

Instruments to assess academic procrastination in university students: a systematic literature review

Instrumentos para evaluar la procrastinación académica en estudiantes universitarios: una revisión sistemática de literatura

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Abstract

This study addresses advances in research on academic procrastination (AP) and its impact in the university setting. AP is defined as the tendency to postpone tasks, which has a negative impact on students' health and academic performance. The objective was to examine the main instruments used to measure AP in university students, assessing their validity and reliability. To this end, various scales and questionnaires were reviewed, such as the SPS, EPA, and others, with special emphasis on research conducted in Latin America and its relationship with sociodemographic variables. The methodology consisted of a systematic review of the literature, following the PRISMA procedure for the selection of studies published between 2020 and 2025. The results show that PA significantly affects students, with variations in its prevalence and in the factors that influence its manifestation. The conclusion highlights the need for valid and reliable measurement instruments, as well as the promotion of future research that considers cultural adaptations and the university context.

Keywords: academic procrastination, university students, academic performance.

Resumen

El presente estudio aborda los avances en la investigación sobre la procrastinación académica (PA) y su impacto en el ámbito universitario. La PA se define como la tendencia a postergar tareas, lo que repercute de manera negativa en la salud y el rendimiento académico de los estudiantes. El objetivo fue examinar los principales instrumentos utilizados para medir la PA en universitarios, valorando su validez y confiabilidad. Para ello, se revisaron diversas escalas y cuestionarios, como la SPS, EPA y otros, con especial énfasis en investigaciones desarrolladas en América Latina y en su relación con variables sociodemográficas. La metodología consistió en una revisión sistemática de literatura, siguiendo el procedimiento PRISMA para la selección de estudios publicados entre 2020 y 2025. Los resultados evidencian que la PA afecta significativamente a los estudiantes, con variaciones en su prevalencia y en los factores que inciden en su manifestación. Se concluye destacando la necesidad de contar con instrumentos de medición válidos y confiables, así como de promover investigaciones futuras que consideren las adaptaciones culturales y el contexto universitario.

Palabras clave: procrastinación académica, estudiantes universitarios, rendimiento académico.

Introduction

Technological advancements have transformed various areas of individual life. In the educational sphere, their incorporation has modified interaction and working methods from the pandemic in 2020 to the present. However, when technology is used inappropriately, it can create difficulties in various academic processes. The central foundation of this research is situated within this context of incidents and adaptations (Otero et al., 2023).

For over three decades, multiple studies have indicated that procrastination constitutes a significant social issue, as it affects different spheres of individuals' lives. It is essential to distinguish that postponing a task does not necessarily imply being a procrastinator; procrastination involves intentionality, subjective discomfort, and a repetitive pattern of maladaptive behavior (Díaz, 2019).

Procrastination is defined as the behavior of deliberately postponing various activities that must be executed within a specified timeframe, resulting from behavioral dysregulation or disruption. Therefore, it is a phenomenon of great relevance that continues to be the subject of study in the psychological and educational fields (Gómez et al., 2023).

Research on this topic must remain current, as merely knowing the definition of the phenomenon is insufficient to address its implications. This behavior directly impacts the mental health of those who experience it, making it essential to update findings and apply effective strategies to reduce it (Casasola, 2022).

Recent literature has focused on the consequences of procrastination, especially in the profile of students who exhibit poor study strategies, difficulties in organization and prioritization of objectives, lack of interest in tasks, negative emotions, and inefficient time management. These traits align with the typical profile of a procrastinator (Alegre et al., 2022).

A recent study identified various reasons why university students procrastinate, including stress, excessive internet usage, lack of motivation, and negative perceptions regarding the development of certain activities. Additionally, it was found that 97% of students were affected by the habit of postponing their tasks (He, 2017).

In the academic realm, procrastination manifests as the constant deferral of school activities, adversely affecting students' performance and willingness to initiate tasks. This behavior is considered a significant difficulty that impacts various factors of student life (Silva et al., 2025).

Various databases indicate that academic procrastination (AP) has been extensively researched in Anglo-Saxon, Latin American, and European contexts, resulting in the development of a robust theoretical framework, valid measurement instruments, consistent correlations, and evidence-based intervention methods from psychology (Duda & Gallardo, 2022).

According to Parada and Schulmeyer (2021), AP has been explored in multiple population groups; however, its study among university students is of particular interest due to the complexity of this vital stage. During this time, adolescents and young adults face significant decisions regarding their future careers, making it imperative to have consolidated psychometric measures.

For He (2017), cited by Chirio and Basauri (2023), the causes of AP include laziness, distractions generated by digital applications, stress, and the perception of personal limitations concerning certain tasks. In his study with university students, the author found that 97% displayed one of these causes.

