Emotional Intelligence in Professionals and Students in Chile

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Abstract

To achieve success in the labour market is necessary not only to have high intelligence quotient but also to develop emotional abilities. Recently, the term "emotional intelligence" has been created to indicate the abilities that help control the emotions and put them at the service of work performance. The scope of this investigation was an exploratory study type that included the evaluation of the emotional intelligence (EI) in targeted (not probabilistic) and significative (probabilistic) samples of civil engineering students of Universidad de La Serena and SAG and INDAP staff, The instrument of self-report was applied through an online questionnaire, with the purpose of respecting the privacy of the participants and avoid any type of influence in their answer. An important aspect of this investigation is to determine if there are any differences in the levels of emotional intelligence among people that are already working in their areas and people that are still studying at university, there are differences between the intelligence and emotional measures among people that work and the students, who had the lowest scores. this study provides evidence about the internal consistence of WLEIS, confirming the original model proposed by Wong and Law.

Keywords: Emotional Intelligence, Emotions, Engineering.



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1. INTRODUCTION

The labour market has changed and it is not possible to talk about an unique profession or about a job in the same company for a whole lifetime. According to Dubrin (2008), to achieve success in the labour market is is necessary not only to have high intelligence quotient but also to develop emotional abilities. Recently, the term "emotional intelligence" (EI) has been created

to indicate the abilities that help control the emotions and put them at the service of work performance (Espíndola, 2005).

According to Madrigal (2009) for managers, the leader and the administrator of the emotional intelligence has a significant influence over the critical factors that are developed in the organization, such as the decision-making, leadership, communication, the trust relationships between staff, teamwork, loyalty, creativity and innovation. This is particularly true in the case of professionals that have been and will be formed with a wide dosis of hard and quantitative sciences, which most rely on mathematical models for decision-making or solution for problems.

The emotional intelligence has been related to the personal and professional performance of a person, in such a way that Anand and UdayaSuritan (2010) mention that it empowers the managers with the ability of intuiting what the others need and want and develop strategies to fulfill such needs and desires. Additionally, Wong and Law (2008) mention that the emotional intelligence has been proposed as an important and potential construct for the management of human resources; they also mention that in the recent years the relationship between the emotional intelligence and the performance has been more obvious in the studies in China.

This relationship between emotional intelligence and the professional performance identified previously and studied by many authors, has not yet been studied fully in Latin America (Zárate and Matviuk, 2010), and that is the reason why it was decided to conduct an exploratory investigation that seeks to validate the instrument developed by Wong and Law (2002) in the work environment of Chilean reality of the Region of Coquimbo. Finally, it was decided to measure the levels of emotional intelligence in subjects that work in the government sector of the region of Coquimbo (SAG and INDAP) and in subjects that are been formed to be part of the labour market (students of Civil and Industrial Engineering of the Universidad de La Serena), for later comparison.

2. EMOTIONAL INTELLIGENCE

Salovey and Mayer (1990, page 189) state that the emotional intelligence derives from social intelligence and define it as "the ability to monitor one's and others feelings and emotions, distinguish, classify and use them to guide our thoughts and actions".

EI has been conceptualized in two models: the model of mixed features and the model of capacity (Goldenberg et al.,2006). The model of mixed features incorporate a bread rage of characteristics of personality and other features to describe the EI (Bar-On, 2001; Goleman, 1995, 1998; Petrifies and Furnham,2011). This trend is mainly criticized for no incorporating any conceptualization of emotion and for incorporating multiple aspects of the personality (for example: optimism, motivation and capacity to get involved in relationships) without establishing a relation with emotion and intelligence (Goldenberg et al.,2006).

