

# Academic self-efficacy in students: A systematic review

## Autoeficacia académica en estudiantes: Una revisión sistemática

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### Abstract

The objective of this study was to analyze the implications of academic self-efficacy in students. The PRISMA method was used as a reference methodology. The inclusion criteria included academic databases such as Scopus and Scielo, as well as articles published between 2021 and 2025. After the search process, 22 articles were ultimately selected from a total of 141 documents reviewed. The analysis led to the conclusion that academic self-efficacy is a key factor for student success, as it influences students' ability to confront difficulties, regulate their learning, and improve their academic performance. Furthermore, the development of self-efficacy enhances skills such as analyzing complex problems and proposing innovative solutions, in addition to strengthening autonomy, critical thinking, and confidence in their ability to generate a positive impact on their environment. Among the strategies identified to foster academic self-efficacy are the teaching of metacognitive strategies and emotional regulation. Likewise, social support, developing skills to cope with challenges, and promoting academic well-being play a significant role. Finally, the importance of strengthening self-confidence through family support and a focus on emotional health is emphasized.

**Keywords:** academic self-efficacy, autonomy, strategies.

## Resumen

El objetivo del presente estudio fue analizar las implicancias de la autoeficacia académica en estudiantes. En cuanto a la metodología, se empleó como referencia el método PRISMA. Los criterios de inclusión abarcaron bases de datos académicas como Scopus y Scielo, además de artículos publicados entre 2021 y 2025. Tras el proceso de búsqueda, se seleccionaron finalmente 22 artículos, a partir de un total de 141 documentos revisados. El análisis permitió concluir que la autoeficacia académica es un factor clave para el éxito estudiantil, ya que influye en la capacidad de los alumnos para enfrentar dificultades, regular su aprendizaje y mejorar su rendimiento académico. También, el desarrollo de la autoeficacia potencia habilidades como el análisis de problemas complejos y la propuesta de soluciones innovadoras, además de fortalecer la autonomía, el pensamiento crítico y la confianza en su capacidad para generar un impacto positivo en su entorno. Entre las estrategias identificadas para fomentar la autoeficacia académica destacan la enseñanza de estrategias metacognitivas y la regulación emocional. Asimismo, el respaldo social, el desarrollo de habilidades para afrontar desafíos y la promoción del bienestar escolar desempeñan un papel significativo. Por último, se subraya la importancia de fortalecer la confianza en las propias capacidades mediante el apoyo familiar y un enfoque en la salud emocional.

**Palabras clave:** autoeficacia académica, autonomía, estrategias.

## Introduction

In the United Arab Emirates, despite efforts to strengthen higher education and its focus on self-efficacy, there remains a lack of comprehensive research analyzing the relationship between general self-efficacy and students' academic performance. This gap in knowledge limits the understanding of the impact of self-efficacy on educational and professional success (Moussa, 2023).

In a similar context, Turkey faces challenges related to the influence of economic and social factors on the relationship between well-being, self-efficacy, and personal satisfaction. Studies indicate that individuals who fulfill their desires tend to be happier, while those living in environments with higher educational levels, better self-efficacy, and quality of life report greater satisfaction. This raises the need to analyze how these factors impact perceptions of well-being and what strategies can promote greater satisfaction in different contexts (Döş, 2023).

Additionally, in Ecuador, a direct relationship has been evidenced between psychological flexibility and self-efficacy, highlighting its impact on personal and professional well-being. This self-assessment directly influences perceptions of health and wellness. However, the lack of strategies to strengthen psychological flexibility may hinder the development of self-efficacy, affecting the performance and emotional stability of training professionals (Villarruel et al., 2023).

Moreover, in contexts of poverty, unemployment, and social inequality, the lack of social support can negatively affect mental well-being, academic self-efficacy, and limit coping ability in the face of daily stress. Since social support facilitates access to emotional, instrumental, and economic resources, its absence can exacerbate individuals' vulnerability, making emotional stability and adaptation to adversities more difficult (Velasco & Vásquez, 2024).

