

# Academic Procrastination, Self-Esteem and Self-Efficacy in University Students: Comparative Study in Two Peruvian Cities

Yrene Cecilia Uribe Hernández<sup>1,\*</sup>, Oscar Fernando Alegría Cueto<sup>1</sup>, Nikita Shardin-Flores<sup>2</sup> and Carlos A. Luy-Montejo<sup>3</sup>

<sup>1</sup>Universidad Nacional De Cañete, San Vicente de Cañete, Peru; <sup>2</sup>Universidad Privada San Juan Bautista, Lima, Peru and <sup>3</sup>Universidad Privada del Norte, Trujillo, Peru

**Abstract:** The present study aims to determine the relationship between academic procrastination, self-esteem and self-efficacy in undergraduate students in two Peruvian cities. The population consisted of 13,767 students, from which a sample of 1,494 was extracted. The subjects were selected from eight universities: five private and one public, from the city of Metropolitan Lima; and two universities, one public and one private, from the city of Arequipa. The instruments used were the Academic Procrastination Scale (EPA), the Scale of Specific Perceived Self-Efficacy in Academic Situations (EAPESA) and the Rosenberg Self-Esteem Scale. The results allow us to conclude that, in terms of perceived effectiveness, the relationship is slightly higher in the city of Arequipa, reiterating this with respect to academic procrastination, where the relationship is also slightly higher. Finally, with regard to self-esteem, the trend continues to indicate a greater relationship in Arequipa

**Key words:** Academic procrastination, Self-esteem, Self-efficacy, Higher education.

## 1. INTRODUCTION

The transition to college life is a multifactorial process that is not always beneficial to the student. The demands of the university system are measured in success or failure, which leads to the student adapting to a style that is alien to his or her habits, unfamiliar and unknown in comparison to what he or she learned and experienced at school (Arias-Chávez *et al.*, 2020).

This adaptation demands multiple changes that the young person is not prepared to face (Solomon & Rothblum, 1984). Thus, situations such as stress, confusion and insecurity arise as a result of these changes, to which personal growth, independence in decision-making, procrastination, self-esteem and self-efficacy should also be added, the latter taking on special relevance in academic activity.

For these authors, the student who procrastinates has poor time management in the performance of academic activities or, failing that, overestimates the time available to do them (Balkis & Duru, 2017). Among the factors that lead a student to procrastinate are the individual's own inability to organize his or her time and develop effective time management (Ferrari *et al.*, 1995), as well as a failure in self-regulation processes that make the student unable to organize and manage his or her time properly (Balkis & Duru, 2009, 2017), underestimating it to the point of not achieving his or her goals due to task avoidance and fear of failure.

Likewise, procrastination is related to events such as deficits in self-control of behavior (Steel *et al.*, 2001). Studies on self-esteem in university students have gained interest in recent years. Despite being a relevant aspect within psychology, there is no exact definition of this variable. Traditionally, self-esteem is understood as the way a person feels about himself (Ferkany, 2008).

For Cast and Burke (2002), self-esteem is composed of three basic elements: 1) self-esteem as a result, which is based on the process origin of the self-evaluation, here stand out the visions of Coopersmith (1967) and Rosenberg (1979); 2) self-esteem as an own motive, for it takes as a base the positive evaluation of oneself; and 3) self-esteem as the care of the self, which looks for the scope of protection before the unpleasant experiences. Other authors consider self-esteem as an attitude (Afari *et al.*, 2012) since it is related to the attitudes that the subject has of himself (Coopersmith, 1967).

This attitude may be one of approval or disapproval, which reflects the individual's ability to achieve success (Pierce and Gardner: 2009; Arias-Chávez *et al.*, 2020; Amiri *et al.*, 2016).

Self-efficacy, on the other hand, relates to people's ability to handle everyday stressors. Self-efficacy does not refer to a person's ability to achieve their goals, but how they perceive the resources they have to achieve those goals (Arias-Chávez, *et al.*, 2020).

