

## La Inteligencia emocional y la práctica docente en profesores investigadores

*Emotional Intelligence and teaching practice in research professor*

*Inteligência emocional e prática de ensino em professores de pesquisa*

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### Resumen

El presente artículo tiene el objetivo de estudiar las relaciones entre la inteligencia emocional y cinco factores que analizan la práctica docente en profesores de posgrado para identificar su comportamiento de acuerdo con el género, la escolaridad, la pertenencia al Sistema Nacional de Investigadores (SNI). Se trata de un estudio transversal cuantitativo; se aplicaron dos instrumentos: el primero mide la inteligencia emocional y el segundo estudia la práctica docente, la muestra productora de datos es de 200 profesores. Se concluye que a mayor grado académico y nivel dentro del Sistema Nacional de Investigadores, diversos elementos de la práctica docente se desdibujan.

**Palabras clave:** comprensión, inteligencia emocional, percepción, práctica docente, profesores investigadores, regulación de emociones.

### Abstract

The aim of this article is to study the relationships between emotional intelligence and five factors that analyze the teaching practice in postgraduate teachers to identify their behavior regarding gender, schooling, relevance to the National System of Researchers (SNI). It is a cross-sectional quantitative study, two instruments were applied, the first one measures the emotional intelligence and the second study the teaching practice, the data-producing sample is 200 teachers. It is concluded that to a greater degree and level of the National System of Researchers, different elements of teaching practice are blurred.

**Keywords:** emotional intelligence, perception, regulation of emotions, research teachers, teaching practice, understanding.

### **Resumo**

O presente artigo tem como objetivo estudar as relações entre inteligência emocional e cinco fatores que analisam a prática docente em professores de pós-graduação para identificar seu comportamento segundo gênero, escolaridade, pertencimento ao Sistema Nacional de Pesquisadores (SNI). Trata-se de um estudo transversal quantitativo; dois instrumentos foram aplicados: o primeiro mede a inteligência emocional e o segundo estuda a prática docente; a amostra que produz dados é de 200 professores. Conclui-se que, em nível e nível acadêmico mais elevado dentro do Sistema Nacional de Pesquisadores, vários elementos da prática docente tornam-se confusos.

**Palavras-chave:** compreensão, inteligência emocional, percepção, prática docente, professores pesquisadores, regulação de emoções.

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### **Introduction**

Emotional intelligence, according to the pioneers of the concept Mayer and Salovey (1997), is a skill that allows a timely processing of all emotions, which helps in having a more efficient reasoning and conducive to a healthier emotional life. Authors such as Yin, Lee and Zhang (2013) mention that it is the ability to perceive and regulate emotions in order to obtain highly positive emotional and intellectual development. It has been emphasized that emotional intelligence is important to investigate because it facilitates the understanding of the ways in which one works with emotion. Now, emotions change depending on the moods of people, the above responds to the intensity and duration them. Emotion is considered as a complex state of feelings that is capable of generating psychological changes that influence the ways of behaving and thinking (Li, Gupta, Loon and Casimir, 2016, Mackay, 2015, Hughes, 2014, Yin, Lee and Zhang, 2013, Gallagher, 2011, Chopra and Kanji, 2010).

In the literature it is emphasized that to understand the study of emotional intelligence we must highlight the role of emotional perception, which is considered as the ability to identify and express emotions, coupled with the ability to handle adequate feelings that are not positive. Also in the investigation of the emotions one counts on the emotional assimilation, that represents the capacity to pay attention to the important information that the thoughts and the emotions produce.

Emotional comprehension consists in the ability to name emotions, in this way, complex feelings such as anger are recognized. Finally, the management of emotions is about being open to all kinds of feelings, in such a way that the ability to separate emotions is generated and, thus, they can be managed, controlled and moderated. On the other hand, there are mood changes that are the generators of positive and negative behaviors, which produce optimism and pessimism. However, it is emphasized that happiness is the best state a human being can experience (Prentice and King, 2013). To know how emotions work, Garner (2010) contributes and exposes the concept of emotional competence, which is related to the skills used in processes that generate emotions. Emotional competence allows us to shred the meaning of social relations and their implications. In this regard, Augusto,

López and Pulido (2011) mention that there are strategies to reduce emotional distress; you can use those competencies that support avoidance and others of a palliative nature.

In the analysis of emotions, the emotional work that includes four main elements obtains relevance: the first integrates all those situations that have triggered emotions, so this event requires attention; the second, exposes the processes of emotional regulation, here are the expressions and feelings of modification; The third integrates elements that affect emotions such as social support from co-workers, as well as the feeling of work autonomy. Finally, the fourth interacts permanently with individual well-being, which translates into a pleasant stay within the institution (Yin, Huang and Lee, 2017).

The literature indicates that studies on emotional intelligence are assigned to positive psychology and, from this approach, it is indicated that EI is a model that has four skills; The first skill is to perceive, express and analyze emotions; the second is the ability to develop feelings that facilitate emotions; the third is the understanding of emotions and the fourth is the ability to regulate emotions, both alien and self. The four skills mentioned above are related to each other, since emotional regulation allows for an adequate emotional understanding, in addition to understanding that requires an appropriate emotional perception. It is known that there are people who have the ability to perceive, but that does not mean that they can have the ability to understand and regulate emotions (Jiang et al., 2016, Augusto, López and Pulido, 2011). Some authors such as Zembylas (2006) reflect on the role that emotions play in education and bring to the debate the term of the heart managed, as well as the ways in which the school attends or, in its case, rejects them. The concept of emotional culture is discussed, which refers to the set of attitudes and beliefs that emerge from the collective of academics, which implies expressions and attitudes towards emotions, along with the ability to interpret own expressions and those of third parties. Emotional intelligence has allowed the incorporation of emotional literacy programs in public and private education schools. However, it is clear that the study of emotions is a complicated issue, but that it must be approached and analyzed, in order to have favorable development environments for teachers. According to Chan (2006) teachers currently suffer emotional exhaustion, which can be caused by various factors, such as poor

