

Emotional Intelligence in Communication Students: Comparative Study under the Competency-Based Education Model

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Citar como:

Palomino, P. & Almenara, C. A. (2019). Inteligencia Emocional en Estudiantes de Comunicación: Estudio Comparativo bajo el Modelo de Educación por Competencias. *Revista Digital de Investigación en Docencia Universitaria*, 13(1), 4-14. doi: <https://doi.org/10.19083/ridu.2019.840>

Recibido: 11-06-18; Revisado: 10-10-18; Aceptado: 15-12-18; Publicado:

Abstract

The aim of this study was to compare the levels of emotional intelligence (EI) of students based on the expected achievement level in competencies. Participants were 313 students ($M = 20.20$ years old, $SD = 2.41$; 61% women) of communication sciences from a private university in Lima (Perú) which uses the Competency Based Education Model. The EI was measured with the *Wong-Law Emotional Intelligence Scale* (WLEIS). The level in achievement of competencies groups students in: "lower level" (participants from the first three academic semesters, 45.7% of the total) and "higher level" (semesters four to tenth). There were found gender differences in EI, and thus comparative analyses were done separately by gender. Among men, there were no differences between groups in EI (lower level vs. higher level). By contrast, women from the lower level scored higher than women from the higher-level group in: others' emotional appraisal, use of emotion, and EI total score. It is suggested to incorporate the EI competence within the teaching model of this academic institution, as well as to do longitudinal studies.

Keywords:

emotional intelligence, emotions, competency-based education, gender differences, age.

Inteligencia Emocional en Estudiantes de Comunicación: Estudio Comparativo bajo el Modelo de Educación por Competencias

Resumen

El objetivo del presente estudio fue comparar los niveles de inteligencia emocional (IE) de estudiantes según el nivel de logro esperado de competencias. Participaron 313 estudiantes ($M = 20.20$ años, $D.E. = 2.41$; 61% mujeres) de ciencias de la comunicación de una universidad privada de Lima (Perú) que utiliza el Modelo de Educación por Competencias. La IE se midió con la *Wong-Law Emotional Intelligence Scale* (WLEIS). El nivel de logro de competencias agrupa a los estudiantes en: "logro inicial" (participantes de los primeros tres semestres académicos, 45.7% del total) y "logro superior" (cuarto a

décimo semestre). Se encontró diferencias de género en IE, por lo que los análisis comparativos se realizaron separados por género. En los hombres no se encontró diferencias de IE entre grupos (logro inicial y logro superior). Por el contrario, las mujeres de logro inicial puntuaron más alto que el grupo de mujeres de logro superior en: evaluación emocional de los demás, uso de emociones y en el puntaje total de IE. Se sugiere la necesidad de incorporar la competencia de IE dentro del modelo educativo de esta institución académica, así como realizar estudios longitudinales.

Palabras clave:

inteligencia emocional, emociones, educación basada en competencias, diferencias de género, edad.

Inteligência emocional em estudantes de comunicação: estudo comparativo sob o modelo de educação por competências

Resumo

O objetivo do presente estudo foi comparar os níveis de inteligência emocional (IE) de estudantes, com base no nível de domínio esperado de competências. **Método:** Participaram 313 estudantes ($M = 20.20$ anos, $D.E. = 2.41$; 61% mulheres) de ciências da comunicação de uma universidade privada de Lima (Peru) que utiliza o Modelo de Educação por Competências. A IE foi medida com a *Wong-Law Emotional Intelligence Scale* (WLEIS). O nível de domínio de competências agrupa os estudantes em: "domínio inicial" (participantes dos três primeiros semestres acadêmicos, 45.7% do total) e "domínio superior" (quarto ao décimo semestre). **Resultados:** Existem diferenças de gênero em IE, por isso as análises comparativas se realizaram por separado segundo o gênero. Nos homens não se encontraram diferenças de IE entre grupos (domínio inicial e domínio superior). Pelo contrário, as mulheres que mostraram domínio inicial tiveram uma pontuação mais alta que o grupo de mulheres com domínio superior em: avaliação emocional dos demais, uso de emoções e em pontuação total de IE. **Conclusões:** Recomenda-se a necessidade de incorporar a competência de IE dentro do modelo educativo desta instituição acadêmica, assim como realizar estudos longitudinais.

