The Influence of Cognitive Distortion on Academic Procrastination: A Case Study in Vietnam

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ABSTRACT

The study aims to explore the influence of cognitive distortion on academic procrastination of Vietnamese students based on 300 samples from 4 universities in the Hanoi capital area. The data were analyzed using SPSS software version 25.0 through descriptive statistics steps, assessing the reliability of the scale, exploratory factor analysis - EFA, correlation analysis and multiple regression. The results show that cognitive distortions are factors affecting academic procrastination of students. From the research results, the authors have made several recommendations for students, schools, families and society to minimize students' academic procrastination.

Keywords: Cognitive distortion, academic procrastination, student.

1. INTRODUCTION

In life, the thoughts of "to be tomorrow", "to do tomorrow" appear in our mind many times, making us hesitate when paying bills, making appointments or when we need to complete some work. As many as 20% of the general population tend to delay in their habits (Ferrari, Doroszko & Joseph, 2015) and when academically, it is up to 70% (Schouwenburg, 2004). The numbers related to delay are even more alarming for students. Research on delay in learning among students (University of Vermont, 1984) found that 46% of subjects said they "often" or "always" delayed completing assignments, while about 30% said they delayed studying for the exams.

Procrastination often harms students' academic performance and quality of life (Steel and Klingsieck, 2016). Tices and Baumeister (1997) evaluated college students against the measure of procrastination, then tracked their academic performance, stress, and overall well-being throughout their semester. The results show that it is procrastination that causes people to be only stress, prolonged fatigue, reduced productivity and even physical and mental health. It can be seen that the alarming situation as well as the immeasurable consequences that academic procrastination affects students, especially in the context of an increasingly modern environment with many temptations beyond studying such as the internet, social networks, etc. Therefore, it requires us to study more deeply this issue, especially the factors that affect academic procrastination of students. In addition to fear of failure and dislike of work (Solomon and Rothblum, 1984), there are cognitive distortions such as assuming that there is too much time to complete the task; think that you will have a strong motivation to do more in the future may lead to academic procrastination of students. Besides, Nordby, Klingsieck and Svartdal (2017) suggest that factors related to peer influence need more attention in finding ways to minimize and prevent academic procrastination of students because friends are the people closest to them in the learning process. Because of that, the research team decided to implement the topic "The influence of cognitive

distortions on academic procrastination" to find out the impact of cognitive distortions to the academic procrastination of students, thereby proposing the most suitable recommended solutions to overcome this situation.

2. LITERATURE REVIEW

Cognitive distortions

Cognitive distortions are defined as incorrect thoughts and beliefs (Barriga & Gibbs, 1996). Blumenthal, Gudjonsson and Burns (1999) conclude that cognitive distortions are the attitudes and beliefs that misconduct people use to deny, minimize, and rationalize their behavior. According to Barriga and Gibbs (1996), Barriga et al. (2000), there are two types of cognitive distortions identified: self-serving cognitive distortions and self-debasing cognitive distortions, in which:

Self-serving cognitive distortions are the result of an individual's perception of self-serving based on thinking blaming other individuals and external environmental factors, through which to avoid harming their self-image and to help the person maintain their involvement in wrongdoing. Gibbs (2014) differentiates this bias at both primary and secondary levels and points to a tendency for an individual to maintain self-esteem misleading without the slightest guilt caused by thought blaming external factors that are not the subject itself.

Self-debasing cognitive distortions are the result of an individual's perception of lowering his or her role, treating the result of action as self-inflicted. Subjects in this cognitive distortion always look at things from negative perspectives, considering them difficult to improve, thus helping to maintain their misconduct with guilt and anxiety. Europe. With this type of cognitive bias, Leung and Poon (1998) have shown that it includes: the feeling of the worst outcomes leads to fear in self-behavior, generalization. excessive (i.e. believing that a single negative outcome represents or will occur in all similar future events), personalization (i.e. assigning control over the outcome of negative events) for internal causes stemming from oneself), and selective abstraction (that is, focusing only on the negative aspects of a thing).

