

## Systematic Review of Academic Procrastination in Students: Psychological and Environmental Factors

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### ABSTRACT

This article presents a systematic review of the literature on academic procrastination in students, focusing on the identification and analysis of psychological and environmental factors that influence it. Academic procrastination, defined as the deliberate delay in starting or completing academic tasks despite awareness of the negative consequences, is a common problem that significantly impacts students' performance and mental well-being. This review comprehensively examines the relevant literature to clearly define academic procrastination, map its aspects (such as procrastination, study avoidance, or poor time management), and identify key behavioral indicators (e.g., late assignment submission, poor exam grades, or subjective reports of guilt and anxiety). Psychological factors explored include poor self-regulation, anxiety about failure, perfectionism, and intrinsic motivation; while environmental factors include teaching style, social support, and classroom climate. The primary objective of this review is to synthesize the findings from existing studies to provide a deeper understanding of the mechanisms behind academic procrastination. The results are expected to inform the development of more effective and targeted interventions to help students overcome procrastination and improve their academic success.

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## 1. INTRODUCTION

Academic procrastination is a common phenomenon among students that is a serious concern in education due to its negative impact on academic achievement and student mental well-being (Fitriana, 2024; Aprilia & Lestari, 2024). Academic procrastination, defined as the voluntary delay in starting or completing academic tasks despite awareness of negative consequences, is a common and disruptive behavioural phenomenon among students at various levels of education. This behaviour has been identified as a significant predictor of poor academic performance, higher stress levels, and decreased mental well-being.

This phenomenon is a widespread and persistent challenge in the context of education, affecting students at various levels, from primary school to university. Although often considered a personality trait or a lack of time management, contemporary research shows that academic procrastination is a multidimensional behaviour influenced by complex interactions between internal psychological factors and external environmental factors.

The impact of academic procrastination is extensive, including lower grades, increased stress and anxiety, and mental health problems. Given its prevalence and impact, it is important to understand the root causes of this phenomenon. Research has identified two main categories of factors: internal (psychological) factors originating from the individual, and external (environmental) factors originating from the student's learning context.

Given its widespread negative impact, a deep understanding of the root causes of academic procrastination is crucial. The existing literature shows that procrastination is not a simple time management issue, but rather a complex phenomenon rooted in the interaction between an individual's internal characteristics and external conditions. Various studies have identified two main categories of contributing factors: psychological (internal) factors and environmental (external) factors.

Psychological factors include cognitive, affective, and motivational dimensions, such as self-regulation, intrinsic/extrinsic motivation, fear of failure, and stress coping mechanisms. Meanwhile, environmental factors include aspects such as task characteristics, classroom structure and climate, the role of teachers/lecturers, and support from parents and peers.

Although many empirical studies have examined these aspects separately, a comprehensive systematic review is needed to integrate these findings. Therefore, the objectives of this systematic review are to:

1. Identify the main psychological factors that are consistently associated with academic procrastination in students.
2. Identify the main environmental factors that are consistently associated with academic procrastination in students.
3. Synthesise these findings to provide an integrated theoretical framework regarding the aetiology of academic procrastination.

This systematic review aims to critically synthesise the current empirical evidence on the role of psychological and environmental factors in explaining academic procrastination among students. By clearly identifying and categorising these key variables, this review will provide a solid foundation for future research and inform the design of more targeted and effective intervention programmes in academic settings.

## 2. METHOD

This systematic review follows the main guidelines for conducting systematic reviews in the social sciences, as recommended by the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) standards.

### a. Search Strategy and Data Sources

Literature searches were conducted in major academic databases, including Scopus, Web of Science, ScienceDirect, ProQuest, and Google Scholar. The search terms (keywords) used, in both Indonesian and English, included combinations of:

- 1) "Academic procrastination" OR "Prokrastinasi akademik"
- 2) "Students" OR "Students"
- 3) "Psychological factors" OR "Psychological factors"
- 4) "Environmental factors" OR "Environmental factors"
- 5) "Causes" OR "Etiology" OR "Causes"

The search was limited to articles published in *peer-reviewed* journals within the last ten years (2015-2025) to ensure the relevance and currency of the literature.

