Motivational factors in higher education students: a systematic review

Factores motivacionales en estudiantes de educación superior: una revisión sistemática

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Abstract

Motivation in higher education is related to various factors whose complexity is, in many cases, particular to individuals and their realities. This implies that the study of motivational factors must include the diverse and complex situations in which students find themselves, encompassing their own experiences, circumstances and characteristics. Likewise, there are diverse contexts that make it possible to understand the decisions that lead them to choose the necessary impulse to begin, continue or complete a given profession. For this reason, the purpose of this article is to analyze the scientific literature related to motivational factors in higher education students. For this purpose, a systematic review was developed based on articles located mainly in databases such as Web of Science and Scopus, through the PRISMA protocol. It is concluded that motivation, in this context, is a complex process driven by both intrinsic and extrinsic motivations, useful in particular situations that, interacting with each other, favor academic continuity and improvement.

Keywords: motivational factors, types of motivation, higher education.

Resumen
La motivación en la educación superior se relaciona con diversos factores cuya complejidad es, en muchos casos, particular a los individuos y sus realidades. Esto implica que el estudio de los factores motivacionales debe incluir las diversas y complejas situaciones en las cuales se encuentran los estudiantes, englobando sus experiencias, circunstancias y características propias. Asimismo, existen diversos contextos que permiten entender las decisiones que los llevan a escoger el impulso necesario para iniciar, continuar o finalizar una determinada profesión. Por esta razón, el artículo presentado tiene como propósito analizar la literatura científica relacionada con los factores motivacionales en los estudiantes de educación superior. Para ello, se desarrolló una revisión sistemática basada en artículos ubicados principalmente en bases de datos como Web of Science y Scopus, a través del protocolo PRISMA. Se concluye que la motivación, en este contexto, es un proceso complejo impulsado por motivaciones tanto intrínsecas como extrínsecas, útiles en situaciones particulares que, al interactuar entre sí, favorecen la continuidad y mejora académica.

Palabras clave: factores motivacionales, tipos de motivación, educación superior.

Introduction
Motivation involves a drive that is not only confined to the accumulation of knowledge but also to sustained transformation across various fields, where the student's trajectory is influenced by their own capabilities (Núñez et al., 2024). Research has shown that students motivated by various factors exhibit an interest in acquiring knowledge across different subjects, demonstrating a greater inclination towards pursuing a professional career compared to those who do not express such motivation.

Regarding self-efficacy, individuals with high levels of these beliefs have higher expectations for their professional choices compared to their peers (Caspi & Gorsky, 2024). Furthermore, the development of motivational factors in higher education (HE) fosters economic participation, reduces poverty, encourages innovation, increases the labor force, and strengthens societal institutions (United Nations Educational, Scientific and Cultural Organization, 2023).

To initiate an analysis of motivation, it is essential to understand its foundations, such as the contextualized expectancy-value theory, which informs decisions related to achievements and academic or occupational options. This theory posits that performance-related choices are predominantly influenced by motivational elements, such as the task's significance and prior experiences (Eccles & Wigfield, 2020). This introduces the regulation of motivation, recognized as a key factor that stimulates interest in both study and academic performance. To manage motivation-related challenges in this context, students may employ various strategies, such as using self-affirmations, enhancing the personal value of tasks, or setting short-term goals (Von der Mülbe et al., 2024).

Turning to goal orientation theory, it is utilized in educational settings to understand student behaviors. This theory suggests that behavioral differences are not solely dependent on levels of motivation but are directed towards goals, highlighting the motives or intentions that guide students' learning. Additionally, these goals impact their actions, responses, and desire to learn (Arias, 2004). In this context, a high degree of engagement is emphasized as crucial for academic success and continuity in educational activities. Academic commitment is viewed as a multifaceted phenomenon, where emotional, cognitive, and behavioral components of student engagement are the most researched, thus recognized as key elements for understanding participation and achievement (Afrashteh & Janjani, 2024).