In the model of ability, the most influential authors are Salovey and Mayer (1990, page 189) that describe the EI as "a subset of the social intelligence that implies the ability to monitor one's feelings and emotions and of others, discriminate between them and use this information to guide thoughts and actions". To sum up, this framework allows to identify the specific abilities needed to understand and experience the emotions in a more adaptive way (Salovey and Mayer, 1990). In this level, EI is described in three domains: 1) the precise evaluation and expression of the emotion (in oneself and in others); 2) the adaptive regulation of the emotion (in oneself

and in others) and 3) the use of the emotions to plan and motivate the action (Salovey et al., 1993). Although there is a broad acceptance of Salovey and Mayer's framework (Goldenberg et al., 2006), there is no consensus about how it can be evaluated (Conte, 2005, Davies et al., 1998). In fact, the measures based on the model of performance and the measures based on the model of self-reports have a significant difference (Goldenberg et al., 2006). The first one considers that EI should be evaluated through the resolution of problems to evaluate if the answer is correct, that is to say, indicative of a high EI. The second considers that EI must be measured by asking people about their own level of EI. In the approach of the model based on the capacity, two were the measurement instruments that had the greatest impact, which corresponds to: Multifaceted Emotional Intelligence Scale (MEIS) (Mayer et al., 1997) and Mayer-Salovey-Caruso emotional intelligence test (MSCEIT) (Mayer et al., 1999). MEIS includes more than 402 items and takes between one and two hours to complement them (Wong & Law, 2002) and has two different methods to identify the correct answers (as to say, the target score, consensus score and experts score). As this scale presented low reliability and some problems with the score procedures, the authors developed MSCEIT (Conte, 2005). MSCEIT has 141 elements and takes from 30 to 45 minutes to complement itself. Nevertheless, as in the case of MEIS, there is a group of critics agains this measure, because of the following inconveniences that it presented: there is no consensus among experts about the evaluation of the answer, the length of time to administrate the test and the high costs of its application (Conte, 2005; Goldenberg et al., 2006).

Among the self-reported measures, we can distinguish the self reported emotional intelligence scale, (Schutte *et al.*, 1998) and the Wong & Law Emotional Intelligence Scale, (Wong & Law, 2002). SREIS (Schutte *et al.*, 1998) has 33 items and it is represented in a solution of one factor. WLEIS (Wong & Law, 2002) has sixteen items with a solution of four factors distributed in four dimensions: self-esteem appraisal (SEA): capacity to understand deep emotions and express them in a natural way; Other's emotional appraisal (OEA): capacity to sense and understand other's emotions; Regulation of Emotion (ROE): capacity to self-regulate the emotions; Use of Emotions (UOE): individuals capacity to make use of emotions directing them to the constructive activities and personal performance.

In comparison with the EI measures based on the abilities model, the measures of self-reports model have received more psychometric support and are easier to administrate. In addition, it is important to consider that WLEIS is shorter and has a structure of four factors that seem to be more reliable to represent Salovey and Mayer's EI framework (1990). Thus, the propose of this research was to evaluate the psychometric properties of WLEIS in Chilean reality (in an exploratory mode).

WLEIS has already presented proper psychometric evident in previous studies. Just as BotmiS and Ergeneli (2014) investigated the construct validity of WLEIS with a group of nurses in Turkish and confirmed the validity of the scale, Libbrecht *et al.* (2014) concluded that WLEIS is an invariant through a sample of populations in Singapur and Belgium. In addition, Shi and Wang (2007) validated the use of WLEIS in Chinese university students and Rodrigues *et al.*, (2011) in the Portuguese reality. Due to these investigations, it is believed that it could be also suitable for Chilean reality. This investigation, therefore, proposes to analyze the psychometric properties of WLEIS in Spanish, that is spoken wildly in different countries in the world. It is important to mention that previous investigations in Spain demonstrated that WLEIS is reliable for the con-

text of Spanish speaking (Fernández-Berrocal *et al.*, 2004). Therefore, these studies were considered in the procedure of translation.

To validate this instrument in Chilean society, the multivariate technique called structural equation model has been used and has two stages. In the first stage it was conducted a confirmatory factor analysis to evaluate the appropriateness of the measurement model, analyzing the reliability of the items and the proposed constructs. Once confirmed the reliability of the scale used, the constructs were confirmed through the analysis of their convergent and discriminant validity. In the second stage, it was evaluated the structural model, analyzing the general adjustment through the use of goodness of fit such as Chi-Square, CFI, RMR and RMSEA (Hair *et al.*, 1998; Jöreskog y Sörbom, 1993; Schumacker and Lomax, 2004).

