Construct Measurement Of Academic Procrastination Of Eleventh Grade High School Students In Sukoharjo

Budi Lenggono, Fatwa Tentama

Abstract: This research aims to analyze the construct validity and construct reliability of academic procrastination, as well as to analyze the dimensions and indicators forming academic procrastination construct. Academic procrastination is measured with two dimensions, namely the prevalence of procrastination and reason for procrastination. The subjects of this research were 60 11th grade high school students in Sukoharjo. The research applied the academic procrastination scale as data collection method. The data were analyzed with Structural Equation Modeling (SEM) SmartPLS 3.2.8 using reflective construct by CFA 2nd Order. Based on the analysis, the dimensions and the indicators forming academic procrastination construct are valid and reliable. The dimension dominantly reflecting the academic procrastination construct is the reason for procrastination with 0.816 loading factor. The dimension least reflecting the academic procrastination construct is the prevalence of procrastination with 0.776 loading factor. The results show that every dimension and indicator can reflect and form the academic procrastination construct. Therefore, the measurement model can be accepted for the theory illustrating academic procrastination is in accordance with the empirical data obtained from the subjects.

Keyword: Academic Procrastination, Construct Reliability, Construk Validity, Measurement Model, Procrastination Prevalence, Reason For Procrastination, Student

————————————————   ◆   ————————————————

1. INTRODUCTION
School as an institution has a big role in the field of education. Since school curriculum based on the standard established by the government includes some complex contents, a number of schools adjust their curriculum to meet the local wisdom and characteristics of the school. Consequently, students experience dynamic in their personality as a response to their school activities. The problems faced by the students thus may be quite complex, especially the ones dealing with their demanding academic tasks. In consequence, some students choose to procrastinate the completion of their school assignments. Bandura [1] states that when someone procrastinates his or her task, the thoughts about the task keep bothering their minds and reduce the pleasure of the activities they are doing. Besides, the procrastination creates detrimental academic performance, including low academic score [2],[3], low life satisfaction [4], low self-compassion and academic stress [5],[6], low self-organization [7], and active procrastination closely related to extraversion and neuroticism [8]. Sranth [9] asserts that procrastination done by students is actually an irrational method to cope with the failure of achieving a particular accomplishment. On the other hand, Habelrih and Hicks [10] argues that procrastination may be the sign of a good psychological well-being.

Procrastination phenomenon among students, according to various psychological researches, portrays academic procrastination as both a challenge and a threat for schools, parents, and students. The phenomenon indicates the need to reconsider the standard curriculum for the sake of public education. Although academic procrastination give more disadvantages, there are still some benefits obtained by the procrastinators. Thus, deep study regarding academic procrastination must still be carried out to figure out the solution for the problems in real life.

High School X in Sukoharjo is a school established by

_____

- *Budi Lenggono, Master in Psychology, Ahmad Dahlan University, Yogyakarta, PH-. E-mail: budile_bio@yahoo.com*
- *Fatwa Tentama, Master in Psychology, Ahmad Dahlan University, Yogyakarta. PH-081904100008. E-mail: fatwa.tentama@psy.uad.ac.id*

community. The school implements the government curriculum with an addition of local wisdom based on Islamic education. The application of the curriculum combined with local subjects affects the students' behaviors, including academic procrastination. Students are mostly occupied by various academic activities, as the school starts at 7 AM and ends at 3:30 PM every Monday to Friday. On Saturdays, the students participate in extracurricular activities from 7 to 11:30 AM. Regarding the academic activities, the students take courses based on the government's standard, with an addition of local subjects, such as memorizing the Quran and several courses for Islamic education. Academic tasks as well as the desire to express their talents and interests cause pressure for the students. As a result, some of the students procrastinate their academic tasks, which may result in low achievement rate among them. This phenomenon cannot be ignored, especially by the school, so that the school can design a "friendlier" curriculum according to the students' time and ability. Bandura [1] highlights that individuals who have determined their self-esteem achievement mobilize their effort to finish what they have to do without procrastinating so that they can avoid disturbing feelings. Prominent figures pioneering the introduction of procrastination measurement in academic field are Solomon and Rothblum who named their measuring instrument Procrastination Assessment Scale—Students (PASS) [11]. Later on, Tuckman developed Tuckman Procrastination Scale (TPS) containing 35 items offour-point Likert scale [12]. Ellis and Knaus [13] explain that procrastination is an irrational and aimless behavior, emphasizing on the primary role of irrational cognition. Solomon and Rothblum [11] add that procrastination does not only deal with difficulty in managing study time or time management, but also involves the complex interaction between the component of behavior, cognition, and affection. Fiore [14] observes procrastination as a mechanism to cope with anxiety related to starting or completing a task or any kinds of decision-making. On the other hand, Ferrari, et al., [15] define academic procrastination as a tendency to always or almost always procrastinate the execution of a task, which always or almost always causes disturbing anxiety regarding