Complementing the above, self-determination theory can help elucidate the underlying processes of motivation. This theory distinguishes among various types of motivation: amotivation, where the individual lacks intent to act; extrinsic motivation, which includes behaviors driven by external factors such as seeking rewards or avoiding negative consequences; and intrinsic motivation, regarded as the most self-determined, in which an individual engages in an activity purely for personal interest and satisfaction (Teuwen et al., 2024). While motivation is a determining factor in an individual's behavior, the environment acts as a facilitator and represents an opportunity for its development. Motivation directly influences individual actions, while capability and opportunities modulate these behaviors (González-Mohíno et al., 2024).

It is noteworthy that, to continue studies in HE, motivation relates to complex factors intrinsic to individuals and their contexts. Specifically, it is important to adopt a perspective on motivation that encompasses a comprehensive understanding of each student; that is, to value the individual alongside their unique characteristics and experiences. This approach allows for recognizing how personal experiences, individual skills, and environmental influences contribute to motivational decisions and commitment to HE, thereby providing a more complete understanding of the motivational phenomenon (Consoli, 2024). Given that motivation encompasses

personal goals, emotions, and beliefs, it plays a fundamental role in academic performance. Alongside academic abilities, student motivation is substantial for adequately adapting to the increasingly demanding requirements of HE (Laitinen et al., 2024).

Finally, motivational factors such as success goals, self-perception, task significance, beliefs about one's capabilities, and approach or avoidance behaviors are elements that distinguish students in their decisions and learning processes. Furthermore, the importance of applying a person-centered analysis, rather than a variable-based analysis, is highlighted to understand motivational patterns (Senko et al., 2011).

Based on the discussions in the preceding paragraphs, the purpose of this article is to analyze the contributions and motivations, both intrinsic and extrinsic, of various motivational factors in higher education students through the application of the PRISMA methodology.

Methodology

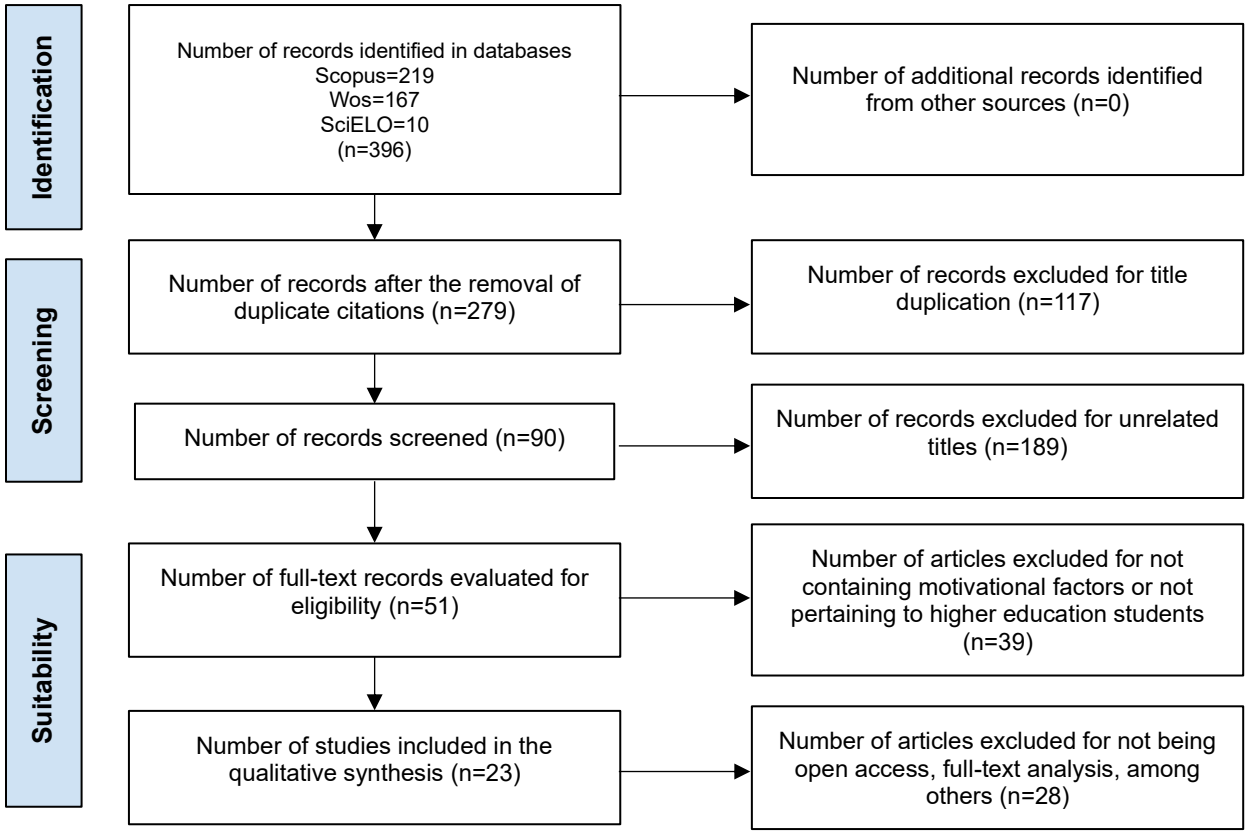
Systematic literature review (SLR) is known as a methodology that employs original research, synthesizing the primary findings therein (Gisbert & Bonfill, 2004). Therefore, an SLR allows for a clearer identification of the rationale behind the review, as well as the procedures and results obtained. Additionally, the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) method aims to ensure that the recorded information is useful for the scientific community. Consequently, its creators are able to produce accurate, clear, and comprehensive publications, detailing the development of the review, the associations made, and all necessary procedures for article selection, concluding with the presentation of the findings (Page et al., 2021).