### b. Inclusion and Exclusion Criteria

#### 1) Inclusion Criteria:

- a) Empirical studies (quantitative, qualitative, or mixed methods).
- b) Focus on academic procrastination as the primary or dependent variable.
- c) The study population consists of students at the secondary or higher education level (secondary school, university, or equivalent).
- d) Investigating at least one psychological factor OR one environmental factor as a predictor/correlation of procrastination.
- e) Full text available in Indonesian or English.

#### 2) Exclusion Criteria:

- a) Review studies, meta-analyses, book chapters, or conference abstracts.
- b) Primary focus on clinical procrastination or non-academic procrastination.
- c) The study population consists of primary school students.
- d) Studies that only focus on interventions without analysing causal factors.

### c. Study Screening and Selection Process

The selection process was conducted in two stages by two independent researchers:

- 1) Title and Abstract Screening: The first researcher conducted an initial screening based on the title and abstract. Any discrepancies were discussed with the second researcher.
- 2) Full Text Review: Articles that passed the first stage were reviewed in full against the inclusion/exclusion criteria. It was agreed that only studies with a minimum inter-rater agreement of 80% would be included in the final review.

d. Data Extraction and Quality Assessment

Data were extracted using a standard form that included the following information:

- 1) Basic information (author, year, country, study design).
- 2) Population (educational level, sample size).
- 3) Procrastination measurement instruments.
- 4) Psychological and environmental factors investigated.
- 5) Key findings relevant to the factors reviewed.

Methodological quality assessment (risk of bias) was conducted for each included study, using an appropriate quality assessment tool for the study design (e.g., JBI tool for quantitative/qualitative studies). Only studies with moderate to high methodological quality were included in the final synthesis.

e. Data Synthesis

Extracted data will be presented in narrative and tabular form. Thematic synthesis will be used to group and discuss findings coherently. The main focus of the synthesis is to identify consistent patterns and relationships between psychological factors (e.g., self-regulation, motivation, anxiety) and environmental factors (e.g., task demands, teacher roles, social support) and academic procrastination. The results of the synthesis will be used to construct a more integrated framework of understanding.

### 3. RESULTS AND DISCUSSION

a. Definition of Academic Procrastination

Etymologically, procrastination comes from Latin, namely "pro" (to move forward) and "cratinus" (tomorrow's decision) (Faozi, 2022 in Waty & Agustina, 2022). Academic procrastination is defined as the tendency to deliberately delay starting or completing academic tasks, even though the individual is aware that the delay may have negative consequences (Gunawan & Hastuti, 2024).

This delay is considered procrastination if it is irrational, repetitive, and causes feelings of discomfort such as anxiety, restlessness, and guilt (Fitriana, 2024). In the context of students, this behaviour is often seen in subjects that are considered difficult or less interesting, such as Mathematics or Physics (Novirson & Putri, 2024).

b. Aspects of Academic Procrastination

Academic procrastination is not simply putting things off, but involves complex behavioural and emotional dimensions. There are several main aspects that are the focus of measuring this behaviour in students (Novirson & Putri, 2024; Fitriana, 2024):

- i. *Delaying Start of Task*: The behaviour of putting off the start of an academic task or activity that should have already been done. Students often feel lazy or reluctant to start the task.
- ii. *Delaying Completion of Task*: The tendency to stop working on a task even though it has already been started, or taking much longer than it should to complete it.

- iii. *Doing Pleasurable Activities*: Diverting time that should be used for studying or doing tasks to other more enjoyable activities, such as playing *online games* or surfing social media.
- iv. *Emotional Distress*: Despite the delay, this behaviour triggers feelings of discomfort, anxiety, and guilt in students because the task has not been completed.

c. Indicators of Academic Procrastination

Indicators are observable manifestations of academic procrastination behaviour in students. Based on a review of the literature, these indicators include the following:

Indicator Category	Examples of Concrete Indicators (Latest References)
Time Gap	The existence of a time gap between the plan to start/complete a task and its actual implementation (Fitriana, 2024).
Delay	Frequently being late or failing to submit tasks at all, even after the specified deadline (Novirson & Putri, 2024).
Avoidance Behaviour	Avoiding tasks that are considered difficult, uninteresting, or challenging (Gunawan & Hastuti, 2024).
Distractions	Excessive use of <i>smartphones, games, or social media</i> during study time (Aprilia & Lestari, 2024).
Affective Impact	Experiencing increased anxiety, stress, and guilt as deadlines approach (Fitriana, 2024).

d. Causative Factors: Psychological and Environmental

Academic procrastination is influenced by internal (psychological) and external (environmental) factors that interact with each other (Waty & Agustina, 2022).

