



# DO BOYS AND GIRLS PROCRASTINATE DIFFERENTLY? A COMPARATIVE STUDY IN JUNIOR HIGH SCHOOL

Rizky Nur Annisaa<sup>1</sup>, Diniy Hidayatur Rahman<sup>2\*</sup>, Indah Nur Rahmawati<sup>3</sup>

State University of Malang, Jl. Semarang No. 5 Malang, East Java, Indonesia

\*Author of correspondence, Email: [diniy.hidayatur.fip@um.ac.id](mailto:diniy.hidayatur.fip@um.ac.id)

## Abstract

This study investigated whether academic procrastination differs significantly between male and female junior high school students. A quantitative comparative design was employed with a sample of 94 students (50 males, 44 females) selected through simple random sampling. Data were collected using the Tuckman Procrastination Scale (TPS) and analyzed using an independent sample t-test via SPSS version 25. Descriptive results showed that most students exhibited moderate levels of academic procrastination, with females displaying slightly higher average scores and a greater proportion of high procrastinators. However, the t-test results indicated no statistically significant difference in procrastination levels between genders ( $p = 0.099$ ). These findings suggest that academic procrastination is a widespread phenomenon among early adolescents and is not strongly differentiated by gender. The results highlight the need for general preventive interventions in schools aimed at improving self-regulation and time management among all students, regardless of gender. This study contributes to the growing literature on procrastination by focusing on an underexplored age group and calls for further research incorporating broader psychological and contextual factors.

**Keywords:** academic procrastination; gender differences; junior high school

## 1. Introduction

Procrastination is a common behavioral phenomenon in daily life, where individuals delay completing tasks despite being aware of the potential negative consequences. This tendency extends beyond personal routines and has become increasingly prevalent in academic settings, particularly among students. Ferrari, Johnson, and McCown (1995) conceptualize procrastination not merely as a delay in action but as a repeated and systematic behavioral pattern that results in substandard performance, involves tasks that are perceived as important, and often leads to emotional discomfort. In academic contexts, this behavior is known as academic procrastination—defined as the recurrent postponement of academic tasks such as studying or completing assignments, often until just before the deadline (González-Brignardello et al., 2023). Academic procrastination has been widely recognized as a significant barrier to students' academic achievement and psychological well-being, and has been linked to lower life satisfaction and a higher risk of school dropout (Uzun & Saçkes, 2011). As academic and social demands on students continue to increase, understanding procrastination as a systemic behavioral issue is critical to fostering academic success and mental health among adolescents.

Academic procrastination is characterized by a consistent delay in academic tasks, despite having the intention to complete them on time. This behavior manifests through various patterns, such as wasting time, avoiding responsibilities, and blaming external circumstances (Setianingsrinur, 2022). According to Ferrari et al. (1995), procrastination involves a lack of clarity in goals, a gap between intention and action, and a preference for alternative activities. Among students, these behaviors may result in missed deadlines, poor academic performance, and elevated stress levels. González-Brignardello et al. (2023)

emphasized that academic procrastination is not a random or isolated behavior but a recurring tendency during students' academic development. Its negative consequences can be both immediate—such as incomplete assignments—and long-term, such as diminished self-efficacy, increased anxiety, and reduced motivation. Given its prevalence and potential harm, academic procrastination is increasingly seen as a critical issue in educational psychology, warranting closer attention and targeted interventions.

While academic procrastination is widely studied in university students and senior high school populations, it is also prevalent among younger adolescents in junior high school, a developmental stage marked by cognitive, emotional, and social transitions. González-Brignardello et al. (2023) noted that procrastination behaviors can emerge early in academic life and may become habitual if not addressed during formative years. Middle school students often face increasing academic demands alongside developing self-regulation skills, which makes them particularly vulnerable to procrastination. However, research focusing on this younger demographic remains limited compared to studies involving older students. As adolescence is a critical period for shaping academic behaviors and attitudes, understanding procrastination tendencies in junior high school students is essential for designing early interventions that foster effective learning habits and psychological resilience. This gap highlights the need for more empirical evidence to explore how procrastination manifests at this stage and whether demographic factors, such as gender, play a significant role.