3. METHOD

Taking in consideration the topic to be studied, it has been determined that this investigation was exploratory and according to Hernández *et al* (2010), the exploratory studies are carried out when the objective is to review a topic or problem of research with little study, which has several doubts or has not been addressed before. In addition, according to Zárate and Matviuk (2010), this relation between emotional intelligence and professional development studied by many other authors, has not been studied deeply in Latin America.

The format of this work was non-experimental exploratory transectional. A no experimental design was used, since this type of design seeks to observe phenomena's that appear in the natural context, for later analysis (Hernández *et al*, 2010). In addition, this design was of transectional or transversal type, which purpose is to describe variables and analyze their incidence and interrelationships at a precise moment. And finally, it was an exploratory transversal type because it seeks to start to know a variable or a group of them at a given time.

3.1.- Participants

The main role of SAG (Agricultural Inspection Service) and INDAP (Institute of Agricultural Development) is related to the development of the national agricultural sector, that is why it is so important to know the organizational behavior of their workers (in the Region of Coquimbo, Chile) from an emotional perspective in order to reach institutional objectives. In addition, it was decided to evaluate the students of Civil Engineering of Universidad de La Serena as they will be in the near future the professionals working in the labor field. As has been proved with different studies, the emotional intelligence affects the physical and mental health of the people, as well as their professional achievements (Goleman, 1995).

The scope of this investigation was an exploratory study type that included the evaluation of the emotional intelligence (EI) in targeted (not probabilistic) and significative (probabilistic) samples of civil engineering students of Universidad de La Serena and SAG and INDAP staff. For the study, we counted with the participation of 261 individuals, of which 157 corresponded to people that work in Governmental Institutions (55% male and 45% female) and 104 students (52% male and 48% female). The number of participants is satisfying, because, according to Kline (2005), an adequate sample number should have between 10 and 20 individuals per parameter (for the case of this study it corresponds to 16 variables). On the other hand, Jackson (2003) suggests that the reliability of the observed measures and the number of indicators per

factor determine the adjustment of the model and controlling this factor the size of the minimum recommended sample is of 200 subjects for any SEM (Structural Equation Modeling).

The Emotional Intelligence Scale has 16 sentences that are evaluated in Likert Scale with a score value from 1 to 5 (1 = fully disagree and 5 = fully agree), that determine each of the abilities of the emotional intelligence. The instrument of self-report was applied through an online questionnaire, with the purpose of respecting the privacy of the participants and avoid any type of influence in their answer.

3.2.- Statistical Analysis

The process of analyzing the instrument consists of determining its validity. The validity has been defined as the degree to which a test measures what is designed to measure, and in the case of this research, it refers to the degree of relationship that exist between each of the variables (statements that are valued using Likert scale) with their respective factor (Aiken, 2003).

4. RESULTS

4.1 Exploratory Factor Analysis (EFA)

The criteria used to carry out this analysis correspond to KMO test, the analysis of the Commonalities, the percentage of the variance explained and finally the interpretation of the rotated matrix data. It is important to highlight that to carry out the exploratory factor analysis in Spssv23 software, the main compounds were used as a method of extracting factors. According to Lloret-Segura (2014), the use of these methods have shown good results in the factoring of ordinary items, when using polychoric correlation matrix. In addition, Varimax criterion was used to rotate the matrix of factorial loads, this because the factorial loads presents a simple structure when each variable has a large load in a single factor, with leads near to zero in the other factors. One of the orthogonal rotations (the new axes after a rotation are still orthogonal) that seek to generate a simple loads structure is the Varimax rotation.

Table 1: KMO and Bartlett test

Kaiser-Meyer-Olkin me adequacy	asurement of sampling	0,813				
Bartlett's Test of Sphericity	Chi-squared approximate	1218,373				
	gl	120				
	Sig.	0				

Source: Own Elaboration.