In this sense, it is important how the individual judges his or her abilities and skills to face the vicissi-

\*Address correspondence to this author at the Universidad Nacional De Cañete, San Vicente de Cañete, Peru; E-mail: b.hosseinian.a@gmail.com

tudes of everyday life (Silva, *et al.*, 2016). The higher the level of self-efficacy, the more likely it is that a student will decrease the stress caused by the activities imposed by life in college and the greater his or her academic success will be, which will contribute to improving his or her self-esteem and perception of how others are, what they feel and how they see themselves (Bandura, 1992, 1995, 1997; Locke & Latham, 1990).

Self-esteem and self-efficacy are related concepts, since the first consists of the individual's personal self-evaluation, while the second arises from an individual's perception of his or her ability to achieve something (Arias-Chávez *et al.*, 2020; Silva, *et al.*, 2016).

Self-efficacy beliefs directly influence variables such as students' perception of their ability to perform the required tasks, the choice and goals proposed, and the effort and persistence of their actions to achieve those goals. In addition, self-efficacy promotes thought patterns and positive emotional reactions that are linked to academic performance (Bandura, 2000; Pintrich & García, 1993). In that sense, a student with a high level of self-esteem and self-efficacy will have a low probability of procrastination.

In recent years, studies on procrastination and its relationship with other variables such as parenting styles (Zakeri *et al.*, 2013), academic performance and attitudes (Demeter *et al.*, 2015), self-esteem (Balkis & Duru, 2017; Haljoo, 2014) and self-efficacy (Klassen *et al.*, 2008; Katz *et al.*, 2014; Haycock, 1998) have been increasing over the years, showing a marked interest in analysing how these phenomena interact in the university environment.

On the other hand, research that has addressed the same problem as this study is not abundant, but the studies by Haljoo (2014) and Brando-Garrido and his colleagues (2019) stand out. Therefore, the results of this study will allow generalizations to be made in order to lay the foundations for future studies that seek to understand the problems of this sector and improve the learning processes of students.

## 2. METHODS

The population was 13,767 students, from which a sample of 1,424 subjects (794 females and 630 male) between the ages of 17 and 19 was taken (mean of 18.26 and standard deviation of 1,535). The students were selected from the first two cycles of eight universities: five private and one public university in the

city of Metropolitan Lima and one public and one private university in the city of Arequipa. A non-probabilistic, incidental procedure was used for selection, considering 712 students from each city.

The instruments applied were:

a) The Scale of Academic Procrastination (EPA) (Busko, 1998). It is composed of two dimensions. The first is called Academic Self-Regulation and the second, Postponement of Activities. The first one has 9 items that are qualified in an indirect way. The second one has 3 items that are qualified in a direct way.

Regarding the qualification and interpretation, the inventory presents 12 items; each one of them is evaluated through the five-point Likert scale. The answer options are: Never (1), Rarely (2), Sometimes (3), Almost always (4) and Always (5). The interpretation of the scores is direct; this means that the higher the score obtained on the test, the higher the procrastination behavior of the college student.

b) The Rosenberg Self-Esteem Scale was designed by Rosenberg in 1965 and presents high reliability indices (internal consistency: 0.77) and a minimum reproducibility coefficient of 0.90. The scale consists of 10 items with 4 response options ranging from Extremely Agree (4) to Extremely Disagree (1). It consists of 5 direct items and 5 inverse items (Inverse items: 3, 5, 8, 9 and 10).

c) The Scale of Specific Perceived Self-Efficacy in Academic Situations (EAPESA). This instrument, proposed by Demeter and his co-workers (2015), consists of 10 items whose objective is to measure the expectations of self-efficacy in specific situations of the educational context in adolescent and university students. The items are evaluated through a 10-point Likert response scale. For the present study, the 4-point short version (1 = never; 4 = always) proposed by Balkis, & Duru, (2017), was used. The total sum of the scores obtained on the scale shows the degree of academic self-efficacy perceived by the subjects, so that the higher the score, the greater the perceived academic self-efficacy.