behavior of young people, low motivation for work, pressures and criticism of society. The previous thing, repercute in the performance and well-being of the professors, which means that it is due to insist in working of intense form with those emotions that catalyze the stress and, therefore, the wear. But it must be stressed or that each person responds differently to stress, so the training can not be the same, since the forms of confrontation vary in each individual, in addition to each person has an emotional management of different affective experiences. It is said that when there is a high emotional intelligence, social intelligence increases. Teachers with higher IE transmit a high sensitivity to quality teaching-learning processes, in addition to having certain personal characteristics that make up their personality. The foregoing reflects the importance of studying the influence of emotions in the different stages of teaching-learning processes from the perspective of academics. There are recent researches such as those developed at the University of Catalonia, where a simulator called emotional thermometer for teaching is being worked on, which tries to measure the emotional climate in virtual classrooms, with this it is desired to detect emotions such as fear, anxiety and advances in some learning units (Pousada et al., 2017). On the other hand, there are studies that recognize that analyzing emotions is a multidisciplinary phenomenon, it is still evident that investigating them is a complex issue, because it tries to shred feelings and emotions. Eight emotions were studied as neutral emotion, anger, hatred, love, romantic love, joy and reverence; Various physiological signals were used, such as muscle activity, respiration, blood pressure, heart rate and skin nerve sensors (Chaibi, 2017).

In other cases, artifacts have been developed that measure anxiety levels by simulating stressful situations (Tapia et al., 2018). There is also evidence that students maintain the idea that teachers are more affectionate than teachers, this is only reinforced by gender stereotypes, so it is assumed that their performance is related to the above. It is emphasized that teachers must not only meet the expectations of teachers, but must act as academic mothers (El-Alayli, Hansen-Brown and Ceynar, 2018).

With regard to teachers, Cejudo (2017) studies emotional intelligence in teachers and finds that they feel highly competent when their level of IE is high; however, academics with low IE obtain opposite results. It has also been investigated that the perception of life is a

powerful mediator for emotional intelligence that improves the sense of well-being; The above allows streamlining optimal decision making (Rey and Extremera, 2011). Some findings point out that emotional intelligence has a positive impact on teaching and on the use of strategies such as deep action and the expression of emotions (Yin, Lee and Zhang, 2013). On the other hand, Augusto, López and Pulido (2011) study attention, clarity and regulation as possible variables that predict how emotional intelligence is perceived, finding that subjects with high IE are able to deal efficiently with stressful situations.

Advances in studies that deal with the issue of social support, as a mediator between emotional intelligence and exhaustion of the teacher, found that this variable is protective of the workplace of teachers, so it is convenient to reinforce it (Ju et al ., 2015). There are also findings that indicate that emotional intelligence has a positive impact on teaching and on the use of strategies such as deep action and the expression of emotions (Yin, Lee and Zhang, 2013). In addition, there are studies carried out with school principals and teachers that have served to determine whether emotional intelligence and political leadership influence the job satisfaction perceived by teachers, finding a relationship with social skills (Taliadorou and Pashiardis, 2015). In turn, the relationship between EI, job satisfaction and commitment to the organization has been investigated (Naderi, 2012).

Professors dedicated to research have a different academic life than teachers who focus solely on teaching. The research professor at all times tests his emotions and his work is divided between research, publications, training of human resources and teaching practice. In Mexico, the professor who is in the National System of Researchers (SNI), is the one who, by means of a rigorous evaluation, maintains himself and is capable of ascending in it. The duration of the distinction depends on the level obtained and the scientific and technological productivity that has been built in the period to be evaluated. In 2016, 27,191 teachers belong to the SNI, of which 35% are women and 61% are men, the rest represents the group of academics who hold a master's degree, but who have achieved enter and stay.

The research professors work intensively in various activities that derive from the research projects they manage, in addition to the work as academics that involves work in front of a group. The intellectual work is complex and exhausting, the times are short and the

evaluations to which the researchers are subjected are rigorous, besides that some of them integrate commissions, which implies separating from the research processes, as well as facing the classrooms and the formation of high-level human resources. The education that is taught at the graduate level is aimed at conducting research. Therefore, the profile of teachers is complex and integrates activities such as coordinating research projects, periodicals, teaching research skills to students, teaching, conducting tutorials, managing the teaching-learning process and knowing the processes of evaluation (Álvarez et al., 2014).

The work of the research professors, as described above, is complex. The challenges they face on a daily basis require that they have the knowledge of their emotions, so that they obtain individual well-being, happiness and stress management. The foregoing, possibly influences the teaching practice, where working with students requires a series of practices that support the development of classes efficiently, as well as having the ideal elements for the evolution of learning. However, the research work requires time and dedication, this causes that sometimes the teaching practice is not reflected in the monitoring and evaluation of the classes. Therefore, investigating the research professors of the National Polytechnic Institute is fundamental, above all, to investigate and measure their emotional intelligence and how it influences and they are involved in the teaching practice. Thus, the studied population will be stratified, by gender, level of schooling, whether or not they have the distinction of the National System of Researchers (SNI) and the level they have.

The present article intends to study the relationships between emotional intelligence and five factors that analyze the teaching practice in postgraduate professors, in order to identify their behavior with respect to gender, schooling, relevance to the National System of Researchers (SNI) and the level in it.

## Methodology

Two instruments were applied to the teachers who participated in the research: the first measures the level of EI; the Spanish Modified Trait MetaMood Scale-24 (TMMS-24) was used, a reduced version of the TMMS 48 and adapted to Spanish by the Malaga research group (Fernández, Extremera and Ramos, 2004); it is about twenty-four questions with Likert-type scale answers, where 1 means nothing in agreement and 5 totally agrees; the Cronbach's alpha internal consistency index was applied obtaining  $\alpha = 0.952$ ; the questions are integrated into three categories: 1) perception of emotions, 2) understanding and regulation of emotions. The second applied instrument was constructed considering the variables exposed by Cáceres et al., (2002), García, Loredó and Carranza (2008) and León (2016) that allow to measure the perception with respect to the planning of the course, the development and the evaluation; We worked with a Likert scale, the questionnaire is composed of 70 items, the Cronbach's alpha is 0.909; the items were grouped into five factors: 1) course planning, 2) class planning, 3) performance throughout the course, 4) performance within the class and 5) evaluation (table 1).