Table 2: Commonalities in the instrument variables

	Inicial	Extraction
EP1	1	0,515
EP2	1	0,732
EP3	1	0,753
EP4	1	0,59
EO1	1	0,576
EO2	1	0,681
EO3	1	0,499
EO4	1	0,799
UE1	1	0,651
UE2	1	0,634
UE3	1	0,771
UE4	1	0,723
RE1	1	0,742
RE2	1	0,743
RE3	1	0,656
RE4	1	0,786

Extraction method: analysis of main compounds Source: Own Elaboration.

As observed in table 1, the value of KMO measurement is superior to 0.6, and the value of significance of the sphericity of Barlett is lower to 0.5, therefore, it is correct to apply a factor analysis. The commonalities represent the proportion of the variance of the indicated variable that is explained by the model common factors. Hair (1999) proposed that the variables with a lower commonality of 0.5 lack of a sufficient explanation and should not be considered in the final interpretation of the analysis. As can be observed in table 2, all the variables obtained a value greater than 0.5, therefore, no instrument variable are discarded.

The criterion of the percentage of variance explained seeks to ensure that the number of extracted factors reach a determine percentage of the total variance of the data. Although it has not been determined a precise percentage of explained variance that works as a threshold to conclude the extraction of the factors, some authors suggest that in the case of applications related to Social Sciences it is possible to stop the process when it reaches 60% of variance (Hair, 1999).

As observed in the table 3, the fours factors used explained a 67% of the variance of the model, which meets the criteria of exploratory factor analysis (Ford *et al.*, 1986; Kim and Mueller, 1978; Stevens, 1992).

Table 3: Total variance explained

	Ir	nicial EI v			f extraction			ms of rotati	
Factor		0/ 1	0.4		loads			squared loads	
	Total	% of	% acumu-	Total	% of	% acu-	Total	% of va-	% acu-
		variance	lated		variance	mulated	10001	riance	mulated
1	5,693	35,583	35,583	5,693	35,583	35,583	2,949	18,429	18,429
2	2,184	13,647	49,23	2,184	13,647	49,23	2,837	17,731	36,16
3	1,719	10,746	59,976	1,719	10,746	59,976	2,615	16,342	52,502
4	1,254	7,839	67,815	1,254	7,839	67,815	2,45	15,313	67,815
5	0,827	5,169	72,983						
6	0,608	3,801	76,784						
7	0,581	3,633	80,417						
8	0,502	3,139	83,556						
9	0,452	2,827	86,383						
10	0,44	2,749	89,132						
11	0,38	2,373	91,504						
12	0,357	2,234	93,738						
13	0,313	1,957	95,695						
14	0,29	1,813	97,508						
15	0,223	1,397	98,905						
16	0,175	1,095	100						

Extraction method: analysis of main compounds Source: Own Elaboration.

The last criteria that is analyzed in the exploratory factor analysis is the interpretation of the matrix of rotated compounds. The main reason to rotate a solution is to clarify the structure of the factorial loads. The factors must have a clear meaning for the investigator from the context of application. If the structure that shows the factorial loads is confusing or hard to interpret, a rotation can provide an easier structure to interpret. As can be observed in table 4, with this procedure the analysis is clearer in respect to the numbers of factors and the variables associated to it, and in the case of this analysis the number of factors (abilities) and its respective variables agree with the ones of the instrument.

Table 4: Matrix of rotated compounds

		Comp	ound	
	1	2	3	4
RE1	0,845	0,01	0,04	0,16
RE2	0,845	0,1	0,07	0,12
RE4	0,805	0,31	0,13	0,17
RE3	0,785	0,16	0,07	0,11
UE3	0,163	0,83	0,05	0,21
UE2	0,066	0,78	0,04	0,12
UE4	0,192	0,78	0,18	0,21
UE1	0,116	0,75	0,24	0,13
EO4	0,14	0,02	0,86	0,18
EO2	0,028	0,11	0,8	0,15
EO3	0,137	0,09	0,69	0,06
EO1	-0,03	0,25	0,67	0,25
EP3	0,163	0,15	0,1	0,83
EP2	0,2	0,15	0,19	0,8
EP4	0,26	0,27	0,11	0,66
EP1	-0,01	0,14	0,35	0,61

Extraction method: analysis of main compounds.
Rotation Method: Varimax with Kaiser normalization^a

^aThe rotation has converged in 5 interations

Source: Own Elaboration.