- i. Psychological Factors (Internal) Psychological factors are related to the student's internal condition and are significant contributors (Analysis of Factors Causing Academic Procrastination Behaviour, 2024).
  1. Low Self-Control: Students with low self-control tend to have difficulty resisting the urge to engage in more enjoyable activities and find it difficult to manage their time effectively. Self-control was found to be significantly negatively related to academic procrastination (Self-Control and Academic Procrastination in Vocational High School Students, 2024).
  2. Low Self-Efficacy: This is a low belief in one's ability to complete academic tasks well (Lubis, 2018 in Waty & Agustina, 2022). Students who feel incapable or afraid of failure will trigger procrastination as an avoidance mechanism (Novirson & Putri, 2024).
  3. Low Motivation: Lack of enthusiasm and disinterest in the tasks or

subject matter being taught. Students who lack motivation tend to prefer other activities that they enjoy more (Analysis of Factors Causing Academic Procrastination Behaviour, 2024).

4. Anxiety and Fear: Procrastination can be triggered by *fear of failure* or even fear of success, as well as anxiety about tasks that are considered difficult (Fitriana, 2024).

ii. Environmental Factors (External)

Environmental factors involve influences from outside the student, such as family and school contexts.

1. Social Support and Parents: Lack of parental support, especially in terms of time management and supervision of the learning process at home, significantly exacerbates the habit of procrastinating (Aprilia & Lestari, 2024; Novirson & Putri, 2024).
2. Peer Influence: The peer environment can trigger procrastination. Students tend to procrastinate if they know their peers have not yet completed the same task (Analysis of Factors Causing Academic Procrastination Behaviour, 2024; Aprilia & Lestari, 2024).
3. School/Teacher Conditions: An unfavourable learning environment, unengaging teaching methods, or an excessive workload can increase reluctance to study and trigger procrastination (Factors Influencing Student Academic Procrastination, 2025).
4. Availability of Distractions: Easy access to digital devices, *online games*, and excessive social media in the home or school environment is a strong source of physical distraction and correlates with procrastination behaviour (Aprilia & Lestari, 2024; Novirson & Putri, 2024).

e. Conclusions and Implications

This systematic review confirms that academic procrastination among students is a multidimensional issue rooted in the complex interaction between psychological and environmental factors. Interventions must be holistic (Aprilia & Lestari, 2024). The implementation of guidance and counselling services needs to integrate strategies to enhance internal factors, such as self-control and self-efficacy training, with efforts to modify external factors, such as collaborating with parents to create a supportive learning environment and managing digital distractions.

#### 4. CONCLUSION

This systematic review concludes that academic procrastination in students is a complex behaviour that is strongly driven by psychological (internal) and environmental (external) factors. The main psychological factors include low self-regulation, low self-efficacy, performance-related anxiety, and lack of intrinsic motivation. Meanwhile, prominent environmental factors are parenting styles, task characteristics that are perceived as difficult or boring, and environments that are full of distractions and lack supervision.

To effectively address procrastination, interventions must target both

dimensions. Prevention and management strategies should include cognitive-behavioural skills training (e.g., improving self-efficacy and emotion regulation) while creating a supportive, structured learning environment that reduces opportunities for irrational delay.

## 5. AUTHOR'S NOTE

This systematic review is based on a synthesis of available literature and is not a primary empirical study. Limitations may include publication bias and variability in the definition and measurement of procrastination across the studies reviewed. This article is intended as an academic contribution to provide a structured understanding for educators, counsellors, and researchers interested in addressing academic procrastination.

The author acknowledges that this review may not cover every relevant study and recommends further research with more rigorous methodologies (such as meta-analyses) to quantitatively measure the strength of each factor's impact. The author hopes that these findings will provide valuable insights for educators, counsellors, parents, and policymakers in designing more effective and holistic intervention programmes to help students overcome academic procrastination.

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