Various factors contribute to academic procrastination, ranging from psychological to environmental influences. Internally, students may struggle with low self-confidence, poor time management, perfectionism, or emotional states such as anxiety and boredom (Lenggono & Tentama, 2020; Nufi, Setiyowati, & Rahman, 2021; Araya-Castillo et al., 2023). Løkke and Chen (2022) emphasized the role of antecedent conditions, such as task difficulty and lack of energy, as triggers for procrastinatory behavior. Externally, students may be influenced by family dynamics, parenting styles, peer relationships, and the academic environment itself (Parantika et al., 2020). For instance, a student who experiences inconsistent expectations from teachers or minimal support at home may be more likely to delay academic tasks. These factors interact in complex ways, creating a behavioral pattern that is often resistant to simple solutions. Understanding the multifaceted nature of procrastination is essential for developing targeted interventions that address both the internal and external drivers of this behavior.

One dimension that has attracted growing interest in procrastination research is gender. Several studies have attempted to determine whether males and females differ significantly in their tendencies to procrastinate academically, yet the findings have been inconsistent. For instance, Lubis and Meliala (2022) found a significant difference between male and female university students, with males generally exhibiting higher levels of academic procrastination. Similarly, Lu et al. (2022) noted that males tend to have lower self-control, which may make them more susceptible to procrastinatory behaviors. In contrast, other studies have reported either no significant gender difference (Ozer & Ferrari, 2011; Zhou, 2020) or findings suggesting that females may be more prone to procrastination due to perfectionistic tendencies and heightened anxiety, particularly in environments with strong social expectations (Ghosh & Roy, 2017). These mixed results suggest that the relationship between gender and procrastination is complex and may be influenced by additional psychological or contextual variables.

The inconsistency in findings regarding gender differences in academic procrastination may stem from several methodological and contextual factors. Differences in the measurement instruments used, cultural background of the participants, educational systems, and age groups studied can all influence outcomes. Zhou (2020) argued that personality traits—such as conscientiousness, emotional stability, and openness to experience—might mediate the relationship between gender and procrastination. Moreover, Rahmawati (2025) found that self-regulated learning and adversity quotient played a more prominent role than gender in predicting procrastination among students writing their theses. In this context, gender may function more as a moderating variable rather than a direct predictor of procrastination behavior. These nuances highlight the importance of considering broader psychological and sociocultural frameworks when interpreting gender-related differences in procrastination, especially among students from diverse backgrounds and age groups.

Despite the growing body of research on academic procrastination, most studies have predominantly focused on university students or senior high school learners, leaving a gap in understanding how this behavior manifests in younger adolescents, particularly junior high school students. This age group is undergoing critical developmental transitions, including identity formation, emotional regulation, and increasing academic responsibility—all of which may influence procrastination tendencies. Yet, few studies have systematically examined whether gender-based differences in academic procrastination emerge during this stage. As junior high students begin to internalize academic habits that can persist into later schooling and adulthood, identifying early patterns of procrastination, and their potential relationship with gender, is crucial. Addressing this gap can provide valuable insights for educators and school counselors aiming to implement preventive strategies before such behaviors become entrenched.

This study aims to explore whether significant differences exist in the levels of academic procrastination between male and female junior high school students. By focusing on a middle school population in Indonesia, the research seeks to contribute empirical evidence to an area that remains underexamined. Through a comparative approach, the study not only evaluates gender-based patterns in procrastination but also informs practical implications for school-based interventions. The findings are expected to support school counselors and educators in developing gender-responsive strategies to address procrastination, ultimately promoting academic success and mental well-being for all students regardless of gender. This research also adds to the international discourse on procrastination by highlighting developmental and cultural factors relevant to early adolescents.

## 2. Method

This study employed a quantitative comparative research design aimed at examining potential differences in academic procrastination levels between male and female students. A comparative approach is suitable for identifying whether significant distinctions exist between two or more groups based on specific variables—in this case, gender (Sugiyono, 2021). By utilizing this design, the research sought to generate objective and statistically testable data that could contribute to the understanding of how academic procrastination manifests across gender lines in early adolescence. The study was structured to determine not only the average levels of procrastination among students but also to explore whether those levels varied significantly between boys and girls in a junior high school setting.

