test anxiety will have lower performance. According to Tan *et al.* (2008),

test anxiety and social anxiety is associated with procrastination. This is due to the stress arising from the assignment would cause delay students getting work done.

2.5. *Relationship goal orientation, self-efficacy, test anxiety and academic procrastination*

Students' goal orientation is the goals that they have to complete academic tasks and can affect students' performance (Dweck, 1986; Ames, 1992). A number of studies have found that goal orientation has a direct relationship with self-efficacy and that self-efficacy may mediate or moderate the effect of goal orientation on the dependent variables (Phillips & Gully, 1997; Steele-Johnson *et al.*, 2000; VandeWalle, Cron, & Slocum, 2001). Researchers have consistently found that students who adopt a mastery-goal orientation tend to have higher self-efficacy, positives learning model (pay attention while in class in the learning process) and higher achievement (Midgley & Urdan, 1995; Middleton & Midgley, 1997; Pajares, Britner, & Valiante, 2000). Some researchers reported that performance-goal orientation can not predict self-efficacy (Middleton & Midgley, 1997), and several other researchers found a positive correlation between performance-goal orientation and self-efficacy (Wolters, Yu, & Pintrich, 1996; Pajares, Britner, & Valiante, 2000; Bong, 2001).

Recent research supports the opinion that procrastination is one of self-handicapping behavior (Ferrari, 1992 and 1994; Rhodewalt, 1994; Ferrari & Tice, 2000; Ommundsen, 2001; Wolters, 2004). Procrastination is also associated with the fear of failure (Alexander & Onwuegbuzie, 2007). Because of high test anxiety then students may procrastinate to start and finish the tasks. However, individuals who are convinced of their ability prefer not to procrastinate. Academic procrastination is usually assumed to be a negative behavior caused by psychological outcomes such as stress and anxiety and performance outcomes are worse (Ferrari, 1992 and 2001).

Mastery-goal orientation was found to correlate positively with higher levels of self-efficacy (Schraw, Wadkins, & Olafson, 2007), but was negatively related to self-handicapping (Midgley, Arunkamar, & Urdan, 1996) and procrastination (Midgley & Urdan, 1995; Wolters, 2003 and 2004; Howell & Watson, 2007; Howell & Buro, 2009). Lack of self-efficacy significantly predicted self-reported procrastination. Furthermore, the research results of Cerino (2014) indicated that academic motivation and academic self-efficacy had a strong negative correlation with academic procrastination. This is consistent with the research results of Steel (2007), Klassen *et al.* (2010), Gao, Lochbaum and Podlog (2011), and Klibert, Langhinrichsen-Rohling, Luna

and Chaux (2011). Wolters (2003) stated that the goal orientation and self-efficacy is a predictor of academic procrastination using several self-report instruments. Some studies report that procrastination was negatively related to self-efficacy. However, several studies have failed to find this relationship (Saddler & Buley, 1999; Milgram, Dangour, & Roviv, 2001). Howell and Watson (2007) also found that procrastination negatively associated with mastery-goal orientation.

2.6. *Hypotheses*

This study aims to examine the relationship between goal orientation, self-efficacy, and procrastination. In addition, this study also aims to examine the relationship model between goal orientation and procrastination with self-efficacy and test anxiety as mediating variables. Furthermore, this study used a survey method using a questionnaire distributed to undergraduates in the Faculty of Economics and Business in Yogyakarta. The survey was conducted by researcher for three months. According to Cooper and Schindler (2008), Neuman (2006), and Sekaran and Bougie (2013), a survey conducted by researchers using a questionnaire directly is better than using the telephone surveys, letters, and various other social media.

Exploratory studies were used in this study as a preliminary study to get a clear picture of the research problems. With exploratory study, researchers developed the concept more clearly, so as to set priorities, to develop an operational definition, and can improve the end of the research design (Cooper & Schidler, 2001). Exploratory study is an open, creative, flexible, and able to explore all the resources (Neuman, 2006). Therefore, exploratory studies often use qualitative data. Exploratory studies conducted aiming to reveal the possibility of students doing academic procrastination. In addition, exploratory study also intended to disclose the reasons why students learn and follow the lecturing process on campus. To conduct this exploratory study, researchers used the technique of in-depth interviews. The results of the exploratory study showed that students in Indonesia often do academic procrastination, mainly active procrastination. This is caused by the difficulty of the task, the desire to do the work together with her friends to be more confident, there are other activities that are more interesting, or the feeling of a lazy stubborn and did not want to do the task when the time is still long, or students are more motivated when closer to deadline. Based on the theoretical and previous studies, we compiled several hypotheses that are relationships between variables based on previous theories and research. The hypothesis of this research is:

H1 learning-goal orientation negatively associated with academic procrastination;
H2 performance-goal orientation positively related with academic procrastination;
H3 learning-goal orientation positively related with self-efficacy;
H4 performance-goals orientation positively related with self-efficacy;
H5 learning-goal orientation negatively related with test anxiety;
H6 performance-goals orientation positively related with test anxiety;
H7 self-efficacy negatively related with academic procrastination;
H8 test anxiety positively related with academic procrastination;
H9 self-efficacy negatively related with test anxiety;
H10 self-efficacy mediates the effect of learning-goal orientation and performance-goal orientation on academic procrastination;
H11 test anxiety mediates the effect of learning-goal orientation, performance-goal orientation, and test anxiety on academic procrastination.

3. Method

3.1. *Procedure*

Exploratory studies were conducted to ensure the presence of procrastination phenomena in students. After the procrastination phenomenon was ensured, the measuring tool of this study was prepared for further testing of validity and reliability. This research used content validity and construct validity. According to Sekaran and Bougie (2013), content validity test measuring tool is a questionnaire for ensuring compatibility with existing theories and concepts. Content validity also showed the level of a construct was represented by items of questionnaire which refers to the construct (Garver & Mentzer, 1999). Content validity was done by discussing the questionnaire as a measurement tool of research with experts in the field of organizational behavior and educational psychology. In addition, 20 students were asked to provide feedback on the questionnaires used in this study, so that this research questionnaire can be better understood by the students. This was in accordance with the stages of research suggested by Sekaran and Bougie (2013). Students provided suggestion regarding the sentence in the questionnaire to be easily understood.

This research also used the construct validity to test whether the items in the questionnaire in accordance with the theory (Sekaran & Bougie, 2013).

Testing of construct validity aims to find empirical evidence that supports the relationship in the construct, namely on the same construct (within-network relations) and between constructs (between-network relations) (Byrne, 2001). Construct validity of the methods used in this research is factor analysis with varimax rotation and loading factor of at least 0.5 as suggested Hair *et al.* (2006), which means practically significant to sample 100 or more. According to Hair, Black, Babin, Anderson and Tatham (2006), factor analysis is a powerful and indispensable method to test the construct validity.

In addition to testing the validity of the measurement, the researchers also tested the stability and internal consistency with Cronbach's alpha to demonstrate the reliability of measurements used. Before testing the model using *Structural Equation Modeling* (SEM) with AMOS, conducted testing the correlation between the two variables used in this study. To test the relationship model, this study used regression analysis and SEM with AMOS program. Testing of the model included the direct effect of learning-goal orientation, performance-goal orientation, self-efficacy, and test-anxiety on the academic procrastination is used regression analysis. SEM with AMOS program was used for testing the mediating model.

3.2. *Participants*

Research was conducted on undergraduate students in the Faculty of Economics and Business in Yogyakarta. Yogyakarta got a name as the student city number one in Indonesia. This title brings influence on the number of people who come to Yogyakarta to study, not exception for lecturing in Yogyakarta. Selection of students in the undergraduate program is based on the consideration that they are required to be an entrepreneur. An entrepreneur must have the motivation, confidence in the ability of self, and does not procrastinate the completion of the task. Procrastination in completing the task would result in reduced performance and the loss of customers to be served.

This study used the individual as the unit of analysis by setting a minimum number of respondents as much as five times as many items of questions. This is in accordance with the multivariate criteria (Hair *et al.*, 2006). The questionnaires used in this study as many as 37 items, then the number of respondents of at least 185 people. However, because this study used factor analysis to test its validity, the number of respondents at least 300 people (Hair *et al.*, 2006). Data were collected by using a non-probabilistic sampling techniques, the criteria for students who have entered the third year that otherwise qualifies as a respondent. Within three months, the researchers collected 365 respondents as research data.

