

ACADEMIC PROCRASTINATION IN UNIVERSITY STUDENTS: A SYSTEMATIC REVIEW OF THE LITERATURE

Léia da Conceição Pereira ¹; Fabiana Pinheiro Ramos ¹

ABSTRACT

Academic procrastination is the postponement of tasks related to studies: doing work, reading texts, studying for exams, among others. This article aimed to perform a systematic review of the literature about academic procrastination in university students, from 2008 to 2017. Three databases were chosen: SciELO, BvSalud and BvsPsi, with the combination of the descriptors “procrastination”, “university students”, “college students”, “undergraduate students”, “academic procrastination” was used, as well as derivations in Portuguese and Spanish. From the inclusion and exclusion criteria, 11 complete articles were selected. Most of the works pointed out the harmful nature of procrastinatory behavior, its relationship with the self-regulation of learning, as well as the difference in the study strategies used by procrastinating and non-procrastinating students. It was concluded that research about the theme is still incipient in the Brazilian context, requiring further exploration by researchers, with possible impacts for understanding the phenomenon and developing interventions with higher education students.

Keywords: self-regulation; university students; literature review.

Procrastinación académica en estudiantes universitarios: una revisión sistemática de la literatura

RESUMEN

Procrastinación académica es la postergación de tareas relacionadas a los estudios: realizar tareas, leer textos, estudiar para exámenes, entre otros. En este artículo se tuvo como objetivo realizar una revisión sistemática de la literatura sobre procrastinación académica en universitarios, en el período de 2008 a 2017. Se eligieron 3 bases de datos: SciELO, BvSalud y BvsPsi, con los descriptores “procrastinación”, “universitarios”, “procrastinación académica” y sus correlatos en inglés y portugués. A partir de los criterios de inclusión y exclusión se seleccionaron 11 artículos completos. La mayor parte de los estudios apuntó la naturaleza nociva del comportamiento de procrastinación, su relación con la autorregulación del aprendizaje, así como la diferencia de las estrategias de estudio empleadas por alumnos procrastinadores y no procrastinadores. Se concluyó que la investigación sobre la temática aún es incipiente en el contexto brasileño necesitando de más exploración por parte de los investigadores, con posibles impactos para la comprensión del fenómeno y desarrollo de intervenciones con estudiantes de la enseñanza universitaria.

Palabras clave: autorregulación; estudiantes universitarios; revisión de literatura.

Procrastinação acadêmica em estudantes universitários: uma revisão sistemática da literatura

RESUMO

Procrastinação acadêmica é o adiamento de tarefas relacionadas aos estudos: realizar trabalhos, ler textos, estudar para provas, dentre outros. Este artigo teve como objetivo realizar uma revisão sistemática da literatura sobre procrastinação acadêmica em universitários, no período de 2008 a 2017. Foram escolhidas 3 bases de dados: SciELO, BvSalud e BvsPsi, com os descritores “procrastinação”, “universitários”, “procrastinação acadêmica” e seus correlatos em inglês e espanhol. A partir dos critérios de inclusão e exclusão foram selecionados 11 artigos completos. A maior parte dos trabalhos apontou a natureza nociva do comportamento procrastinatório, sua relação com a autorregulação da aprendizagem, bem como a diferença das estratégias de estudo empregadas por alunos procrastinadores e não procrastinadores. Concluiu-se que a pesquisa sobre a temática ainda é incipiente no contexto brasileiro necessitando de maior exploração por parte dos pesquisadores, com possíveis impactos para a compreensão do fenômeno e desenvolvimento de intervenções com estudantes do ensino superior.

Palavras-chave: autorregulação; estudantes universitários; revisão de literatura.

¹ Universidade Federal do Espírito Santo – Vitória – ES – Brasil; cpereira.leia@gmail.com; fabiana.pinheiro.ramos@gmail.com



INTRODUCTION

The entry into higher education represents a new social and academic configuration and implies changes in different areas of the student's life, such as relationships with family and friends, the way in which the world is perceived, to set new bonds, the routine organization, among others (Souza, Lourenço, & Santos, 2016). This transitional moment can be experienced as stressful and may even influence the psychological aspects and academic performance of the student (Bardagi & Hutz, 2011; Monteiro & Soares, 2017). Thus, the university uses several coping strategies (Ramos, Enumo, & Paula, 2015) in order to solve emerging issues in this process (Carlotto, Teixeira, & Dias, 2015).