In the realm of virtual education, which has become predominant after the pandemic, new challenges have emerged for both teachers and students. Research conducted with university students shows that task overload and lack of clear guidelines have negatively impacted the learning process. The absence of structured guidance on teaching methodology has increased stress levels among students, affecting their perceptions of academic performance and generating a sense of decline in their results. This situation underscores the need to review and improve pedagogical strategies in virtual environments to ensure more effective and balanced learning (Pérez-López et al., 2021).

In Peru, self-efficacy, defined as the belief in one's ability to achieve goals, is a key factor in academic performance and student retention. However, many students face difficulties in developing this confidence in their abilities, which can affect their performance and capacity to overcome challenges. This issue highlights the need for effective strategies that strengthen self-efficacy and promote autonomous and successful learning (Sosa, 2024).

In line with previous findings, the objective of this study is to analyze the implications of academic self-efficacy among students. Academic self-efficacy is understood as students' perceptions of their ability to face and overcome challenges in the educational environment. This concept, grounded in Bandura's theory (1995), encompasses a set of personal, emotional, and social skills that influence how individuals manage academic

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demands and pressures from the school environment. In addition to being based on knowledge and intellectual skill, academic self-efficacy is also supported by prior experience, confidence gained through performance, external feedback, and emotional regulation. In this sense, it is a key factor in students' motivation and persistence, as it reinforces their determination to confront difficulties and seek solutions to academic problems (Sulca-Quispe et al., 2021).

Furthermore, academic self-efficacy is defined as the belief a student has in their capacity to achieve academic goals, driven by their perseverance and motivation (Bandura, 2005). This concept implies a continuous evaluation of one's abilities with the purpose of successfully facing and completing educational activities. Self-confidence is a crucial element in this process, as it directly influences students' behavior and academic performance. Academic self-efficacy not only reflects the student's perception of their ability to achieve academic accomplishments but also plays a fundamental role in their overall development as learners (Robles, 2020).

### Methodology

For the development of the study, a systematic review was implemented following the PRISMA method, a structured and systematic tool that allows for clear and organized presentation of research results. The research question guiding this analysis was: What are the implications of academic self-efficacy in students?

Regarding inclusion criteria, articles published in the academic databases Scopus and Scielo were considered. The keywords used for the search were “academic self-efficacy” AND “students” and “autoeficacia académica” AND “estudiantes”. Articles published between 2021 and 2025 were included.