The participants in this study were 94 students from grades 7 and 8 at SMP Negeri 3 Batu, located in East Java, Indonesia. The sample consisted of 50 male students and 44 female students, selected using a simple random sampling technique. This method was chosen to ensure that every student in the population had an equal chance of being selected, minimizing selection bias and enhancing the generalizability of the findings (Sugiyono, 2021). The data collection process was conducted over a one-month period, from April 17 to May 16, 2025. The selection of junior high school students was intentional, as this age group represents a transitional period marked by rapid cognitive, emotional, and behavioral development—factors that are often associated with changes in academic habits, including procrastination (González-Brignardello et al., 2023).

Data on academic procrastination were collected using the Tuckman Academic Procrastination Scale, which consists of 16 items designed to measure students' tendencies to delay academic tasks. The instrument assesses three key indicators of procrastinatory behavior: time-wasting, task avoidance, and external attribution (Setianingsrinur, 2022). Each item was rated on a four-point Likert scale ranging from "strongly disagree" to "strongly agree," allowing for the quantification of procrastination levels. To facilitate accessibility and ease of distribution, the scale was converted into a digital format using Google Forms. This allowed researchers to administer the instrument efficiently during classroom sessions, immediately after the delivery of a guidance and counseling service, ensuring that responses were collected under consistent and controlled conditions.

Before the main data analysis, the instrument underwent validity and reliability testing to ensure its appropriateness for use with the target population. Item validity was assessed by comparing each item's correlation coefficient ( $r$ -count) to the critical  $r$ -table value of 0.207. All items exceeded this threshold, indicating that they were valid measures of academic procrastination (Setianingsrinur, 2022). Additionally, the internal consistency of the scale was evaluated using Cronbach's alpha, which yielded a coefficient of 0.886. This value surpasses the commonly accepted minimum of 0.70, signifying a high level of reliability (Araya-Castillo et al., 2023). These results confirmed that the instrument was both valid and reliable for assessing procrastination behaviors among junior high school students in the Indonesian context.

The data collection procedure consisted of several key steps. First, the digitalized version of the Tuckman scale was distributed directly to students in grades 7 and 8 during classroom sessions following the delivery of a classroom guidance session. Once responses were collected, data were exported and prepared for statistical analysis. Prior to conducting hypothesis testing, assumption checks were performed to ensure the suitability of the independent sample  $t$ -test. These included tests of normality (Kolmogorov-Smirnov and Shapiro-Wilk) and homogeneity of variances (Levene's Test), both of which yielded significance values above 0.05, confirming that the data met the assumptions for parametric testing. The main analysis involved the independent sample  $t$ -test using SPSS version 25, which was used to compare the mean scores of academic procrastination between male and female students and determine whether the observed differences were statistically significant.

### 3. Results and Discussion

#### 3.1 Result

Descriptive statistical analysis revealed that the majority of junior high school students in this study demonstrated a moderate level of academic procrastination. As shown in Table 1, 71.3% of the students fell into the moderate category, while 17.0% were categorized as having low academic procrastination and 11.7% as high. These results indicate that although procrastination was present among students, most did not exhibit extreme tendencies. The predominance of moderate-level procrastination suggests that while students may delay academic tasks, their behavior has not yet escalated to severely detrimental levels. Nonetheless, the presence of high procrastination among a subset of students signals the need for targeted support and preventive strategies.

**Table 1. Overall Distribution of Academic Procrastination Levels**

Procrastination Level	Frequency	Percentage
Low	16	17.0%
Moderate	67	71.3%
High	11	11.7%
Total	94	100.0%

When analyzed by gender, the distribution of academic procrastination levels among female students showed a slightly different pattern. As shown in Table 2, 68.2% of the 44 female students exhibited moderate levels of procrastination, while 15.9% fell into the low category, and another 15.9% into the high category. These proportions indicate a more balanced distribution at the extremes compared to the overall sample. In particular, the proportion of female students with high procrastination (15.9%) was notably higher than the overall sample average (11.7%), suggesting that some girls may be experiencing higher levels of academic delay, potentially linked to internal factors such as anxiety or perfectionism. This variation underscores the importance of examining gender-specific patterns within the broader trends.

**Table 2. Academic Procrastination Levels among Female Students**

Procrastination Level	Frequency	Percentage
Low	7	15.9%
Moderate	30	68.2%
High	7	15.9%
Total	44	100.0%

Male students in the study demonstrated a slightly different distribution of academic procrastination levels compared to their female counterparts. As shown in Table 3, 74.0% of the 50 male students exhibited moderate levels of procrastination, which is higher than the proportion among females (68.2%). In contrast, only 8.0% of male students were categorized as having high procrastination, a figure nearly half of that observed among females. Meanwhile, 18.0% of male students reported low procrastination levels. These findings suggest that while

moderate procrastination is common among both genders, female students may be more represented in the high procrastination category. The results highlight a potential gender-based disparity in how students experience or cope with academic tasks, though further statistical testing is required to determine whether these differences are significant.