The instruments were piloted with 50 professors, the previous thing led to make modifications and later send it to five experts in the pedagogical area, in order to analyze its content. In this way, it guarantees the representativeness of each item in the domain of each variable. The simulations helped to recognize the behavior of the variables. The data production sample was 200 graduate professors in the three branches of knowledge of the Institute: three academic units of mathematical physics (FM), three academic units of medical-biological (MB) and three academic units of social and administrative sciences (SA).

The application of the questionnaires was carried out in the months of January to May 2017. A raffle was held through a raffle that contained the names of the professors of the academic units, this was how the teachers and doctors were selected. who participated in the investigation. The correlation with stress tests was analyzed to determine the relationship between the elements that measure emotional intelligence in its variables of perception, comprehension, regulation and the elements that study the teaching practice with respect to the planning of the course, class planning , acting in the course, acting in

class and evaluation. The runs tests were determined based on gender, age, schooling, relevance to the National System of Researchers and the level reached so far. The data was worked on in the SPSS software.

Next, enunciate the statements that analyze the emotional intelligence that were occupied in the instrument that measures the level of emotional intelligence:

- I pay attention to the feelings
- I often worry about what I feel
- I usually spend time thinking about my emotions
- I think it's worth paying attention to my emotions and mood
- Sometimes I let my feelings affect my thoughts
- I often think about my state of mind
- I often think about my feelings
- I pay attention to how I feel
- I'm clear about my feelings
- Frequently I can define my feelings
- I almost always know how I feel
- I usually know my feelings about people
- I often realize my feelings in different situations
- I can always tell how I feel
- Sometimes I can say what my emotions are
- I can get to understand my feelings
- Although sometimes I feel sad, I usually have an optimistic vision
- When I'm angry I try to change my mood
- Even though I feel bad, I try to think of nice things
- When I'm sad, I think of all the pleasures of life
- I try to have positive thoughts, even if I feel bad
- If I give too many turns to things complicating them I try to calm down
- I worry about having a good mood
- I have a lot of energy when I feel happy

**Tabla 1.** Enunciados que miden la práctica docente.

<p><b>Planeación del curso</b></p> <ol style="list-style-type: none"> <li>1. Seleccione los contenidos que voy a impartir siguiendo criterios predefinidos (objetivos, relevancia, utilidad, nivel de interés de los alumnos, etc.).</li> <li>2. Calculo el tiempo que voy a dedicar a cada uno de los temas del programa</li> <li>3. Estimo el tiempo que el alumno necesita para aprender los contenidos, teniendo en cuenta, además, el total de su carga de estudio</li> <li>4. Pienso en los métodos docentes que voy a utilizar en cada fase del curso</li> <li>5. Preparo las actividades que el alumno deberá realizar durante el curso.</li> <li>6. Tengo en cuenta los recursos de los que puedo disponer para impartir mi docencia</li> <li>7. Decido los criterios y procedimientos de evaluación del aprendizaje en función de las características del curso (objetivos, contenidos, desarrollo).</li> <li>8. Potencio mecanismos de autoevaluación del alumno</li> <li>9. Preparo la presentación del curso (características, requisitos, criterios de evaluación, bibliografía, etc.).</li> </ol> <p><b>Planeación de la clase</b></p> <ol style="list-style-type: none"> <li>1. Defino los objetivos de la clase que voy a impartir.</li> <li>2. Seleccione los contenidos que voy a impartir</li> <li>3. Decido los métodos de enseñanza que voy a utilizar</li> <li>4. Verifico que los recursos que voy a utilizar en clase están disponibles</li> <li>5. Elaboro un guion de lo que voy a tratar en clase</li> <li>6. Asigno el tiempo que dedicaré a cada parte del guion.</li> <li>7. Preparo ejercicios, preguntas y/o problemas para que los alumnos trabajen en clase.</li> <li>8. Preparo ejemplos y/o aplicaciones para aclarar el contenido de la clase.</li> <li>9. Pienso en la forma de evaluar lo aprendido por los alumnos en la clase.</li> </ol> <p><b>Evaluación</b></p> <ol style="list-style-type: none"> <li>1. Evalúo el aprendizaje de los alumnos de acuerdo con los objetivos establecidos en la planificación</li> <li>2. Establezco claramente los criterios que voy a seguir para valorar los conocimientos de los alumnos.</li> <li>3. Comunico a los alumnos todos los criterios que voy a seguir para evaluarlos</li> <li>4. La evaluación se ajusta a los contenidos y actividades del curso.</li> <li>5. Utilizo diferentes formas de evaluar el aprendizaje (examen escrito u oral, pregunta abierta, test, ensayo, trabajos, etc.</li> <li>6. Evalúo en varios momentos del curso para hacer un seguimiento continuo del progreso de los alumnos.</li> <li>7. Realizo una evaluación inicial al comenzar el curso para estimar los conocimientos previos de los alumnos</li> <li>8. El nivel de exigencia de las evaluaciones se corresponde con el nivel impartido</li> <li>9. Informo a los alumnos sobre el tipo de prueba que van a realizar</li> <li>10. Verifico previamente que las preguntas y tareas propuestas son comprensibles para los alumnos</li> <li>11. La evaluación se ajusta a los itinerarios seguidos por los alumnos</li> <li>12. Comento con los alumnos los resultados de las evaluaciones realizadas</li> <li>13. Oriento a los alumnos sobre cómo pueden mejorar los resultados de la evaluación</li> <li>14. Tengo en cuenta los resultados de las pruebas de evaluación para introducir modificaciones tanto en mi planificación como en mi actuación docente</li> </ol>	<ol style="list-style-type: none"> <li>15. Animo a los alumnos a que realicen una autoevaluación</li> <li>16. Autoevaluó de mi propia actuación como docente.</li> </ol> <p><b>Actuación a lo largo del curso</b></p> <ol style="list-style-type: none"> <li>1. Informo a los alumnos del plan del curso (objetivos, actividades, criterios de evaluación, bibliografía, lugar y horario de las tutorías)</li> <li>2. Me ajusto al plan de trabajo previsto en la planificación</li> <li>3. Mi planificación favorece que los alumnos tengan que utilizar la tutoría.</li> <li>4. Fomento el aprendizaje independiente en los estudiantes</li> <li>5. Tengo en cuenta el interés y los conocimientos previos de los alumnos</li> <li>6. Atiendo las propuestas de los alumnos.</li> <li>7. Promuevo buenas relaciones de trabajo con los alumnos</li> <li>8. Transmito a los alumnos mi interés por la materia que imparto.</li> <li>9. Ofrezco diferentes puntos de vista sobre un mismo tema</li> </ol> <p><b>Actuación dentro de la clase</b></p> <ol style="list-style-type: none"> <li>1. Comunico a los alumnos los objetivos que se pretenden alcanzar</li> <li>2. Presento un esquema de lo que vamos a tratar en clase.</li> <li>3. Planteo el contenido de forma que despierte el interés de los alumnos</li> <li>4. Hago un resumen de la clase anterior al comenzar mi intervención</li> <li>5. Establezco explícitamente relaciones entre los contenidos explicados.</li> <li>6. Relaciono el contenido de la clase con lo que ya conocen los estudiantes</li> <li>7. Establezco relaciones con otros conocimientos y experiencias</li> <li>8. Destaco el contenido principal de la clase</li> <li>9. La estructura de las explicaciones es clara, lógica y organizada</li> <li>10. Utilizo ejemplos para ilustrar el contenido de mi exposición</li> <li>11. Muestro aplicaciones de la teoría a problemas reales</li> <li>12. Utilizo recursos expresivos (gestos, silencios, variaciones en el tono de voz)</li> <li>13. Dirijo la mirada a todos los alumnos mientras expongo</li> <li>14. Solicito que los alumnos intervengan en clase con preguntas y comentarios</li> <li>15. Respondo con precisión a las preguntas de los alumnos</li> <li>16. Incluyo actividades para que los alumnos realicen durante la clase</li> <li>17. Las prácticas que realizan son con materiales o en situaciones reales</li> <li>18. Oriento y superviso personalmente las actividades o las prácticas</li> <li>19. Los materiales utilizados (textos, apuntes, instrumental) son adecuados</li> <li>20. Me apoyo en diferentes materiales didácticos para hacer más comprensible lo que estudiamos</li> <li>21. Verifico que los alumnos han comprendido los conceptos</li> <li>22. Adapto la cantidad y dificultad de los contenidos impartidos en clase al nivel de los alumnos</li> <li>23. Soy respetuoso con el estudiante</li> <li>24. Mi forma de impartir las clases mantiene la atención y el interés del alumno</li> <li>25. Me ajusto al plan de trabajo previsto para cada clase.</li> <li>26. Comento en cada tema la bibliografía relevante</li> <li>27. Resumo lo que se ha tratado en clase</li> </ol>
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Fuente: elaboración propia