Palavras-chave:

inteligência emocional, emoções, educação baseada em competências, diferenças de gênero, idade.

Introduction

Emotional intelligence (EI) refers to the individuals' perceptions of their emotional dispositions and the ability to manage, use, and understand their own emotions as well as those of others (Petrides, Sanchez-Ruiz, Siegling, Saklofske, & Mavroveli, 2018). EI is one of the main general competencies that professionals must have, including those in Communication Sciences, in order to perform efficiently in today's labor market. As the World Economic Forum states, we are going through a fourth industrial revolution driven by disruptive technologies, such as artificial intelligence, robotics, nanotechnology, 3D printing, and biotechnology (World Economic Forum, 2016). In this context, social skills, such as emotional intelligence, will be increasingly required by companies rather than

more restricted skills, such as operation and control technical skills (World Economic Forum, 2016).

While EI has been extensively studied among university students in Peru, no research to date has compared the different EI levels of students specifically receiving competency-based education. Consequently, the objective of this study is to compare the levels of emotional intelligence of a group of university students of Communication Sciences, according to the level of expected achievement of competencies. In this study, within the framework of competency-based education, the level of achievement of competencies refers to: (1) the initial achievement, i.e., the first three semesters of study; and (2) the higher achievement, which corresponds to the period between the fourth and last semester of study, in which students are expected to have developed the expected levels of proficiency.

Emotional Intelligence

There are currently two predominant models in the study of EI: the EI model as a *skill* and the model as a *trait* (Fiori & Vesely-Maillefer, 2018). The EI model as a *skill* conceives it as a cognitive ability to process emotional information (Fiori & Vesely-Maillefer, 2018). On the other hand, the *trait* model conceives EI as a constellation of emotional perceptions (Petrides et al., 2018). In other words, EI as a trait includes the perception of our emotional dispositions and the perception of how good we think we are in terms of perceiving, understanding, managing, and using our own emotions and those of others (Petrides et al., 2018). Along with the trait model, the literature also includes the *mixed* model, as they share the same EI measurement methodology (i.e., self-report questionnaires). However, they are conceptually different because the *mixed* model conceives EI as a set of traits, skills, and competencies (Fiori & Vesely-Maillefer, 2018). This study will follow the mixed emotional intelligence model of Wong & Law (2002), which was designed by the authors as a basis for leadership and management research in organizations. In addition, EI's mixed construct is a reliable indicator of job performance (Joseph, Jin, Newman, & O'Boyle, 2015).

The emotional intelligence model of Wong & Law (2002) uses the EI conceptualization of Mayer & Salovey (1997), but also incorporates the emotional regulation model of Gross (1998). Mayer & Salovey (1997) conceptualize EI as a four-dimensional skill: (1) ability to value and express one's own emotions (self-emotional appraisal or SEA); (2) ability to value and recognize the emotions of others (OEA); (3) ability to self-regulate emotions (ROE); and (4) ability to use emotions directed toward constructive activities and personal performance (UOE). On the other hand, according to Gross's model (1998a, 1998b), emotional regulation refers to the processes through which individuals manage the emotions they have, when they have them, and how they experience and express these emotions. In short, according to this model, individuals with high levels of EI are characterized by effectively using this mechanism of emotional regulation to create positive emotions, as well as to promote their

own emotional and intellectual growth (Wong & Law, 2002). Conversely, individuals with low EI levels fail to use regulation effectively and, therefore, their emotional growth is slower.

In this sense, EI is considered one of the key skills for the positive development and well-being of young people, because it allows the effective adaptation of the individual to the demands and challenges of daily life (Sancassiani et al., 2015). On the other hand, EI is also considered a key skill for work, as indicated by job performance studies (Joseph et al., 2015), as well as a number of international organizations such as the World Economic Forum (2016) or the International Labor Organization (Balliester & Elsheikhi, 2018). These and many other organizations consider EI as an essential human skill or trait in this era of disruptive change resulting from the continuous innovation provided by emerging technologies, such as artificial intelligence and robotics (Bakhshi, Downing, Osborne, & Schneider, 2017; Balliester & Elsheikhi, 2018; Deloitte, 2016; Institute for the Future, 2016; World Economic Forum, 2016). For example, it has been observed that, even when work automation (e.g., use of robots in warehouses) has replaced large numbers of workers, the number of activities that depend on human traits, such as creativity or emotional intelligence, will increase in the future (Balliester & Elsheikhi, 2018). Similarly, while advances in computer science make it possible to identify patterns out of millions of data (i.e., *big data*), it is not yet possible to automate superior cognitive skills capable of providing useful and creative meaning (i.e., *insights*) to these data or patterns (Institute for the Future, 2016).