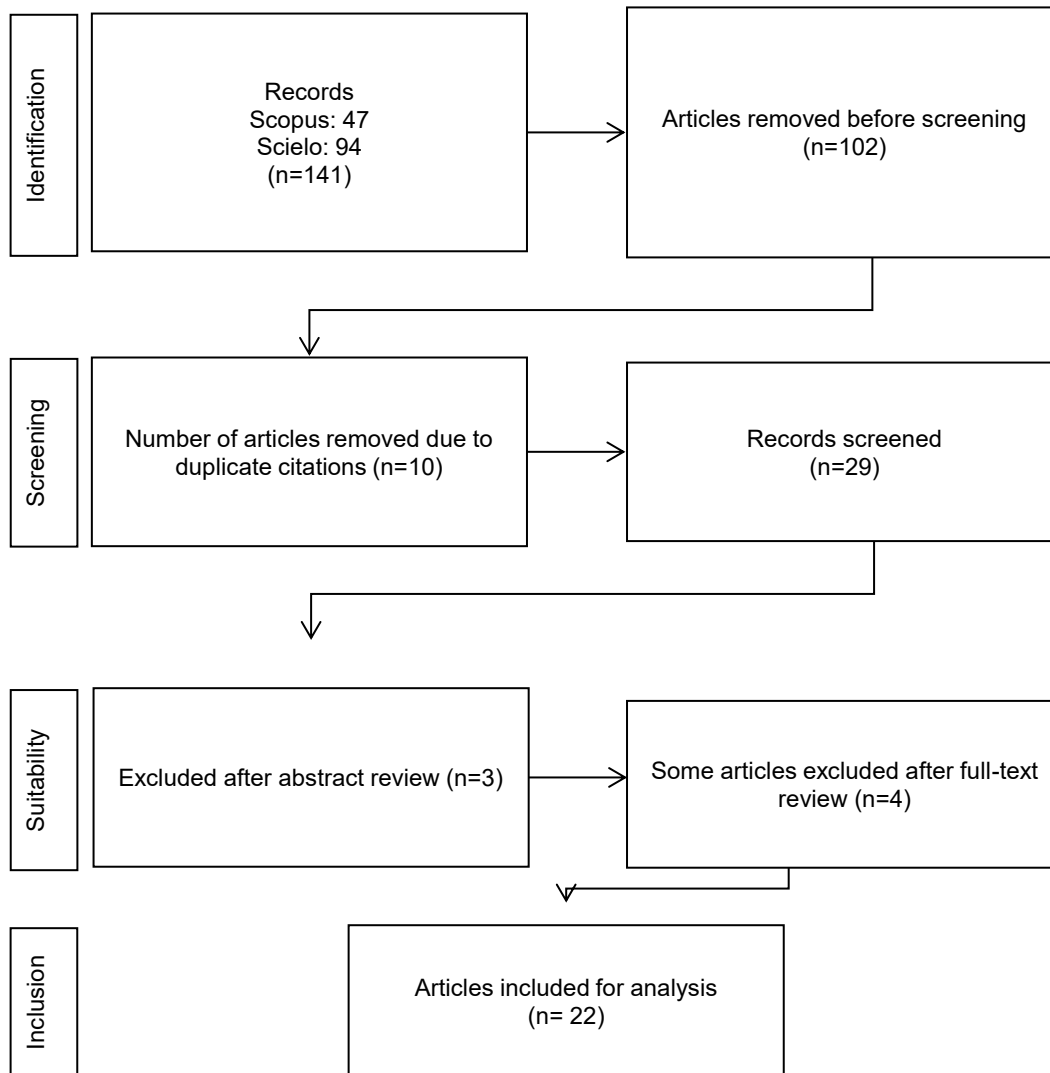
On the other hand, the exclusion criteria involved excluding articles published before 2021, as well as book chapters and conference papers.

It is important to note that, out of a total of 141 articles identified in the Scopus and Scielo databases, 22 relevant articles were selected for analysis, as detailed in Table 1.

**Table 1**  
*Article search by database*

| Databases | Search terms                            | Results    | Selection |
|-----------|---|------------|-----------|
| Scopus    | “academic self-efficacy” AND “students” | 47         | 14        |
| Scielo    | “academic self-efficacy” AND “students” | 94         | 8         |
|           | <b>Total</b>                            | <b>141</b> | <b>22</b> |

**Figure 1**  
Flow diagram for article selection according to PRISMA



## Results

**Table 2**  
*Implications of academic self-efficacy in university students*

| N | Author(s)                          | Implications of academic self-efficacy   |
|---|------------------------------------|--|
| 1 | Covarrubias-Apablaza et al. (2024) | It is essential for higher education institutions to create training spaces that enhance these skills, providing tools and methodologies that support planning, monitoring, and evaluating learning, thus ensuring more successful and sustained academic performance. |