The present is a transectional, prospective comparative study at the relational level since it aims to measure the relationships between procrastination and self-esteem, and procrastination and self-efficacy, comparing the results between the two chosen cities at a single time.

The instruments were applied collectively. This process was carried out in each sample and in the classrooms of the eight universities chosen for the study. Due to the nature of the instrument, it was filled in for no more than 15 minutes. Participation in the research was voluntary. Prior to the process, students were informed of the objectives of the study, were also asked for their consent orally, and were reminded that the data are anonymous and will not be used for purposes other than those of the study.

In addition, to guarantee the validity of the process, the collaborating teachers were trained before, during and after the process. Similarly, the corresponding permissions were requested from the university authorities in order to obtain permission to carry out the research. It was guaranteed that these activities would not interfere with the usual academic work.

### 3. RESULTS AND DISCUSSION

The results have been divided into three sections. The first, called Psychometric Analysis, presents the results of the process of reliability and validity of each of the instruments used in this study. The second section, called Descriptive Analysis and the third and last section presents the results of the correlation analysis of the variables measured in the study. Each of the sections is composed of tables and relevant explanations of the findings.

#### 3.1. Psychometric Analysis

##### 3.1.1. Academic Procrastination Scale

Assess the reliability of the items on the academic achievement scale (Table 1) using the internal consistency method. The 12 items evaluated obtained a Cronbach's Alpha value of .807. The homogeneity indexes range from .216 (item 1) to .675 (item 10), being higher than Kline's (2000) criterion of 0.200. Conclusion. The Academic Procrastination Scale is reliable.

##### 3.1.2. Validity of Construct of the Academic Procrastination Scale

The validity of the scale structure (Table 2) was investigated using exploratory factor analysis. When the Kaiser-Meyer-Olkin index was used, .851 was obtained, indicating sufficient explanatory potential. This is important given the Barrett's spherically test because the squares are Chi-5836.797 and  $p < .05$  (0.000).

**Table 1: Reliability of the Academic Procrastination Scale**

	Media	Deviation	N	Ritc
task in the last minute	2,94	,869	1424	,216
advance for exams	2,94	,918	1424	,526
get help	2,75	1,051	1424	,524
attend class	1,97	1,415	1424	,549
completes soon as possible	2,65	,972	1424	,600
put off that don't like	3,00	1,022	1424	,263
reading courses	3,01	1,030	1424	,198
study habits	2,60	1,670	1424	,420
necessary time in studying	2,84	,984	1424	,549
motivate myself	2,57	1,121	1424	,675
finish important work	2,76	,998	1424	,608
check assignments	2,77	1,217	1424	,436

**Table 2: Validity of the Academic Procrastination Scale**

	Component	
	1	2
task in the last minute		,700
advance for exams	,641	
get help	,677	
attend class	,682	
completes soon as possible	,739	
put off that don't like		,877
reading courses		,882
study habits	,524	
necessary time in studying	,685	
motivate myself	,806	
finish important work	,770	
check assignments	,598	

##### 3.1.3. Self-Efficacy Scale

Homogeneity Index of the Self-Efficacy Scale. Psychometric analysis of the self-efficacy scale (see Table 3) shows that homogeneous indicators of cases range from 264 (item 9) to 760 (item 5). These results are significant because more than the minimum values set by Kline (2000) are 0.20. Result. It can be said that the self-efficacy scale items have the correct homogeneous indicators.

Reliability Coefficient of the Self-Efficacy Scale. This was achieved using the internal adaptation method.

Cronbach's alpha coefficient was 0.883 based on 10 scales. Result. The self-efficacy scale is highly reliable.