In this context, the frequent use of strategies such as excuses and other avoidance behaviors when performing a task can be detrimental to the student's health and development, as it compromises the performance and success of the activity in progress (Brito & Bakos, 2013). Examples of harmful coping strategies adopted by university students can be cited: the risky use of alcohol and other drugs, procrastination of studies and work, going out the night before taking a test and exams, among others. Studies highlight procrastination as one of the self-harm strategies most used by university students (Ganda & Boruchovitch, 2015; Geara, Filho, & Teixeira, 2017; Machado & Schwartz, 2018).

Scientific research about the theme of procrastination began in the 1980s, so the study of this phenomenon is recent (Sampaio & Bariani, 2011). Academic procrastination is defined as the unnecessary postponement of study-related tasks, such as studying for tests, doing assignments and reading texts (Kerbaux, 1999; Geara & Teixeira, 2017). The study of this theme is socially relevant, given the consequences that procrastinating can have on people's lives, whether in daily life, health and/or education, especially in higher education, where a greater sense of autonomy and self-regulation is required by the student regarding the learning process itself (Ceballos, Vargas, & Santos, 2017).

The phenomenon of procrastination has often been associated with failure in the self-regulation process (Correia & Moura Júnior, 2017; Geara & Teixeira, 2017; Steel & Klingsieck, 2016). From the perspective of Bandura (1991), self-regulation is understood as a process in which the individual, consciously and voluntarily, autonomously manages their own behaviors, feelings and thoughts in order to achieve their goals. In the academic context, self-regulated students use different learning strategies, according to the needs of the situation and are able to assess their study process, limitations and achievements (Martins & Santos, 2019).

Procrastination, as a failure in the self-regulation process, implies a mismatch between intention and

action, that is, there is a deficit in the implementation of what the subject desires and plans (Sampaio, Polydoro, & Rosário, 2012). Engaging in procrastination behaviors in the academic environment increases the probability of experiencing unpleasant emotional states such as anxiety in the face of evaluative activities, stress, exhaustion, reduced interest in activities, among other aversive feelings (Lonka et al., 2014; Rabin, Fogel, & Nutter-Upham, 2011).

Furthermore, the way the individual manages the time to carry out a certain task is relevant for the analysis of procrastination, and not only the avoidance of the task itself (Gouveia, Pessoa, Coutinho, Barros, & Fonseca, 2014). Kerbaux (1999) pointed out some relations involved in the behavior of procrastinating in university students involving the time variable: the student defines for himself what the task is, but believes that the time for its execution is short; the student specifies the task, but considers that postponing it is the best option at the moment; the student assumes that a new deadline will be granted or that he will have another opportunity to complete the task; the student starts the task, but interrupts it and postpones its completion; or even, the student delays the beginning of the task and overestimates the time available to do it.

The literature in the area also discusses the negative effects of procrastination on the learning process, academic performance, sense of control and subjective well-being of students (Geara & Teixeira, 2017; Grunschel, Partzsek, & Fries, 2013). The prolonged use of procrastination can contribute to the development of clinical conditions such as depression, extreme anxiety, stress, impaired attention and emotional instability (Morris & Fritz, 2015; Partzsek, Grunschel, & Fries, 2012; Steel & Klingsieck, 2016). Regarding the harmful effects of procrastination, university students participating in the studies developed by Klassen, Krawchuk and Rajani (2008) and Klassen and Kuzucu (2009) attributed to the high rate of procrastination: the poor quality of academic work, the reduction in the possibility of achieving goals academic success, and the tendency to lower than expected academic performance. In this context, the importance of psychological support services for students that can help them to organize their studies, self-regulate learning and reduce procrastination is highlighted (Ramos et al., 2018).

In view of the importance of procrastination in the academic context, as well as its harmful effects on students, this article aimed to conduct a literature review about the scientific production of articles focusing on aspects involved in the phenomenon of academic procrastination in university students.

