Emotional competences relationship and academic performance in university students

Relación de competencias emocionales y rendimiento académico en estudiantes universitarios

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Abstract

The objective of this quantitative study was to identify the level of EI in the university student and to compare it to their academic performance. The 40 participants; 15 women and 25 men, aged between 18 and 22 years old, attending the Higher University Technical level, were selected through a non-random sampling. The Trait Meta Mood-Scale self-report test (TMMS24) was applied. Data were analyzed with the Spss 24 statistical program and the Pearson correlation test. The results show that there is no significant correlation between academic performance and global emotional intelligence, but, there is a significant difference in the variable of emotional clarity in young people in the first four-month period (3.70). They present a greater clarity compared with those in the fourth quarter (3.24). It is concluded that to study the relationship between EI and academic performance it is convenient to consider other variables that can influence the person, such as personality traits and intellectual capacity. Also it is recommended to include emotional competencies in the university curriculum, because they influence subsequent psychological adjustment and work performance.

School performance, Emotional intelligence, Student

Resumen

El objetivo del presente estudio cuantitativo, fue identificar el nivel de IE en el alumno universitario para relacionarlo con su rendimiento académico. Los 40 participantes, 15 mujeres y 25 hombres, con edades entre 18 y 22 años de edad, cursan el nivel Técnico Superior Universitario, fueron seleccionados a través de un muestreo no aleatorio. Se aplicó el test de autoinforme Trait Meta Mood- Sacale (TMMS24). Los datos se analizaron con el programa estadístico Spss 24 y la prueba de correlación de Pearson. Los resultados muestran que no existe correlación significativa entre rendimiento académico e inteligencia emocional global, pero, si existe diferencia significativa en la variable de claridad emocional, en los jóvenes de primer cuatrimestre (3.70) ellos presentan una mayor claridad comparándolos con los de cuarto cuatrimestre (3.24). Se concluye que para estudiar la relación entre la IE y el rendimiento académico es conveniente considerar otras variables que pueden influir en la persona, como los rasgos de la personalidad y la capacidad intelectual. Asimismo, incluir en el currículo de las universidades las competencias emocionales, porque influyen en el ajuste psicológico posterior y el desempeño laboral.

Rendimiento escolar, Inteligencia emocional, Estudiante

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Introduction

The 20th century is characterized by the rise and expansion of the term Emotional Intelligence (IE) and, as Goleman (1995) indicates, the union of reason and emotion is essential to understand the development of human intelligence. There are many contexts in which emotions, and the intelligent use of them, are necessary for the full development of the individual. But without a doubt, Emotional Competences (EC) play a very important role in the educational field. The above is accepted by researchers and educators (Hargreaves, 1996; Gardner, 2005; Goleman, 1996; Marina, 2004; Shapiro, 2010), cited in Del Rosal, Moreno & Bermejo (2018).

For Goleman (2000), a person who has a good level of IE will not necessarily master various ECs, since the first concept only indicates the potential that the person has for the use of inter and intrapersonal skills, "An emotional competence is a capacity acquired based on emotional intelligence that leads to outstanding performance" (Goleman, 2000, p.33). Therefore, the development of EI leads to emotional education, conceived as a continuous and permanent educational process, which aims to promote the development of the EC as an essential element of the integral development of the person, in order to train him for life, with the aim of increasing personal and social well-being (Bisquerra, 2003).

In EI two components are characteristic, closely related to two types of intelligences according to Gardner's Theory of Multiple Intelligences (2005), the intrapersonal component, related to the abilities for identification, perception and mastery of emotions in oneself, manifesting through self-awareness and self-control and the interpersonal component, linked to the capacities for identification and perception of emotions in other people (empathy) and the ability to relate positively in a social way (social skills). This author affirms that among the objectives of EI stand out the ability to know the emotions of the individual himself at the moment in which they arise; control and accommodation of one's emotions; recognition not only of our own emotions, but also the emotions of the people around us; the development of positive personal relationships, among many others (Del Rosal, et. al. 2018).

From the Mayer and Salovey model cited in Fernández & Extremera (2002), EI involves four major components:

- Perception and emotional expression: consciously recognize emotions and identify what the person feels and be able to give them a verbal label.
- Emotional facilitation: ability to generate feelings that facilitate thinking.
- Emotional understanding: integrate what the individual feels within their thinking and know how to consider the complexity of emotional changes.
- Emotional regulation: direct and manage both positive and negative emotions effectively.