The Competency-Based Education Model (CBE)

While the CBE originated in the United States with the educational reform ideas of the 1920s, it was not implemented until 1968, when the U.S. Bureau of Education provided funding to develop training models for preparing school teachers (Tuxworth, 1989). By 2015 there were about 200 institutions of higher education and about 600 institutions of post-secondary education in the U.S. that were designing, planning, or already implementing the CBE in their classes or programs (Nodine, 2016).

The CBE is mainly characterized by a focus on achievement, specifying the competencies to be learned, assessment of achievement with feedback, personalized and modular instruction, flexibility in teaching times and methods, and field experience (Nodine, 2016; Tuxworth, 1989). Several higher education institutions have adopted the CBE to meet the needs of the labor market, which requires professionals with specific skills.

In this context, the *Laureate International Universities* network has adopted the CBE in its educational institutions for teaching students. In this context, Universidad Peruana de Ciencias Aplicadas, a member of this network, has adopted the CBE by promoting the development of six general competencies in its students: (1) innovative thinking, (2) citizenship, (3) critical thinking, (4) written communication, (5) oral communication, (6) information literacy, and (7) quantitative reasoning (<https://www.upc.edu.pe/en/nosotros/quienes-somos/modelo-educativo/>).

Likewise, each program or school within the university promotes the development of specific skills associated with each of them. In the case of the School of Communications, it had five programs during the course of the research: (1) Audiovisual Communications and Interactive Media, (2) Communications and Corporate Image, (3) Communications and Marketing, (4) Communications and Journalism, and (5) Communications and Advertising (<https://pregrado.upc.edu.pe/en/facultad-de-comunicaciones/>). Each of these programs has between five and six specific competencies, three of which are common to all of them: (1) analysis and interpretation of reality, (2) resource management, and (3) communication governance. The others are different specific competencies in each program; for example, communication strategy in the Communications and Corporate Image program, or creativity in the Communications and Advertising program. To date, none of these programs has the specific competency of emotional intelligence. On the other hand, the curriculum of each program shows, along with the courses and credits for each course, the level of achievement expected in each of the competencies,

both general and specific, for each of the ten semesters of study. Thus, for example, there are three levels of achievement (1 = initial, 2 = intermediate, 3 = final), and by the end of the third semester students are expected to have achieved the minimum level (initial achievement) in most of these competencies.

As mentioned above, the continuous innovation promoted by disruptive technologies, such as robotics, accelerate the need to review the skills needed by new professionals, so that they can successfully enter the labor market. Consequently, this research aims to explore the levels of emotional intelligence of Communication students in order to evaluate the incorporation of this competency within the educational model. To this end, the objective of this study is to compare the levels of emotional intelligence of a group of Communication Sciences students, based on the expected level of achievement of competencies.

Method

Participants

The sample consisted of 313 participants ($M = 20.20$ years; $SD = 2.41$; 61% women), who are students of the School of Communications at Universidad Peruana de Ciencias Aplicadas in Lima (Perú). The majority of participants studied Audiovisual Communications and Interactive Media ($N = 98$, 31.3% of the total), followed by Communications and Advertising ($N = 72$, 22.7% of the total), Communications and Marketing ($N = 59$, 18.8% of the total), Communications and Journalism ($N = 48$, 15.3% of the total), and Communications and Corporate Image ($N = 36$, 11.5% of the total). All these programs have five years of study (10 academic semesters), and the sample included participants from all levels of study, i.e., from the first to the tenth semester (first semester: 12 participants; second semester: 128; third semester: 135; fourth semester: 168; fifth semester: 20; sixth semester: 78; seventh semester: 56; eighth semester: 120; ninth semester: 72; tenth semester: 72).