METHOD

This is a systematic literature review; whose

objective was to survey articles that pointed out possible indicators or contributing factors to the phenomenon of procrastination in an academic context. After a brief unsystematic search, there was a scarcity of publications about the subject in Portuguese and a large number of publications in Spanish. Thus, in order to expand the scope of the search, the combination of the descriptors “procrastination”, “university students”, “college students”, “undergraduate students”, “academic procrastination” was used, as well as derivations in Portuguese and Spanish: “procrastinação”, “universitários” and “procrastinação acadêmica”, “procrastinación”, “universitarios” and “procrastinación académica”.

The inclusion criteria were complete and free scientific articles, published from 2008 to 2017, arranged in the following databases: SciELO, Virtual Health Library (BvSalud), Virtual Health Library – Psychology (Bvs-Psi) that dealt with the academic procrastination phenomenon in university students. Theses, dissertations, book chapters, repeated articles, as well as paid, incomplete articles in other languages and those that did not address the subject of interest were excluded. A total of 218 publications were found in the initial survey, carried out between April and May 2018. After reading the abstracts, it was found that only 11 works met the inclusion criteria.

The selected articles were analyzed and categorized as follows: (a) General characteristics of the articles: authors, year of publication, database, place of publication, language, country of institutional affiliation of the author; (b) Methodological characteristics: theoretical or empirical article, and type of design; and (c) Thematic topic: variables evaluated in terms of academic procrastination and possible predictors of academic procrastination.

RESULTS AND DISCUSSION

The 11 articles found, as well as their authors, year of publication and main predictors of academic procrastination in university students can be seen in Table 1.

Among the selected and analyzed articles, there was the largest number of publications in the SciELO database (N = 8), followed by BvSalud (N = 3) and, finally, no publication was found in the Bvs-Psi database. Ten empirical articles (90.9%) and only one theoretical article (9.09%) were identified. The greater number of empirical publications can be explained by the potential of this type of article to provide data, raise reflections and actively contribute to further investigations. Despite the relevance of theoretical articles, the scarcity of this type of work was noted. The only production of this nature found on the theme of academic procrastination was an integrative literature review (Brito & Bakos,

2013), which indicates a gap and signals the need for greater attention from the scientific community, as the systematic review enables the synthesis of knowledge production about a given topic.

In spite of the reduced number of articles found about predictors of academic procrastination, the number of publications was increasing in the time interval delimited in this work, as can be seen in Table 2. This data may be related to the fact that the investigation of the theme is relatively recent in the literature in general, as pointed out by Sampaio and Bariani (2011), and signals the need for greater understanding of the phenomenon (Machado & Schwartz, 2018), especially for the consolidation of this theme, which is still incipient in Brazil.

Regarding the place of publication of the articles, we obtained: Colombia (N = 4), Brazil (N = 2), United States (N = 2), Chile (N = 1), Spain (N = 1) and Peru (N = 1). Some works, although originally produced in countries such as Mexico, Ecuador, Argentina, Iran and Canada, were published in scientific journals in other countries, including Colombia, Peru, Chile and the United States. These results indicate a majority of production in Latin American countries, which corresponds to 72.7% of the total number of articles published (N = 8), against 18.1% (N = 2) of works published in journals in the United States and 9.09% (N = 1) in a journal from Spain. As for language, most articles were written in Spanish (N = 6), followed by English (N = 4) and only 1 in Portuguese.

There was a small number of publications in the Brazilian context within the databases specified for this study, with one article published in Portuguese and one in English. This finding corroborates a survey carried out in 2016 by Geara and Teixeira (2017), which also indicated academic procrastination as an underexplored theme. These authors used the descriptor “procrastination” in eight previously selected databases and located 15 different studies published in Portuguese, whose content associated procrastination with themes in the areas of Psychology, Education, Administration and Economics. When searching for “procrastination” in the PsycInfo database, these authors generated 937 results including numerous instruments on the subject in English, which indicates a greater prevalence of this subject in the international literature.