Goleman (1995), defines Emotional Intelligence (IE), as the individual's ability to recognize his own feelings and those of others, to motivate himself and to properly manage relationships.

Goleman, cited in Fragoso (2015), conceives emotional intelligence as a set of key characteristics to successfully solve life problems, among which the following stand out: the ability to motivate oneself and persist over disappointments; control the urge to delay gratification; regulate mood; avoid disorders that decrease cognitive abilities; show empathy and generate hope.

Among the specific skills that make up EI (Pulido & Herrera, 2015, cited in Pulido & Herrera 2017) are included the skills of self-knowledge (accurate identification of own emotions), self-control (management of own emotions) and motivation (related to the driving impulse for the development of a task), empathy (ability to put yourself in the place of others) and social skills (adequate interaction with others).

Emotional intelligence in education

It is proven that academic intelligence is not enough to achieve professional success, nor does it guarantee success in everyday life. Intelligence does not facilitate happiness neither with the partner, nor with the children, nor with having more and better friends. People's IQ does not contribute to emotional balance or mental health.

Other emotional and social skills are responsible for emotional and mental stability, as well as social and relational adjustment (Fernández & Extremera, 2002).

Therefore, the educational focus has changed in the last decades. Expository teaching and receptive learning has given way to guiding teaching and autonomous and self-regulated learning (Peters, 2002, cited in Pedrera, 2017), whose purpose is the acquisition of skills. The concept of competence implies the ability and attitude to face complex demands and mobilize both personal and socio-cultural resources, integrating, understanding and adapting the subjects' own ends (OECD, 2005, cited in Pedrera, 2017).

For their part, Pulido & Herrera (2017) state that emotions influence academic performance in a key way, acting directly on learning. Any intervention within the educational field must be based on regularity and predictability, however, the emotional states that accompany this process cannot be eliminated. Therefore, it is proposed that, in order to achieve greater efficiency and quality in this learning, the emotional sphere is incorporated into the set of all those dimensions that intervene in said process. The reason is that when teaching incorporates emotions, the results are far superior to those obtained from that impersonal process and devoid of anything affective (Pacheco, Villagrán, & Guzmán, 2015). According to Gutiérrez, & García, (2015) affirm that the development of EI constitutes a slow learning process throughout life, which allows learning from experiences, generating cognitive skills and generating EC that, according to Goleman (1995), thought and action are combined, undoubtedly the school context can be extraordinarily conducive to achieving such development.

Problem

Numerous studies have identified a relationship between EI and student academic performance (Brackett and Mayer, 2003; Buenrostro et al., 2012; Ferragut and Fierro, 2012; Figueroa, Yaceira, Rosero and García, 2012; Gil-Olarte, Páez y Castaño, 2014; Mestre, Guil and Gil-Olarte, 2004; Palomera and Brackett, 2006, cited in Del Rosal, Moreno, & Bermejo 2018), undoubtedly one of the components with the most influence on the academic performance of students is that of emotional regulation.

Students with high scores in IE tend to get better grades in the different subjects, due, in part, to the ability they have to regulate their own emotions, consequently, it will allow them to identify negative emotional states so that they influence as little as possible in their tasks and obtain the best results (Extremera & Fernández-Berrocal, 2013; Medrano & Trógolo, 2014, cited in Del Rosal, Moreno, & Bermejo 2018).

At the university level, academic performance is defined as the degree of achievement of the objectives established in school programs (Himmel, 1985, cited by Estrada, 2011). Academic performance is a measure of responsive or indicative abilities, which manifests what a person has learned as a consequence of an instruction or training process, and involves cognitive, volitional and emotional variables (Ariza 2017).

Intellectual and emotional development and academic performance are interdependent. Students with high IE tend to be more prosocial, have a high school performance and better behavior. Positive feelings and emotions can greatly increase the learning process; they can keep the learner on task and provide a stimulus for new learning. Likewise, behaviors such as dropping out of school, negative emotions, low performance, drug use and juvenile delinquency have been related to the absence of social skills (Serrano, 2006; Gil-Olarte et al., 2006; Kimbrough, 2008; Ruiz, 2008, cited in Segura, Cacheiro & Domínguez, 2015).