the task. Knaus [16] argues that procrastination is a habitual problem in which the procrastinator automatically postpones an important activity until the deadline. In addition, Burka and Yuen [17] states that procrastination is an emotional behavior involving feelings, fears, hopes, memories, dreams, hesitation, and emotional pressure, which the procrastinator denies because they procrastinate to avoid uncomfortable emotions. Procrastination has two characteristics, (1) it can be in the form of procrastinating an urgent and important task for an easier task, which is faster to complete and causes less anxiety, and (2) waiting for the perfect time to act in order to get better results and less risk than if the task is done in normal pace with set time [18]. Many researches focus on the phenomenon of procrastination. According to Solomon and Rothblum [11], procrastination is a general behavior, with 70% prevalence level as the highest among students. Frequency of procrastination occurs 46% in writing task, 30.1% in reading, 27.6% in studying for exam, 23% in attending classes, 10.6% in administrative task, and 10.2% in an entire academic performance. Balkis and Duru [19] states that 23% of university students procrastinate academically. Generally, the students procrastinating in their academic tasks have reasons such as disliking the assignment, fearing failure, addiction, decision making factor, and risk-taking factor [20]. Procrastination done by students correlate with perfectionism [21], [22], [23], and correlate negatively with assignment and exam score in online (remote) courses [24], [25]. However, Jones and Blankenship [26] report that academic procrastination still correlates with academic performance. Another research shows that reward given for the fast completion of a task causes optimism but aggravates performance efficiency [27], which may result in procrastination. Even so, students' motivation can increase with the use of technology in class activities, and may reduce the academic procrastination [28]. Meanwhile, Mandap [29] opines that there are behavioral differences regarding procrastination in terms of students' gender and self-efficiency. Solomon and Rothblum [11] develop Procrastination Assessment Scale—Student (PASS), which consists of two dimensions. The first dimension assess the prevalence of procrastination in six academic function fields, which are: (1) writing a term paper, (2) studying for an exam, (3) keeping up with weekly reading assignments, (4) performing administrative tasks, (5) attending meetings, and (6) performing academic tasks in general. The second dimension of PASS is to give a scenario of procrastination with various possible reasons, such as: (1) evaluation anxiety, (2) perfectionism, (3) difficulty making decisions, (4) dependency and help seeking, (5) aversiveness of the task and low frustration tolerance, (6) lack of self-confidence, (7) laziness, (8) lack of assertion, (9) fear of success, (10) tendency to feel overwhelmed and poorly manage time, (11) rebellion against control, (12) risk-taking, and (13) peer influence. Yockey and Kralowec [30] did a confirmatory factor analysis on PASS and recommended further development in future researches. In general, PASS represents a good two-dimensional measuring instrument for academic procrastination [30]. The dimensions used in this variable refers to Solomon and Rothblum's research [11], which are the prevalence of and reason for academic procrastination.