|   |   |  |
|---|---|--|
| 2 | Meng & Zhang<br>(2023)                            | The relationship between confidence in one's academic abilities, commitment to studies, and academic performance highlights the need to implement programs and projects that promote these dimensions within universities. Administrators and educators can use this evidence to design pedagogical strategies that encourage autonomous learning and higher levels of engagement, thereby ensuring better academic performance and greater student retention. |
| 3 | Tarnanen et al.<br>(2021)                         | Students' perceptions of competence can change significantly depending on the teaching context and their previous performance level. Therefore, it is crucial to implement pedagogical strategies that reinforce students' confidence in their abilities, especially for those with academic difficulties, to improve their motivation and long-term performance.  |
| 4 | Lei et al.<br>(2022)                              | These findings underscore the importance of strengthening academic self-efficacy among students, as it influences their ability to face difficulties and improve performance. Furthermore, it highlights the key role of social support in this process, suggesting that educational institutions should foster learning environments where students feel supported both emotionally and academically.   |
| 5 | Figuereido et al.<br>(2024)                       | The design of educational strategies focused on enhancing confidence in one's abilities could be an effective way to improve student performance. Additionally, since self-efficacy is influenced by demographic factors, it is essential to consider personalized approaches that address the specific needs of each group.   |
| 6 | Rosales-Ronquillo<br>& Hernández-Jáquez<br>(2020) | It is recommended that educational institutions implement strategies that enhance students' academic confidence, promoting learning environments that encourage participation, sustained attention, and the development of self-regulation skills for learning.  |
| 7 | Qi et al.<br>(2023)                               | The perception of competence influences students' motivation, so support strategies, both educational and familial, can strengthen their confidence and participation in learning.   |
| 8 | Xie et al.<br>(2024)                              | Promoting strategies that enhance confidence in teaching and research can improve both individual performance and educational quality in universities.   |
| 9 | López & Gallicchio<br>(2025)                      | Confidence in one's abilities and adaptation to new demands in the workplace are key for effective performance. In this regard, strengthening self-efficacy through continuous training programs, problem-based learning strategies, and practical experiences can help reduce the gap between theory and practice, ensuring a better response to the educational and therapeutic needs of the population.   |

|    |                                 |   |
|----|---------------------------------|---|
| 10 | Orrego-Bustamante et al. (2025) | The development of academic self-efficacy enhances students' ability to analyze complex problems and propose innovative solutions. By facing challenges such as the sustainability of plastic recycling, students strengthen their autonomy, critical thinking, and confidence in their ability to make a positive impact in their environment.   |
| 11 | Jia et al. (2023)               | Promoting a sense of purpose and developing strategies to manage fear of failure can be effective approaches to improve students' emotional well-being and academic performance. Additionally, gender differences in these effects suggest the need to adapt interventions according to the specific needs of each group.   |
| 12 | Hayat et al. (2020)             | Strengthening academic self-efficacy is a key strategy for improving university students' performance. Teaching metacognitive strategies and emotional regulation plays a fundamental role in this process, as it optimizes study strategies and enhances emotional management, favoring autonomous and sustained learning.   |
| 13 | Figueiredo et al. (2024)        | These findings highlight the importance of fostering both metacognitive strategies and emotional regulation in students, as both elements strengthen the perception of self-efficacy and consequently improve academic performance. To achieve this, it is essential to implement teaching methodologies that promote the development of self-regulation skills, as well as to provide emotional and psychological support that enables students to effectively manage learning challenges. |
| 14 | González-Cantero et al. (2020)  | Strengthening academic self-efficacy can be an effective strategy for improving university students' performance. Implementing social support programs, developing coping skills, and promoting school well-being can significantly contribute to this goal. Additionally, considering the identified differences between genders, it is advisable to design interventions tailored to the specific needs of each group to maximize their effectiveness in the educational environment.     |
| 15 | Kang et al. (2024)              | Implementing strategies that reinforce students' confidence in their abilities, along with support from their families and a focus on emotional health, can enhance their performance and well-being in the school environment.   |
| 16 | Deng et al. (2021)              | Fostering academic self-efficacy through vocational development is key to increasing students' motivation and commitment to their future. Implementing strategies that promote career exploration and planning can strengthen their confidence in academic skills, improving performance and preparation for the challenges of the labor market.  |
| 17 | Martino et al. (2025)           | Strategies such as exposure to new challenges and teaching coping techniques can improve students' confidence in their ability to learn and solve problems, fostering their adaptability and exploration of knowledge.  |