**Table 3. Academic Procrastination Levels among Male Students**

Procrastination Level	Frequency	Percentage
Low	9	18.10%
Moderate	37	74.0%
High	4	8.0%
Total	50	100.0%

To explore whether there were meaningful differences in academic procrastination scores between male and female students, descriptive statistics were calculated for each group. As shown in **Table 4**, female students had a higher mean score ( $M = 38.80$ ,  $SD = 9.29$ ) compared to male students ( $M = 35.82$ ,  $SD = 8.02$ ). This suggests that, on average, girls exhibited slightly greater tendencies to procrastinate academically. Additionally, the standard deviation for female students was higher than that of male students, indicating greater variability in procrastination behaviors within the female group. While these descriptive results hint at gender-based differences, inferential analysis is necessary to determine whether the observed differences are statistically significant.

**Table 4. Descriptive Statistics of Academic Procrastination by Gender**

Gender	N	Mean	Std. Deviation	Std. Error	Mean
Male	50	35.82	8.02	1.13	
Female	54	38.80	9.29	1.40	

Before conducting the independent sample t-test, assumption checks were carried out to ensure that the data met the necessary criteria for parametric analysis. The results of the normality tests using both the Kolmogorov-Smirnov and Shapiro-Wilk methods indicated that the distribution of procrastination scores for both male and female students was normal. For male students, the significance values were 0.058 (Kolmogorov-Smirnov) and 0.400 (Shapiro-Wilk), while for female students the values were 0.066 and 0.319, respectively—all above the threshold of 0.05. In addition, Levene’s Test for Equality of Variances yielded a significance value of 0.099, confirming the assumption of homogeneity of variance. These results justified the use of the independent sample t-test for comparing the mean procrastination scores between the two gender groups.

The independent sample t-test was conducted to determine whether the difference in mean academic procrastination scores between male and female students was statistically significant. The result showed a Sig. (2-tailed) value of 0.099. This indicates that there was no statistically significant difference in academic procrastination between male and female students. Although descriptive statistics revealed that female students had slightly higher mean scores and greater variability, the t-test results suggest that these differences are not strong enough to be considered significant at the group level. Thus, academic procrastination

appears to be experienced similarly by both genders in this junior high school context, reinforcing the notion that procrastination is a widespread issue affecting students regardless of gender.

### 3.2 Discussion

The present study aimed to investigate whether academic procrastination differs between male and female junior high school students. The findings revealed that the majority of students—regardless of gender—exhibited moderate levels of academic procrastination. While descriptive statistics showed that female students had slightly higher average scores and greater variability, the results of the independent sample t-test indicated that these differences were not statistically significant. This suggests that both male and female students in this context experience academic procrastination at similar levels. These results contribute to a growing body of literature suggesting that procrastination is a prevalent and shared challenge among adolescents, rather than one strongly differentiated by gender.

The finding that most students fell into the moderate category of academic procrastination aligns with earlier studies highlighting the widespread nature of this behavior among adolescents (González-Brignardello et al., 2023). A moderate level of procrastination suggests that while students are not severely disengaged from their academic tasks, they do exhibit habitual delays that may hinder optimal performance and long-term academic development. If left unaddressed, such behaviors can escalate, leading to chronic stress, reduced academic self-efficacy, and lower achievement outcomes (Uzun & Saçkes, 2011). Therefore, this pattern signals the importance of early identification and intervention—not necessarily limited to extreme cases. Preventive strategies aimed at all students, particularly those in the moderate-risk group, are essential to promote healthier study habits and enhance academic resilience during the formative middle school years.

Although the overall analysis revealed no significant gender differences, the descriptive findings suggest subtle variations in how procrastination manifests across genders. Female students showed a slightly higher proportion of high academic procrastination (15.9%) compared to male students (8.0%), as well as a higher average score. This trend may be linked to psychological characteristics such as anxiety and perfectionism, which have been shown to affect procrastination levels, particularly among females (Ghosh & Roy, 2017). These tendencies could result from social and academic pressures that differentially affect girls, especially in environments where high performance and self-discipline are emphasized. However, the lack of statistical significance indicates that these differences, while observable, do not represent a consistent or robust pattern across the sample. This reinforces the need to look beyond gender alone when analyzing procrastinatory behavior in adolescents.