## Results

In the analysis 48% are men and 52% women. The distribution of academics according to the area in which they teach is: 34.3% correspond to schools in the F-M area, 35.2% correspond to the M-B area and 30.5% correspond to the S-A area. Regarding the age of the respondents, the minimum age is 36 years and the maximum age is 88, with a  $\bar{x} = 47.58 \pm$  ( $s = 11.01$ ), which represents that the age range of the majority of teachers is between 36.57 and 58.59 years. 48% of the participants indicated having a master's degree, another 48% with a doctorate and 4% with a specialty. In addition, it was found that 33% belong to the National System of Researchers, while 67% indicated that they do not.

## Gender

A positive relationship was found in relation to the group of women, they tend to perceive their emotions better and this increases their understanding of them ( $r = 0.297$ ,  $p = 0.002 < 0.05$ ). However, it was found that women who perceive their emotions better increase their course planning ( $r = 0.334$ ,  $p = 0.001 < 0.05$ ) and their class planning ( $r = 0.366$ ,  $p = 0.000 < 0.05$ ). With regard to males, a positive relationship was also found with the perception of their emotions and how this benefits their understanding ( $r = 0.291$ ,  $p = 0.000 < 0.005$ ).

In addition, it was found that women obtained a positive relationship with respect to the understanding of emotions and the increase in their regulation ( $r = 0.917$ ,  $p = 0.000 < 0.05$ ), in addition to the fact that the increase in the compression of emotions favors the how they plan the course ( $r = 0.279$ ,  $p = 0.004 < 0.05$ ). With regard to the group of men, a growth in the compression of their emotions was found in the same way, a situation that supports their regulation ( $r = 0.888$ ,  $p = 0.000$ ) and that influences their performance during the course ( $r = 0.229$ ,  $p = 0.02 < 0.05$ ).

Another finding with respect to men resulted in the relationship between the ability to regulate their emotions and their abilities dedicated to the planning of the course ( $r = 0.263$ ,  $p = 0.00 < 0.05$ ), class planning ( $r = 0.223$ ,  $p = 0.02 < 0.05$ ) and course performance ( $r = 0.223$ ,  $p = 0.02 < 0.05$ ). In the case of women, the relationship with the regulation of emotions and the planning of the course ( $r = 0.226$ ,  $p = 0.02 < 0.05$ ). However, the women obtained a favorable relationship with the planning of the course and the planning of the class ( $r = 0.907$ ,  $p = 0.00 < 0.05$ ). In the case of men, a positive relationship was found with the planning of the course and the class ( $r = 0.888$ ,  $p = 0.00 < 0.05$ ), besides that the planning of the course also increases the performance of the course ( $r = 0.360$ ,  $p = 0.00 < 0.05$ ), the performance of the class ( $r = 0.321$ ,  $p = 0.00 < 0.05$ ) and the evaluation ( $r = 0.322$ ,  $p = 0.00 < 0.05$ ).