**Table 3: Reliability of the Self-Efficacy Scale**

	Media	Desviation	N
academic task	2,40	,814	,710
understand well and quickly.	2,40	,810	,728
test academic ability.	2,39	,823	,743
take excellent exams.	2,43	,846	,731
competent person in academic life.	2,42	,822	,760
teachers demanding and tough	2,45	,838	,520
academic record.	2,23	1,039	,619
pass the courses easily	2,44	,811	,667
doesn't need to study to pass	2,63	,960	,264
achieving a academic success.	2,37	,877	,753

**3.1.4. Constructive Validity of the Self-Efficacy Scale**

The construct validity of the Scale (see Table 4) was obtained by exploratory factor analysis. This was done using the Kaiser-Meyer-Olkin index which yielded .922, demonstrating that the tool has explanatory potential. The Barrett spherical test is significant because Chi-square is 7624.645 and  $p = 0.00$  is lower than  $p < 0.05$ . Conclusion - Factor analysis is appropriate with the obtained data.

**3.2. Factorial Analysis**

Exploratory factor analysis was performed using the main component method. To explain 53,955% of the total variance, single factors were generated and factor saturation was used between 0.924 (Article 9) and 0.513 (Article 6). Conclusion. The Self-Efficacy Scale has an optimal construct validity.

**3.2.1. Rosenberg Self-Esteem Scale**

The reliability of Rosenberg self-esteem scales (see Table 5) was investigated using internal consistency method. The results showed that Cronbach's alpha value was 0.908 for 10 cases. Homogeneous indices range from 023 (case 8) to 839 (case 3) and are higher than the Kline (2000) criterion. Result. Self-esteem scale is reliable.

**3.2.2. Constructive Validity**

The validity of the scale structure (Table 6) was investigated using exploratory factor analysis. The Kaiser-Meyer-Olkin index was 0.934 and showed sufficient explanatory potential. The Barrett spherical

test is significant, namely the square Chi-11875.183 and  $p < 0.05$  (0.00).

**Table 4: Construct-Validity of the Self-Efficacy Scale Through Exploratory Factor Analysis**

	Component 1
academic task	,805
understand well and quickly.	,773
test academic ability.	,804
take excellent exams.	,780
competent person in academic life.	,845
teachers demanding and tough	,513
academic record.	,809
pass the courses easily	,659
doesn't need to study to pass	,924
achieving a academic success.	,839

**Table 5: Reliability of Rosenberg's Self-Esteem Scale**

	Media	Desviation	Ritc
person worthy	2,52	1,151	,771
number of qualities.	2,49	1,027	,774
Being a failure.	2,51	1,007	,839
doing things well.	2,47	1,032	,798
don't proud of myself.	2,60	1,004	,649
positive attitude	2,47	1,022	,839
satisfied with myself.	2,46	,970	,816
valued myself	2,42	1,003	,231
feel worthless.	2,56	1,006	,751
not good at all.	2,56	1,072	,805

**Table 6: Validity of the Self-Esteem Scale**

	Componente	
	1	2
person worthy	,735	
number of qualities.	,743	
Being a failure.		,866
doing things well.	,772	
don't proud of myself.		,740
positive attitude	,836	
satisfied with myself.	,836	
valued myself		,915
feel worthless.		,855
not good at all.		,870

Factor analysis concludes that the scale is two-dimensional because two factors arise that allow 75.722% of the total variance to be obtained by factor saturation between 0.735 (case 1) and .915 (case 8). Result. Self-esteem scales have structural validity.

### 3.3. Descriptive Analysis

Using the Kolmogorov-Smirnov test according to the normal curve (Table 7), statistical statistics were obtained with high and significant values for self-esteem, self-efficacy and academic procrastination. Therefore, it is concluded that the scale of distribution is far from normal, which leads to a non-parametric statistical analysis.

**Table 7: Analysis of Goodness of fit to the Normal Kolmogorov-Smirnov Curve**

	Kolmogorov-Smirnov <sup>a</sup>		
	Statistical	GI	Sig.
Self-Esteem	,076	1415	,000
Self-Efficacy	,056	1415	,000
Procrastination	,058	1415	,000

The results obtained by variable show a trend towards the intermediate or normal level (Table 8). A comparative analysis of the results shows that the perceived effectiveness is slightly higher in Metropolitan Lima (25954 compared to 22379 in Arequipa).

