



Academic empowerment as a predictor of emotional intelligence development in higher education

Lucía Álvarez-Blanco

University of Oviedo

Mail: alvarezblucia@uniovi.es

ORCID: <https://orcid.org/0000-0003-4116-4864>

Adrián Castro-López

University of Oviedo

Mail: adriancastrolopez@gmail.com

ORCID: <https://orcid.org/0000-0001-8905-6251>

Antonio Cervero Fernández-Castañón*

University of Oviedo

Mail: cerveroantonio@uniovi.es

ORCID: <https://orcid.org/0000-0002-4747-1331>

ABSTRACT

Several studies have demonstrated the relationship between emotional intelligence and academic performance, just as many others have found a positive relationship between empowerment and student performance. Yet, few studies have examined the reciprocal influence between both variables of empowerment and emotional intelligence, an aspect that may be of interest as they are closely related constructs that largely determine the effectiveness of teaching-learning processes. Therefore, the purpose of this study is to determine if there is an influence between empowerment and emotional intelligence in a sample of university students and to analyze if this influence works through any of the factors that make up this second variable. The results show that empowerment not only directly influences the level of emotional intelligence, but also indirectly through emotional factors. These findings contribute to improve the design of socio-educational intervention programs aimed at the development of both competences.

Keywords: Empowerment, emotions, intelligence, University.

El empoderamiento académico como predictor del desarrollo de la inteligencia emocional en Educación Superior

RESUMEN

Diversos estudios han demostrado la relación entre la inteligencia emocional y el rendimiento académico, del mismo modo que otros muchos han encontrado una relación positiva entre el empoderamiento y el rendimiento de los estudiantes. Sin embargo, pocos estudios han examinado la influencia recíproca entre ambas variables de empoderamiento e inteligencia emocional, aspecto que puede resultar de interés al tratarse de constructos estrechamente relacionados que determinan en gran medida la eficacia de los procesos de enseñanza-aprendizaje. Por ello, el propósito de este estudio es determinar si existe influencia entre el empoderamiento y la inteligencia emocional en una muestra de estudiantes universitarios y analizar si esta influencia actúa a través de alguno de los

*Autora de correspondencia: cerveroantonio@uniovi.es

Recibido: 07/01/2025 – Aceptado: 10/08/2025

ISSN: 0210-2773

DOI: <https://doi.org/10.17811/rifie.22221>



Esta obra está bajo una licencia internacional Creative Commons
Atribución-NoComercial-SinDerivadas 4.0

factores que componen esta segunda variable. Los resultados muestran que el empoderamiento no sólo influye directamente en el nivel de inteligencia emocional, sino también indirectamente a través de factores emocionales. Estos hallazgos contribuyen a mejorar el diseño de programas de intervención socioeducativa dirigidos al desarrollo de ambas competencias.

Palabras clave: Empoderamiento, emociones, inteligencia, Universidad.

1. Introduction

Emotional intelligence is a field of interest in higher education not only because of its influence on the training process of students, but also because of the objective of this academic level to train students as future professionals fully integrated in the workplace. Therefore, there is a demand not only for the technical knowledge, but also for the mastery of transversal social and emotional competencies that allow them to find jobs in line with their studies, to work in teams and to succeed professionally (Bal & Kökalan, 2022; Mittal, 2020). Something similar occurs with empowerment, since university students are expected to become effective, autonomous, and independent individuals and workers when facing academic and, subsequently, professional challenges, which facilitates this variable (Shi et al., 2022).

The empowerment and emotional intelligence development have been shown to have a direct and positive influence on the teaching-learning processes, which, according to some studies, has resulted in a consequent improvement in academic performance (Goh & Kim, 2021; Houser & Frymier, 2009; Jiao et al., 2021). Furthermore, the relationship between empowerment and emotional intelligence has been analyzed (Gong et al., 2020) and a relationship between both constructs has been observed, although this relationship has been established mainly in the workplace, ignoring the educational context.

Considering this deficiency and assuming the possibility that enhancing both the level of empowerment of students and their emotional intelligence could have a cumulative effect that enhances their academic results, the present research aims to develop a model that shows this relationship through the mediation of the four factors that predict the global value of emotional intelligence (Mayer & Salovey, 1997).

This study's novelty lies in its conceptualization of academic engagement, which differs from the traditional notion of engagement, which is typically focused on workplace contexts. Specifically, the study explores how academic engagement fosters emotional intelligence in educational settings. It reveals a certain influence on the formation of this construct and a unique relationship with each of its four factors.

2. Theoretical background

Some international organizations such as the Organization for Economic Co-operation and Development (OECD) are increasingly considering the role played by emotional intelligence in the economic and labor environment (Panchana-Mosquera & Venet-Muñoz, 2024). Nevertheless, in the educational context, the emphasis has usually been placed on academic aspects and more closely linked to intelligence, leaving the importance of emotional aspects in the background. A strategy that has proved to be erroneous since, as some studies (MacCann et al., 2020) highlight, the emotional aspect can influence academic, work and life success as much as the IQ itself. Furthermore, it has been shown that emotional intelligence is related to other basic aspects that influence teaching-learning processes such as intrinsic motivation (Liu et al., 2024), social support (Metaj-Macula, 2017), academic satisfaction (Celik & Storme, 2018) or, fundamentally, academic performance (MacCann et al., 2020; Martínez-Martínez et al., 2020; Thomas et al., 2017).

In this context, the concept of emotional intelligence refers to the set of psychological processes involved in the recognition, use, understanding and regulation of emotional states, both of oneself and of others, which allow us to cope with a variety of situations, encompassing according to the model of Mayer and Salovey (1997) four dimensions 1) perceiving emotion, 2) using emotions to facilitate thinking, 3) understanding emotions and 4) managing emotions.

Thus, the first dimension, perceiving emotion (PER_E), would refer to the capacity for emotional reception and expression that manifests itself in its most basic form in the identification of facial expressions, vocal inflections and, in general, in nonverbal communication, which would lead to a more advanced understanding of emotions. The second dimension, using emotions to facilitate thinking (FAC_E), would correspond to the ability of emotions to guide other cognitive aspects such as attention, memory or thought processes. The third dimension, understanding emotions (UND_E), would describe the ability to identify the meaning of emotional messages, understanding the relationships between different emotions and thus allowing reflection on emotional information by relating its signifiers and meanings. And finally, the fourth dimension, management of emotions (MAN_E), would explain the ability to handle and manage emotions, both one's own and others', in pursuit of the individual's goals, which would allow adapting to the environment and increasing personal well-being (Mayer et al., 2016).