Instruments

Sociodemographic questionnaire. This instrument was designed to collect data on age, sex, university program, academic semester of study, and grade point average by using the following question: "What is your current weighted average mark? (please include decimals, e.g., 16.50)."

Wong-Law Emotional Intelligence Scale (WLEIS; Wong & Law, 2002). We used the WLEIS, a tool designed to assess emotional intelligence, which is particularly appropriate for research in the workplace. For this study, the version adapted and validated in Peru by Merino, Lunahuaná, & Kumar (2016) was used. The WLEIS consists of 16 items that represent the four latent dimensions of the emotional intelligence construct found by the authors: (a) valuing and expressing one's own emotions (4 items, e.g., "I understand my own feelings well"), (b) valuing and recognizing the emotions of others (4 items, e.g., "I am sensitive to the feelings and emotions of others"), (c) emotional regulation (4 items, e.g., "I control my own emotions quite well"), and (d) use of emotions (4 items, e.g., "I usually set goals and then try my best to achieve them"). The response format is a five-option Likert type with a score from 1 ("Strongly Disagree") to 5 ("Strongly Agree"). In the three studies carried out by the original authors, it could be observed that WLEIS has validity and reliability (Wong & Law, 2002). First, the factor analysis results support the solution of four factors (variance explained between 9.1% and 31.3%), with Cronbach alpha reliability indicators above 0.80 for each factor (range from .82 to .90). Likewise, the authors report indexes of convergent, discriminant and incremental validity (Wong & Law, 2002). The WLEIS validation study in Peru confirms the four-factor model in a heterogeneous sample of adults ($N = 120$; $M = 26.62$ years of age, $SD = 8.52$; 60 % women; 80.9% with completed university studies) (Merino et al., 2016). Regarding reliability, Cronbach alpha coefficients between .85 and .91 are reported (Merino et al., 2016).

Level of Competency Achievement. In order to be able to compare the participants according to the level of achievement of competencies, a binary variable was generated. On the one hand, those of (1) *Initial Achievement* were grouped,

i.e., participants of the first three semesters of study ($N = 143$, 45.7 % of the total), among which 59.4 % ($N = 85$) were women. On the other hand, those of (2) *Higher Achievement* were grouped, i.e., participants between the fourth and tenth semester ($N = 170$, 54.3 % of the total), among which 62.4 % ($N = 106$) were women.

Procedure

The data collection was carried out through an anonymous and confidential electronic survey. The survey was developed on Qualtrics, a digital platform created to design, process and analyze online surveys (www.qualtrics.com). Before answering the questionnaires, the participants answered an informed consent included in the same form, in order to ensure their voluntary participation, which was mandatory to continue with the survey. The approximate completion time was 10 minutes and the instructions emphasized anonymity and the need for honesty in the responses to the questionnaire.

Data analysis was carried out with the IBM SPSS Statistics software, version 24. Descriptive statistics were calculated, including measures of central trend (mean) and dispersion (standard deviation) for the study variables. Correlations were then calculated taking into account their direction (positive or negative), statistical significance ($p < .05$), and magnitude. For the latter, the interpretation criterion proposed by Cohen (1988) was used: low ($r = .10 - .29$), medium ($r = .30 - .49$), and large ($r = .50$ or more). Finally, comparative analyses were performed with *Student's* statistical *t* test for independent groups, calculating the magnitude of the difference with Cohen's *d*, and interpreting this magnitude with Cohen's criteria (1988): low ($r = .20 - .49$), medium ($r = .50 - .79$), and large ($r = .80$ or more).

Results

First, data distribution was found normal, so parametric statistics were used. The descriptive and correlational analysis was also conducted using all the data, grouped according to the level of achievement of competencies (Table 1).

Table 1.

Descriptive statistics, comparisons and correlations, by level of achievement of competencies (total sample).