The findings of this study are consistent with several previous investigations that reported no significant gender differences in academic procrastination. For example, Ozer and Ferrari (2011) and Zhou (2020) both found that gender did not serve as a reliable predictor of procrastination tendencies among high school and university students. Similarly, Harrison (2014) emphasized that factors such as self-efficacy and motivation played a more decisive role than gender in shaping procrastinatory behavior. However, contrasting results have been reported in other studies. Lubis and Meliala (2022), for instance, observed a significant difference between male and female students, with males displaying higher levels of

procrastination. These inconsistencies across studies may be attributed to variations in educational level, cultural context, measurement instruments, and the influence of moderating or mediating psychological variables. As such, gender-based differences in academic procrastination remain an open question that may be contingent on a range of interacting factors.

Given the mixed evidence surrounding gender and procrastination, many researchers have shifted focus toward other explanatory variables that may better account for differences in procrastinatory behavior. Studies have pointed to factors such as self-efficacy, emotion regulation, perfectionism, and self-regulated learning strategies as stronger predictors of procrastination than gender alone (Harrison, 2014; Rahmawati, 2025). For instance, students with low academic self-confidence or poor time management skills are more prone to delaying tasks, regardless of their gender. In addition, Araya-Castillo et al. (2023) proposed a multidimensional model in which psychological and social dimensions—such as stress, lack of motivation, and family dynamics—play a central role in influencing procrastination. These findings suggest that a more nuanced and individualized approach is needed to understand and address procrastination in educational settings, rather than relying solely on demographic factors like gender.

The absence of significant gender differences in this study may also be influenced by the developmental stage of the participants. Junior high school students typically operate within highly structured academic environments, with similar curricula, teacher expectations, and parental oversight, regardless of gender. These shared external conditions may minimize the behavioral distinctions that tend to emerge more prominently in older adolescents or university students who experience greater autonomy and academic pressure (Lu et al., 2022). Additionally, cognitive and emotional maturation during early adolescence is still in progress, which could lead to more uniform expressions of procrastination across genders. As Zhou (2020) noted, personality traits and self-regulation skills become more differentiated with age, which may explain why gender-based discrepancies appear more frequently at higher educational levels. Thus, in the junior high school context, developmental and environmental uniformity might buffer or mask any gender-based tendencies in procrastination.

From a practical standpoint, the findings highlight the importance of designing academic support and counseling interventions that address procrastination among all students, rather than tailoring efforts solely based on gender. Given that both male and female students exhibited moderate levels of procrastination, school counselors and educators should implement preventive strategies aimed at enhancing students' time management, goal-setting, and self-monitoring skills across the board (Finishia, Hidayah, & Rahman, 2020). Group guidance, classroom-based counseling, and individualized support can be structured to foster self-regulated learning behaviors, regardless of gender identity. Moreover, early identification of students with higher procrastination tendencies—through regular screening or observation—can help ensure timely and targeted intervention. In line with Araya-Castillo et al. (2023), such interventions should also take into account psychological and social contexts that may underlie procrastination, such as low motivation, academic stress, or lack of familial support.

Despite its contributions, this study is not without limitations. The sample was drawn from a single junior high school in East Java, Indonesia, which may limit the generalizability of

the findings to other regions or educational contexts. In addition, the study relied on a single self-report instrument to measure academic procrastination, which may be subject to response biases. Future research could benefit from incorporating qualitative methods, such as interviews or classroom observations, to capture a richer understanding of procrastination behaviors. Moreover, examining potential mediators and moderators—such as academic motivation, parental involvement, or personality traits—could offer deeper insight into the mechanisms underlying procrastination. Expanding the scope to include other age groups or longitudinal designs may also help clarify how procrastination patterns evolve over time and whether gender differences become more pronounced in later stages of education.