All these aspects are reflected in the assessment procedures used in the scientific field to measure emotional intelligence, which can be classified into two groups: ability or performance measurement tests, where subjects have to solve certain emotional problems, and classic instruments based on questionnaires and self-reports (Bru-Luna et al., 2021), which in some cases are accompanied by complementary measures performed by third parties that guarantee the validity of the previous measures as judges.

Moreover, these questionnaires or self-reports can be analyzed from two differentiated prisms (Dhani & Sharma, 2016): (1) the perspective of emotional intelligence as a skill, whose theoretical framework starts from the original formulation (Mayer & Salovey, 1997; Salovey & Mayer, 1990) that is the basis of instruments such as the Trait Meta-Mood Scale (TMMS), the Schutte Self Report Inventory (SSRI) or the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT); and (2) the mixed model perspective, which understands emotional intelligence as a personality trait or competency and is based on reviews of the literature on emotional, social or occupational functioning, in the framework of which instruments such as the Emotional Quotient Inventory -EQ-i- (Bar-On, 1997), the Emotional Competence Inventory -ECI- (Boyatzis & Sala, 2004), the Trait Emotional Intelligence Questionnaire -TEIQue- (Petrides, 2009) and the Emotional Regulation Questionnaire -ERQ- (Gross & John, 2003) are used (Ratnawat & Borgave, 2020).

Nevertheless, some authors claim that this context is valid for the analysis of emotional intelligence in adults. However, it is even more complicated in the case of children and young people given that not only is there a smaller number of instruments and measurement tests, but there is also a greater theoretical overlap due to the presence of other concepts related to learning and development (Arrivillaga & Extremera, 2020), as may occur with terms such as socioemotional competence, emotional development, emotional learning, etc.

The influence of empowerment on academic performance (Ellikkal & Rajamohan, 2025; Surià & Rosser-Limiñana, 2025) or on mediating processes in learning such as self-efficacy (Tumino et al., 2020) has also been tested, and two perspectives have been applied to the field of study of empowerment. On the one hand, a socio-structural aspect whose objective is empowerment in personal or community environments and, on the other hand, a psychological aspect whose objective is the acquisition of a feeling of competence to perform meaningful tasks (Won, 2016). However, perhaps due to the greater presence of the first way of understanding it, empowerment has been more commonly analyzed in clinical or community settings than in the educational setting, where the psychological conception prevails and where the construct partially overlaps with the more studied concept of engagement, which has given rise to multiple investigations, especially in the academic context (Perkmann et al., 2021).

Therefore, engagement would refer to the positive psychological state (Joo et al., 2019) that generates an emotional, attitudinal, and motivational connection with the task itself, the organization and the value attributed to it (Al-Dmour, 2018), while empowerment would be defined as the belief in one's own ability to act effectively, as well as the effort made to consolidate it. In other words, while engagement would be given by a psychological change guided by the environment, in empowerment it is personal evolution that leads to confidence in being able to act to achieve the proposed goals.

This aspect can be seen, for example, in one of the most classic models of empowerment, that of Thomas and Velthouse (1990). This model has a central core consisting of three elements that are related in a continuous cycle: environmental events, task assessment and behavioral evaluation. Thus, environmental events refer to the information obtained by the subject when performing a given behavior in a given task, which gives rise to task evaluation. This evaluation is the subjective interpretation made by the subject that will condition subsequent behavior. Thus, the intrinsic motivation provided by the task, together with the behavior it facilitates, is not only conditioned by external events, but also by the subjective interpretation of these events. It is precisely for this reason that two more elements are added to the model: global evaluations and interpretative styles. Hence, the former are more abstract evaluations than task evaluations and refer to impact, competence, meaning and choice, acting as inductive generalizations that represent the accumulated learning on the evaluations of previously performed tasks.

On the other hand, the latter are processing tendencies through which the subject interprets events, providing new subjective information regarding evaluation, attribution and visualization, allowing the development of patterns of empowerment improvement or weakness. All of this ultimately leads to intervention, which allows the pattern to be influenced through two strategies: changing the environmental events on which the individual bases his or her task assessments or changing the individual's styles of interpreting those events (Thomas & Velthouse, 1990).

Based on this model, the construct of empowerment was developed and validated, a motivational construct that, based on the model of Thomas and Velthouse (1990), considers four cognitive dimensions that determine the orientation of a subject towards his or her performance role: competence, meaning, self-determination and impact. In this sense, competence refers to confidence in one's own ability to perform the job; meaning to the personal connection with the final goal to be achieved; self-determination, to the freedom to develop the job with one's own capacity to make decisions or regulate behavior; and impact, to the influence of the subject to contribute to organizational development through his or her work (Spreitzer, 1995).

As can be deduced from this, empowerment, as a process of personal development and growth, could not only entail multiple advantages in the educational sphere, but also cannot be removed from it as it is configured by multiple cognitive variables that, on the one hand, influence this sphere but, on the other, are developed in this same context. Thus, the aforementioned variables: competence, meaning, self-determination and impact, are central elements that can determine the capacity for academic adaptation and performance in the teaching-learning processes. Therefore, an empowered student would participate more actively in the teaching-learning process, would be more motivated and would find greater meaning in his or her own educational process (Li, 2025).

Finally, as a process of psychological evolution, empowerment could not occur apart from other psychological variables, whether behavioral or emotional, which increases the need to analyze the processes of mutual influence between them, being especially relevant to analyze the relationship between empowerment and emotional intelligence, due to recent research showing the influence of the latter construct on academic performance and resilience.

Some steps have already been taken in this direction, such as the study by Idrus et al., (2015) conducted with tour guides, which sought to analyze the relationship between empowerment and other psychological constructs such as self-efficacy (Dadandi, 2023), burnout, job satisfaction and individual performance, in addition to emotional intelligence; or Alotaibi et al., (2020), who analyzed the relationships between emotional intelligence, empowering leadership, psychological empowerment and work engagement. Yet, this relationship has not been investigated in the educational setting and even less considering the mediating role that the different factors constituting the construct of emotional intelligence can provide.