It was found that men show a positive relationship with the class planning and course performance ( $r = 0.436$ ,  $p = 0.00 < 0.05$ ), the performance of the class ( $r = 0.396$ ,  $p = 0.00 < 0.05$ ) and the evaluation ( $r = 0.402$ ,  $p = 0.00 < 0.05$ ). Similarly, it was found that teachers have a greater performance of the course and, therefore, tend to improve performance in their classes ( $r = 0.870$ ,  $p = 0.00 < 0.05$ ), and have a greater knowledge of the elements that they integrate the evaluation ( $r = 0.830$ ,  $p = 0.00 < 0.05$ ). Finally, it was found that the teachers get more action during the class, since it increases the elements of the evaluation ( $r = 0.791$ ,  $p = 0.00 < 0.05$ ) (see figures 1 and 2).

**Figura 1.** Coeficiente de correlación, prueba de rachas género masculino

GÉNERO		F1.PERCEPCION	F2.COMPRENSION	F3.REGULACION	F4.PLANEA.CURSO	F5.PLANEACIONCLASE	F6.ACTUACIONCURSO	F7.ACTUACIONCLASE	F8.EVALUACION
Masculino	F1.PERCEPCION	Correlación de Pearson de 1 p-value							
	F2.COMPRENSION	Correlación de Pearson de .291** p-value .004	1						
	F3.REGULACION	Correlación de Pearson de .062 p-value .548	.885**	1					
	F4.PLANEA.CURSO	Correlación de Pearson de .102 p-value .320	.165	.263**	1				
	F5.PLANEACIONCLASE	Correlación de Pearson de .049 p-value .636	.102	.223*	.888**	1			
	F6.ACTUACIONCURSO	Correlación de Pearson de .152 p-value .136	.229*	.223*	.360**	.436**	1		
	F7.ACTUACIONCLASE	Correlación de Pearson de .109 p-value	.176	.154	.321**	.396**	.870**	1	

Fuente: Datos obtenidos del software SPSS

**Figura 2.** Coeficiente de correlación, prueba de rachas género femenino

GÉNERO		F1.PERC EPCION	F2.COMPRE NSION	F3.RE GULA CION	F4.PLANEA. CURSO	F5.PLA NEACIO NCLASE	F6.ACT UACION CURSO	F7.ACT UACION CLASE	F8.EVALU ACION
Femenino	F1.PERCEPCION	Correlación de Pearson de 1 p-value							
	F2.COMPRENSION	Correlación de Pearson de .297** p-value .002	1						
	F3.REGULACION	Correlación de Pearson de .110 p-value .270	.917**	1					
	F4.PLANEA.CURSO	Correlación de Pearson de .334** p-value .001	.279**	.226*	1				
	F5.PLANEACIONCLASE	Correlación de Pearson de .366** p-value .000	.201*	.141	.907**	1			
	F6.ACTUACIONCURSO	Correlación de Pearson de .005 p-value .959	.055	.030	-.117	-.122	1		
	F7.ACTUACIONCLASE	Correlación de Pearson de -.011 p-value .912	-.066	-.067	.004	.092	.126	1	
	F8.EVALUACION	Correlación de Pearson de .072 p-value .472	.063	-.027	.142	.122	-.083	.037	1

Fuente: Datos obtenidos del software SPSS

## Scholarship

It was found that professors who have mastery obtained a positive relationship with the perception of their emotions and the increase of their understanding ( $r = 0.270$ ,  $p = 0.00 < 0.05$ ). On the other hand, a favorable relationship was discovered with the understanding and regulation of emotions ( $r = 0.900$ ,  $p = 0.00 < 0.005$ ). A positive relationship was also found with the understanding of the emotions and the planning of the course ( $r = 0.259$ ,  $p = 0.00 < 0.05$ ). A correlation was presented between the regulation of emotions and the favorable effect with the planning of the course ( $r = 0.323$ ,  $p = 0.00 < 0.05$ ) and the planning of the class. A positive effect was also found between the relationship of the variable of course planning and the improvement of class planning ( $r = 0.889$ ,  $p = 0.00 < 0.05$ ), in the same way to the course performance ( $r = 0.347$ ,  $p = 0.00 < 0.05$ ), the performance of the class ( $r = 0.303$ ,  $p = 0.03 < 0.05$ ) and the evaluation ( $r = 0.286$ ,  $p = 0.00 < 0.05$ ) (see table 5 and 6).

Regarding the course planning variable, a positive relationship was found with the variables of the course performance ( $r = 0.432$ ,  $p = 0.00 < 0.05$ ), class performance ( $r = 0.392$ ,  $p = 0.00 < 0.05$ ) and the evaluation ( $r = 0.370$ ,  $p = 0.00 < 0.05$ ). However, a correlation was found between the performance of the course and favorable relation with the performance of the class ( $r = 0.895$ ,  $p = 0.00 < 0.05$ ) and the increase of the evaluation variable ( $r = 0.808$ ,  $p = 0.00 < 0.05$ ). Finally, positive correlation was obtained between the performance of the class and the evaluation ( $r = 0.822$ ,  $p = 0.00 < 0.05$ ).

Regarding the professors with the degree of doctor, a favorable relation between the variables of the perception of the emotions and the compression of these was found ( $r = 0.331$ ,  $p = 0.00 < 0.05$ ), in addition to a positive relation between the comprehension and the regulation of emotions ( $r = 0.908$ ,  $p = 0.00 < 0.05$ ). Finally, the variable planning of the course obtained a positive relationship with the variables of class planning ( $r = 0.906$ ,  $p = 0.00 < 0.005$ ) and evaluation ( $r = 0.212$ ,  $p = 0.00 < 0.05$ ).