4.2 Confirmatory factor analysis

The factor analysis assumes that in a determined context there is a reduced number of variables or latent construct, that is to say, no observable, that influence in the large set of observable variables. The purpose of the confirmatory factor analysis is to test statistically the capacity of factorial model proposed to reduce the data compiled in the sample. The researcher have to specify a determined number of latent variables correlated, as well as a series of observable variables to measure the latent variables (Hair et al.,1998). Because of that, we work with the following hypothesis:

H₁: The emotional intelligence has four different abilities (dimensions), that include: the valorization of one's emotions, the regulation of one's emotions, the use of emotions and the valorization of other's emotions.

The results obtained using the program called amosv23 are presented in table 5.

Table 5: Contrast of verisimilitude

Computation of degrees of freedom (Default model)	
Number of distinct sample moments	136
Number of distinct parameters to be estimated	36
Degrees of freedom (136-36)	100
Result (Default model)	
Chi-square	248,355
Probability level	0,000

Source: Own Elaboration.

The first global diagnosis of the model is the «contrast of verisimilitude ratio or statistic X^2 » or p value, that for the case of this study is lower to 0.5 (table 5), therefore, the null hypothesis (which established that the restrictions of the model were correct) is rejected. Given that the model cannot be more than an approximation of the reality, the hypothesis that establishes that the model is exactly correct will always be fake and its contrast even absurd. In practice, it will be more interesting to measure the degree of adjustment (or mismatch) of the model than simply rejecting or accepting the null hypothesis.

Table 6: Adjustment of CFI model

Model	NFI	RFI	IFI	TLI	CFI
Model	Delta1	rho1	Delta2	rho2	CFI
Default model	0,879	0,86	0,924	0,91	0,92
Saturated model	1		1		1
Independence model	0	0	0	0	0

Source: Own Elaboration

Table 7: Adjustment of RMSEA model

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	0,076	0,064	0,09	0
Independence model	0,249	0,239	0,26	0

Source: Own Elaboration

Table 8: Adjustment of RMR model

Model	RMR	GFI	AGFI	PGFI
Default model	0,042	0,891	0,852	0,655
Saturated model	0	1		
Independence model	0,214	0,361	0,276	0,319

Source: Own Elaboration

Table 9: Adjustment of x2/gl model

, ,						
Model	NPAR	CMIN	DF	P	CMIN/DF	
Default model	36	248,355	100	0	2,484	
Saturated model	136	0	0			
Independence model	16	2049,09	120	0	17,076	

Source: Own Elaboration

After observing the values of the tables 6, 7, 8 y 9, it can be determined that the values obtained adjust with the acceptable form of the local reality. This is how values such as CFI are higher than 0.9 (Bentler, 1990), RMR lower than 0.005 (Byrne, 1998) and RMSEA lower than 0.1 (MacCallum *et al.*, 1996).

In addition, the results show a similitude with the results from other authors that have carry out studies of CFA validating this instrument. In the case of the confirmatory factor analysis carried out by Wang and Law (2002), the results were X^2 / df = 1.82, CFI = 0.91 and RMR = 0.07, in the study carried out by BitmiŞ and Ergeneli (2014) the results were X^2 / df = 2.17, CFI = 0.93 and RMR = 0.04, the research carried out by Kong (2017) in the Chinese reality the results were CFI = 0.96, RMSEA = 0.050, SRMR = 0.032 and Iliceto and Fino (2017), whom validated the instrument in the Italian reality (CFI = 0.981, RMSEA = 0.046, SRMR = 0.036).

The figure 1 shows the result of the modeling through amos v23 of the emotional intelligence scale.