The conceptual diagram based on the two dimensions can be seen in figure 1.
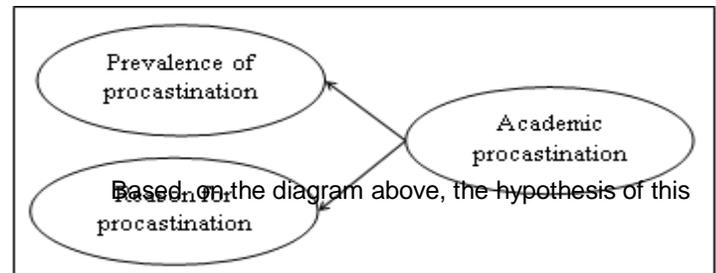
Figure. 1. Conceptual Diagram of Confirmatory Factor Analysis of Academic Procrastination Variables

research was that prevalence of procrastination and reason for procrastination form the academic procrastination construct. One of the approaches that can be used to test a construct measurement is Confirmatory Factor Analysis (CFA). CFA can be used to test the dimensionality of a construct, such as academic procrastination [30] and active procrastination [31]. The test is used for model measurement in order to illustrate the dimensions and indicators of the behaviors in reflecting latent variable (academic procrastination) by observing the loading factor of each dimension building the construct. CFA is also used to test the validity and reliability of the items forming the latent construct [32]. The CFA used in this research was the second order confirmatory factor analysis (2ndOrder CFA), which is a measurement model consisting of two levels. On the first level, the analysis is done from the latent construct of the dimensions to the indicators, and on the second level, the analysis is done from the latent construct to the dimension construct [32]. Based on the elaboration above, it can be concluded that academic procrastination is a behavior which may cause disadvantages for students, thus its significance to study. In Indonesia, research articles and journals focusing on the construction of academic procrastination are still uncommon to find and potential to develop. Therefore, developing the academic procrastination measuring instrument in Bahasa Indonesian referring to the Procrastination Assessment Scale—Students (PASS) developed by Solomon and Rothblum [11] may contribute greatly in education field, especially in Indonesia. The problem statements proposed for this research are: (1) is the academic procrastination construct valid and reliable? And (2) are the prevalence of procrastination dimension and reasons for procrastination dimension able to form the academic procrastination construct? The purposes of the research are to (1) test the validity and reliability of academic procrastination construct and (2) analyze the dimensions and indicators possibly forming the academic procrastination construct. The research results were expected to fulfill the requirements of an academic procrastination measurement instrument, which are validity, reliability, discriminative, practical, and applicative [33]

2 RESEARCH METHODOLOGY

2.1 Population, Sampling and Sampling Technique
The population of this research is 156 11th grade students of High School X in Sukoharjo. The sample used in this research is 60 students or 38% of the population. Cluster random sampling is used as the sampling technique.

2.2 Instrument

This research used academic procrastination scale in the form of semantic differential scale as its instrument. Introduced by Osgood and associates, differential semantic scale is used to measure behaviors in 3 dimensions, which are evaluation, potential, and activity [34]. The forming of the scale is based on the dimensions adopted from PASS scale by Solomon and Rothblum [11], which are prevalence of procrastination and reason for procrastination. The examples of items used for the academic procrastination scale in this research can be seen below.

Example of items for prevalence of procrastination dimension:

In writing a term paper or similar task, I:

Immediately do it					Procrastinate

In keeping up with weekly reading assignments, I:

Rarely do it						Schedule it

Examples of items for prevalence of procrastination dimension:

For an upcoming test/class presentation, I feel:

Confident					Anxious

The time management I have been doing is:

Bad					Good

The blueprint acting as a reference for constructing the items can be seen in Table 1.

TABLE 1
BLUE PRINT OF ACADEMI PROCRASTINATION SCALE

Dimension	Indicators	Item No. Favo	Unfavo	F
	1. Procastinating in writting a term paper	1	2	2
	2. Procrastinating in studying for an exam	3	4	2
	3. Procrastinating in keeping up with weekly reading assignments	5	6	2
	4. Procrastinating in performing administrative tasks	7	8	2
Prevalence of procastination (in academic function)	5. Procrastinating in attending meetings	9	10	2
	6. Procrastinating in performing academic task in general	11, 12	13	3
	1. Evaluation anxiety	14		1
	2. Perfectionism		15	1
	3. Difficulty making decisions	16		1
Reason for procrastination	4. Dependency and help seeking		17	1
	5. Aversiveness of the task and low frustration tolerance	18		1
	1. Lack of self-confidence		19	1
	2. Laziness	20		1
	3. Lack of assertion		21	1
	4. Fear of success	22		1
	5. Tendency to feel overwhelmed and poorly manage time		23	1
	6. Rebellion against control	24		1
	7. Risk-taking		25	1
	8. Peer influence	26		1
Frequency		14	12	26