Thus, in accordance with the above, this paper aims to determine whether there is any kind of influence between empowerment (EMPO) and emotional intelligence (EI) and to analyze whether this influence acts indirectly through any of the factors that make up the second construct, for which purpose three research hypotheses have been proposed.

H1: There will be a direct relationship between empowerment and emotional intelligence.

H2: There will be a direct relationship between the four constituent factors of the emotional intelligence construct and its overall value: a) understanding emotions b) perceiving emotion; c) facilitate thinking; d) management of emotions.

H3: The relationship between empowerment and emotional intelligence will also be mediated by emotional intelligence factors: a) understanding emotions b) perceiving emotion; c) facilitate thinking; d) management of emotions.

3. Materials and Methods

In line with the research objectives and the hypotheses presented in the preceding section, this study introduces the proposed conceptual model. The model aims to explain the role of academic empowerment in fostering emotional intelligence, which is structured around four key dimensions: understanding, perceiving, facilitating thinking, and management. In addition to examining the direct influence of empowerment on emotional intelligence, the model explores its differentiated impact through each of these constituent dimensions.

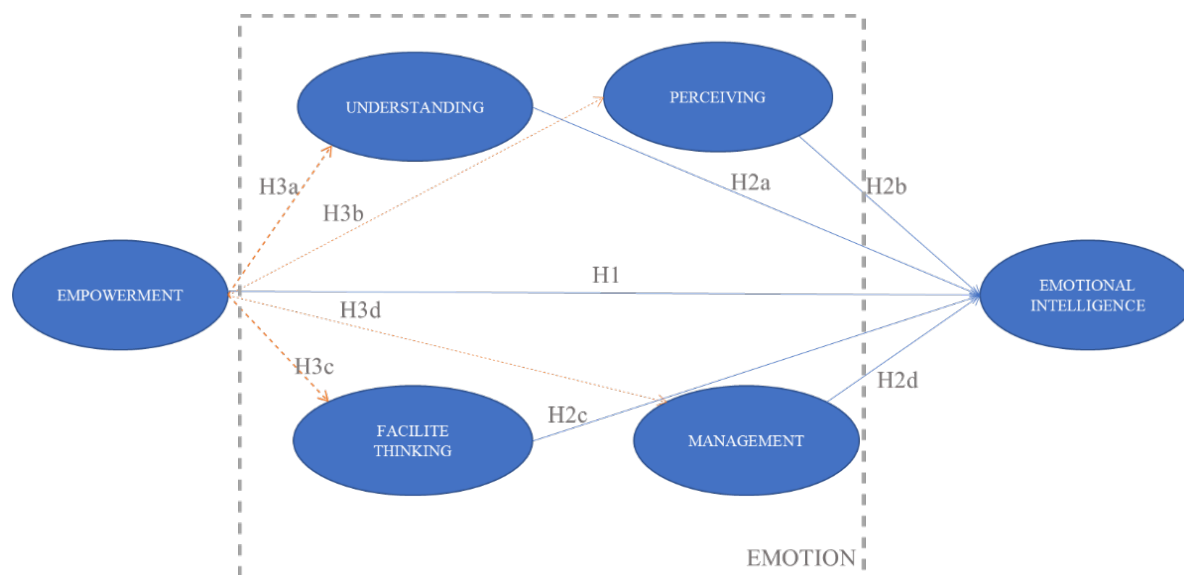


Figure 1. Proposed measurement model

The study employs an ex post facto design (Cargan, 2007) to examine relationships that predict a criterion variable. Specifically, it adopts a retrospective ex post facto approach characterized by a non-experimental, quantitative methodology. Consequently, this approach is limited in its ability to establish causal inferences.

3.1. Data collection

The sample analyzed was obtained through non-probability convenience sampling, a method commonly used in social science research due to its efficiency in terms of time and cost (Howarth et al., 2024). As a result of this procedure, some disproportionality may exist in the selection of students across different courses or degree programs.

The study sample consists of 282 university students from northern Spain, with a predominance of female participants over male. This gender imbalance is closely linked to the nature of the degree programs included in the study, which comprise Early Childhood Education (38.3%), Primary Education (25.2%), Law and Business Administration (19.5%), Psychology (11.7%), and Pedagogy (5.3%). This characteristic should be taken into account when interpreting and generalizing the results. In addition, the mean age is 19.90

years ($SD = 2.397$), which can also be explained by the fact that, as shown in Table 1, there are more students in the first year (64.9%) than in subsequent years. Also, in this sense, it can be noted that 4.3% of the students are in the fifth year, something that may seem strange, considering that most of the degrees of the European Higher Education Area correspond to academic degrees of 240 ECTS credits to be taken in 4 years. This fact, nonetheless, can be explained by the characteristics of one of the degrees analyzed, the Double Degree in Law and Business Administration, which enables students to obtain both degrees, although it requires 354 credits to be taken over 5 years.

On the other hand, a large majority (82.6%) have been able to pursue their first choice of studies, a variable that could be considered relevant in a study of these characteristics, although no statistically significant differences have been found in the overall empowerment scores regarding this variable, nor have they been found regarding the gender variable. Other aspects related to the employment situation can also be mentioned, highlighting that 24.5% of the students perform paid work, a result that can be analyzed in relation to the granting of study scholarships, which can serve as an indirect indicator with respect to the economic situation. In this sense, 65.6% of the students say that they have applied for a scholarship, while only 32.8% of the students say that they are beneficiaries of such aid. Additional characteristics of the sample are summarized in Table 1.

Table 1
Demographic information

	Frequency	Percentage (%)
Gender		
Male	73	25.9
Female	209	74.1
Age		
18-21 years old	223	79.0
22-25 years old	52	18.4
More than 25 years old	7	2.6
Bachelor degree		
Early Childhood Education	108	38.3%
Primary Education	71	25.2%
Law + Business Administration and Management	55	19.5%
Psychology	33	11.7%
Pedagogy	15	5.3%
Course		
1 st	183	64.9
2 nd	18	6.4
3 rd	9	3.2
4 th	60	21.3
5 th	12	4.3
First choice selection of studies		
Yes	233	82.6
No	49	17.4
Remunerated work		
Yes	69	24.5
No	213	75.5
Scholarship		
Yes	105	37.2
No	177	62.8

3.2. Measurement instrument

An instrument composed of five sections was used for data collection, the first section consists of 18 items that collect information on personal and socio-demographic variables, such as: gender, age, degree, course, university grades, intention to leave the degree or the university, etc.