3.3. *Measures*

This study used the individual as the unit of analysis that were asked to fill out a questionnaire given during hours of study on campus. For screening, they would be asked how many semesters of tuition taken. The measurement of this study was a questionnaire taken from previous research. Questionnaire regarding the learning-goal orientation, performance-goal orientation, test anxiety, and self-efficacy were taken from the questionnaire used in the study Dull, Schleifer and McMillan (2015). Meanwhile, a questionnaire regarding academic procrastination was taken from questionnaires used in the study Fynchina (2012). The questionnaire was used after being translated into Bahasa Indonesia.

The results of the questionnaire translations into Indonesian were tested for validity using face validity performed by linguists, organizational behavior experts and psychological education experts. After being declared valid, the questionnaire was tested to 30 students in undergraduate program on Economics and Business Faculty. The questionnaire using *Likert Scale* with five points starting from strongly disagree are rated from 1 to strongly agree that given the value 5.

4. Results

4.1. *Validity and reliability analysis*

This study used a questionnaire developed from previous research. The questionnaire was translated into Bahasa Indonesia to be easily understood by the respondents. Testing of construct validity was done by using factor analysis with orthogonal technique and varimax rotation. Confirmatory factor analysis was also used in this study in accordance with the underlying theories. Hair *et al.* (2006) suggested that factor loading above 0.50 proved that the constructs are valid in practically significant. The result of construct validity test with factor analysis showed that the loading factor of question items was between 0.559 and 0.838. Question items that have a factor loading less than 0.5 are discarded. The result of construct validity test indicated that all items in learning-goal orientation, performance-goal orientation, self-efficacy, and test anxiety declared valid, except items in academic procrastination. Of the twenty-one items, only eleven items were considered valid. Therefore, this study only used eleven questions for measuring academic procrastination. A valid question item was tested for its construct reliability.

Reliability testing was done by measuring internal consistency with Cronbach alpha. Reliability test results showed the score 0.673 for learning-goal orientation, 0.655 for performance-goal orientation, 0.833 for self-efficacy, 0.766 for test anxiety, and 0.861 for academic procrastination. According to Zikmund, Babin, Carr and Griffin (2010), reliability less than 0.6 is not good, reliability 0.7 is acceptable, and reliability over 0.8 is good. According to Zikmund *et al.* (2010), all constructs in this study could be declared reliable. *Table 1* describes the factor loading and Cronbach alpha for each construct or variables used in this study.

Table 1. – Valid and reliable questionnaires, factor loading, and Cronbach alpha.

Questionnaires	Learning-goal Orientation	Performance-goal Orientation	Self-efficacy	Test Anxiety	Academic Procrastination
Learning-goal Orientation1	0.795				
Learning-goal Orientation2	0.838				
Learning-goal Orientation3	0.559				
Learning-goal Orientation4	0.636				
Performance-goal Orientation1		0.699			
Performance-goal Orientation2		0.718			
Performance-goal Orientation3		0.750			
Performance-goal Orientation4		0.638			
Self-efficacy1			0.660		
Self-efficacy2			0.689		
Self-efficacy3			0.751		
Self-efficacy4			0.743		
Self-efficacy5			0.752		
Self-efficacy6			0.559		
Self-efficacy7			0.701		
Self-efficacy8			0.576		
Test Anxiety1				0.705	
Test Anxiety2				0.765	
Test Anxiety3				0.665	
Test Anxiety4				0.778	
Test Anxiety5				0.676	
Academic Procrastination2					0.521

Academic Procrastination3					0.624
Academic Procrastination4					0.608
Academic Procrastination5					0.749
Academic Procrastination6					0.588
Academic Procrastination10					0.689
Academic Procrastination11					0.658
Academic Procrastination18					0.657
Academic Procrastination19					0.705
Academic Procrastination20					0.724
Academic Procrastination21					0.575
Cronbach alpha (α)	0.673	0.655	0.833	0.766	0.861
N. of items	4	4	8	5	11

Sources: Primary Data, processed.

4.2. *Descriptive statistics*

Before testing the relationship model, testing the relationship between variables used in the research needs to be done by using correlation analysis. Correlations were also used to ensure that there was no multicollinearity between the independent variables used in this study. The correlation between variables or constructs used in this study, means, and standard deviations are presented in *Table 2*.

Table 2. – Mean, Standard Deviation, and inter correlations among all variables.