**Table 8: Analysis of Goodness of fit to the Normal Kolmogorov-Smirnov Curve**

	University Students in Arequipa	University Students in Lima	University Students Peruvians
Perceived Self-Efficacy	2,2379	2,5954	2,4166
Academic Procrastination	2,5767	2,8889	2,7328
Self-Esteem	1,9360	3,0753	2,5056

**Table 9: Correlation of the Variables Self-Efficacy and Academic Procrastination**

		Procrastinación Académica, Arequipa	Procrastinación Académica, Lima	Procrastinación Académica
Autoeficacia	Rho de Spearman	-0.324**	-0.230**	-0.537**
	Sig. (bilateral)	0.0000	0.0000	0.0000
	P	0.5692	0.4796	0.7328
	1-β	1.0000	1.0000	1.0000
	N	712	712	1424

With respect to the academic procrastination variable, the trend of students in Lima is also slightly higher than those in Arequipa (2,8889 compared to 2,5767 in Arequipa). Finally, with regard to self-esteem, it is evident that students from Lima are much better off than those from Arequipa. (3,0753 compared to 1,9360).

### 4. CORRELATION ANALYSIS

Table 9 shows that there is a significant inverse relationship between self-efficacy and academic procrastination. Spearman's Rho is -.324 in Arequipa, being lower in Lima (-0.230). With respect to the level of correlation between variables at the national level, it is -0.537.

The size of the effect is large, being 0.7328 for the total number of respondents; 0.5692 for Arequipa and 0.4796 for Lima, also validating the correlation and demonstrating that it is relevant and important as it is higher than the value of 0.2.

As for the relationship between self-esteem and procrastination, in Table 10 it can be seen that this is inverse. Spearman's Rho is -.124 for Lima, -0.279 for Arequipa and -0.642 for the entire student sample.

The size of the effect is large, being 0.8012 in the global ratio, 0.3521 in Lima and 0.5282 in Arequipa, also validating the correlation and demonstrating that it is relevant and important.

Hajlou (2014) confirms this research with 140 graduate students of psychology who have registered at Mohaghegh Ardabili University, Ardabil.

Regarding the relationship between Procrastination, effectiveness expectations, anxiety, gender and age, Hikak *et al.* (1998) examined the relationships of these variables in 141 university students. Two-dimensional correlations showed that effective expectations and

**Table 10: Correlation of the Variables Self-Esteem and Academic Procrastination**

		Procrastination Academic, Arequipa	Procrastination Academic, Lima	Procrastination Academic
Self-Esteem	Spearman's Rho	-0.279**	-0.124**	-0.642**
	Sig. (bilateral)	0.0000	0.0000	0.0000
	P	0.5282	0.3521	0.8012
	1-β	1.0000	1.0000	1.0000
	N	712	712	1424

anxiety were significantly delayed in individual relationships. When these variables were introduced into a regression model, only the cumulative effectiveness was an important predictor of procrastination.

According to the relationship between self-esteem and academic procrastination, both types of procrastination were significantly associated with low self-esteem, dependence on others, and food failure behaviors.

Balkis & Duru (2017) disagree with this conclusion because they show data that procrastination and self-esteem were important predictors of well-being. The results also show that both procrastination and academic performance have a direct and reciprocal effect on self-esteem. Self-esteem mediates the relationship between procrastination and well-being.

Balkis, & Duru, (2017), suggested that substitutes suffer from low self-esteem, thus protecting the general tendency to engage in behaviors such as delaying and preventing oneself from providing personal excuses for poor performance and negative outcomes.