**Figura 3.** Coeficiente de correlación, escolaridad con maestría

			F1.PERCEPCION	F2.COMPRENSION	F3.REGULACION	F4.PLANEA.CURSO	F5.PLANEACIONCLASE	F6.ACTUACIONCURSO	F7.ACTUACIONCLASE	F8.EVALUACION
Maestria	F1.PERCEPCION	Correlación Pearson p-value	de 1							
	F2.COMPRENSION	Correlación Pearson p-value	de .270**	1						
	F3.REGULACION	Correlación Pearson p-value	de .025	.900**	1					
	F4.PLANEA.CURSO	Correlación Pearson p-value	de .179	.259*	.323**	1				
	F5.PLANEACIONCLASE	Correlación Pearson p-value	de .135	.195	.284**	.889**	1			
	F6.ACTUACIONCURSO	Correlación Pearson p-value	de .113	.189	.198	.347**	.432**	1		
	F7.ACTUACIONCLASE	Correlación Pearson p-value	de .127	.146	.130	.303**	.392**	.895**	1	
	F8.EVALUACION	Correlación Pearson p-value	de .134	.187	.178	.286**	.370**	.808**	.822**	1

Fuente: Datos obtenidos del software SPSS

Figura 4. Coeficiente de correlación, escolaridad con doctorado

Escolaridad			F1.PERCEPCION	F2.COMPRENSION	F3.REGULACION	F4.PLANEA.CURSO	F5.PLANEACIONCLASE	F6.ACTUACIONCURSO	F7.ACTUACIONCLASE	F8.EVALUACION
Doctorado	F1.PERCEPCION	Correlación Pearson p-value	de 1							
	F2.COMPRENSION	Correlación Pearson p-value	de .331**	1						
	F3.REGULACION	Correlación Pearson p-value	de .140	.908**	1					
	F4.PLANEA.CURSO	Correlación Pearson p-value	de .232*	.195	.185	1				
	F5.PLANEACIONCLASE	Correlación Pearson p-value	de .271**	.093	.071	.906**	1			
	F6.ACTUACIONCURSO	Correlación Pearson p-value	de .107	.076	.042	-.102	-.126	1		
	F7.ACTUACIONCLASE	Correlación Pearson p-value	de -.101	-.098	-.079	-0.06	-.029	.026	1	
	F8.EVALUACION	Correlación Pearson p-value	de .116	-.026	-.108	.212*	.189	-.013	-.094	1

Fuente: Datos obtenidos del software SPSS

### Membership in the National System of Researchers

It was found that teachers who do not belong to the National System of Researchers (SNI) obtained a positive relationship with the perception of emotions, as well as their understanding ( $r = 0.272$ ,  $p = 0.00 < 0.05$ ), course planning ( $r = 0.225$ ,  $p = 0.00 < 0.05$ ) and class planning ( $r = 0.218$ ,  $p = 0.01 < 0.05$ ). Regarding the understanding of emotions, teachers who are not SNIs found a positive relationship with respect to the regulation of emotions ( $r = 0.900$ ,  $p = 0.00 < 0.05$ ), course planning ( $r = 0.293$ ,  $p = 0.00 < 0.05$ ) and class planning ( $r = 0.227$ ,  $p = 0.00 < 0.05$ ). A positive relationship was also found with the regulation of emotions, the variables of course planning ( $r = 0.317$ ,  $p = 0.00 < 0.05$ ) and class planning ( $r = 0.263$ ,  $p = 0.00 < 0.05$ ).

In this same line, with respect to the course planning variable, a favorable relation was found with the variables of class planning ( $r = 0.902$ ,  $p = 0.000 < 0.05$ ), course performance ( $r = 0.245$ ,  $p = 0.00 < 0.05$ ), the performance of the class ( $r = 0.246$ ,  $p = 0.00 < 0.000$ ) and the evaluation ( $r = 0.285$ ,  $p = 0.00 < 0.05$ ). There is also a clear relationship between the planning of the class and the elements of the performance of the course ( $r = 0.317$ ,  $p = 0.00 < 0.05$ ), the performance of the class ( $r = 0.332$ ,  $p = 0.00 < 0.05$ ) and the evaluation ( $r = 0.335$ ,  $p = 0.00 < 0.05$ ). A favorable relation was obtained with the variable of performance of the course and the items of the performance of the class ( $r = 0.842$ ,  $p = 0.00 < 0.05$ ), as well as with the evaluation ( $r = 0.753$ ,  $p = 0.00 < 0.05$ ). Finally, a positive relationship was obtained with the variable of the performance in class and the evaluation ( $r = 0.700$ ,  $p = 0.00 < 0.05$ ).

The results that were found with the professors belonging to the National System of Researchers differ with respect to the professors who do not have the distinction. Teachers who have SNI have a better perception of their emotions and this positively influences their understanding ( $r = 0.310$ ,  $p = 0.01 < 0.05$ ); On the other hand, the compression of emotions contributes to their regulation ( $r = 0.904$ ,  $p = 0.00 < 0.05$ ). However, it was found that a lesser understanding of the emotions on the part of the member professors, establishes a negative relationship in the performance of the class ( $r = -0.256$ ,  $p = 0.03 < 0.05$ ). It was also found that the SNI professors present a better course planning and, therefore, the results are reflected in the adequate management of the course ( $r = 0.891$ ,  $p = 0.00 < 0.05$ ).

On the other hand, a satisfactory relationship was not obtained between the variables such as planning, performance in the class and the ways to evaluate (See figures 5 and 6).