	Mean	SD	1	2	3	4	5
Learning-goal Orientation	3.514	0.664	1.000				
Performance-goal Orientation	4.200	0.570	-0.076	1.000			
Self-efficacy	3.949	0.464	0.228**	0.406**	1.000		
Test Anxiety	3.079	0.983	-0.110**	0.173**	-0.110**	1.000	
Academic Procrastination	3.114	0.984	-0.210**	-0.067	-0.188**	0.305**	1.000

Note: ** Correlation is significant at the 0.01 level (2-tailed); * Correlation is significant at the 0.05 level (2-tailed).

Sources: Primary Data, processed.

Based on *Table 2*, the mean of five variables are high (mean between 3.079 and 4.200) and relatively small standard deviation, except for test anxiety and active procrastination constructs that have standard deviation close to 1, or a total of 0.983 for test anxiety and 0.984 for academic procrastination. In addition, all correlations obtained are not too strong. This indicates no multicollinearity between the independent variables used in this study. Furthermore, this study used 365 students from Yogyakarta. *Table 2* indicates that the learning-goal orientation did not correlate with performance-goal orientation. This suggests that the learning-goal orientation construct is different from performance-goal orientation.

Based on *Table 2*, performance-goal orientation does not correlate with academic procrastination (H2 is unsupported). The correlation between the learning-goal orientation and self-efficacy is significantly positive ($r = 0.228$, $p < 0.01$) in (H3 is supported). Similarly, the correlation between the performance goal orientation and self-efficacy is significantly positive ($r = 0406$, $p < 0.01$) in (H4 is supported). The correlation between the learning-goal orientation and academic procrastination is significantly negative ($r = -0.210$, $p < 0.01$) in (H1 is supported). Academic procrastination is also correlated significantly negative with self-efficacy ($r = -0.188$, $p < 0.01$) in (H7 is supported). Furthermore, the correlation between the learning-goal orientation and test anxiety is significantly negative ($r = -0.110$, $p < 0.01$) in (H5 is supported), while the correlation between performance-goal orientation and test anxiety is significantly positive ($r = 0.173$, $r < 0.01$) (H6 is supported). Test anxiety is correlated significantly positive with academic procrastination ($r = 0.305$, $p < 0.01$) (H8 is supported), and the correlation between test anxiety and self-efficacy is exhibited significantly negative ($r = -0.110$, $r < 0.01$) (H9 is supported).

Furthermore, this study examined the direct effect of the learning-goal orientation, performance-goal orientation, test anxiety, and self-efficacy in academic procrastination. This study explored influence independent variables on a dependent variable using regression analysis. Results of testing the simultaneous effect of three independent variables on the dependent variable are presented in *Table 3*.

Based on *Table 3*, the influence of the learning-goal orientation on academic procrastination significantly negative and the effect of test anxiety on academic procrastination are significantly positive. Meanwhile, the effect of performance-goal orientation and self-efficacy variables in academic procrastination is not significant. The fourth independent variable simultaneously effect significantly on academic procrastination ($F = 15.409$, Sig. = 0.000).

Table 3. – Testing results of relationship model using linear regression.

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21.885	4	5.471	15.409	.000[a]
	Residual	127.825	360	.355		
	Total	149.709	364			

[a] Predictors: (Constant), TAX, LGO, PGO, SEF.
[b] Dependent Variable: PROC.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.875	.377		10.284	.000
	LGO	-.186	.057	-.168	-3.290	.001
	PGO	-.121	.067	-.100	-1.790	.074
	SEF	-.106	.078	-.076	-1.352	.177
	TAX	.266	.045	.295	5.839	.000

[a] Dependent Variable: PROC.

Sources: Primary Data, processed.

4.3. *Testing results of the mediating model*

This study used *Structural Equation Modeling* (SEM) for testing the relationship model among variables in this study. SEM is used to examine complex relationship models simultaneously by combining exploratory factor analysis and multiple regression analysis (Byrne, 2001). The results of model testing using SEM with AMOS software indicate that the model fit with the data.

Testing the relationship model in this study using two step approach. This approach is used to increase the value of goodness of fit index (GFI), decrease the value of chi-square (χ^2), and decrease the difference between GFI value and adjusted goodness of fit index (AGFI) value (Byrne, 2001). Based on guidance from modification index and the underlying theory, the construct of self-efficacy can be mediating variable. Testing mediating modification of the model in this study presented in *Figure 1* and *Table 4*.