2.3. VALIDITY AND RELIABILITY

The quantitative analysis of the data collected to assess the conceptual model was done using the structural equation modelling approach [35]. This research tested the validity and reliability usingthe outer model test in the statistic program application Smart-PLS version 3.2.8 [36] with reflective construct. The construct validity test is confirmatory, which tests whether or not the results obtained by a measuring instrument is in accordance to the theory used to define a construct. The research used convergence validity for the validity test, by observing the > 0.5 loading factor score and > 0.5 average variance extracted (AVE) score. In the discriminant validity test, square root of AVE of a construct is compared to the correlation between dimensions, in which the root of AVE must be higher. The reliability test is taken as the next step to observe the internal consistency of the measuring instrument by analyzing the composite reliability score and cronbach's alpha according to Cooper, which has to show > 0.7 score [37].

3 RESULT

The outer model test resulted in the following output:
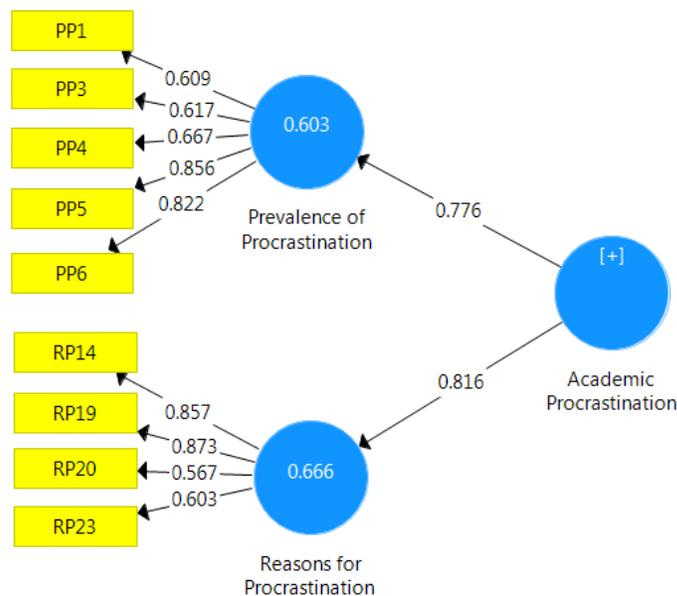
Fig. 2. *Output of outer model test for academic procastination construction*

The convergence validity test shows that the loading factor score from variables to dimension fulfills the requirement of > 0.5. Table 2 below shows the detailed results of the

convergence validity test.

Dimension	Loading factor	Notes
Prevalence of Procrastination	0.776	Valid
Reason for procrastination	0.816	Valid
Prevalence of Procrastination	0.776	Valid

Meanwhile, the convergence validity test results show that the loading factor from the dimensionsto indicators fulfills the required > 0.5 score. The details of the test results can be seen below.

TABLE 3
LOADING FACTOR SCORE (DIMENSION-INDICATORS)

Item	Loading Factor	Information
PP1	0.609	Valid
PP3	0.617	Valid
PP4	0.667	Valid
PP5	0.856	Valid
PP6	0.822	Valid
AP14	0.857	Valid
AP19	0.873	Valid
AP20	0.567	Valid
AP23	0.603	Valid

Next, the convergence validity test shows that the average variance extracted (AVE) score on the procrastination construct is 0.534, which fulfills the required > 0.5 score. The following table shows the details of the convergence validity test results.