To contribute to this line of research, the present study analyzes the instruments used to evaluate AP among university populations, assessing their validity and reliability. Among the main identified instruments are:

- **SPS**, adapted by Álvarez (2010), originally composed of 28 items and reduced to 16 items distributed across two dimensions: general and academic procrastination. It employs a five-option Likert scale (from "never" to "always") and has a Cronbach's alpha of .80. Its application can be collective or individual, with an approximate duration of 8 to 12 minutes (Trías & Carbajal, 2020).
- **Academic Procrastination Scale (EPA)**, structured into two dimensions: self-regulation and postponement. In its current version, with eight items, it has shown solid psychometric evidence regarding reliability and validity (Dominguez et al., 2023).
- **Tuckman Procrastination Scale**, unidimensional in nature and based on a Likert scale. Its original version included 35 items, while the Peruvian adaptation consists of 15 items, with direct and reverse coding. It uses a response scale ranging from "never happens to me" to "always happens to me," with a reliability of .70 (Alegre & Benavente, 2020).
- **Procrastination Assessment Scale for Students (PASS)**, developed by Solomon and Rothblum, consisting of 44 items that assess two areas: academic performance and reasons for procrastination. It presents an internal consistency of .89 (Estremadoiro & Schulmeyer, 2021).
- **Academic Procrastination Scale (APS-S)**, applicable individually or collectively, with a duration of approximately 2 minutes. It consists of 25 items distributed across six factors and uses a five-point Likert scale (from "strongly agree" to "strongly disagree"). A reduced Peruvian version, with five items, showed reliability with alpha = .867 and omega = .849 (Yockey, 2016; Alegre et al., 2022).

In this sense, the present article is theoretically justified by its review of the instruments used in recent years across different cultural contexts—Latin American, European, and Anglo-Saxon—for the evaluation of AP and its approach from psychology. These tools allow for a comprehensive understanding of the phenomenon, considering its dimensions, causes, and levels of manifestation.

Additionally, the research seeks to verify the appropriateness of the instruments for the cultural and educational realities of the university population, ensuring that they meet the structural and statistical criteria required to generate precise results that will guide future interventions.

In conclusion, this study aims to make a significant contribution to the field of psychological assessment applied to academic procrastination, providing useful evidence for the development of science-based strategies grounded in the empirical validity of the reviewed instruments.

Methodology

In this study, we evaluated the instruments used to measure the variable of academic procrastination (AP) among university students. The procedure employed was PRISMA (Page et al., 2021).

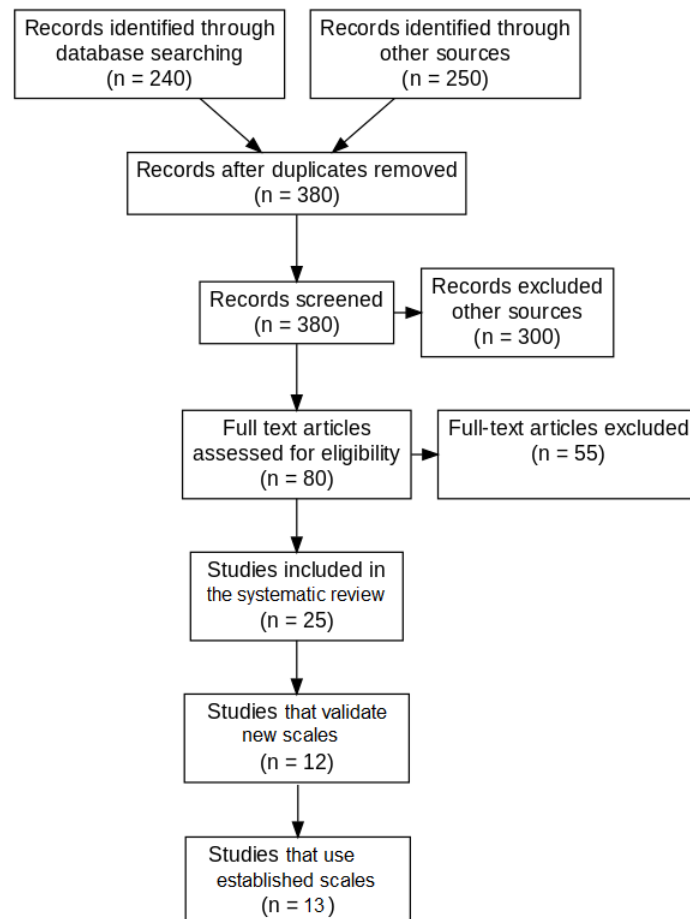
The selection criteria were quantitative and exploratory in nature, addressing measurement instruments for AP in higher education populations. Publications considered were those from 2020 to 2025, in both Spanish and English (Codina, 2020).