Variables	Initial Achievement (N = 143)	Higher Achievement (N = 170)							
	M (SD)	M (SD)	1	2	3	4	5	6	7
Age	19.00 (1.88)	21.22 (2.34)	-	-.13	.18*	-.05	.16	.15	.16
Grade point average	15.20 (1.45)	15.72 (1.37)	.05	-	.01	.22**	.10	-.08	.07
WLEIS-SEA	15.03 (3.20)	14.66 (3.37)	-.14	-.09	-	.27**	.48**	.57**	.84**
WLEIS-OEA	16.06 (2.45)	15.34 (3.26)	-.18*	.04	.55**	-	.24**	.06	.50**
WLEIS-UOE	15.71 (2.72)	14.46 (3.13)	-.15	.01	.67**	.59**	-	.40**	.74**
WLEIS-ROE	14.35 (3.05)	13.52 (3.46)	.03	-.05	.59**	.41**	.50**	-	.74**
WLEIS Total	61.15 (8.20)	57.99 (10.77)	-.13	-.03	.87**	.78**	.84**	.78**	-

Note: Correlations above the diagonal correspond to the Initial Achievement category (participants of the first three semesters of study), while those below correspond to the Higher Achievement category (participants between the fourth and last semester of study). WLEIS: *Wong-Law Emotional Intelligence Scale*; SEA: *Self Emotional Appraisal*; OEA: *Others-Emotional Appraisal*; UOE: *Use of Emotions*; ROE: *Regulation of Emotions*. * $p < .05$; ** $p < .01$.

As it can be seen in Table 1, age correlated positively and significantly with self-emotional appraisal in the initial achievement group, and negatively and significantly with emotional appraisal in the higher achievement group. However, in both groups this correlation was quite low (.18, Cohen, 1988). On the other hand, the grade point average was not correlated with any variable in the study, except for a positive and significant, yet marginally low, correlation with the emotional appraisal of others, only in the initial achievement group.

A comparative analysis by sex was then performed on the emotional intelligence variables to determine whether significant differences existed. The results of the analyses showed significant differences in self emotional appraisal: $t(313) = -2.55$, $LI = -1.71$, $LS = -0.22$, $p = .011$ (low effect size: Cohen $d = 0.29$; Cohen, 1988), with men scoring more ($M = 15.42$, $SD = 3.01$) than women ($M = 14.46$, $SD = 3.41$); as well as in emotions' regulation, where $t(313) = -2.81$, $LI = -1.81$, $LS = -0.32$, $p = .005$ (low effect size: Cohen $d = 0.32$; Cohen, 1988), with higher levels observed in men ($M = 14.55$, $SD = 3.06$) than in women ($M = 13.49$, $SD = 3.39$). Based on these initial results,

further analyses were conducted separately for men and women. For these comparisons, the *Student's t test* was used instead of an ANCOVA, as it was not appropriate to adjust the analyses by age because, as expected, there were significant age differences between the initial and higher achievement groups (see Field, 2013, p. 484). It was not either appropriate to adjust these analyses by grade point average because this variable does not evidence a relationship with emotional intelligence in this sample (see Pallant, 2011, p. 298).

Table 2 and Table 3 show the average of ages, grades, scores in emotional intelligence (first two columns), correlations between the study variables (last seven columns), and the comparative variables (*Student t-test*) for the group of men and women, respectively.

As it can be seen in Table 2, in the initial achievement group of men, age correlated positively and significantly with the use of emotions and the total score in emotional intelligence. Similarly, the grade point average correlated positively and significantly with self-emotional appraisal, emotional appraisal of others, and total score in

Table 2.

Descriptive statistics, comparisons and correlations, by level of achievement of competencies (men).

Variables	Initial Achievement (N = 58)	Higher Achievement (N = 64)	t (120)	95 % CI		1	2	3	4	5	6	7
	M (SD)	M (SD)		LI	LS							
Age	19.09 (1.98)	21.47 (2.15)	-6.35**	-3.13	-1.64	-	.06	.20	.15	.35**	.08	.28*
Grade point average	14.70 (1.33)	15.38 (1.34)	-2.80**	-1.16	-0.20	.29*	-	.33*	.30*	.15	.15	.35**
WLEIS-SEA	15.19 (3.14)	15.63 (2.90)	-0.80	-1.52	0.65	.11	-.05	-	.45**	.37**	.35**	.82**
WLEIS-OEA	15.22 (2.75)	15.66 (3.08)	-0.81	-1.48	0.62	.17	.09	.63**	-	.25	.13	.67**
WLEIS-UOE	15.76 (2.45)	14.89 (3.02)	1.73	-0.12	1.86	-.01	-.01	.68**	.71**	-	.19	.63**
WLEIS-ROE	14.97 (2.75)	14.17 (3.29)	1.44	-0.30	1.89	.19	-.10	.66**	.44**	.51**	-	.61**
WLEIS Total	61.14 (7.63)	60.34 (10.28)	0.48	-2.48	4.07	.14	-.02	.88**	.83**	.86**	.79**	-