It is worth mentioning that another gap observed during the survey process of the articles that supported this review was that the only instrument found was the “Active Procrastination Scale” validated by Gouveia, Pessoa, Coutinho, Barros and Fonseca (2014). In summary, it is noted that there are few national researches that systematically investigate academic procrastination and, therefore, it can be hypothesized that: a) few Brazilian researchers have been dedicated to studying the subject in a systematic way; b) works

Table 1. *Articles about Academic Procrastination in College Students Found in Review (N=11).*

Autors	Years	Academic procrastination possible predictors
Brito and Bakos	2013	Dysfunctional beliefs, dissatisfaction, low academic achievement, low self-regulation
Ceballos, Vargas and Santos	2017	Procrastination as an interactive style of the subject regardless of the high or low level of task demand
Dominguez-Lara and Campos-Uscanga	2017	Satisfaction with studies was not a predictor of procrastination
Furlan	2013	Low regulatory self-efficacy and anxiety about exams
Ganda and Boruchovitch	2015	Age (younger) and gender (women)
González-Brignardello and Sánchez-Elvira-Paniagua	2013	Low engagement, deficient study strategy, low self-regulation
Muñoz-Olano and Hurtado-Parrado	2017	Failure to clarify academic goals (definition of goals and deadlines)
Rahimi, Hall and Pychyl	2016	Relationship between delays, culpability and moral responsibility
Ramos-Galarza, Jadán-Guerrero, Paredes-Nuñez, Bolaños-Pasquel and Gómez-García	2017	Internet addiction and low academic performance
Rodríguez and Clariana	2017	Age (younger)
Vahedi, Farrokhi, Gahramani and Issazadegan	2012	Low metacognitive self-regulation

Source: Prepared by the authors

Table 2. *Number of Articles about Academic Procrastination Found in Review per year (N=11).*

Year of publication	Number of articles
2017	5
2016	1
2015	1
2014	0
2013	3
2012	1
1998 to 2011	0

Source: Prepared by the authors

on this topic are being developed, but are being little published; or even that, c) there is a significant number of works addressing the issue in Brazil, if the scope of the databases used is expanded. New review research may elucidate which of these hypotheses are true. Nevertheless, the theme of procrastination still seems to have not aroused interest on the part of scholars and still lacks systematic exploration in the national literature, as previously pointed out by Brito and Bakos (2013) and Ceballos, Vargas and Santos (2017).

In addition to the aspect related to the quantity of publications, it is possible to evaluate some theoretical discussions present in the articles raised on the analysis

of procrastination. The analyzed articles allowed the identification of age as an important factor: some researches showed that adolescents and younger students are more likely to engage in procrastination behaviors due to the difficulty of rejecting temptations (less self-control) and less sense of future orientation, as they are more under control of short-term rather than long-term rewards (Ganda & Boruchovitch, 2015; Rodríguez & Clariana, 2017). Older students, in turn, would tend to have greater self-control and a stronger sense of future perspective; thus, procrastination would tend to decrease with age, as, after countless negative and painful experiences, individuals would, over time, acquire more adaptive study habits in order to avoid adverse experiences resulting from procrastination (Ganda & Boruchovitch, 2015; Rodríguez & Clariana, 2017).

One of the aspects most related to academic procrastination in the obtained literature were the difficulties related to self-regulation, present in 27.2% of the articles surveyed (Brito & Bakos, 2013; González-Brignardello & Sánchez-Elvira-Paniagua, 2013; Vahedi, Farrokhi, Gahramani, & Issazadegan, 2012). Scholars have conceived self-regulation as a conscious, self-directed process that encompasses autonomy and strategies guided by learning criteria and goals (Bandura, 1991). This construct is closely related to the student's control and regulation of their own behavior, thoughts, motivation, cognition in an academic context (Machado

& Schwartz, 2018; Rabin et al., 2011). Researches have considered procrastination as a failure related to the self-regulation process of learning (Steel & Klingsieck, 2016; Geara & Teixeira, 2017); in short: the more efficient the self-regulation, the lesser the tendency to procrastinate (Sampaio et al., 2012).