Second section refers to the relational sphere and is composed of four variables related to the degree of social integration, academic integration, the relationship with teachers and the relationship with classmates, answered by means of a 5-point Likert-type response scale (1=*Totally disagree*, 2=*Disagree*, 3=*Neither agree nor disagree*, 4=*Agree*, 5=*Totally agree*).

Third section corresponds to the reduced version for young people of the Emotional Self-Efficacy Scale, ESES (Qualter et al., 2015) and consists of 27 items, related to the field of emotional intelligence, which are answered through the same Likert-type response scale (1=*Strongly disagree*, 2=*Disagree*, 3=*Neither agree nor disagree*, 4=*Agree*, 5=*Strongly agree*). This questionnaire allows obtaining a general index of emotional intelligence, while offering a validated factorial structure composed of four dimensions: 1) emotional regulation; 2) emotional understanding; 3) emotional facilitation and 4) emotional perception.

Fourth section includes the Empowerment Scale of Rogers et al. (1997), composed of 28 items that are answered with a Likert-type scale that maintains the previous values (1=*Strongly disagree*, 2=*Disagree*, 3=*Neither agree nor disagree*, 4=*Agree*, 5=*Strongly agree*) and can be grouped into 5 factors: Self-esteem and self-efficacy, power-empowerment, community activism and autonomy, optimism, and control over the future, and justified anger.

Finally, the fifth section consists of 5 open-ended questions related to the emotional domain, for example: "Do you consider that emotions influence your academic performance? If yes or no, in what way do they do so?" or "When expressing your emotions and feelings, do you find it more difficult to express positive or negative ones? Which factors or aspects do you think these greater or lesser difficulties are due to?".

3.3. Procedure

To implement the instrument, initial contact was made with the teachers of the degree programs under study, to whom the objective of the research was explained and who were presented with the questionnaire to be completed by the students.

Once participation was accepted, the researchers arranged a time to go during the school term and asked the students to complete the instrument, which they had to do by accessing a version of the instrument loaded onto the Google Forms tool by computer. In this way, the research team presented the study, made itself available to the students in case they had any doubts, and informed them that the research guaranteed the ethical principles of confidentiality, anonymity and data protection that are customary in this type of work. Consequently, students were permitted to respond to the questionnaire subsequent to their acceptance of an informed consent clause, thereby ensuring adherence to all ethical principles stipulated within the Declaration of Helsinki.

3.4. Analysis

Structural Equation Modeling (SEM) is a multivariate technique designed to analyze complex relationships between latent constructs and their observed indicators. This technique is used to predict the model. This method assists in the analysis of the relationship between variables. Thus, it provides better results than regression analysis in terms of detecting mediation effects and better techniques for estimating the results of this type of study (AlMulhim, 2021). This allows us to compare the model with other alternatives and to account for measurement errors (Hair et al., 2010). There are two primary estimation approaches (Hair Jr. et al., 2021): covariance-based SEM (CB-SEM) and partial least squares SEM (PLS-SEM).

In this case, the proposed model has been validated using the PLS-SEM approach using the SmartPLS 4.0 software (Ringle et al., 2024). Its suitability for small sample sizes and sophisticated research designs makes it particularly valuable, offering high statistical power and increasing the likelihood of detecting significant associations (Galve-González et al., 2025).

In particular, the model was evaluated using 300 iterations to analyze the causal relationships that explain the emotional intelligence assessment model proposed in this study. All other indicators had loadings above 0.5 points were maintained for the measurement model. As Hair Jr. et al., (2014) indicate, the following parameters must be considered for the assessment of measurement models: (1) internal consistency reliability (composite reliability, CR), (2) convergent validity (average variance extracted, AVE), (3) reliability of individual indicators (high significant external loadings), and (4) discriminant validity (cross-loadings and Fornell-Larcker criteria).

In this way, after data collection, a robust process was used to analyze the reliability and validity of the measurement instrument used in this study. First, an exploratory factor analysis was performed to guarantee scale unidimensionality and reliability (Narasimhan & Jayaram, 1998). For this purpose, a principal component factor analysis with varimax rotation was performed to detect the relevant sub-dimensions and eliminating those items with factor loadings lower than 0.5 (Huo et al., 2019).

To identify unreliable indicators, two criteria must be considered (Hosseini et al., 2016): (1) the external loading of each indicator on its associated construct must be greater than its loadings on other constructs in the model; and (2) based on the Fornell-Larcker criterion, the square root of the AVE of each construct must be greater than its highest correlation.

4. Results

The results were analyzed using the recommended by Hair Jr. et al. (2014). First, the measurement model was evaluated by assessing inter-item reliability, internal consistency, and convergent validity. Finally, the structural model was then analyzed in the second stage to test the hypothesized relationships among the latent constructs.

In this way, convergent validity test is done considering the value of the average variance extracted (AVE), where the value must be greater than 0.5 for each variable and a composite reliability (CR) higher than 0.7 (Hair Jr. et al., 2014) and Cronbach's alpha higher 0.6 (Hair et al., 2010). As shown in Table 2, all the values are acceptable.

Table 2
Construct reliability and validity

	α	CR	AVE
Empowerment	0.86	0.90	0.60
Understanding (UND_E)	0.61	0.79	0.56
Facilitate thinking (FAC_E)	0.65	0.82	0.58
Perceiving (PER_E)	0.60	0.781	0.55
Management (MAN_E)	0.72	0.83	0.54

Afterwards, Discriminant validity ensures uniqueness within a measurement construct and indicates that the phenomenon of interest is not collected by other measures within the measurement model (Bouwman et al., 2019; Hair et al., 2010). For this purpose, the Fornell-Larcker criterion (Fornell & Larcker, 1981) and cross-loadings are commonly used for the assessment of discriminant validity in variance-based structural equation models (Bouwman et al., 2019). Table 3 shows the results.