|    |                               |   |
|----|-------------------------------|---|
| 18 | Hanif, et al. (2025)          | The implementation of methodologies based on experiential learning is also crucial for reinforcing academic self-efficacy. Facing real challenges and obtaining measurable results strengthens students' autonomy and their ability to make informed decisions.   |
| 17 | Lagha & Hezi (2025)           | The development of academic self-efficacy is key for students to face challenges autonomously and creatively. Applying knowledge in practical contexts, such as resource optimization and sustainability, not only enhances learning but also reinforces confidence in their ability to solve problems, promoting a more comprehensive and meaningful education.                                      |
| 20 | Essa & Alwan (2025)           | Experimentation and application of knowledge in concrete situations are key strategies for strengthening academic self-efficacy. When students understand how their actions can influence outcomes, such as in optimizing agricultural performance, they develop greater confidence in their abilities, improving their capacity to solve problems effectively and independently.                     |
| 21 | Feeerr-Rojas & Maomraj (2025) | Strengthening academic self-efficacy in technological areas enables students to tackle challenges such as data security in IoT with greater confidence and analytical capability. The integration of advanced encryption strategies in academic training not only enhances understanding of complex concepts but also fosters autonomy and informed decision-making in technological problem-solving. |
| 22 | Fu et al. (2025)              | Strengthening academic self-efficacy in software design involves creating a learning environment that encourages experimentation, collaboration, and continuous improvement. By providing adequate tools and methodologies, students develop confidence in their abilities and acquire the capacity to face design challenges with autonomy and effectiveness.  |

### Importance of academic self-efficacy

The analysis reveals that academic self-efficacy is a crucial factor in student success, as it significantly influences students' ability to face difficulties, regulate their own learning, and improve their academic performance. Confidence in one's abilities, combined with appropriate learning strategies, allows students to tackle university challenges with greater autonomy and effectiveness. Therefore, higher education institutions must create educational environments that enhance these skills through tools and methodologies that support planning, monitoring, and evaluating learning (Covarrubias-Apablaza et al., 2024).

The relationship between self-efficacy, commitment to studies, and academic performance highlights the need to implement programs that promote these dimensions within universities. In this regard, administrators and educators can utilize this evidence to design pedagogical strategies that encourage autonomous learning and a higher level of commitment, thereby ensuring better academic performance and increased student retention (Meng, 2023). Additionally, students' perceptions of competence vary according to the teaching context and their academic history. Therefore, it is crucial to implement pedagogical strategies that reinforce confidence in their abilities, especially for those experiencing academic difficulties, to improve their motivation, academic self-efficacy, and long-term performance (Tamanen et al., 2021).

Social support plays a relevant role in academic self-efficacy. Various studies suggest that developing learning environments where students feel supported both emotionally and academically can enhance their motivation and performance (Lei et al., 2022). In this sense, designing educational strategies focused on

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strengthening confidence in one's abilities could be an effective way to improve student performance. Moreover, since self-efficacy is influenced by demographic factors, it is essential to consider personalized approaches that address the specific needs of each group (Figueiredo et al., 2024).

Thus, it is recommended that educational institutions implement strategies that foster students' academic confidence, promoting learning environments that encourage participation, sustained attention, and the development of self-regulation skills (Rosales-Ronquillo et al., 2020). The perception of competence influences students' motivation; therefore, support strategies in both educational and familial contexts can strengthen their confidence and participation in learning (Qi et al., 2023). Similarly, promoting strategies that enhance confidence in teaching and research can improve both individual performance and educational quality in universities (Xie et al., 2024).

In addition to its impact on academic performance, self-efficacy plays a fundamental role in adapting to the new demands of the workplace. Strengthening this skill through continuous training programs, problem-based learning strategies, and practical experiences can help bridge the gap between theory and practice, ensuring a better response to educational and professional needs (López & Gallicchio, 2025). The development of self-efficacy enhances students' ability to analyze complex problems and propose innovative solutions. Facing challenges such as the sustainability of plastic recycling strengthens their autonomy, critical thinking, and confidence in their capacity to make a positive impact in their environment (Orrego-Bustamante et al., 2025).

Finally, promoting a sense of purpose and developing strategies to manage fear of failure can be effective approaches to improving students' emotional well-being and academic performance. Gender differences in these effects suggest the need to adapt interventions according to the specific needs of each group (Jia et al., 2023). Thus, academic self-efficacy solidifies as a key element in the holistic development of students, impacting not only their performance but also their overall well-being and professional growth.