Note: Correlations above the diagonal correspond to the Initial Achievement category (male participants of the first three semesters of study), while those below correspond to the Higher Achievement category (male participants between the fourth and last semester of study). CI = confidence interval; LI = lower limit; LS = upper limit; WLEIS: Wong-Law Emotional Intelligence Scale; SEA: Self Emotional Appraisal; OEA: Others-Emotional Appraisal; UOE: Use of Emotions; ROE: Regulation of Emotions. * p < .05; ** p < .01.

Table 3.

Descriptive statistics, comparisons and correlations, by level of achievement of competencies (women).

Variables	Initial Achievement (N = 85)	Higher Achievement (N = 106)	t (189)	95 % CI		1	2	3	4	5	6	7
	M (SD)	M (SD)		LI	LS							
Age	18.94 (1.82)	21.07 (2.45)	-6.89**	-2.73	-1.52	-	-.25*	.16	-.24*	.04	.20	.09
Grade point average	15.54 (1.43)	15.92 (1.35)	-1.89	-0.78	0.02	-.05	-	-.16	.03	.0	-.13	-.08
WLEIS-SEA	14.92 (3.25)	14.08 (3.51)	1.68	-0.14	1.81	-.28**	-.04	-	.16	.54**	.70**	.86**
WLEIS-OEA	16.64 (2.05)	15.14 (3.36)	3.78**	0.72	2.27	-.37**	.03	.51**	-	.27*	.10	.43**
WLEIS-UOE	15.68 (2.91)	14.21 (3.18)	3.31**	0.59	2.35	-.23*	.06	.67**	.52**	-	.50**	.79**
WLEIS-ROE	13.93 (3.19)	13.13 (3.52)	1.62	-0.17	1.77	-.07	.03	.55**	.38**	.49**	-	.83**
WLEIS Total	61.16 (8.62)	56.57 (10.86)	3.18**	1.75	7.45	-.29**	.02	.86**	.75**	.83**	.77**	-

Note: Correlations above the diagonal correspond to the Initial Achievement category (female participants of the first three semesters of study), while those below correspond to the Higher Achievement category (female participants between the fourth and last semester of study). CI = confidence interval; LI = lower limit; LS = upper limit; WLEIS: Wong-Law Emotional Intelligence Scale; SEA: Self Emotional Appraisal; OEA: Others-Emotional Appraisal; UOE: Use of Emotions; ROE: Regulation of Emotions. * p < .05; ** p < .01.

emotional intelligence. However, in the higher achievement group of men, neither age nor grade point average correlated significantly with emotional intelligence variables. Likewise, no significant differences were found between the groups of men of initial and higher achievement categories in any of the emotional intelligence variables.

In the case of women, as shown in Table 3, in the higher achievement group of women, age correlated negatively and significantly with the emotional appraisal of others. On the other hand, the grade point average did not correlate with any of the emotional intelligence variables. In the higher achievement group of women, age correlated negatively and significantly with self-emotional appraisal, emotional appraisal of others, use of emotions, and total emotional intelligence score. Like the women of the initial achievement group, the grade point average did not correlate with any of the emotional intelligence variables. With regard to the comparisons between women in the initial and higher achievement groups, significant differences in the emotional appraisal of others were observed, as well as in the use of emotions and the total emotional intelligence score. For these three variables, the women's initial achievement group scored higher than the women's higher achievement group.

Discussion

The objective of this study was to compare the levels of emotional intelligence of a group of university students of Communication Sciences, according to the level of expected achievement of competencies: initial achievement (first three academic semesters) and higher achievement (semesters four to ten). The aim was to evaluate the incorporation of this competency into the educational model of the institution to which the participants belong.