Academic procrastination

Simpson and Pychyl (2009) have defined academic procrastination as a tendency to postpone planned learning tasks, although this can lead to negative long-term consequences term. Rothblum, Solomon and Murakami (1986) argue that academic procrastination is the tendency to postpone learning tasks to the point of worrying about it with symptoms like do homework, prepare for the exam or write the assignment at the last minute. Ackerman and Gross (2005) pointed out that academic procrastination is the fact that learners must have the knowledge to complete one or more tasks or perform any learning activity, such as solving homework in study semesters, exam preparation, class completion or finishing of reading, but lacks motivations to do it within a specified amount of time.

The impact of cognitive distortions on the academic procrastination of students

From a study of the factors that predict academic procrastination of students, Saddler and Buley (1999) show that those who are prone to academic procrastination are often had cognitive distortions as often concerned and frightened by others' negative judgments, tendency to believe that one's learning outcomes are influenced by external factors rather than one's efforts. They believe that they are always judged by high standards from others and are pressured to be perfect or feel inferior in their abilities. Of the many factors that influence academic procrastination, cognitive distortions can be considered the main factor influencing this behavior.

The impacts of self-serving cognitive distortions on academic procrastination of students

Baumeister and Scher (1988) affirm individuals by maintaining an illusion of their ability to fulfill their tasks, making them more likely to delay work, the same goes for procrastination. Research and theory outlined by Shepperd, Malone and Sweeney (2008) also show that perceptions tend to be pushy to protect one's ego from perceived as ineffective and induced. Serious threat to performance improvement in study and work, leading to them being more inclined to delay more in the future. On the other hand, these procrastinators delay their work to boost their self-esteem by avoiding failure.

The impacts of self-debasing cognitive distortions on academic procrastination of students

Besides, frequent procrastination can be a way of life stemming from low self-esteem or underperformance-bias (McCown, Johnson & Petzel, 1989). If a learner believes that the causes of perceived failure are stable

and uncontrollable, then this attributive model creates the fear of failure that causes more people to fail (Weiner, 1985) and possibly facilitates future procrastination. According to Ağirakça-dinç and Halil (2019), a person who tends to be self-debasing often has low confidence in their abilities. As a result, their ability to set and implement goals decreases as well as their effectiveness. Thus, it turns into a cycle of compulsion (Caraway, Tucker, Reinke & Hall, 2003). People in this cycle think that they do not have the skills to cope with the situation they are facing, which leads to cognitive distortions that they will fail and resulting in their delay in the mission. Students who consider themselves incompetent and fearful of failure may delay behavior (Waschle, Allgaier, Lachner, Fink and Nuckle, 2014).

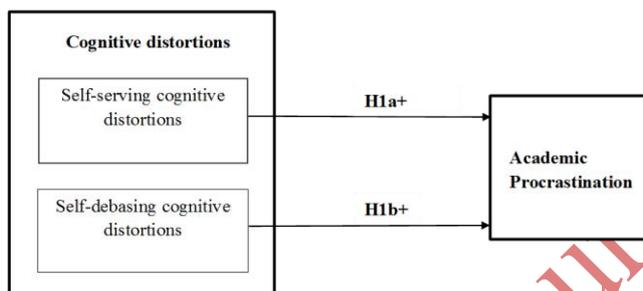**Proposed research model**

Figure 1. The proposed model

Hypothesis 1a (H1a): The self-serving cognitive distortions positively affect academic procrastination.

Hypothesis 1b (H1b): The self-debasing cognitive distortions positively affect academic procrastination.