### **Strategies for developing academic self-efficacy**

Strengthening academic self-efficacy is a key strategy for improving university students' performance. In this context, teaching metacognitive strategies and emotional regulation are fundamental to this process, as they optimize study strategies and improve emotional management, fostering autonomous and sustained learning (Hayat et al., 2020). Implementing teaching methodologies that promote self-regulation and provide emotional and psychological support facilitates overcoming academic challenges and reinforces students' perceptions of self-efficacy (Figueiredo et al., 2024).

Additionally, social support, the development of coping skills, and the promotion of school well-being significantly contribute to academic self-efficacy. Designing interventions tailored to gender differences and the specific needs of each group maximizes the effectiveness of these strategies in the educational environment (González-Cantero et al., 2020). Furthermore, fostering confidence in one's abilities through family support and a focus on emotional health enhances both academic performance and student well-being (Kang et al., 2024).

Another determining factor in the development of academic self-efficacy is vocational guidance. Promoting career exploration and planning reinforces confidence in academic skills, increasing students' motivation and commitment to their professional future (Deng et al., 2021). Strategies such as exposure to new challenges and teaching coping techniques can improve students' confidence in their ability to learn and solve problems, fostering their adaptability and exploration of knowledge (Martino et al., 2025).

The implementation of methodologies based on experiential learning is also crucial for reinforcing academic self-efficacy. Facing real challenges and obtaining measurable results strengthens students' autonomy and their ability to make informed decisions (Hanif et al., 2025). The application of knowledge in practical contexts, such as resource optimization and sustainability, enhances not only learning but also confidence in one's ability to solve problems (Lagha-Benamrouche et al., 2025).

Similarly, applying concrete strategies in specific fields reinforces self-efficacy. In sectors such as agricultural performance, when students understand the impact of their actions on outcomes, they develop greater confidence in their abilities and strengthen their capacity to solve problems independently (Essa et al., 2025). In the technological realm, enhancing academic self-efficacy enables students to tackle challenges such as data security with greater confidence and analytical capability. Integrating advanced encryption strategies into academic training not only improves the understanding of complex concepts but also fosters autonomy in problem-solving (Feerr-Rojas et al., 2025).

Lastly, in software design, strengthening academic self-efficacy involves creating a learning environment that encourages experimentation, collaboration, and continuous improvement. Providing appropriate tools and methodologies allows students to develop confidence in their abilities and gain the capacity to face design

challenges with autonomy and effectiveness (Fu et al., 2025). Collectively, these strategies contribute to the establishment of a comprehensive education that strengthens academic self-efficacy across various educational contexts.

## Conclusions

It can be concluded that academic self-efficacy is a crucial factor in student success, as it significantly influences students' ability to face difficulties, regulate their learning, and improve their academic performance. Therefore, designing educational strategies focused on strengthening confidence in one's abilities could be an effective way to enhance student performance. In addition to its impact on academic performance, self-efficacy plays a fundamental role in adapting to the new demands of the workplace. The development of self-efficacy enhances students' ability to analyze complex problems and propose innovative solutions, strengthening their autonomy, critical thinking, and confidence in their capacity to generate a positive impact in their environment.

Among the strategies for developing academic self-efficacy, teaching metacognitive strategies and emotional regulation stands out; social support, the development of coping skills, and the promotion of school well-being also significantly contribute to academic self-efficacy. Fostering confidence in one's abilities through family support and a focus on emotional health is equally important. Additionally, promoting career exploration and planning reinforces confidence in academic skills. Strategies such as exposure to new challenges and teaching coping techniques can improve students' confidence in their ability to learn and solve problems. Facing real challenges and obtaining measurable results strengthens autonomy and decision-making capacity. The application of knowledge in practical contexts, such as resource optimization and sustainability, enhances not only learning but also confidence in one's ability to solve problems. When students understand the impact of their actions on outcomes, they develop greater confidence in their abilities. Finally, providing appropriate tools and methodologies allows students to develop confidence in their skills and acquire the capability to face challenges with autonomy and effectiveness.

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