Table 3
Fornell-Larcker Criterion

	UND_E	FAC_E	EMPO	MAN_E	PER_E
Understanding (UND_E)	0.748				
Facilitate thinking (FAC_E)	0.600	0.726			
Empowerment (EMPO)	0.450	0.484	0.776		
Management (MAN_E)	0.417	0.396	0.235	0.738	
Perceiving (PER_E)	0.266	0.295	0.265	0.450	0.740

Subsequently, the PLS-SEM analysis will define whether the construct associations of the proposed theoretical model are supported by the empirical data and whether the predictive ability of the model is acceptable. To assess the significance of the path coefficients, the bootstrap with 10000 valid observations is used. The results of the bootstrapping illustrated in Table 4 indicate that t-values are above 1.96, therefore, all relationships are significant.

In this way, the full collinearity test for assessing discriminant validity was analyzed following the indications of Rasoolimanesh (2022), where the variance inflation factors (VIFs) as collinearity measures for each construct should be less than 3. In this case, the VIFs are between 1-2.374, therefore, the values are accepted. Figure 2 shows the main results of the structural equation model.

Table 4
Path coefficients

	Sample mean	Standard deviation	t-statistics	p-value	Supported?
H1: Empowerment → Emotional Intelligence	0.121	0.029	4.269	0.000	Yes
H2a: Understanding → Emotional Intelligence	0.271	0.029	9.384	0.000	Yes
H2b: Perceiving → Emotional Intelligence	0.255	0.028	9.177	0.000	Yes
H2c: Facilitate thinking → Emotional Intelligence	0.330	0.031	10.614	0.000	Yes
H2d: Management → Emotional Intelligence	0.306	0.030	10.277	0.000	Yes
H3a: Empowerment → Understanding	0.454	0.048	9.286	0.000	Yes
H3b: Empowerment → Perceiving	0.271	0.056	4.703	0.000	Yes
H3c: Empowerment → Facilitate thinking	0.488	0.051	9.487	0.000	Yes
H3d: Empowerment → Management	0.241	0.061	3.836	0.000	Yes

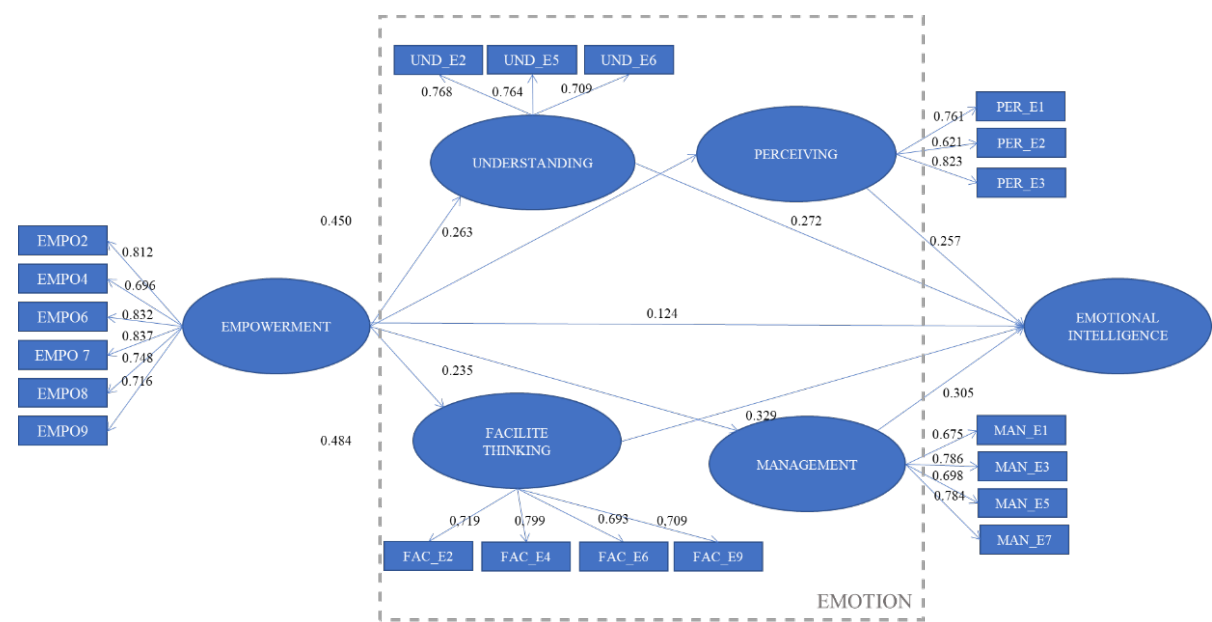


Figure 2. Revised measurement model

The results reveal several positive and statistically significant direct effects. Regarding emotional intelligence, empowerment shows a positive and significant relationship with overall emotional intelligence ($\beta = 0.121$; $p < 0.01$), thus confirming Hypothesis H1. Furthermore, empowerment is directly and significantly associated with the dimensions of emotional intelligence: understanding ($\beta = 0.454$; $p < 0.01$), perceiving ($\beta = 0.271$; $p < 0.01$), facilitating thinking ($\beta = 0.488$; $p < 0.01$), and emotional management ($\beta = 0.241$; $p < 0.01$). These findings support Hypotheses H3a, H3b, H3c, and H3d. Additionally, empowerment itself is significantly related to the emotional intelligence dimensions of understanding ($\beta = 0.271$; $p < 0.01$), perceiving ($\beta = 0.255$; $p < 0.01$), facilitating thinking ($\beta = 0.330$; $p < 0.01$), and emotional management ($\beta = 0.306$; $p < 0.01$), further reinforcing the support for Hypotheses H3a, H3b, H3c, and H3d.

5. Discussion

As mentioned in the purpose of the study, the analyses conducted were intended to examine the relationships between two complex psychological constructs, such as empowerment and emotional intelligence. This observation is relevant because even though this relationship is well established, either by analyzing the influence of empowerment on emotional intelligence (Idrus et al., 2015; Liu et al., 2024) or of emotional intelligence on empowerment (Karimi et al., 2021), it has frequently been studied in the work environ-

ment, leaving the educational environment in the background. In this sense, this research confirms the existence of a direct relationship between empowerment and emotional intelligence in this context (H_1). Thus, it can be asserted that empowerment contributes to the development of emotional intelligence by activating motivational mechanisms within the academic environment. This, in turn, may lead to greater academic and social integration aimed at meeting the highest expectations of the student.