First, preliminary results showed gender differences in two dimensions of emotional intelligence, self-emotional appraisal and emotional regulation, with men scoring higher than women. These results are partially consistent with the literature suggesting that there are marked gender

differences in emotional intelligence, and that they are evident even from the age of 10 (Keefer, 2015). Thus, previous findings suggest that men tend to have higher levels of emotional regulation, self-control and stress tolerance, while women tend to have higher levels of emotional attentiveness, emotional expression and empathy (Keefer, 2015). Such gender differences are generally attributed to development, since emotional competencies are usually shaped through various factors (e.g., biological, educational, and social factors) (Joseph & Newman, 2010; Keefer, 2015; Sánchez-Núñez, Fernández-Berrocal, Montañés, & Latorre, 2008).

Regarding the differences between the study groups (initial achievement and higher achievement), no differences were found in the sample of men. On the contrary, it was observed that the initial achievement group of women scored higher than the higher achievement group of women in emotional appraisal of others, use of emotions, and in the total score of emotional intelligence. Results correlated with age suggest that such results would not be attributable to age in the case of men, but perhaps in the case of women (see Fernández-Berrocal, Cabello, Castillo, & Extremera, 2012). Nevertheless, since this is a cross-sectional study, yet not a longitudinal one, it is not possible to determine it. In other words, the results suggest that men's levels of emotional intelligence remain unchanged throughout the major. In contrast, for women the overall level of emotional intelligence, as well as the use of emotions and emotional appraisal, is lower in the higher achievement group.

These findings have remarkable implications. First, several studies show that training in social and emotional intelligence helps to improve emotional intelligence, as suggested by the results of interventions (Di Fabio & Saklofske, 2018; Schutte, Malouff, & Thorsteinsson, 2013). In this sense, the fact that in this sample the male participants maintained the same levels of EI, while women's EI levels decreased, evidences the need to incorporate this competency within the educational model of the institution. Covering such a need is also supported by the various positive effects of teaching and training in emotional intelligence.

For example, previous studies reveal that

young people with higher levels of EI are better prepared to handle the emotions associated with the decision-making process when choosing a major, translated in greater confidence and vocational commitment (Di Fabio & Saklofske, 2018), and a lower probability of drop-out (Petrides et al., 2018). Likewise, training young people in skills development increases their employability, their adaptation to new technologies, and the possibility of obtaining higher income (Chacaltana, Díaz, & Rosas-Shady, 2015; Kluge et al., 2017). This is particularly necessary given the precariousness of the labor market for young people both in Peru and in many other countries (Kluge et al., 2017). On the other hand, besides having a positive effect on professional vocation and employability, competency-based training has positive effects on the sustainable development of individuals, the community and the planet (McGrath & Powell, 2016), such as the promotion of citizenship and social justice (e.g., Tavanti & Davis, 2018; Torrente, Alimchandani, & Aber, 2015). For example, Colombia's education system has identified the importance of teaching emotional skills (e.g., identifying, expressing and managing emotions), along with others such as cognitive skills (e.g., critical thinking), in order to promote civic behavior (Torrente et al., 2015). At the same time, civic behavior, specifically the so-called "global citizenship," promotes sustainable development since it implies being aware of, caring for and incorporating cultural diversity, while promoting social justice and sustainability with a sense of responsibility (Tavanti & Davis, 2018).

Finally, it is important to point out that in the group of women evaluated there were higher levels of EI at the beginning of the major, and lower levels by the end. While this is a cross-sectional rather than a longitudinal study, it is necessary to highlight the need to increase the EI levels of students until they reach high levels of it. Note, for example, that Communication Sciences professionals with difficulties in expressing their emotions may have more difficulties in their job performance, as communication is the core competency of their profession and they are expected to master it. Likewise, from a gender perspective, female Communication Sciences professionals with lower EI levels could face greater labor diffi-

culties, considering the existing gender discrimination and inequity in the Peruvian labor market.

Limitations

Now, while this study is the first to assess and compare emotional intelligence within the framework of competency-based education, it still has some limitations. As mentioned, this study was cross-sectional rather than longitudinal. Therefore, it is recommended to carry out longitudinal studies that explore the development of emotional intelligence in Peruvian Communication students, within the model of competency-based education. On the other hand, this study used a sample of Communication Sciences students, and some research studies suggest that emotional intelligence varies among students from different majors (Petrides et al., 2018). Consequently, the generalization of these results should be done with caution and it is recommended that future studies evaluate the development of emotional intelligence in students of other university programs.

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