#### 4. Conclusion

This study examined gender differences in academic procrastination among junior high school students and found no statistically significant disparity between male and female students. While descriptive data revealed slight variations—such as a higher proportion of high procrastinators among females—the overall results suggest that procrastination is a common experience shared across genders in this developmental stage. These findings underscore the importance of school-wide interventions that address procrastination as a general academic and psychological concern rather than a gender-specific issue. By recognizing the prevalence of moderate procrastination levels, educators and counselors are encouraged to implement preventive strategies that cultivate time management and self-regulation skills among all students. Future studies should explore additional factors beyond gender, and consider diverse methods and populations to enrich our understanding of procrastination and its underlying dynamics.

#### References

- Araya-Castillo, L., Burgos, M., González, P., Rivera, Y., Barrientos, N., Yáñez Jara, V., Ganga-Contreras, F., & Sáez, W. (2023). *Procrastination in university students: A proposal of a theoretical model*. Behavioral Sciences, 13(2), 1–15. <https://doi.org/10.3390/bs13020128>
- Ferrari, J. R., Johnson, J. L., & McCown, W. G. (1995). *Procrastination and task avoidance: Theory, research, and treatment*. Springer Science+Business Media.
- Finishia, F. T., Hidayah, N., & Rahman, D. H. (2020). The urgency of guidance and counseling at the elementary school. In *6th International Conference on Education and Technology (ICET 2020)* (pp. 162-166). Atlantis Press.
- Ghosh, R., & Roy, S. (2017). *Relating multidimensional perfectionism and academic procrastination among Indian university students: Is there any gender divide?* Gender in Management: An International Journal, 32(8), 518–534. <https://doi.org/10.1108/GM-03-2017-0026>
- González-Brignardello, M. P., Paniagua, A. S.-E., & López-González, M. Á. (2023). *Academic procrastination in children and adolescents: A scoping review*. Children, 10(1016), 1–12. <https://doi.org/10.3390/children1001016>
- Harrison, J. (2014). *Academic procrastination: The roles of self-efficacy, perfectionism, motivation, performance, age and gender* [Unpublished doctoral dissertation]. University of Huddersfield.
- Lenggono, B., & Tentama, F. (2020). *Construct measurement of academic procrastination of eleventh grade high school students in Sukoharjo*. International Journal of Scientific and Technology Research, 9(1), 454–459.
- Lubis, I. H., & Meliala, S. M. S. (2022). *Perbedaan prokrastinasi akademik ditinjau dari jenis kelamin pada mahasiswa Universitas X Stambuk 2018*. Jurnal Penelitian Pendidikan dan Kesehatan, 3(2), 107–112.
- Lu, D., He, Y., & Tan, Y. (2022). *Gender, socioeconomic status, cultural differences, education, family size and procrastination: A sociodemographic meta-analysis*. Frontiers in Psychology, 12, 1–15. <https://doi.org/10.3389/fpsyg.2021.719425>

- Nufi, E. P., Setiyowati, A. J., & Rahman, D. H. (2021). Panduan Self Instruction dengan Pendekatan Structured Learning Approach untuk Menurunkan Prokrastinasi Akademik Siswa SMP. *Jurnal Pendidikan: Teori, Penelitian, & Pengembangan*, 6(2), 228–234.
- Ozer, B. U., & Ferrari, J. R. (2011). *Gender orientation and academic procrastination: Exploring Turkish high school students*. *Individual Differences Research*, 9(1), 33–40.
- Rahmawati, D. R. (2025). *The mediating role of adversity quotient and the moderating role of gender on the effect of self-regulated learning on academic procrastination in completing a thesis*. *Multidisciplinary Science Journal*, 1(1), [page numbers pending].
- Setianingsrinur, N. P. (2022). *Hubungan dukungan sosial dengan prokrastinasi akademik pada mahasiswa yang menyelesaikan skripsi di STIKES Hang Tuah Surabaya* [Undergraduate thesis, Universitas Hang Tuah Surabaya].
- Sugiyono. (2021). *Metode penelitian pendidikan: Kuantitatif, kualitatif, kombinasi, R&D dan penelitian pendidikan*. Penerbit Alfabeta.
- Uzun, B., & Saçkes, M. (2011). *Effects of academic procrastination on college students' life satisfaction*. *Procedia - Social and Behavioral Sciences*, 12, 512–519. <https://doi.org/10.1016/j.sbspro.2011.02.063>
- Zhou, M. (2020). *Gender differences in procrastination: The role of personality traits*. *Current Psychology*, 39, 1445–1453. <https://doi.org/10.1007/s12144-018-9841-2>