**Figura 5.** Coeficiente de correlación, no pertenencia al Sistema Nacional de Investigadores

SNI			F1 PERCEPC ION	F2.COM PRENSI ON	F3.REG ULACIO N	F4.PLANEA. CURSO	F5.PLANE ACIONCL ASE	F6.ACT UACION CURSO	F7.ACTUA CIONCLA SE	F8.EVALUA CION
NO	F1.PERCEPC ION	Correlación Pearson p-value	de 1							
	F2.COMPRE NSION	Correlación Pearson p-value	de .272**	1						
	F3.REGULA CION	Correlación Pearson p-value	de .072	.900**	1					
	F4.PLANEA. CURSO	Correlación Pearson p-value	de .225**	.293**	.317**	1				
	F5.PLANEA CIONCLASE	Correlación Pearson p-value	de .218*	.227**	.263**	.902**	1			
	F6.ACTUACI ONCURSO	Correlación Pearson p-value	de .140	.211*	.202*	.245**	.317**	1		
	F7.ACTUACI ONCLASE	Correlación Pearson p-value	de .099	.164	.139	.246**	.332**	.842**	1	
	F8.EVALUA CION	Correlación Pearson p-value	de .102	.170	.149	.285**	.335**	.753**	.700**	1

Fuente: Datos obtenidos del software SPSS

**Figura 6.** Coeficiente de correlación, si pertenencia al Sistema Nacional de Investigadores

SNI		F1.PERCEPCION	F2.COMPRESION	F3.REGULACION	F4.PLANEACION	F5.PLANEACION	F6.ACTUACION	F7.ACTUACION	F8.EVALUACION
	F1.PERCEPCION	Correlación de Pearson p-value	de 1						
	F2.COMPRESION	Correlación de Pearson p-value	.310*	1					
	F3.REGULACION	Correlación de Pearson p-value	.092	.904**	1				
	F4.PLANEACION	Correlación de Pearson p-value	.208	.105	.114	1			
SI	F5.PLANEACION	Correlación de Pearson p-value	.216	.011	.019	.891**	1		
	F6.ACTUACION	Correlación de Pearson p-value	-.114	-.143	-.141	-.205	-.173	1	
	F7.ACTUACION	Correlación de Pearson p-value	-.059	-.256*	-.229	-.082	-.051	.007	1
	F8.EVALUACION	Correlación de Pearson p-value	.178	-.072	-.175	.015	.06	-.026	.231
			.150	.565	.158	.901	.627	.838	.060

Fuente: Datos obtenidos del software SPSS

### Level in the National System of Researchers

For the professors who hold themselves as candidates to enter the National System of Researchers, a positive relationship was found between the variables of the compression of emotions and their regulation ( $r = 0.912$ ,  $p = 0.00 < 0.05$ ). With respect to the planning of the course, a satisfactory relationship was obtained regarding the planning of the class ( $r = 0.894$ ,  $p = 0.00 < 0.05$ ), but a negative relation with respect to the evaluation ( $r = -0.532$ ,  $p = 0.04 < 0.05$ ).

With regard to the teachers who are enrolled in the SNI with level one, it was found that they are also able to understand their emotions and control them ( $r = 0.926$ ,  $p = 0.00 < 0.05$ ), but understanding their emotions has its unfavorable repercussions on the performance of the class ( $r = -0.345$ ,  $p = 0.01 < 0.05$ ). In addition, it was discovered that teachers SNI level one plans the course and has the ability to maintain the class ( $r = 0.892$ ,  $p = 0.00 < 0.05$ ), but present a decrease in performance during class ( $r = -0.375$ ,  $p = 0.01 < 0.05$ ). On the other hand, professors with level one decreased their class planning, so the development of the course suffers collateral damage ( $r = -0.330$ ,  $p = 0.02 < 0.05$ );

However, at the same time these results show a relationship with the evaluation criteria ( $r = 0.354, p = 0.01 < 0.05$ ).

In the case of professors who hold the distinction of the National System of Researchers level two, it was found that they are able to understand and regulate their emotions ( $r = 0.812, p = 0.05 = 0.05$ ), and at the same time they have good course planning, because they have the ability to attend a class; However, there is a decrease in the performance of the course, a situation that affects the elements that make up the evaluation ( $r = -0.938, p = 0.00 < 0.05$ ) (See figure 7.8 and 9).

**Figura 7.** Coeficiente de correlación, Sistema Nacional de Investigadores nivel candidato

NIVELSNI		F1.PERCEPCION	F2.COMPRENSION	F3.REGULACION	F4.PLANEA.CURSO	F5.PLANEACION CLASE	F6.ACTUACIONCURSO	F7.ACTUACION CLASE	F8.EVALUACION
Candidato	F1.PERCEPCION	Correlación de Pearson p-value	1						
	F2.COMPRENSION	Correlación de Pearson p-value	.427 .113						
	F3.REGULACION	Correlación de Pearson p-value	.302 .275	.912** 0	1				
	F4.PLANEA.CURSO	Correlación de Pearson p-value	-.019 .947	.031 .912	.358 .190	1			
	F5.PLANEACION CLASE	Correlación de Pearson p-value	.114 .686	.175 .533	.510 .052	.894** 0	1		
	F6.ACTUACIONCURSO	Correlación de Pearson p-value	-.077 .784	.110 .696	.248 .372	.248 .374	.388 .153	1	
	F7.ACTUACION CLASE	Correlación de Pearson p-value	-.042 .882	.004 .988	-.091 .747	-.301 .276	-.013 0.645	.399 .141	1
	F8.EVALUACION	Correlación de Pearson p-value	-.185 .509	-.425 .114	-.496 .060	-.532* .041	-.390 .151	.089 .751	.245 .379