Searches were conducted in the databases Web of Science, SciELO, and Scopus. Additionally, reference lists of selected articles were reviewed to identify any that did not meet the inclusion criteria. Abstracts of the studies were examined, resulting in the selection of 25 articles for comprehensive analysis.

The exploration involved evaluating the methodological quality and relevance of the studies in relation to the research topic, considering the following criteria:

- **Validity:** Studies that used appropriate instruments to measure the intended construct were included. Content, criterion, and construct validity were also assessed.
- **Reliability:** Studies that presented consistent results, with adequate internal solidity (omega coefficient and Cronbach's alpha) and temporal stability, were included.
- **Cultural adaptation:** The adaptation processes of the instruments used in various cultural contexts were evaluated to ensure their validity and reliability.
- **Study design:** Research providing detailed data on the evolution and use of procrastination measurement instruments over the years was selected.

Figure 1
PRISMA diagram



Results

This study was conducted considering specific periods grouped into similar time intervals. This random indicator aims to request and organize information, as well as promote the publication of results according to the year reported. The studies included in this systematic review are distinguished by their bibliography related to academic procrastination among higher education students.

In this sense, the article aims to provide evidence of the validity and reliability of academic procrastination measurement instruments (AP) applied to university students (adolescents, young adults, and adults), with the goal of providing useful tools for diagnosis, aimed at generating precise data in this population.

Casasola (2022), in a study on AP in the Latin American context, demonstrated that the tendency to procrastinate is shared by both sexes. Additionally, the influence of sociodemographic variables and cultural traditions on procrastination behavior among university students was highlighted.

Moreover, the reviewed studies indicate that AP is often analyzed from a cognitive-behavioral perspective, which posits that students exhibiting this behavior develop dysfunctional regulatory processes, leading to a persistent tendency to postpone activities (Silva et al., 2025).

In this line, articles were identified that utilized theories from cognitive-behavioral therapy (CBT) and tools that meet quality standards, such as:

- **SPS**
- **IMDPA**
- **EPA**
- **Tuckman Procrastination Scale**
- **APS-S**

In Mexico, a study aimed to validate the use of the EPA among university students, reducing the scale to 12 items, with a reliability of .78 (Barraza & Barraza, 2018; Silva et al., 2025). Similar results were reported by Corrales et al. (2022), who applied the EPA in a five-response multiple-choice format (from "never" to "always"), obtaining a Cronbach's alpha of 0.786. This study revealed that women exhibited more self-regulated behavior than men in response to academic demands.

In Paraguay, García and Silva (2019) applied an instrument to determine levels of AP among university students, finding that 38.8% procrastinated, a low percentage compared to other studies reporting figures above 70% (Real et al., 2023).

Alegre and Benavente (2020) utilized the ATPS, which consists of 15 items organized in a unidimensional structure. The scale showed reliability exceeding 0.70 and validity supported by the correlation between ATPS scores and academic performance, evidencing a significant negative relationship. Subsequently, Alegre et al. (2022) adapted the short version of the APS-S, achieving high levels of internal consistency (α ord = .867; word = .849).

Chirio and Basauri (2023) applied the EBPA, evaluated by 10 experts, obtaining a validity coefficient of .80 and a reliability of .70, with two dimensions for its application. Similarly, Estremadoiro and Schulmeyer (2021) employed the PASS, an instrument measuring the recurrence of cognitive and behavioral references of procrastination, achieving an internal consistency of 0.89. Finally, in Peru, Herrera et al. (2021) evaluated academic procrastination with the IMDPA, composed of four dimensions. The instrument presented a validity of 58.59% and a reliability of 0.93, demonstrating high scores on both indicators.

Conclusions

Academic procrastination constitutes a complex phenomenon affecting university students, sometimes chronically, and is often associated with variables related to health and psychological well-being. Its consequences are detrimental, as they generate discomfort and hinder the development of professional training; thus, appropriate measurement instruments are required for identification and subsequent intervention (Saavedra, 2022).

Research on academic procrastination in the university context has employed various assessment tools. Among them, the PASS and EPA stand out as the most utilized, although their application necessitates rigorous analysis regarding validity, reliability, and cultural adaptation (Domínguez et al., 2020). Furthermore, the EPA and APS-S have proven to be useful instruments in clinical, educational, and research contexts, thanks to the robustness of their estimates and appropriate internal structure.

On the other hand, studies employing the ATPS show favorable results, as this instrument presents established psychometric properties, contributing consistency and relevance to the construct.

Finally, it is considered essential for future research to focus on the creation and validation of more specific tools tailored to the university context. Such research should contemplate emerging factors such as the use of technology and the peculiarities of academic curricula, aiming to offer more precise and culturally relevant assessments.

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