The studies analyzed for the purposes of this review also converged on the harmful aspect of procrastinating behavior and on the fact that procrastinating university students use deficient study strategies, which imply: difficulties in setting goals, difficulties in planning, deficient perception of their own ability to performing academic activities, less interest in activities, and experiencing negative and intense emotions (Dominguez-Lara & Campos-Uscanga, 2017; Muñoz-Olano & Hurtado-Parrado, 2017; Rahimi, Hall, & Pychyl, 2016). It was observed in the literature analyzed the relationship of procrastination with emotional aspects (e.g. anxiety and dissatisfaction), cognitive aspects (e.g. dysfunctional beliefs and low self-efficacy), and behavioral aspects such as difficulty in managing time, low engagement and low academic performance (Brito & Bakos, 2013; Furlan, 2013; González-Brignardello & Sánchez-Elvira-Paniagua, 2013; Ramos-Galarza, Jadán-Guerrero, Paredes-Núñez, Bolaños-Pasquel, & Gómez-García, 2017).

Academic procrastination, whether experienced prolonged or intense, can contribute to the development of clinical problems such as stress, anxiety and unhealthy lifestyles (Lonka et al., 2014). Thus, knowing the multiple components involved in the phenomenon contributes both to the production and expansion of knowledge in the area, as it enables the development of behavioral intervention technologies aimed at minimizing the problem. In addition, the development of intervention strategies focused on the learning self-regulation process is relevant, since the student with good self-regulation skills employs more appropriate and efficient study strategies, evaluates the learning process itself more reliably and has a greater sense of self-efficacy (Wolters, 2003), decreasing procrastination.

CONCLUSION

The objective of this systematic review was to survey articles that addressed possible indicators or contributing factors to procrastination in university students. It was found that the theme lacks systematic studies in the Brazilian context that propose to analyze the specificity of this phenomenon in the academic context. In addition, there seems to be a shortage of instruments validated in the country to assess such a construct. Such gaps deserve attention by Brazilian researchers, given the harmful consequences of this phenomenon in a chronic degree to the performance and mental health of individuals. It is suggested to carry

out new studies of the systematic review type that incorporate a greater quantity of databases, in order to better assess the prevalence of the theme in studies carried out by Brazilian researchers.

In this sense, understanding the mechanisms involved in academic procrastination is a relevant topic for future research, as it enables the development of preventive interventions focused on the psychological well-being of higher education students. Such research may contribute to the development of student assistance policies focused on promoting quality of life and preventing chronic situations experienced by higher education students, as seems to be the case with procrastination.

REFERENCES

- Bandura, A. (1991). Selfregulation of motivation through anticipatory and selfreactive mechanisms. In Dienstbier, R. A. (Ed.), *Perspectives on motivation: Nebraska symposium on motivation* (pp. 691-64). Lincoln: University of Nebraska Press.
- Bardagi, M. P.; Hutz, C. S. (2011). Eventos estressores no contexto acadêmico: Uma breve revisão da literatura brasileira. *Interação em Psicologia*, 15(1), 111-119.
- Brito, F. S.; Bakos, D. G. S. (2013). Procrastinação e terapia cognitivo-comportamental: Uma revisão integrativa. *Revista Brasileira de Terapias Cognitivas*, 9(1), 34-41.
- Carlotto, R. C.; Teixeira, M. A. P.; Dias, A. C. G. (2015). Adaptação acadêmica e *coping* em estudantes universitários. *Psico-USF*, 20(3), 421-432. Recuperado de DOI: <http://dx.doi.org/10.1590/1413-82712015200305>
- Ceballos, C. G. T.; Vargas, M. A. P.; Santos, C. V. (2017). El estudio de la procrastinación humana como un estilo interactivo. *Avances en Psicología Latinoamericana*, 35(1), 153-163. Recuperado de DOI: <http://dx.doi.org/10.12804/revistas.urosario.edu.co/apl/a.4330>
- Correia, R. R.; Moura Júnior, P. J. (2017). Aprendizagem e procrastinação: Uma revisão de publicações no período de 2005 a 2015. *Revista Iberoamericana sobre Calidad, Eficacia y Cambio en Educación*, 15(2), 111-128. Recuperado de DOI: [doi:10.15366/reice2017.15.2.006](https://doi.org/10.15366/reice2017.15.2.006)
- Dominguez-Lara, S. A.; Campos-Uscanga, Y. (2017). Influencia de la satisfacción con los estudios sobre la procrastinación académica en estudiantes de psicología: Un estudio preliminar. *Liberabit*, 23(1), 123-135. Recuperado de DOI: <http://dx.doi.org/https://doi.org/10.24265/liberabit.2017.v23n1.09>
- Furlan, L. A. (2013). Eficacia de una intervención para disminuir la ansiedad frente a los exámenes en estudiantes universitarios argentinos. *Revista Colombiana de Psicología*, 22(1), 75-89.
- Ganda, D. R.; Boruchovitch, E. (2015). Self-handicapping strategies for learning of preservice teachers. *Estudos de Psicologia (Campinas)*, 32(3), 417-425. Recuperado de DOI: <https://doi.org/10.1590/0103-166X2015000300007>