In this regard, the present SLR was developed following the PRISMA statement, considering validation factors, for which a flow diagram was utilized. The period for selecting published articles was from January to April 2025, encompassing the stages of identification, screening, and eligibility, which include the application of inclusion criteria for articles found in the search engines Web of Science (WoS), SciELO, and Scopus. The language used for the search was English, employing the following formula: ("motivational factors" OR "motivation strategies") AND ("higher education" OR "university students") OR ("academic improvement" OR "academic performance").

Inclusion criteria considered unpublished articles disseminated between 2021 and 2025, primarily published in English. However, results also included texts in Spanish, Chinese, Hungarian, Lithuanian, Croatian, and Portuguese, albeit in smaller proportions. The subject matter had to be related to social sciences and/or education and be openly accessible in the SciELO, Web of Science (WoS), and Scopus databases. Articles had to refer to motivational factors in higher education or university students. Exclusion criteria ruled out articles published prior to 2021, those with restricted access, those from databases other than Scopus, Web of Science, and SciELO, those addressing topics unrelated to the article's title, those aimed at students in basic, intermediate, or non-university education, and those with duplicate or matching titles across various databases.

A total of 396 articles were registered in the identification stage: 219 from Scopus, 167 from Web of Science, and 10 from SciELO. During the screening process, 117 articles were eliminated due to duplication in the aforementioned databases. Additionally, 189 articles were excluded because their titles were not related to the proposed topic, leaving 90 articles. Subsequently, 39 were discarded for not focusing on motivational factors or not referring to higher education students, resulting in 51 remaining articles. Finally, after thorough analysis, 23 articles were selected in the eligibility stage. This entire process is summarized in Figure 1.

Figure 1
PRISMA process



Results and discussion

Mohammed et al. (2022) revealed that men exhibited higher intrinsic motivation associated with job expectations, whereas women excelled in autonomy and resistance to external influences, reflecting a more consistent motivation. However, concerning extrinsic motivation, it was women who demonstrated greater independence and academic rigor. In this regard, Sanzana et al. (2022) found that women surpassed men in motivation towards teaching careers, particularly valuing the social impact of the profession. Both genders agreed on the importance of intrinsic value and social utility as key factors for satisfaction. Men emphasized the relationship between professional demands and their vocation. The study revealed that aspects such as salary and status were undervalued by all participants.

Additionally, González-Amarante & Romero-Padrón (2025) indicated that non-teaching professionals chose teaching for social contribution (in the case of women) or personal passion (in the case of men). Economic factors were found to be less relevant than a sense of duty, with bureaucracy and lack of institutional recognition identified as demotivating factors.