TABLE 4
AVERAGE VARIANCE EXTRANCE (AVE) SCORE

Dimension	Average variance extracted (AVE) score	Notes
Prevalence of Procrastination	0.521	Valid
Reason for procastination	0.546	Valid

Discriminant validity test showing the root of AVE compared to the inter-dimensional has met the requirements, by which the root score of inter-dimensional AVE is higher than the root score of AVE in each dimension. The details of the discriminant validity test results can be seen in the Table 5 below.

TABLE 5
ROOT SCORE AVERAGE VARIANCE EXTRACTED (AVE) OF PROCRASTINATION CONSTRUCTION

Dimension	Prevalence of Procrastination	Reason for Procrastination
Prevalence of Procrastination	0.722	0.437
Reason for procastination	0.437	0.739

The reliability test shows that the score has fulfilled the requirement by which the composite reliability score and cronbach's alpha is > 0.7. The details of the reliability test result is shown in the Table 6 below.

TABLE 6
COMPOSITE RELIABILITY ANDCRONBACH'S ALPHA SCORE OFPROCRASTINATION CONSTRUCT

Variable	Composite Reliability	Cronbach's Alpha	Notes
Procrastination	0.820	0.707	Reliable

According to the research data on the variable dimensions of academic procrastination construct obtained with Confirmatory Factor Analysis 2nd Order, it can be seen that the model is acceptable because every dimension reflects the formed construct. In addition, the validity and reliability test for the construct result in the valid and reliable items which are able to reflect academic procrastination, such as item number 1, 3, 4, 5, 6, 14, 19, 20, and 23. Meanwhile, the items which are unable to reflect the academic procrastination are items number 2, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 21, 22, 24, 25, and 26.

4 DISCUSSION

The construct validity and reliability analysis show that the two dimensions and the indicators forming academic procrastination are valid and reliable. Therefore, the dimensions and indicators are able to portray students' academic procrastination. The research of Yockey and Kralowec [30] also shows that Procrastination Assessment Scale—Students (PASS) generally represents a good instrument to measure two-dimensional academic procrastination. In contrast to the research, Bashir and Gupta [38] who developed an academic procrastination scale analyzed with exploratory factor analysis report that there are four dimensions that can construct academic procrastination. Although the current research supports the structural validity of PASS using CFA, evaluation of the effectiveness of PASS on the other procrastination measuring instrument is still needed [30]. Academic procrastination scale in this research consists of two dimensions. The most dominant dimension is the reason for procrastination dimension, which loading factor reaches 0.816. Reason for procrastination is measured by indicators such as: (1) evaluation anxiety, (2) lack of self-confidence, (3) laziness, and (4) tendency to feel overwhelmed and poorly manage time. Meanwhile, the less dominant dimension is the prevalence of procrastination, which loading factor is 0.776. The indicators of the prevalence of procrastination include: (1) procrastinating in writing term paper or similar task, (2) procrastinating in studying for an exam, and (3) procrastinating in keeping up weekly reading assignments. This is in contrast with the research of Bashir and Gupta [38], which verifies that academic procrastination is formed by four dimensions, namely time management, aversiveness of the task, sincerity, and personal initiation. Even so, the academic procrastination scale with the four dimensions is also acceptable to use as a measuring

457

instrument.

5 CONCLUSION

Based on the study, several conclusions can be drawn as follows. 1) The forming of students' academic procrastination construct can be used with partial least square (PLS) method by evaluating a similar structural academic procrastination model and analyzing the relation between latent variables and their dimensions/indicators, as well as estimating the dimension (prevalence of procrastination and reason for procrastination) to figure out which dimension is more dominant in affecting academic procrastination. 2) The validity test results show that the measuring instrument is valid, and the reliability test results show that the instrument is reliable, meaning that the instrument can measure and illustrate the students' academic procrastination. 3) Prevalence of procrastination dimension and reason for procrastination dimension can form academic procrastination construct, with the reason for procrastination as the most dominant dimension. Further researches are recommended to consider a bigger number of subjects and schools. This may contribute to the exploration of indicators that are not present at the current construct, which may form a more comprehensive academic procrastination scale.

ACKNOWLEDGMENT

REFERENCES

[1] A. Bandura, Social Learning Theory. New Jersey.: A Paramount Communications Company, 1977.