In addition, using the factorial solution that emerges from the construct of emotional intelligence, the aim was to analyze the mediating role that each of the factors that compose it could play. In this sense, the results obtained have shown the strength of the model, since not only the direct influence of empowerment on emotional intelligence is demonstrated, but also the influence of the four factors on the overall emotional intelligence index (H_2). As has already been highlighted (Dacre & Qualter, 2012), the four factors have an important capacity to explain emotional intelligence (Pandey & Pandey, 2024), but it has been more surprising that empowerment acts on emotional intelligence through all of them (H_3). In this regard, the results underscore the significance of the four factors in shaping the emotional intelligence construct. Each factor represents a constitutive component that contributes to the construct's overall configuration. Furthermore, the results reveal that empowerment influences emotional intelligence through these components, enhancing emotional awareness, understanding, regulation, and facilitation. This leads to an increase in emotional intelligence by acting on its components.

Although there do not seem to be many studies that contemplate this situation, we can mention that of Beauvais et al., (2014), which allows us to appreciate how sometimes a phenomenon may not correlate with emotional intelligence at a global level but does correlate with certain factors. Thus, although academic success did not correlate with the emotional intelligence global index, it did correlate with certain aspects, such as emotional facilitation and emotional regulation in graduate students, as well as in the opposite direction with the emotional perception component in undergraduate students. It is also worth mentioning the study by Aziz and Ennew (2013), where it was found, here yes, that empowerment had a significant positive relationship with positive emotions and a negative relationship with negative emotions, leading in the first case to greater job satisfaction and in the second to a lower one, which could lead to infer that emotional regulation has the capacity to establish that mediating role on global emotional intelligence to act on a third phenomenon.

To sum up, the results obtained seem to evidence the overlapping of empowerment with the factors that constitute the construct of emotional intelligence, so that creating programs that include working with the first variable together with the factors of emotional intelligence would allow us to increase and develop it to a greater extent, taking advantage of its symbiotic nature, a fact that could be effective in improving the results of the teaching-learning process.

From this derive the practical implications of this research, making it necessary that when designing socio-educational and personal growth programs, it is necessary to consider how the empowerment factor is intertwined with the emotional factor, something that could be considered and brought to change also in the teaching-learning processes, by understanding it as a transversal competence.

More important are the theoretical implications, since the presented model of empowerment focuses on purely cognitive aspects, abstracting from the emotional component. In view of the results obtained, it would seem appropriate to integrate this component into the model, due to the direct influence that empowerment has been shown to have on the emotions themselves but also being aware of the relationship that emotions have been shown to have on cognitive and motivational aspects.

In terms of contextual implications, these are especially relevant both in the psychological and educational fields, since both are fields focused on the development of the individual. Thus, the former contemplates a more personal development perspective at a global level and the latter, a more educational and formative perspective, where working on empowerment, motivational and emotional aspects is a basic need that will foreseeably result in an improvement in the capacity for academic adaptation and performance.

However, this study has several limitations. First, the sample should be expanded to include different academic disciplines within the university and other higher education institutions. The distinction between fields of knowledge is particularly relevant here, given the significant role of psychological expertise in the phenomena under study. This is especially evident in degrees such as teaching, psychology, or pedagogy, where psychological content is more prominent. This could lead to differences when compared with other professional domains. Additionally, the gender distribution of students may vary across programs since women are underrepresented in certain fields compared to the social sciences. Likewise, other methods of analysis based on artificial intelligence could be introduced, which would make it possible to enhance, re-structure or re-elaborate the model according to the data obtained in new contexts.

The future research could be focused on testing the model by including variables related to performance, with the aim of testing whether a greater interrelation between empowerment and emotional intelligence would lead to an increase in the probability of obtaining high grades. This same relationship could be tested with mediating elements of the teaching-learning processes such as motivation, self-efficacy expectations, satisfaction with studies, or even with phenomena that go beyond performance itself, such as the university drop-out intention.

6. Conclusion

This study highlights how academic empowerment influences the development of students' emotional intelligence in distinct ways across the four factors that constitute this construct. This underscores the need for universities to provide services that promote academic empowerment and leverage it as a foundational pillar to support the development of emotional intelligence across its various dimensions: understanding, perceiving, facilitating thinking, and management. This is expected to contribute to improved academic and social integration processes.

Funding

The organization has been granted financial support from the European Union on behalf of the Principality of Asturias (GRUPIN: ID2024000713).