Emotionally intelligent students show better self-esteem, adjustment and psychological well-being, emotional and interpersonal satisfaction, quality of interactional relationships, social support, and less disposition to present aggressive or violent disruptive behaviors, as well as they present lower degrees of physical symptoms, anxiety and depression. All these skills increase the academic performance of students (Extremera & Rey, 2007, cited in Salcedo 2017).

When a series of difficulties are observed in the classrooms, such as poor academic performance, boisterous classes, poorly disciplined students, high number of absences, verbal and non-verbal violence between disciples, fights for insignificant events, crying and nervousness when presenting oral exams or presentations, some of these behaviors suggest a lack of one or more emotional skills.

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It is believed that, within the teaching strategies for the 21st century school, it is necessary to include the development of the emotional skills of the students, teachers and directors to give them the tools that facilitate communication and the development of the student learning process. (Segura, Cacheiro & Domínguez, 2015).

Extremera & Fernández-Berrocal, 2003; Jiménez, 2009, cited in Niño, García & Caldevilla, (2017) affirm that there is sufficient evidence of the importance of the state and emotional management in student performance, as well as the direct role of EI in the performance and well-being of This in the academic and social environment.

Considering the above, the following problem arises:

What is the IE level that the university student shows to relate it to their academic performance?

Therefore, the present work aims to:

Identify the level of IE in the university student to relate it to their academic performance.

Method

The present study is quantitative, it was carried out during the period September-December 2018, with a population of 40 students of first and fourth semester of the programs of Higher Technical University Level (TSU), of the educational programs of Industrial Processes (PI), Marketing (MKT), Mechatronics (MA), Aeronautical Manufacturing (MAMP), Automotive After-sales Service (SPA), Industrial Maintenance (MI), Information Technologies (IT), from a University in southern Sonora. The sample was chosen for convenience through a non-random sample, consisting of 25 men and 15 women. Age ranges from 18 to 22 years.

Instrument

The questionnaire used has been the TMMS-24 self-report test, a reduced version adapted to Spanish by Fernández-Berrocal, Extremera and Ramos (2004) of the Emotional Meta-knowledge Trait Scale based on the Salovey and Mayer model (1990).

This instrument, made up of 24 items and a 5-point Likert-type scale, assesses three key dimensions in EI: emotional attention, related to the ability to feel and express feelings appropriately; emotional clarity, linked to the ability to understand emotional states and emotional reparation, oriented to the ability to reverse emotional states correctly.

To assess academic performance, the final average obtained by each student at the end of the semester September-December 2018 was used.

Procedure

The instruments were answered in the classroom, with the prior authorization of the students. Each application lasted around 10 minutes. The following instructions were given: mark with an X the degree of agreement or disagreement with each of the statements about personal emotions and feelings; it was clarified that there were no correct or incorrect answers, in addition, the reason for the work and its relevance were explained to the participants, and that the results would be used for research purposes.

Analysis of data:

Data processing was performed in the Statistical Package for the Social Sciences [SPSS] # 24, and the Pearson correlation test.

Results and discussion

Statistical results show that there is no significant correlation between academic performance and global emotional intelligence in students in the first and fourth four-month periods (Table 1 and 2). In this regard, Bastian, Burns and Nettelbeck (2005 cited in Del Rosal, Moreno, & Bermejo, 2018) also do not determine in their study with university students a significant relationship between these two variables. Similarly, Salcedo (2017), found that there is no direct relationship between IE variables and academic performance in university students.

Variables	1	2
Academic performance	-	
Emotional intelligence	-.27	-
$p < .05^*$; $p < .01^{**}$		

Table 1 Correlations between academic performance and emotional intelligence of first-term students.

Variables	1	2
Academic performance	-	
Emotional intelligence	-.15	-
$p < .05^*$; $p < .01^{**}$		

Table 2 Correlations between academic performance and emotional intelligence of fourth semester students

In addition, the correlations between the academic performance of the students in the total sample were calculated, with each of the categories measured by the instrument (Table 3), observing that the correlations between academic performance and attention variables (-.15), clarity (-.16) and repair (-.07) are low. Also, it was shown that the correlation between academic performance and global IE is low (-.13). It is not significant (Table 3). On the other hand, (Gaeta & López, 2013) found that academic performance did not have a significant correlation with the dimensions of the EC and affirm that it may be because students do not show adequate levels in the regulation of their emotions that allow them to greater social and academic adaptation in the university, since it has been shown that the ability to use and regulate emotions in order to favor concentration, impulsivity and stress management, can produce an increase in the intrinsic motivation of students (Fernández - Berrocal & Extremera, 2006, cited in (Gaeta & López, 2013), which may favor their academic performance (Ogundokun & Adeyemo, 2010, cited in Gaeta & López, 2013).