[2] G. Semb, D.M. Glick and R. E. Spencer, "Student Withdrawals and Procrastinationed Work Patterns in Self-paced Psychology Courses,". Teaching of Psychology, pp.23-25, 1979.

[3] A.A. Ojo, "The Impact of Procrastination on Students Academic Performance in Secondary Schools," International Journal of Sociology and Anthropology Research,vol. 5, no. 1, pp. 17-22, 2015.

[4] B.U. Özer and M. Saçkes, "Effects of Academic Procrastination on College Students' Life Satisfaction," Procedia, Social and Behavioral Sciences,vol. 12, pp. 512-519, 2011.

[5] F.M. Sirois, "Procrastination and Stress: Exploring the Role of Self-compassion," Self and Identity, Perfectionism, Academic Procrastination, and Completion of Student Thesis.vo1. 3, no. 2, pp. 128-145, 2014.

[6] A. Meier, L. Reinecke and C.E. Meltzer, "Facebocrastination"? Predictors of Using Facebook for Procrastination," Computers in Human Behavior,vol. 64, pp. 65-76, 2016.

[7] F.M. Kroese, C. Evers, M.A. Adriaanse, and D.T. Ridder," Bedtime Procrastination: A Self-Regulation Perspective on Sleep Insufficiency in the General Population," Journal of Health Psychology,vol. 21, no. 5, pp. 853–862, 2016.

[8] S. Kim, S. Fernandez and L. Terrier, "Procrastination, Personality Traits, and Academic Performance: When Active and Passive Procrastination Tell a Different Story. Personality and Individual Differences, vol. 108, pp. 154-157, 2017.

[9] T. Srantih, "The Effect of Perfectionism on Academic Procrastination on Students Who are Working on Their Thesis at the Faculty of Psychology, UIN Sunan Gunung Djati, Bandung," Psympathic, Jurnal Ilmiah Psikologi, vol. 1,no. 1, pp. 58-68, 2014 (in Indonesia).

[10] E.A. Habelrih and R. E. Hicks, "Psychological Well-Being and tts Relationships with Active and Passive Procrastination," International Journal of Psychological Studies,vol. 7, no. 3, pp. 25-34, 2015.

[11] L.J. Solomon and E. Rothblum, "Academic Procrastination: Frequency and Cognitive Behavioral Correlates," Journal of Counceling Psychology,vol. 31, no. 4, pp. 503-509, 1984.

[12] B.W. Tuckman, "The development and Concurrent Validity of the Procrastination Scale," Educational and Psychological Measurement, vol. 51, no. 2, pp. 473-480, 1991.

[13] A. Ellis and W. J. Knaus, Overcoming Procrastination: Or How to Think and Act Rationally in Spite of Life's Inevitable Hassles. New York.: Signet Books, 1977.

[14] N. Fiore, Overcoming Procrastination. New York.: MJF Books, 1989.

[15] J.R. Ferrari, J. L. Johnson and W. G. McCown, Procrastination and Task Avoidance: Theory, Research, and Treatment. New York.: Springer US, 1995.

[16] W. Knaus, The Procrastination Workbook. Oakland.: New Harbinger Publications, Inc, 2002.

[17] J.B. Burka and L.M. Yuen, Procrastination: Why You Do it, What to do about it Now. Cambridge.: Da Capo Press, 2008.

[18] R. Boice, Procrastination and Blocking : A Novel, Practical Approach. London.: Praeger Publishers, 1996.

[19] M. Balkis and E. Duru, "Prevalence of Academic Procrastination Behavior Among Pre-Service Teachers, and its Relationship With Demographics and Individual Preferences," Journal of Theory and Practice in Education, vol. 5, no. 1, pp. 18-32, 2009.

[20] Afzal and H. Jami, "Prevalence of Academic Procrastination and Reasons for Academic Procrastination in University Students," Journal of Behavioural Sciences, vol.28, no. 1, pp: 51-69, 2018.