References

- Al-Dmour, R., Yassine, O., & Masha'deh, R. (2018). A review of literature on the associations among employee empowerment, work engagement and employee performance. *Modern Applied Science*, 12(11), 313-329. <https://doi.org/10.5539/mas.v12n11p313>
- AlMulhim, A. F. (2021). Smart supply chain and firm performance: the role of digital technologies. *Business Process Management Journal*, 27(5), 1353-1372. <https://doi.org/10.1108/BPMJ-12-2020-0573>
- Alotaibi, S., Amin, M., & Winterton, J. (2020). Does emotional intelligence and empowering leadership affect psychological empowerment and work engagement? *Leadership & Organization Development Journal*, 41(8), 971-991. <https://doi.org/10.1108/LODJ-07-2020-0313>
- Arrivillaga, C., & Extremera, N. (2020). Evaluación de la inteligencia emocional en la infancia y la adolescencia: una revisión sistemática de instrumentos en castellano. *Revista Iberoamericana de Diagnóstico y Evaluación - e Avaliação Psicológica- RIDEP*, 55(2), 121-139. <https://doi.org/10.21865/RIDEP55.2.09>
- Aziz, Y., & Ennew, C. (2013). Assessing the effects of empowerment and emotions on job satisfaction in hotel service environments. *Pertanika Journal of Social Sciences & Humanities*, 21(S), 65-84.
- Bal, Y., & Kökalan, Ö. (2022). The moderating effect of cultural intelligence on the relationship between emotional intelligence and job satisfaction. *Frontiers in Psychology*, 13, art.900546. <https://doi.org/10.3389/fpsyg.2022.900546>
- Bar-On, R. (1997). *The Bar-on Emotional Quotient Inventory (EQ-i). A test of emotional intelligence*. Multi-Health Systems.
- Beauvais, A., Stewart, J., DeNisco, S., & Beauvais, J. (2014). Factors related to academic success among nursing students: a descriptive correlational research study. *Nurse Education Today*, 34, 918-923. <https://doi.org/10.1016/j.nedt.2013.12.005>
- Bouwman, H., Nikou, S., & de Reuver, M. (2019). Digitalization, business models, and SMEs: how do business model innovation practices improve performance of digitalizing SMEs? *Telecommunications Policy*, 43(9), 101828. <https://doi.org/10.1016/j.tel-pol.2019.101828>
- Boyatzis, R. E., & Sala, F. (2004). The Emotional Competence Inventory (ECI). In G. Geher (Ed.), *Measuring emotional intelligence: Common ground and controversy* (pp. 147-180). Nova Science Publishers.
- Bru-Luna, L. M., Martí-Vilar, M., Merino-Soto, C., & Cervera-Santiago, J. L. (2021). Emotional Intelligence measures: a systematic review. *Healthcare*, 9, art.1696. <https://doi.org/10.3390/healthcare9121696>
- Cargan, L. (2007). *Doing Social Research*. Rowman & Littlefield Publishers.
- Celik, P., & Storme, M. (2018). Trait emotional intelligence predicts academic satisfaction through career adaptability. *Journal of Career Assessment*, 26(4), 666-677. <https://doi.org/10.1177/1069072717723290>
- Dacre, L., & Qualter, P. (2012). The dimensional structure of the emotional self-efficacy scale (ESES). *Australian Journal of Psychology*, 64(3), 147-154. <https://doi.org/10.1111/j.1742-9536.2011.00039.x>
- Dadandi, I. (2023). Academic self-efficacy, study skills, and academic achievement: A serial mediation model. *Research on Education and Psychology*, 7(2), 291-306. <https://doi.org/10.54535/rep.1342022>
- Dhani, P., & Sharma, T. (2016). Emotional intelligence; history, models and measures. *International Journal of Science Technology and Management*, 5(7), 189-201.
- Ellikkal, A., & Rajamohan, S. (2025). AI-enabled personalized learning: empowering management students for improving engagement and academic performance. *VILAKSHAN-XIMB Journal of Management*, 22(1), 28-44. <https://doi.org/10.1108/XJM-02-2024-0023>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50. <https://doi.org/10.1177/002224378101800104>
- Galve-González, C., Castro-Lopez, A., Cervero, A., & Bernardo, A. B. (2025). Overcoming barriers: the role of resilience as a mediating factor in academic engagement. *Studies in Higher Education*, 1-16. <https://doi.org/10.1080/03075079.2025.2463004>
- Goh, E., & Kim, H. J. (2021). Emotional intelligence as a predictor of academic performance in hospitality higher education. *Journal of Hospitality & Tourism Education*, 33(2), 140-146. <https://doi.org/10.1080/10963758.2020.1791140>

- Gong, Y., Wu, Y., Huang, P., Yan, X., & Luo, Z. (2020). Psychological empowerment and work engagement as mediating roles between trait emotional intelligence and job satisfaction. *Frontiers in Psychology*, 11, art.232. <https://doi.org/10.3389/fpsyg.2020.00232>
- Gross, J., & John, O. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85(2), 348-362. <https://doi.org/10.1037/0022-3514.85.2.348>
- Hair, J. F., Anderson, R. E., Babin, B. J., & Black, W. C. (2010). *Multivariate data analysis* (7th ed.). Prentice Hall.
- Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial least squares structural equation modeling (PLS-SEM) using R: A workbook*. Springer. https://doi.org/10.1007/978-3-030-80519-7_1
- Hair Jr, J. F., Hult, G. T., Ringle, C. M., & Sarstedt, M. (2014). *A primer on partial least squares structural equation modeling PLS-SEM*. SAGE Publications.
- Hosseini, M., Banihashemi, S., Chileshe, N., Namzadi, M. O., Udaaja, C., Rameezdeen, R., & McCuen, T. (2016). BIM adoption within Australian small and medium-sized enterprises (SMEs): an innovation diffusion model. *Construction Economics and Building*, 16(3), 71-86. <https://doi.org/10.5130/AJCEB.v16i3.5159>
- Houser, M. L., & Frymier, A. B. (2009). The role of student characteristics and teacher behaviors in students' learner empowerment. *Communication Education*, 58(1), 35-53. <https://doi.org/10.1080/03634520802237383>
- Howarth, A., Cooke, S. J., Nguyen, V. M., & Hunt, L. M. (2024). Non-probabilistic surveys and sampling in the human dimensions of fisheries. *Reviews in Fish Biology and Fisheries*, 34(2), 597-622. <https://doi.org/10.1007/s11160-023-09831-1>
- Huo, B., Tian, M., Tian, Y., & Zhang, Q. (2019). The dilemma of inter-organizational relationships: dependence, use of power and their impacts on opportunism. *International Journal of Operations & Production Management*, 39(1), 2-23. <https://doi.org/10.1108/IJOPM-07-2017-0383>
- Idrus, S., Alhabji, T., Al Musadieq, M., & Utami, H. (2015). The effect of psychological empowerment on self-efficacy, burnout, emotional intelligence, job satisfaction, and individual performance. *European Journal of Business and Management*, 7(8), 139-148.
- Jiao, L., Harrison, G., Chen, J., & Butcher, K. (2021). Does emotional intelligence matter to academic work performance? Evidence from business faculties in Australia. *Accounting and Finance*, 61, 1181-1204. <https://doi.org/10.1111/acfi.12607>
- Joo, B. K., Bozer, G., & Ready, K. J. (2019). A dimensional analysis of psychological empowerment on engagement. *Effectiveness: people and performance*, 6(3), 186-203. <https://doi.org/10.1108/JOEPP-09-2018-0069>
- Karimi, L., Leggat, S., Bartram, T., Afshari, L., Sarkeshik, S., & Verulava, T. (2021). Emotional intelligence: predictor of employees' wellbeing, quality of patient care, and psychological empowerment. *BMC Psychology*, 9(1), 1-7. <https://doi.org/10.1186/s40359-021-00593-8>
- Li, H. (2025). Empowering students: positive higher education strategies. *Frontiers in Psychology*, 16, art.1561267. <https://doi.org/10.3389/fpsyg.2025.1561267>
- Liu, Y., Ma, S., & Chen, Y. (2024). The impacts of learning motivation, emotional engagement and psychological capital on academic performance in a blended learning university course. *Frontiers in Psychology*, 15, art.1357936. <https://doi.org/10.3389/fpsyg.2024.1357936>
- MacCann, C., Jiang, Y., Brown, L. E., Double, K. S., Bucich, M., & Minbashian, A. (2020). Emotional intelligence predicts academic performance: a meta-analysis. *Psychological Bulletin*, 146(2), 150-186. <https://doi.org/10.1037/bul0000219>
- Martínez-Martínez, A. M., López-Liria, R., Aguilar-Parra, J. M., Trigueros, R., Morales-Gázquez, M. J., & Rocamora-Pérez, P. (2020). Relationship between emotional intelligence, cybervictimization, and academic performance in secondary school students. *International Journal of Environmental Research and Public Health*, 17(21), art.7717. <https://doi.org/10.3390/ijerph17217717>
- Mayer, J. D., Caruso, D. R., & Salovey, P. (2016). The ability model of emotional intelligence: principles and updates. *Emotion Review*, 8(4), 290-300. <https://doi.org/10.1177/1754073916639667>
- Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey, & D. Sluyter (Eds.), *Emotional development and emotional intelligence: Implications for educators* (pp. 3-31). Basic Books.
- Metaj-Macula, A. M. (2017). Emotional intelligence, its relation with social interaction and perceived social support. In *12th International Conference on Social Sciences. Conference Proceedings* (vol. II, pp. 126-131). European Center for Science Education and Research (EUSER).
- Mittal, S. (2020). Ability-based emotional intelligence and career adaptability: role in job-search success of university students. *Higher Education Skills and Work-Based Learning*, 11(2), 454-470. <https://doi.org/10.1108/HESWBL-10-2019-0145>
- Narasimhan, R., & Jayaram, J. (1998). Causal linkages in supply chain management: an exploratory study of North American manufacturing firms. *Decision Sciences*, 29(3), 579-605. <https://doi.org/10.1111/j.1540-5915.1998.tb01355.x>
- Panchana-Mosquera, N. V., & Venet-Muñoz, R. (2024). La integración de la inteligencia emocional en la formación de docentes: un enfoque pedagógico para el desarrollo de habilidades emocionales. *Portal de la Ciencia*, 5(1), 102-116. <https://doi.org/10.51247/pdlc.v5i1.432>
- Pandey, C. S., & Pandey, S. (2024). Measuring Emotional Self-Efficacy of Students in Online Synchronous Teaching Environments in India. *American Journal of Distance Education*. <https://doi.org/10.1080/08923647.2024.2422667>
- Perkmann, M., Salandra, R., Tartari, V., McKelvey, M., & Hughes, A. (2021). Academic engagement: a review of the literature 2011-2019. *Research Policy*, 50(1), art.104114. <https://doi.org/10.1016/j.respol.2020.104114>
- Petrides, K. (2009). *Trait Emotional Intelligence Questionnaire (TEIQue). Technical Manual*. London Psychometric Laboratory.