3. METHODOLOGY

Measurement

The study used a 5-point Likert scale from point 1 - "Totally disagree" to point 5 - "Strongly agree" for both the dependent variable and the independent variable. To measure the variable "Self-serving cognitive distortions", the scale-adjusted applied study of Barriga, Hawkins, and Camelia (2008). To measure the variable "Self-debasing cognitive distortions", applied research with scale adjustment of Beck (1979). To measure the variable "Academic procrastination" scale-adjusted applied research by Tuckman (1991).

Sample

The study surveyed 300 students in Vietnam. Respondents were examined based on their gender characteristics, school year, club attendance and part-time work to find out differences in the impact of cognitive distortions on academic procrastination of these objects.

Regarding the structure by gender: with a sample of 300 observations, the surveyed object is female, accounting for 209 students, corresponding to 69.7% and male is 91 students, accounting for 30.3%.

Regarding the structure by school year: according to research results, the number of second-year students is the largest (171 students, accounting for 57%). The number of first-year students accounted for 13.3% (40 people), the number of third-year students accounted for 19.3% (58 people) and the rest was the number of other-year students (five years or more) was 10 people (accounting for 3.4%).

Regarding the structure of the club participation: the survey participants had 168 students (56%) who said they were participating in the club and the number of students who did not join the club was 132 students (accounting for 44%).

Regarding the part-time work structure: according to the survey results, the number of students working part-time is 142 students (accounting for 47.33%) and the rest of students who do not work part-time is 158 people (accounting for 52.67%).

Thus, the research team sample has ensured the diversity and abundance of students of different sexes, different school years, and among students working part-time and joining clubs. This makes the research objective and representative.

Analysis

Data were analyzed using SPSS software version 20.0 with the following steps: Evaluate the reliability of the scale through Cronbach's Alpha coefficients, Verify the value of the scale by exploratory factor analysis method- EFA, Analysis of correlation and multiple regression. The results of Levene's Test of Equality of Error Variances table show that the variance of the error of the dependent variables does not change at the statistical significance of 5%. The Multivariate Tests table is the answer to a research question about the differences in dependent variables among groups of control variables. To determine if there was this difference, the team looked at the Sig value. of Wilks's

Lambda test with a 5% significance level.

4. DATA ANALYSIS

Scale reliability analysis

Self-debasing cognitive distortion: The reliability of the scale is $\alpha = 0.760 > 0.7$. All corrected total – item correlations are greater than 0.3. It is concluded that the scale is reliable.

Self-serving cognitive distortion: The reliability of the scale is $\alpha = 0.624 > 0.7$. All corrected total – item correlations are greater than 0.3. It is concluded that the scale is reliable.

Academic procrastination: The reliability of the scale is $\alpha = 0.890 > 0.7$. All corrected total – item correlations are greater than 0.3. It is concluded that the scale is reliable.

Exploratory Factor Analysis

Bartlett's Test of Sphericity and Kaiser-Meyer-Olkin were utilized in determining the convenience of the data. The results showed that Exploratory Factor Analysis can be conducted for both independent variables and dependent variable. Principle components analysis and Varimax rotation were performed. All factor loadings are greater than 0.5. None of the items were eliminated. The scale remained the same and can be used for the next sessions.

Independent variables: Self-debasing cognitive distortion, Self-serving cognitive distortion.

Dependent variables: Academic procrastination.

Table 1. Exploratory Factor Analysis

	KMO	P- value	% of variance
Independent variables	0.829	0.000	53.547
Dependent variable	0.901	0.000	53.374

Pearson correlation analysis

From the results of the reliability analysis and the Exploratory Factor Analysis as above, it is concluded that the research model has 2 independent variables and 1 dependent variable.

SS: Self-serving cognitive distortion (SS1, SS2, SS3, SS4)

SD: Self-debasing cognitive distortion (SD1, SD2, SD3, SD4)

AP: Academic procrastination (AP1, AP2, AP3, AP4, AP5, AP6, AP7, AP8, AP9)

Pearson correlation analysis was conducted to evaluate the correlation between the variables in the model. The results show that all correlation coefficients r > 0. All correlations were found to be significant.