- Geara, G. B.; Filho, N. H.; Teixeira, M. A. P. (2017). Construção da escala de motivos de procrastinação acadêmica. *Psico (Porto Alegre)*, 48(2), 140-151. Recuperado de DOI: <https://doi.org/10.15448/1980-8623.2017.2.24635>
- Geara, G. B.; Teixeira, M. A. P. (2017). Questionário de procrastinação acadêmica - consequências negativas: Propriedades psicométricas e evidências de validade. *Avaliação Psicológica*, 16(1), 59-69. Recuperado de DOI: [10.15689/ap.2017.1601.07](https://doi.org/10.15689/ap.2017.1601.07)
- González-Brignardello, M. P.; Sánchez-Elvira-Paniagua, A. (2013). ¿Puede amortiguar el engagement los efectos nocivos de la procrastinación académica? *Acción Psicológica*, 10(1), 117-134.
- Gouveia, V. V.; Pessoa, V. S.; Coutinho, M. L.; Barros, I. C. S.; Fonseca, A. A. (2014). Escala de Procrastinação Ativa: Evidências de validade fatorial e consistência interna. *Psico-USF*, 19(2), 345-354.
- Grunschel, C.; Patrzek, J.; Fries, S. (2013). Exploring reasons and consequences of academic procrastination: An interview study. *European Journal of Psychology of Education*, 28(3), 841-861.
- Kerbaui, R. (1999). Procrastinação: Adiamiento de tarefas. In: R. A. Banaco (Ed.), *Sobre o comportamento e cognição: Aspectos teóricos, metodológicos e de formação em análise do comportamento e terapia cognitivista* (Vol. 1, pp. 445-451). Santo André, SP: ESETEC Editores Associados.
- Klassen, R. M.; Krawchuk, L. 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.
- Klassen, M. R.; Kuzucu, E. (2009). Academic procrastination and motivation of adolescents in Turkey. *Educational Psychology*, 29(1), 69-81.
- Lonka, K.; Chow, A.; Keskinen, J.; Hakkarainen, K.; Sandström, N.; Pyhältö, K. (2014). How to measure PhD. students' conceptions of academic writing, and are they related to wellbeing? *Journal of Writing Research*, 5(3), 245-269.
- Machado, B. A. B.; Schwartz, S. (2018). Procrastinação e aprendizagem acadêmica. *Revista Eletrônica Científica da UERGS*, 4(1), 119-135. Recuperado de DOI: <https://doi.org/10.21674/2448-0479.41.119-135>
- Martins, R. M. M.; Santos, A. A. A. (2019). Estratégias de aprendizagem e autoeficácia acadêmica em universitários ingressantes: Estudo correlacional. *Psicologia Escolar e Educacional*, 23, e176346. Recuperado de DOI: <https://doi.org/10.1590/2175-35392019016346>.
- Monteiro, M. C.; Soares, A. B. (2017). Concepções de estudantes sobre resolução de problemas e automonitoria. *Psicologia Escolar e Educacional*, 21(2), 333-341. Recuperado de DOI: <https://doi.org/10.1590/2175-3539201702121124>.
- Morris, P. E.; Fritz, C. O. (2015). Conscientiousness and procrastination predict academic coursework marks rather than examination performance. *Learning and Individual Differences*, 39, 193-198. Recuperado de DOI: <https://doi.org/10.1016/j.lindif.2015.03.007>
- Muñoz-Olano, J. F.; Hurtado-Parrado, C. (2017). Effects of goal clarification on impulsivity and academic procrastination of college students. *Revista Latinoamericana de Psicología*, 49(3), 173-181. Recuperado de DOI: <https://doi.org/10.1016/j.rlp.2017.03.001>