[21] A.A. Mohammed, A.M. Sherit, M.A. Eissa, and A.A. Mostafa, "Academic Procrastination Among College Students with Learning Disabilities: The Role of Positive and Negative Self-Oriented Perfectionism in Terms of Gender, Specialty and Grade," International Journal of Psycho-Educational Sciences,vol. 2(1), pp. 3-14, 2013.

[22] V.A. Gunawinata, Nanik, and H. K. Lasmono, "Perfectionism, Academic Procrastination, and Completion of Student Thesis.," Anima, Indonesian Psychological Journal, vol. 23, no. 3, pp. 256-276, 2008 (in Indonesia).

[23] N.Y. Ananda and E. Mastuti, "The Effect of Perfectionism on Academic Procrastination on Accelerated Program Students," Journal of Educational Psychology and Development ,vol. 2, no. 3, pp. 226-231, 2013 (in Indonesia).

[24] M.B. Yilmaz, "The Relation Between Academic Procrastination of University Students and Their Assignment and Exam Performances: The Situation in Distance and Face-To-Face Learning Environments," Journal of Education and Training Studies, vol. 5, no. 9, pp. 146-157, 2017.

[25] G.C. Elvers, D.J. Polzella, and K. Graetz, "Procrastination in Online Courses: Performance and Attitudinal

Differences," Teaching of Psychology, vol. 30, no. 2, pp. 159-162, 2003.

[26] I. S. Jones andD. C. Blankenship, "The Fffect of Procrastination on Academic Performance of Online Students at a Hispanic Serving Institution," Journal of Business Diversity,vol. 19, no. 2, pp. 10-15, 2019.

[27] M.K. Brunnermeier, F. Papakonstantinou and J.A. Parker, "Optimal Time-inconsistent Beliefs: Misplanning, Procrastination, and Commitment," Management Science, Articles in Advance, pp. 1-23, 2016.

[28] P.F. Bendicho, C.E. Mora, B. Añorbe-Díaz and P. Rivero-Rodríguez, "Effect on Academic Procrastination After Introducing Augmented Reality," EURASIA, Journal of Mathematics Science and Technology Education, vol.13, no. 2, pp. 319-330, 2017.

[29] C.M. Mandap, "Examining the Differences in Procrastination Tendencies Among University Students," International Journal of Education and Research,vol. 4, no. 4, pp. 431-436, 2016.

[30] R.D. Yockey and C.J. Kralowec, "Confirmatory Factor Analysis of the Procrastination Assessment Scale for Students," SAGE Open, pp. 1-5, 2015.

[31] C.V. Purwanto and L. Natalya, "Tomorrow Will Always Come, I Am A Last-Minute Person: Validation of the Active Procrastination Scale-Bahasa Indonesia,"Makara Hubs-Asia,vol. 23, no. 1, pp. 46-59, 2019.

[32] I. Ghozali and H. Latan, Partial Least Square : Concept, Tehnique and Aplication SmartPLS 2.0 M3(in Indonesia). Semarang: Badan Penerbit Universitas Diponegoro, 2012.

[33] S. Azwar, Validity and Reliability (in Indonesia). Yogyakarta.: Pustaka Pelajar, 2009.

[34] C.E. Osgood, G. Suci and P. Tannenbaum, The Measurement of Meaning. Urbana, IL.: University of Illinois Press, 1957.

[35] J.F. Hair, G.T. Hult, C.M. Ringle and M. Sarstedt, A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) (2nd ed.). Los Angeles.: SAGE Publications, Inc, 2017.

[36] C.M. Ringle, S. Wende and J.M. Becker, SmartPLS 3. Boenningstedt: SmartPLS GmbH. Retrieved from SmartPLS: http://www.smartpls.com, 2015.

[37] Abdillah and Jogiyanto, Partial Least Square (Pls), Alternatif Atructural Equation Modeling (SEM) in Bussieness Research (in Indonesia). Yogyakarta.: Penerbit Andi, 2011.

[38] A. Bashir and S. Gupta, "Measuring Academic Procrastination: Scale Development and Validation," Elementary Education Online, vol. 18, no. 2,pp. 939-950, 2019.