Fuente: Datos obtenidos del software SPSS

**Figura 8.** Coeficiente de correlación, Sistema Nacional de Investigadores nivel uno

NIVELSN			F1.PERCEPCION	F2.COMPENSION	F3.REGULACION	F4.PLANEA.CURSO	F5.PLANEACIONCLASE	F6.ACTUACIONCURSO	F7.ACTUACIONCLASE	F8.EVALUACION
Nivel 1	F1.PERCEPCION	Correlación de Pearson p-value	1							
	F2.COMPENSION	Correlación de Pearson p-value	.335 <sup>*</sup> .023	1						
	F3.REGULACION	Correlación de Pearson p-value	.142 .345	.926 <sup>**</sup> 0	1					
	F4.PLANEA.CURSO	Correlación de Pearson p-value	.260 0.081	0.126 0.403	0.111 0.461	1				
	F5.PLANEACIONCLASE	Correlación de Pearson p-value	0.262 0.078	-0.036 0.813	-0.084 0.58	.892 <sup>**</sup> 0	1			
	F6.ACTUACIONCURSO	Correlación de Pearson p-value	-0.104 0.493	-0.188 0.212	-0.198 0.186	-.375 <sup>*</sup> 0.01	-.330 <sup>*</sup> 0.025	1		
	F7.ACTUACIONCLASE	Correlación de Pearson p-value	-0.083 0.581	-.337 <sup>*</sup> 0.022	-.345 <sup>*</sup> 0.019	0.016 0.915	0.023 0.88	-0.038 0.803	1	
	F8.EVALUACION	Correlación de Pearson p-value	0.22 0.142	0.006 0.97	-0.073 0.629	0.284 0.056	.354 <sup>*</sup> 0.016	-0.012 0.938	0.224 0.135	1

Fuente: Datos obtenidos del software SPSS

Figura 9. Coeficiente de correlación, Sistema Nacional de Investigadores nivel dos

NIVELSN			F1.PERCEPCION	F2.COMPENSION	F3.REGULACION	F4.PLANEA.CURSO	F5.PLANEACIONCLASE	F6.ACTUACIONCURSO	F7.ACTUACIONCLASE	F8.EVALUACION
Nivel 2	F1.PERCEPCION	Correlación de Pearson p-value	1							
	F2.COMPENSION	Correlación de Pearson p-value	-0.393 0.441	1						
	F3.REGULACION	Correlación de Pearson p-value	-0.639 0.172	.812 <sup>*</sup> 0.05	1					
	F4.PLANEA.CURSO	Correlación de Pearson p-value	-0.071 0.894	-0.004 0.994	-0.159 0.764	1				
	F5.PLANEACIONCLASE	Correlación de Pearson p-value	-0.046 0.931	0.042 0.937	-0.203 0.699	.983 <sup>**</sup> 0	1			
	F6.ACTUACIONCURSO	Correlación de Pearson p-value	-0.704 0.119	-0.145 0.785	-0.08 0.881	0.217 0.68	0.246 0.639	1		
	F7.ACTUACIONCLASE	Correlación de Pearson p-value	0.07 0.895	-0.234 0.656	0.224 0.669	-0.225 0.668	-0.336 0.515	-0.447 0.374	1	
	F8.EVALUACION	Correlación de Pearson p-value	0.782 0.066	0.118 0.823	-0.047 0.929	-0.341 0.508	-0.345 0.503	-.938 <sup>**</sup> 0.006	0.187 0.723	1

Fuente: Datos obtenidos del software SPSS

## Conclusions

Research on emotional intelligence in research professors suggests that doctoral scholars have a greater perception of emotions, compared to academics with a master's degree. However, it was also detected that doctorate professors show a blurring of the various elements that make up the teaching practice and seem to be concerned only with planning. In contrast, academics with a master's degree obtained a relationship with more variables associated with teaching practice.

In gender issues, academic women regulate their emotions better, because they understand better than men. In this sense, the adequate perception, understanding and regulation favors the planning of the course, which allows them to improve their classes. With the teachers, the equation is different because they privilege the analysis of elements such as teaching practice, that is, the areas of planning, performance and evaluation. Teachers with masters demonstrated greater understanding and regulation of emotions and, therefore, an increase in activities related to course planning. Also the academics with masters presented coincidences with the factors that measure the elements that make up the teaching practice. In the case of PhD students, their perception of emotions helps them to integrate elements that, in turn, serve to optimize the planning of the class and, therefore, have a positive impact on the development of the whole course, without However, it is the only element where a positive relationship was found.

Undoubtedly, the affiliation to the National System of Researchers influences the results, and not only in the perception of emotions, but also in the teaching practice. The present study found that teachers who are members of the SNI know how to perceive, regulate and understand their emotions. On the other hand, they presented an unsatisfactory relationship with the elements that measure the teaching practice, above all, with regard to class planning. In contrast, those researchers who are not enrolled in the SNI showed a better behavior with the factors that analyze the teaching practice. The level reached by the National System of Researchers has a negative effect on some of the elements that allow reflection on the teaching practice itself. For example, the candidates level one and two

established a positive relationship with respect to the planning of the course and the class, but, simultaneously, they obtained negative effects: In the level one it was found that the factors of the planning of the course and of the class they are negatively related to the performance of the course; in level two negative associations were found between the evaluation and the performance in the class and, nevertheless, a satisfactory relationship was found with the emotional competences of understanding and regulation.

The results of this research suggest that the more advances teachers present in their professional and scientific career, contrary to any assumption, situations arise that affect the development of the classes, especially when they are combined simultaneously with research processes. For this purpose, it is recommended to inquire about moods, stress and emotional exhaustion. At this point, we recover Froman (2010) when emphasizing that the dynamics of the labor market is increasingly chaotic and therefore generates high levels of stress, so that institutions must ensure that its members achieve prosperity. In such a way that it is recommended to have a series of actions that contribute to strengthen self-esteem, confidence, optimism and hope. According to Tschannen et. to the. (2016), Yin, Lee and Zhang (2013), researchers can resist periods of frustration and emotional exhaustion, as long as they have the proper training, which helps them generate feelings of well-being and increase their self-esteem.

The implications for postgraduate higher education institutions are diverse. In principle, the need to know the working and emotional conditions on which the research professors develop their scientific and technological production in the academic units and research centers should be emphasized. This will allow us to understand how the environment generates a series of positive and negative conditions that, in turn, inevitably affect the teaching-learning process. It is recommended to carry out a study on emotional exhaustion and work stress in order to identify the effects on the health of researchers. In addition, it is suggested to have the support of assistant professors, as a measure of balance, to maintain control over the development of the activities and the evaluation criteria in the classes.

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Software	Claudia Alejandra Hernández Herrera
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