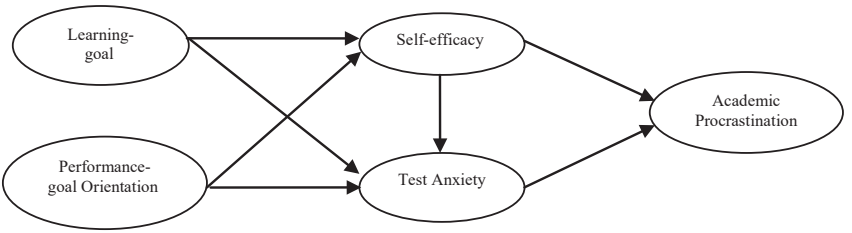

Figure 1. – Mediating model of research variables.

Table 4. – Testing results of mediation model using SEM.

	Standardized Regression Weights	Critical Ratio
Learning-goal Orientation → Self-efficacy	0.304**	4.368
Performance-goal Orientation → Self-efficacy	0.719**	9.533
Test Anxiety → Self-efficacy	-0.244**	-3,939
Self-efficacy → Academic Procrastination	-0.236**	-3.441
Test Anxiety → Academic Procrastination	0.346**	5.697
GFI = 0.990 df = 2 AGFI = 0.927 Chi-square = 8.959 CFI = 0.959 RMR = 0.006 RMSEA = 0.098		

Sources: Primary Data, processed.

Table 4 indicates the small differences between GFI and AGFI values. This indicates that the model can no longer be modified. Based on *Table 4*, the relationship between variables in the model is significant. Learning-goal orientation and performance-goal orientation influence significantly positive on self-efficacy. Self-efficacy effects significantly negative on academic procrastination. Test anxiety effects significantly negative on self-efficacy. Test anxiety effects significantly positive on academic procrastination. Based on the results of testing the mediating model, this study can be stated that self-efficacy mediates the effect of independent variables (learning-goal orientation and performance-goal orientation) on the dependent variables (academic procrastination) (H10 is supported). Test anxiety also mediates the effect of learning-goal orientation, performance-goal orientation, and self-efficacy on academic procrastination (H11 is supported).

5. Discussion

The results support the hypothesis and strengthen previous findings that the learning-goal orientation and performance-goal orientation associated significantly positive with self-efficacy. This is due to its focus on improving the competence, the learning-goal orientation associated significantly positive with self-efficacy. As long as people have an attachment on the task, the positive feedback will cause individuals with strong learning-goal orientation experienced higher self-efficacy and develop more challenging targets. Individuals with strong learning-goal orientation will increase efforts to find strategies tasks and persevere tasks (Dweck & Leggett, 1988; VandeWalle, Cron, & Slocum, 2001; Lee, Sheldon, & Turban, 2003). Meanwhile, by focusing on outperform others and get the value of a good competence, performance-goal orientation also positively associated with self-efficacy. Previous studies also suggested that the performance-goal orientation positively associated with the task, the effort, persistence, intrinsic motivation in achieving performance (Elliot, 1999; Rawsthorne & Elliot, 1999; Midgley, Kaplan, & Middleton, 2001; Harackiewicz *et al.*, 2002). Previous studies also said that both the learning-goal orientation and performance-goal orientation positively associated with academic self-efficacy (Tao & Hong, 2000).

Results of this study reinforce the notion that college students often follow multiple goals in their class. One of the goals of this study was to show why students take certain classes due to the desire for developing their abilities, while the goal of other students is to expect for reaching a certain level to get high marks. Ames (1992), Dweck (1986) and Nicholls (1984) referring it as the achievement goals. Meece and Holt (1993) also found that students require high learning goals and high performance goals. The results also showed that there is no correlation between the learning-goal orientation and performance-goal orientation. This suggests that the two constructs are different. It also supports research of Dull *et al.* (2015) that found that the mastery-goal orientation specifically relates to the intrinsic motivation and performance-goal orientation specifically associated with extrinsic motivation. However, these goals affect self-efficacy, because self-efficacy is believed to be students' beliefs about their ability to achieve something and explain students' achievement motivation (Wigfield, 1994; Wigfield & Eccles, 2000).