- Patrzek, J.; Grunschel, C.; Fries, S. (2012). Academic procrastination: The perspective of university counsellors. *International Journal for the Advancement of Counselling*, 34(3), 185-201.
- Rabin, L. A.; Fogel, J.; Nutter-Upham, K. E. (2011). Academic procrastination in college students: The role of self-reported executive function. *Journal of Clinical and Experimental Neuropsychology*, 33(3), 344-357.
- Rahimi, S.; Hall, N. C.; Pychyl, T. A. (2016). Attributions of responsibility and blame for procrastination behavior. *Frontiers in Psychology*, 7:1179. Recuperado de DOI: <https://doi.org/10.3389/fpsyg.2016.01179>
- Ramos, F. P.; De Andrade, A. L.; Jardim, A. P.; Ramallete, J. N. L.; Pirola, G. P.; Egert, C. (2018). Intervenções psicológicas com universitários em serviços de apoio ao estudante. *Revista Brasileira de Orientação Profissional*, 19(2), 221-232. Recuperado de DOI: <http://dx.doi.org/1026707/1984-7270/2019v19n2p221>
- Ramos, F. P.; Enumo, S. R. F.; Paula, K. M. P. (2015). Teoria Motivacional do Coping: Uma proposta desenvolvimentista de análise do enfrentamento do estresse. *Estudos de Psicologia (Campinas)*, 32(2), 269-279. Recuperado de DOI: <https://doi.org/10.1590/0103-166X2015000200011>
- Ramos-Galarza, C.; Jadán-Guerrero, J.; Paredes-Núñez, L.; Bolaños-Pasquel, M.; Gómez-García, A. (2017). Procrastinación, adicción al internet y rendimiento académico de estudiantes universitarios ecuatorianos. *Estudios Pedagógicos (Valdivia)*, 43(3), 275-289. Recuperado de DOI: <https://doi.org/10.4067/S0718-07052017000300016>
- Rodríguez, A.; Clariana, M. (2017). Procrastinación en estudiantes universitarios: Su relación con la edad y el curso académico. *Revista Colombiana de Psicología*, 26(1), 45-60. Recuperado de DOI: [10.15446/rcp.v26n1.53572](https://doi.org/10.15446/rcp.v26n1.53572)
- Sampaio, R. K. N.; Bariani, I. C. D. (2011). Procrastinação acadêmica: Um estudo exploratório. *Estudos Interdisciplinares em Psicologia*, 2(2), 242-262.
- Sampaio, R. K. N.; Polydoro, S.; Rosário, P. (2012). Autorregulação da aprendizagem e a procrastinação acadêmica em estudantes universitários. *Cadernos de Educação*, 42, 119-142.
- Souza, L. K.; Lourenço, E.; Santos, M. R. G. (2016). Adaptação à universidade em estudantes ingressantes na graduação em psicologia. *Psicologia da Educação*, 42, 35-48. Recuperado de DOI: <http://dx.doi.org/10.5935/2175-3520.20150023>
- Steel, P.; Klingsieck, K. B. (2016). Academic procrastination: Psychological antecedents revisited. *Australian Psychologist*, 51(1), 3646. Recuperado de DOI: <https://doi.org/10.1111/ap.12173>
- Vahedi, S.; Farrokhi, F.; Gahramani, F.; Issazadegan, A. (2012).

The relationship between procrastination, learning strategies and statistics anxiety among Iranian college students: A canonical correlation analysis. *Iranian Journal of Psychiatry and Behavioral Sciences*, 6(1), 40–46.

Wolters, C. A. (2003). Understanding procrastination from a self-regulated learning perspective. *Journal of Education Psychology*, 95(1), 179-187.

Received: May 3, 2019

Approved: April 16, 2020

This paper was translated from Portuguese by Ana Maria Pereira Dionísio.