On their part, Gao & Brown (2023) revealed that adaptive teacher feedback strengthens self-efficacy and achievement goals among international students. These findings transcend cultural differences in globalized educational contexts. In line with this, Starecek et al. (2023) discovered that students value challenging tasks, concrete feedback, and fair salaries. Moreover, their high-performance motivation contrasts with low evaluative anxiety. Meanwhile, García et al. (2023) stated that teacher credibility predicts situational motivation in students. This finding validates educational models focused on the teacher-student relationship as the core of academic engagement.

In this context, Vergara-Morales (2024) demonstrated that teacher support for student autonomy enhances autonomous motivation and academic satisfaction. Furthermore, educational environments that promote personal choice activate genuine interest in learning. Conversely, controlled motivation showed minimal impact on satisfaction. These findings highlight the need to design pedagogical practices tailored to students' basic

psychological needs. Awashreh & Ghunaimi (2025) revealed that students prioritize grades over meaningful learning, driven by teacher approval and sociocultural pressures, which diminishes their intrinsic motivation. This extrinsic dependence fosters behaviors such as procrastination and academic dishonesty.

On another note, Souza et al. (2021) indicated that, in accounting studies, students combine intrinsic motivation (the joy of learning) with extrinsic motivation (job benefits). Autonomy in career choice was the most valued factor. They perceive university as a means to expand their professional opportunities. The study highlights how these motivations coexist in their professional training. Consequently, McKenzie & Bennett (2022) indicated that intrinsic interest and employability guide career choices. Social factors, such as family influence, were of reduced relevance. Personal utility was more associated with job availability than with salaries. Conversely, Pérez-Navío et al. (2023) mentioned that self-regulated learning strategies enhance intrinsic motivation and reduce dropout rates. Extrinsic motivation showed no impact on pro-environmental behaviors. Demotivation was directly linked to academic abandonment.

Regarding Hizzett & Snaith (2022), their study identified that personal well-being and professional opportunities are the most prominent motivational factors in career choice among university students. The results emphasized that clinical practices, professional mentors, and academic training are the most influential elements. In this context, Iddrisu et al. (2025) indicated that graduate nursing students prioritize obtaining university degrees as their main motivation, which is linked to better job opportunities and family expectations. Factors such as social prestige and professional advancement also play a role. Thus, a predominance of extrinsic motivations over intrinsic ones is evident in this group. In a similar study, Boampong et al. (2023) noted that nurses seeking higher education do so to enhance clinical competencies and social status; they prefer institutions with academic reputations and financial flexibility. Work pressure was the least motivating factor for their continued education.

With respect to Dégi & Kovasch (2021), their study revealed that the aspiration to be a global citizen—related to travel and/or international communication—was the primary motivator for learning a foreign language, while cultural integration received the least interest. Instrumental motivation (achieving higher-paying jobs and high grades) demonstrated a greater impact than integrative factors. The results highlight that students prioritize immediate benefits over cultural adaptation in language learning. Concurrently, Gómez et al. (2025) reported that students show greater motivation to learn languages through simultaneous interactions, driven by specific goals that promote their active participation. However, this motivation is modulated by factors such as teaching methodologies, evaluative anxiety, and external influences. The multifactorial nature of motivation in language learning is emphasized, where pedagogical and emotional elements interrelate with personal goals.

In line with this, Yasmin et al. (2022) stated that academic motivations (such as international degrees, job opportunities, and prestige) are decisive for Asian and African students, while European and North American students prioritize cultural experiences and personal enjoyment. The research highlights that socioeconomic, cultural, and personal factors differentially shape international student mobility. In contrast, Moosa and Aloka (2023) discovered that students from vulnerable contexts excel in internal motivation to overcome adversities and support their communities. Support from family, teachers, and peers emerged as a crucial factor for their academic persistence. Many aspire to become role models for their families. The research underscores the needs for relationships and personal growth in interaction with university success. However, Advilonienė (2023) found that academic quality and financial conditions are decisive when choosing an institution, while career selection takes precedence over personal interests. Microsocial influences (family and friends) are determining in both decisions. Students value the desired specialization more than institutional prestige. Factors such as tuition costs and geographic proximity weigh less in educational choices.