## 5. CONCLUSION

As for the objective of the present investigation, for the cases of self-efficacy and academic procrastination, and self-esteem and academic procrastination, in both groups investigated in students of Lima and Arequipa there are correlations of moderate and low type. However, the size of the effect is large and the statistical power is very high in both groups of students. It is concluded that, in terms of perceived efficacy, the relationship is slightly higher in the city of Arequipa, reiterating this with respect to academic procrastination, where the relationship is also slightly higher. Finally, with respect to self-esteem, the trend continues to indicate a greater relationship in Arequipa. This is the first research that compares these variables between two groups of students from different cities of

a country and works with a sample that exceeds 1,000 people, which allows setting the basis for future research since it provides relevant and new data on these phenomena.

Finally, it is advisable to carry out research that allows for the evaluation of these variables in different areas, allowing for more knowledge about students, not only in the university environment. In addition to considering the incorporation of other psychopedagogical variables that allow for a better prediction of student performance in the different cycles of the educational process.

## REFERENCES

- Afari, E., Ward, G. & Kline, M.S. (2012). Global self-esteem and self-efficacy correlates: Relation of academic achievement and self-esteem among Emirati Students. *International Education Studies*, 5(2), 49-57. <http://dx.doi.org/10.5539/ies.v5n2p49>
- Amiri Mikal, M., Pour Ramezan, E., Amar, T., & Bigdeli, A. (2016). Spatial Analysis of Quality of Life in Economic Dimension of Villages of Lahijan Town. *UCT Journal of Social Sciences and Humanities Research*, 4(4), 21-28.
- Arias-Chávez, D., Ramos-Quispe, T., Villalba-Condori, K. & Postigo-Zumarán, J. E. (2020). Academic Procrastination, Self-esteem, and Self-Efficacy in FirstTerm University Students in the City of Lima. *IJCC*, 11(10), 339-357.
- Balkis, M., & Duru, E. (2009). Prevalence of academic procrastination behavior among pre-service teachers, and its relation with demographics and individual preferences. *Journal of Theory and Practice in Education*, 5(1), 18-32. <http://dergipark.gov.tr/download/article-file/63213>
- Balkis, M., & Duru, E. (2017). Gender differences in the relationship between academic procrastination, satisfaction with academic life and academic performance. *Electronic Journal of Research in Educational Psychology*, 15(1), 105-125. 10.14204/ejrep.41.16042
- Bandura A. (1992). Self-efficacy mechanism in psychobiologic functioning. En Schwarzer R Editores, *Self-efficacy: Thought control of action*. Hemisphere.
- Bandura A. (1995). Self-efficacy. En *Manstead ASR & Hewstone M Editores, Blackwell encyclopedia of social psychology*. Oxford, Blackwell.
- Bandura A. (1997). Self-efficacy and health behaviour. En Baum A, Newman S, Wienman J, West R & McManus C Editores, *Cambridge handbook of psychology, health and medicine*. Cambridge University Press.