There are linear relationships between independent variables (SS, SD) and dependent variable (AP) (sig < 0.05). The correlation coefficients between SS and SD, SS and AP, SD and AP are respectively 0.514, 0.386, 0.312.

Regression analysis and hypothesis testing

Sample regression equation

$$AP = 1.692 + 0.359*SS + 0.154*SD$$

$R^2 = 0.167$, that means independent variables explain 16.7% the variance of the dependent variable. 2 tailed p-value of Self-serving and Self-debasing are 0.000 and 0.001 respectively (<0.05). That proves Self-serving and Self-debasing can explain the variance of academic procrastination in population.

β coefficients of Self-serving and Self-debasing are 0.359 and 0.154 respectively, which can be inferred both variables positively affect academic procrastination.

Thus, H1 and H2 are supported.

5. CONCLUSION AND RECOMMENDATION

From the research results, the authors gave several recommendations for students, schools, families and society, specifically: (1) For students: First, students need to know how to divide small work, study plan, prioritize what to do first, to do next to not be afraid of too large workload leading to delay. Second, students should learn to forgive themselves when the results are not as expected, not to blame themselves too much, but learn from the mistakes they make to avoid making them in the future. Students who forgive themselves after procrastination lead to poor results are less likely to procrastinate at subsequent times (Pychy, 2015). Third, students should actively study in groups with their friends at the library or cafe, to create a more

competitive environment, a learning space that you can hardly postpone when your friends around are eager to do homework. Fourth, students should not be comfortable with themselves when they have not finished their assignments, avoiding the illusion that they have a lot of time or that the assignment is easy to take only a little time to complete and leads to delay. (2) For schools, families and society: First, the school needs to organize classes and seminars on teaching time management skills to study more effectively, avoiding the stress of the schedule study and exam schedule is dense. Second, teachers need clear instructions and examples, making sure that all students understand the requirements of the assignment and the direction to do it, thus reducing the likelihood of students dropping out of assigned assignments for not understanding the request or not knowing where to start. Third, teachers should provide feedback that is contributory and avoid giving highly critical or negative feedback that causes students anxiety or low self-esteem, leading to a decrease in motivation to start work.

6. REFERENCES

[1]. Ackerman, D. S., & Gross, B. L. (2005). My instructor made me do it: Task characteristics of procrastination. Journal of Marketing education, 27(1), 5-13.

[2]. Ağirakça-dinç, S., & Halil, E. K. Ş. İ. (2019). A psychological counseling study on fear of failure and academic procrastination with a spiritually oriented cognitive behavioral group. Spiritual Psychology and Counseling, 4(3), 219-235.

[3]. Barriga, A. Q., & Gibbs, J. C. (1996). Measuring cognitive distortion in antisocial youth: Development and preliminary validation of the "How I Think" questionnaire. Aggressive Behavior: Official Journal of the International Society for Research on Aggression, 22(5), 333-343.

[4]. Barriga, A. Q., Landau, J. R., Stinson, B. L., Liau, A. K., & Gibbs, J. C. (2000). Cognitive distortion and problem behaviors in adolescents. Criminal justice and behavior, 27(1), 36-56.

[5]. Barriga, A. Q., Hawkins, M. A., & Camelia, C. R. (2008). Specificity of cognitive distortions to antisocial behaviours. Criminal Behaviour and Mental Health, 18(2), 104-116.

[6]. Baumeister, R. F., & Scher, S. J. (1988). Self-defeating behavior patterns among normal individuals: review and analysis of common self-destructive tendencies. Psychological bulletin, 104(1), 3.

[7]. Beck, A. T. (1979). Cognitive therapy and the emotional disorders. Penguin.

[8]. Blumenthal, S., Gudjonsson, G., & Burns, J. (1999). Cognitive distortions and blame attribution in sex offenders against adults and children. Child abuse & neglect, 23(2), 129-143.