Regarding Valenzuela et al. (2023), they expressed that success expectations and perceived utility are the best predictors of critical thinking. Personal interest showed lesser influence. These findings emphasize the role of motivational beliefs in complex skills. In the case of Elizondo et al. (2024), they found that perseverance, mediated by clear goals and learning from mistakes, reduces procrastination. Students with a strong goal orientation exhibit greater academic persistence. Cognitive-motivational self-regulation is key to their performance. For Averina & Hlebova (2022), extracurricular activities motivate due to values such as self-transcendence, except when economic incentives are present. Scholarships showed a negative correlation with values of openness and benevolence.

Finally, Wang et al. (2022) demonstrated that satisfaction with competencies and autonomous motivation significantly predict academic performance in mathematics, surpassing other motivational factors. Basic psychological needs showed a positive relationship with autonomous motivation and a negative relationship with demotivation, directly influencing learning outcomes.

Concerning intrinsic motivation, the studies by Mohammed et al. (2022), Vergara-Morales (2024), and Wang et al. (2022) converge in highlighting intrinsic motivation as the central axis of meaningful learning, linked to autonomy, perceived competence, and personal purpose. On the other hand, Hizzett & Snaith (2022), as well as Sanzana et al. (2022), complement this perspective by identifying that professional well-being and the intrinsic value of careers (especially in teaching) generate greater satisfaction than external rewards. Additionally, Moosa & Aloka (2023) and Elizondo et al. (2024) highlight how perseverance and personal growth emerge in students facing adversities, motivated by self-actualization goals. García et al. (2023) and Valenzuela et al. (2023) add that teacher credibility and the perceived benefit of learning enhance autonomous motivation; however, Pérez-Navío et al. (2023) demonstrate that self-regulation strategies strengthen this type of motivation. Ultimately, the aforementioned authors agree that intrinsic motivation develops in environments that support autonomy, foster emotional connections with learning, and align personal and academic goals, transcending external incentives.

On the other hand, regarding extrinsic motivation, the studies by Awashreh & Ghunaimi (2025), Iddrisu et al. (2025), and Dégi & Kovasch (2021) indicate that sociocultural pressures (family expectations, employability) orient students towards extrinsic motivations, prioritizing grades and degrees over competency mastery. Meanwhile, Yasmin et al. (2022) and Advilonienė (2023) identify that instrumental factors (such as institutional prestige and costs) determine educational choices, especially in contexts of international mobility or economic vulnerability. Conversely, Boampong et al. (2023) and Starecek et al. (2023) highlight that tangible rewards (salaries, status) are key elements for pragmatic generations; while González-Amarante & Romero-Padrón (2025) demonstrate that rigid institutional structures strengthen dependence on external validation. Lastly, the preceding research, along with that of Souza et al. (2021) and McKenzie & Bennett (2022), agrees that extrinsic motivation dominates when the educational system links academic achievements to material rewards, when gaps exist between personal interests and labor market demands, or when there is a lack of support to internalize the value of learning. This prevalence is accentuated in cultures with high performance pressure or limited social mobility.

Conclusions

The studies examined reveal that motivation in higher education (HE) is a multifactorial phenomenon, where cognitive, emotional, and contextual components interact, highlighting its impact on academic performance, student persistence, and learning quality.

Intrinsic motivations predominate when students find personal meaning in their education, related to autonomy, the development of competencies, and goals aligned with their values, resulting in greater commitment and academic satisfaction.

Extrinsic motivations arise in contexts where external rewards (degrees, employability) or social pressures prevail, which can limit deep learning and foster instrumental behaviors, such as focusing on grades. The trajectory of intrinsic motivation is associated with processes such as self-actualization and educational quality, while extrinsic motivation can be functional in early stages or competitive environments; however, it requires balance to avoid dependence on external incentives.

In the pursuit of deeper study of motivation in higher education, it is suggested to explore pedagogical strategies that promote the internalization of motivations; furthermore, to investigate the role of teacher mentorship and analyze the impact of institutional policies on the transition from extrinsic to intrinsic motivation among students.

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