Researchers used survey method was consistently found that mastery and performance goals are not significantly correlated. Therefore, it can be said that the students can learn because it is driven by several goals. Midgley *et al.* (2001) expressed the need for interaction and combination of mastery and performance goals to promote motivation and achievement. Mastery-

goal orientation is a self-reference and focuses on learning and skills development, while the performance-goals focused on demonstrating competence. Certainly, not all students positively motivated in the class. Mastery goals associated with adaptive learning behavior (task challenging, steeped in the material) and performance goals associated with maladaptive learning strategies (to avoid the challenge, seemed superior to others) (Ames & Archer, 1988; Ames, 1992). This study showed that the performance-goal orientation was associated significantly negative with test anxiety. This suggests that individuals who want to look more superior than others will experience anxiety for fear of failing an exam.

Furthermore, the results of this study found that the learning-goal orientation correlated significantly negative with academic procrastination, but performance-goal orientation is not related to academic procrastination. It supports research result of Dweck and Leggett (1988) which stated that the goals can affect feelings and behavior. Mastery-oriented students are more satisfied and more interested in learning and doing their job, while the more performance-oriented students often experience anxiety, boredom, and frustration. The desire for getting on the job will encourage students not to procrastinate to start the job and to do its job well. Otherwise, performance-oriented students will not necessarily procrastinate to start and complete the task, but they tend to feel anxious, bored, frustrated, and fear of failure.

The relationship between goals and achievement behavior shows the results are less consistent. The relationship between learning-goal orientation and achievement behavior is significantly positive (see e.g., Harackiewicz *et al.*, 2000; Pajares, Britner, & Valiante, 2000; McGregor & Elliot, 2002). The relationship between performance-goal orientation and other outcomes are less clear. Several studies prove the existence of the negative effects of performance-goal orientation on other outcomes (McGregor & Elliot, 2002; Niemivirta, 2002). While some other researchers found the positive effect of performance-goal orientation on other outcomes (Elliot & Harackiewicz, 1996; Middleton & Midgley, 1997; Harackiewicz *et al.*, 2000). In other words, the performance-oriented goals can have a positive effect on the business, accuracy, performance or achievements, but also may be associated with anxiety, stress, and surface processing.

Different from the results Ames and Archer (1988) and Ames (1992), the research results of Sideridis (2005) indicates that the performance-oriented goals are not maladaptive. The results of this study found that performance-goal orientation is not related with academic procrastination. The desire to be superior to others and maintain a high social status is an adaptive, both for motivation and achievement and not related to affect. This result indicated that the performance-goal orientation does not correlate

with academic procrastination. This study supports the results of previous studies that indicated inconsistencies relationship between performance-goal orientation and procrastination (see McGregor & Elliot, 2002; Wolters, 2003 and 2004; Howell & Watson, 2007; Cao, 2012; Seo, 2012). Furthermore, the results of this study indicate that the learning-goal orientation correlated significantly negative with academic procrastination. This confirms the research findings of McGregor and Elliot (2002), Scher and Osterman (2002), Wolters (2003 and 2004), Howell and Watson (2007), Howell and Buro (2009). Meanwhile, performance approach orientation did not correlate with academic procrastination, such as research of McGregor and Elliot (2002), Wolters (2004), Howell and Watson (2007).

The study indicated that self-efficacy correlated significantly negative with academic procrastination. This is consistent with the findings of Ferrari *et al.* (1992) that stated that there is an inverse relationship between self-efficacy and academic procrastination. Individuals who feel confident against his wishes will not procrastinate to start and finish the job. Meanwhile, individuals who are not confident in its ability (lower self-efficacy) will procrastinate to start or complete the task because they do not believe will be able to complete the job properly. Steel (2007) also stated that academic procrastination is caused by personal characteristics such as self-efficacy, self-esteem, and self-regulation. Self-efficacy is a variable that many associated with academic procrastination (Klassen, Krawchuk, & Ranjani, 2008).