Variables	1	2	3	4
Academic performance	-			
Attention	-.15	-		
Clarity	-.16	.33*	-	
Emotional reparation	-.07	.19	.59**	-
Global emotional intelligence	-.13	.64**	.82**	.76**
$p < .05^*$; $p < .01^{**}$				

Table 3 Correlations between academic performance, attention, clarity and emotional repair and global IE

Likewise, Table 4 presents a Student's t test for independent samples to find out if there are differences by semester (1st and 4th) in terms of IE. The results obtained show that there is a significant difference in the emotional clarity variable, in the first semester youth (3.70) they present greater clarity compared to the fourth semester (3.24). Del Rosal, Dávila, Sánchez, & Bermejo (2016), affirm that it is the university students in initial training who obtain the highest score in each and every dimension, as well as in the global level of emotional intelligence. For their part, Gaeta & López, (2013), regarding the EC of university students, observed high levels both in the perception and in the understanding of emotions, not so for their regulation.

Variables	First semester (n = 40)	Fourth semester (n = 40)	t	p
Emotional attention	3.19	3.26	-.30	.76
Emotional clarity	3.70	3.24	2.03	.04
Emotional reparation	3.87	3.61	1.17	.24
Global emotional intelligence	3.59	3.37	1.30	.19
* $p < .05$				

Table 4 Mean values to contrast differences in emotional intelligence by semester.

Conclusion

The objective of this work was fulfilled: Identify the level of IE in the university student to relate it to their academic performance and although the result showed that there is no significant correlation between academic performance and emotional intelligence, (Ferragut and Fierro 2012, Renault, Cortada and Castro, 2014, cited in Del Rosal, et al, 2018), believe that to study the relationship between EI and academic performance, it is convenient to consider another series of important variables that can influence the person, such as the characteristics of personality and intellectual capacity.

Jadue (2002, quoted in Gaeta & López, 2013) emphasizes the relevance of developing emotional competencies in students that contribute to their well-being and emotional balance.

The regulation of emotions comprises the most complex group of competences, since it involves the management of emotional expressions of oneself and of others, the management of internal emotional states and the use of emotion in the planning and execution of plans.

Academic performance is not the only variable associated with professional success, prosperity, prestige, satisfaction and quality of life (Angarita Arboleda & Cabrera Dokú, 2000, cited in Páez & Castaño, 2015), since it has been found that EI may have a greater impact on this aspect, compared to academic performance (Marín Sánchez, Infante Rejano & Troyano Rodríguez, 2000, cited in Páez & Castaño, 2015). EI is linked to emotional control, the ability to negotiate (Petrides & Furnham, 2000, cited in Páez & Castaño, 2015), self-motivation, persistence, empathy and the quality of interpersonal relationships. Furthermore, it is a basic component in leadership, emotional stability and flexibility, adaptability and the management of frustration and uncertainty (Bermúdez, Álvarez & Sánchez, 2003, cited in Páez & Castaño, 2015); therefore, it can become a factor that predicts good performance in educational and work contexts (Bar-On, 2004, cited in Páez & Castaño, 2015).

According to Goleman (1996), emotional skills are more important for job success than intellect and technical knowledge, since they allow connections to be made between reasoning, emotional skills and coping strategies.

In short, there is sufficient evidence of the importance of the state and emotional management in student performance, as well as the direct role of EI in its performance and well-being in the academic and social environment (Jiménez, 2009, cited in Niño, García & Caldevilla, 2017).

Also, Páez & Castaño (2015) affirm that in the curricular designs of the universities, it is necessary to include not only the cognitive aspects but also the emotional and interactional aspects, also, all these aspects influence subsequent psychological adjustment and job performance. To a great extent, the social-emotional skills of perseverance and decision-making are fundamentally linked to the awareness and regulation of emotions (García, 2018).

Finally, it is recommended to contemplate from the institutional curriculum the importance of an emotional awareness, consider the need for its proper management, reinforce the relational capacity with other subjects and develop the capacity to solve problems; A first step will be to educate teachers about the importance of developing skills through literacy and improving emotional communication among students, which are so necessary for them in this social context in which they have been taught. touched to live as stated by Gutiérrez & García (2015).

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