- Qualter, P., Dacre, L., Gardner, K. J., Ashley-Kot, S., Wise, A., & Wols, A. (2015). The emotional self-efficacy scale: adaptation and validation for young adolescents. *Journal of Psychoeducational Assessment*, 33(1), 33-45. <https://doi.org/10.1177/0734282914550383>
- Rasoolimanesh, S. M. (2022). Discriminant validity assessment in PLS-SEM: a comprehensive composite-based approach. *Data Analysis Perspectives Journal*, 3(2), 1-8.
- Ratnawat, R. G., & Borgave, S. A. (2020). Investigating the correlation between emotional intelligence and academic performance. *Pacific Business Review International*, 13(6), 1-9.
- Ringle, C. M., Wende, S., & Becker, J. M. (2024). *SmartPLS 4*. Boenningstedt: SmartPLS. <https://www.smartpls.com>
- Rogers, E. S., Chamberlin, J., Langer, M., & Crean, T. (1997). A consumer-constructed scale to measure empowerment among users of mental health services. *Psychiatric Services*, 48(8), 1042-1047. <https://doi.org/10.1176/ps.48.8.1042>
- Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition, and Personality*, 9, 185-211. <https://doi.org/10.2190/DUGG-P24E-52WK-6CDG>
- Shi, R., Meng, Q., & Huang, J. (2022). Impact of psychological empowerment on job performance of Chinese university faculty members: a cross-sectional study. *Social Behavior and Personality*, 50(1), e10975. <https://doi.org/10.2224/sbp.10975>
- Spreitzer, G. M. (1995). Psychological empowerment in the workplace: dimensions, measurement, and validation. *Academy of Management Journal*, 38, 1442-1465. <https://doi.org/10.2307/256865>
- Surià, R., & Rosser-Limiñana, A. (2025). Impact of empowerment and its influence on the academic performance of university students with disabilities. *Revista de Gestão Social e Ambiental*, 19(5), e012428. <https://doi.org/10.24857/rgsa.v19n5-140>
- Thomas, C. L., Cassady, J. C., & Heller, M. L. (2017). The influence of emotional intelligence, cognitive test anxiety, and coping strategies on undergraduate academic performance. *Learning and Individual Differences*, 55, 40-48. <https://doi.org/10.1016/j.lindif.2017.03.001>
- Thomas, K. W., & Velthouse, B. A. (1990). Cognitive elements of empowerment: an "Interpretive" model of intrinsic task motivation. *Academy Management Review*, 15(4), 666-681. <https://doi.org/10.2307/258687>
- Tumino, M. C., Quinde, J. M., Casali, L. N., & Valega, M. R. (2020). Autoeficacia en estudiantes universitarios: el rol del empoderamiento académico. *International Journal of Educational Research and Innovation*, 14, 211-224. <https://doi.org/10.46661/ijeri.4618>
- Won, J. (2016). The relationship among college students' psychological capital, learning empowerment, and engagement. *Learning and Individual Differences*, 49, 17-24. <https://doi.org/10.1016/j.lindif.2016.05.001>