The results of this study confirm previous research findings that lack of self-efficacy was significantly predict procrastination. High self-efficacy is a positive motivational beliefs associated with low levels of procrastination (Steel, 2007). Students are less confident about the success or their achievement more likely to avoid engagement in the task. The negative relationship between self-efficacy and procrastination can also provide further evidence to the view that individuals with low self-efficacy will be more susceptible to the fear of failure (Ferrari, Parker, & Ware, 1992; Van Eerde, 2003; Sirois, 2004; Steel, 2007). The results of this study indicate that the learning-goal orientation is correlated significantly negative with academic procrastination. This confirms the research findings of McGregor and Elliot (2002), Scher and Osterman (2002), Wolters (2003 and 2004), Howell and Watson (2007), Howell and Buro (2009). Meanwhile, performance-goal orientation did not correlate with academic procrastination, such as research result from McGregor and Elliot (2002), Wolters (2004), Howell and Watson (2007).

Results of this study found a significantly positive correlation between procrastination and test anxiety. This supports previous studies which stated that for undergraduate students, procrastination is associated with negative consequences such as test anxiety (Tice & Baumeister, 1997; Midgley &

Urdan, 2001; Wolters, 2003). Students who feel anxious and afraid to the exam will procrastinate for starting and finishing the job. They will make the procrastination as a strategy to overcome the anxiety. In addition, they also use the procrastination as a way to complete the task waiting for other students to see and follow. The study also supports previous research results (Phillips & Gully, 1997; VandeWalle, Cron, & Slocum, 2001; Steele-Johnson *et al.*, 2000) found that self-efficacy may mediate the effect of goal orientation on outcomes such as just academic procrastination.

6. Conclusion

This study provides evidence that multiple goals perspective should be considered in reaching students' performance in this case is higher self-efficacy. Self-efficacy is a concept that indeed affects academic procrastination, because students are confident in its ability certainly will not procrastinate. In addition, procrastination is affected by test anxiety. Anxiety and fear of failure will encourage students to delay in starting and completing tasks.

There are some weaknesses in this study. First, the respondents in this study are limited to undergraduate students. Future research will be more attractive when extending the respondents on the other students at the senior level high school and junior high school. Second, the data in this research is quantitative data with enclosed questionnaire. Research using a more open questions will be helpful and enrich the results of this research. Third, all the data was collected using self-report questionnaires that could have the caused biased responses. In addition, correlational study conducted by self-report bias will lead to a common method bias. Future research is expected to use other methodological instruments such as observations, interviews, or experiment. Ultimately, the data used in this study were collected within a period of time so that the correlational relationship involving mediating variable can not be tested properly. Longitudinal studies are needed in future research to better explain the relationship.

Senecal *et al.* (1995) states that the timely completion of the task depends not only on personal characteristics such as self-efficacy or fear of failure, but also on external or situational factors. Therefore, future research be expected can test the effect of external factors such as teachers, friends, school rules, parents, and various other means of learning. In addition, future research may be done by testing the influence of culture and task characteristics.

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Riassunto

La procrastinazione è un fenomeno che ha un doppio connotato, positivo e negativo e può verificarsi in tutti gli individui, non ultimi gli studenti. Perché le persone procrastinano il completamento di un lavoro? Ci sono molti fattori che inducono le persone a procrastinare lo svolgimento dei loro compiti, sia fattori esterni o situazionali sia fattori interni o personali. Lo scopo di questo studio è stato quello di esaminare il ruolo dei fattori di personalità nella procrastinazione. Trecentosessantacinque studenti universitari hanno completato questionari centrati sul tipo di motivazione all'apprendimento, sul livello di ansia, sul livello di procrastinazione mostrato nello svolgere attività e sulla auto-efficacia percepita nello svolgere compiti e test. I risultati di questo studio hanno indicato che la procrastinazione è negativamente correlata all'orientamento all'obiettivo di apprendimento e all'auto-efficacia ed è invece positivamente correlata all'ansia del test. I risultati dei modelli di equazioni strutturali hanno indicato che l'autoefficacia ha mediato le relazioni tra l'orientamento all'obiettivo e la procrastinazione e tra l'ansia da test e la procrastinazione. Tutto ciò ha evidenziato l'importanza del tipo di motivazione dell'orientamento

all'obiettivo. L'auto-efficacia si è rivelata correlata in modo significativamente negativo rispetto alla procrastinazione accademica, mentre l'ansia del test è risultata correlare in modo significativamente positivo con la stessa.

Parole chiave: Ansia da test; Auto-efficacia; Orientamento alla performance; Orientamento all'apprendimento; Procrastinazione accademica.

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