- Bandura A. (2000). Self-efficacy: The foundation of agency. En Perrig WJ. & Grob A. Editores, *Control of human behavior, mental processes and consciousness*. Erlbaum,
- Brando-Garrido, C., Montes-Hidalgo, J., Limonero, J., Gómez-Romero, M. & Tomás-Sábado, J. (2019). Relationship of academic procrastination with perceived competence, coping, self-esteem and self-efficacy in nursing students (in press). *Enfermería Clínica*.  
<https://doi.org/10.1016/j.enfcli.2019.07.012>
- Busko, D. A. (1998). Causes and consequences of perfectionism and procrastination: A structural equation model (Thesis). The University of Guelph, Canada
- Cast, A.D. & Burke, P.J. (2002). A theory of self-esteem. *Social Forces*, 80(3), 1041-1068.  
<https://doi.org/10.1353/sof.2002.0003>
- Coopersmith, S. (1967). The antecedents of self-esteem. Freeman
- Demeter, K., Szabó, K., Maior, E., Farcas, S., Kálcza, J. & János, R. (2015). Associations between academic performance, academic attitudes, and procrastination in a sample of undergraduate students attending different educational forms. *Procedia - Social and Behavioral Sciences* 187, 45–49.  
<https://doi.org/10.1016/j.sbspro.2015.03.009>
- Ferrari, J. R. (1994). Dysfunctional procrastination and its relationship with self-esteem, interpersonal dependency, and self-defeating behaviors. *Personality and Individual Differences*, 17(5), 673–679.  
[https://doi.org/10.1016/0191-8869\(94\)90140-6](https://doi.org/10.1016/0191-8869(94)90140-6)
- Ferrari, J. R., Johnson, J. L., & McCown, W. G. (1995). *Procrastination and task avoidance: Theory, research, and treatment*. Plenum Press.
- Ferkany, M. (2008). The educational importance of self-esteem. *Journal of Philosophy of Education*, 42(1), 119-132.  
<https://doi.org/10.1111/j.1467-9752.2008.00610>
- Hajloo N. (2014). Relationships between self-efficacy, self-esteem and procrastination in undergraduate psychology students. *Iranian journal of psychiatry and behavioral sciences*, 8(3), 42–49. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4359724/>
- Haycock, LA., McCarthy, P. & Skay, CL. (1998). Procrastination in College Students: The Role of Self-Efficacy and Anxiety. *Journal of Counseling & Development*, 76(3), 317-324.  
<https://doi.org/10.1002/j.1556-6676.1998.tb02548.x>
- Katz, I., Eilat, K., Nevo, N. (2014). "I'll do it later": Type of motivation, self-efficacy and homework procrastination. *Motivation and Emotion*, 38 (1), 111-119. <https://link.springer.com/article/10.1007/s11031-013-9366-1>
- Klassen, R., Krawchuk, L. & Rajani, S. (2008). Academic procrastination of undergraduates: Low self-efficacy to self-regulate predicts higher levels of procrastination. *Contemporary Educational Psychology*, 33(4), 915-931.  
<https://doi.org/10.1016/j.cedpsych.2007.07.001>
- Kline, P. (2000). *The handbook of psychological testing (2.a ed.)*. Routledge.
- Locke, EA & Latham, GP. (1990). *A theory of goal setting and task performance*. Prentice-Hall.
- Pierce, J.L. & Gardner, D.G. (2009). Relationships of personality and job characteristics with organization-based self-esteem. *Journal of Managerial Psychology*, 24(5), 392-409.  
<https://doi.org/10.1108/02683940910959735>
- Pintrich, P. & García, T. (1993). Intraindividual differences in students' motivation and self-regulated learning. *German Journal of Educational Psychology*, 7(3), 99-107.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton University Press.
- Rosenberg, M. (1979). *Conceiving the self*. Basic Book.
- Solomon, L. J., & Rothblum, E. D. (1984). Academic procrastination: Frequency and cognitive-behavioral correlates. *Journal of Counseling Psychology*, 31(4), 503- 509.  
<https://doi:10.1037/0022-0167.31.4.503>
- Steel, P., Brothen, T., & Wambach, C. A. (2001). Procrastination and personality, performance, and mood. *Personality and Individual Differences*, 30(1), 95-106.  
[https://doi.org/10.1016/S0191-8869\(00\)00013-1](https://doi.org/10.1016/S0191-8869(00)00013-1)
- Zakeri, H., Esfahani, B. & Razmjooe, M. (2013). Parenting Styles and Academic Procrastination. *Procedia - Social and Behavioral Sciences*, 84, 57–60.  
<https://doi.org/10.1016/j.sbspro.2013.06.509>
- Silva, J. L., Ornelas, J. D., & Silva, J. C. (2016). Supporting GUI Exploration through USS Tool. *Journal of Information Systems Engineering & Management*, 1(4), 51.  
<https://doi.org/10.20897/lectito.201651>

Received on 29-10-2020

Accepted on 01-12-2020

Published on 30-12-2020

DOI: <https://doi.org/10.6000/1929-4409.2020.09.300>

© 2020 Hernández et al.; Licensee Lifescience Global.

This is an open access article licensed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/3.0/>) which permits unrestricted, non-commercial use, distribution and reproduction in any medium, provided the work is properly cited.