[9]. Caraway, K., Tucker, C. M., Reinke, W. M., & Hall, C. (2003). Self-efficacy, goal orientation, and fear of failure as predictors of school engagement in high school students. Psychology in the Schools, 40(4), 417-427.

[10]. Ferrari, J. R., Doroszko, E., & Joseph, N. (2005). Exploring procrastination in corporate settings: Sex, status, and settings for arousal and avoidance types. Individual Differences Research, 3(2), 140-149.

[11]. Leung, P. W., & Wong, M. M. (1998). Can cognitive distortions differentiate between internalising and externalising problems?. Journal of Child Psychology and Psychiatry, 39(2), 263-269.

[12]. McCown, W., Johnson, J., & Petzel, T. (1989). Procrastination, a principal components analysis. Personality and Individual Differences, 10(2), 197-202.

[13]. Nordby, K., Klingsieck, K. B., & Svartdal, F. (2017). Do procrastination-friendly environments make students delay unnecessarily?. Social Psychology of Education, 20(3), 491-512.

[14]. Rothblum, E. D., Solomon, L. J., & Murakami, J. (1986). Affective, cognitive, and behavioral differences between high and low procrastinators. Journal of counseling psychology, 33(4), 387.

[15]. Saddler, C. D., & Buley, J. (1999). Predictors of academic procrastination in college students. Psychological Reports, 84(2), 686-688.

[16]. Schouwenburg, H. C. (2004). Procrastination in Academic Settings: General Introduction.

[17]. Simpson, W. K., & Pychyl, T. A. (2009). In search of the arousal procrastinator: Investigating the relation between procrastination, arousal-based personality traits and beliefs about procrastination motivations. Personality and Individual Differences, 47(8), 906-911.

[18]. Shepperd, J., Malone, W., & Sweeny, K. (2008). Exploring causes of the self-serving bias. Social and Personality Psychology Compass, 2(2), 895-908.

[19]. Solomon, L. J., & Rothblum, E. D. (1984). Academic procrastination: Frequency and cognitive-behavioral correlates. Journal of counseling psychology, 31(4), 503.

[20]. Steel, P., & Klingsieck, K. B. (2016). Academic procrastination: Psychological antecedents revisited. Australian Psychologist, 51(1), 36-46.

[21]. Tice, D. M., & Baumeister, R. F. (1997). Longitudinal study of procrastination, performance, stress, and health: The costs and benefits of dawdling. Psychological science, 8(6), 454-458.

[22]. Tuckman, B. W. (1991). The development and concurrent validity of the procrastination scale. Educational and psychological measurement, 51(2), 473-480.

[23]. Wäschle, K., Allgaier, A., Lachner, A., Fink, S., & Nückles, M. (2014). Procrastination and self-efficacy: Tracing vicious and virtuous circles in self-regulated learning. Learning and instruction, 29, 103-114.

[24]. Weiner, B. (1985). An attributional theory of achievement motivation and emotion. Psychological review, 92(4), 548.

[25]. I.S. Jacobs and C.P. Bean, "Fine particles,

thin films and exchange anisotropy," in Magnetism, vol. III, G.T. Rado and H. Suhl, Eds. New York: Academic, 1963, pp. 271-350.

[26]. K. Elissa, "Title of paper if known," unpublished.

[27]. R. Nicole, "Title of paper with only first word capitalized," J. Name Stand. Abbrev., in press

[28]. Y. Yorozu, M. Hirano, K. Oka, and Y. Tagawa, "Electron spectroscopy studies on magneto-optical media and plastic substrate interface," IEEE Transl. J. Magn. Japan, vol. 2, pp. 740-741, August 1987 [Digests 9th Annual Conf. Magnetics Japan, p. 301, 1982].

[29]. M. Young, The Technical Writer's Handbook. Mill Valley, CA: University Science, 1989.