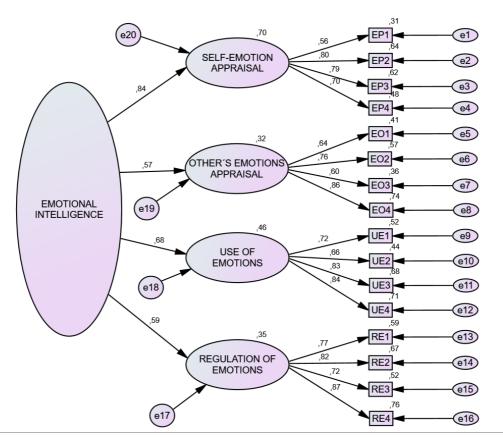


Figure 1: Model emotional intelligence scale Source: Own Elaboration

Each arrow in the model represents a "path" coefficient that indicated the magnitude and the mark of the effect of a variable over another endogenous variable. The standardized "path" coefficients are coefficients of partial regression that represent the effect of a variable over another, controlling the rest of the variables. Some authors point that the standardized loads for each item of the scale used must be superior to 0.7, even though a value higher than 0.5 is also acceptable (Fornell y Larcker, 1981, Hair *et al.*, 1998). The values that the variables are observed correspond to the value of the variance explained in the variable by the construct (R²), that can

be understood as the reliability of the measure. This means, for example, that in the case of EP1, with a value of 0.306, the Own Emotions ability explains 31% of its variance. The rest is explained by its unique factor or EP1 error.

The convergent validity proves that the constructs that are expected to be related are in fact related. The discriminant validity (or divergent validity) proves that the constructs that were not supposed to have any relationship in fact do not have it. As can be observed in table 10, the values of AVE are superior to 0.5 and the CR values are superior to 0.7, therefore, it is shown that the research has both types of validity, and it can be considered that it has an excellent construct validity (Hu, 1999).

Table 10: Convergent validity

	CR	AVE	MSV	MaxR(H)	F1	F2	F3	F4
F1	0,806	0,513	0,301	0,827	0,717			
F2	0,810	0,520	0,260	0,845	0,510***	0,721		
F3	0,849	0,587	0,301	0,866	0,549***	0,362***	0,766	
F4	0,872	0,631	0,233	0,885	0,482***	0,280***	0,455***	0,794

Source: Own Elaboration

4.3 Reliability of the instrument

No psychometric instrument can be considered valuable unless it has a consistent or reliable measure. In the case of this research, the indicator called Cronbach coefficient alpha was used to measure the internal consistence of the instrument (Aiken, 2003). As can be observed in tables 11 and 12, the values obtained in Cronbach alpha are superior to 0.75, which demonstrated the internal consistence of the instrument. (Aiken, 2003).

Table 11: Cronbach Alpha Instrument

Cronbach	
Alpha	Number of Elements
0,872	16

Source: Own Elaboration

Table 12: Cronbach Alpha when eliminating a variable

Table 12. Clotheach Inpha When eminiating a variable						
	Average scale if the element has been delet- ed	Variance scale if the element has been delet- ed	Total element Correlation corrected	Alfa de Cronbach Alpha is the element has been deleted		
EP1	60,923	53,817	0,468	0,867		
EP2	60,709	53,092	0,592	0,862		
EP3	60,678	53,281	0,550	0,863		
EP4	60,521	53,074	0,583	0,862		
EO1	61,172	54,020	0,486	0,866		
EO2	61,027	53,580	0,457	0,868		
EO3	61,019	53,603	0,393	0,872		
EO4	61,115	53,587	0,526	0,864		
UE1	60,552	53,210	0,544	0,864		

UE2	60,563	54,255	0,438	0,868
UE3	60,533	53,035	0,564	0,863
UE4	60,322	53,673	0,623	0,861
RE1	60,904	54,418	0,446	0,868
RE2	60,893	54,381	0,487	0,866
RE3	61,111	52,422	0,469	0,868
RE4	60,889	52,661	0,640	0,860

Source: Own Elaboration

4.4 Comparison of the Level of emotional intelligence among individuals

An important aspect of this investigation is to determine if there are any differences in the levels of emotional intelligence among people that are already working in their areas and people that are still studying at university. To achieve this, the Mann-Whitney U-test was carried out (it is important to point out that the distribution of the data was not normal, even though this is a fundamental requirement to perform the validation of the instrument, there is a degree of flexibility against this in where authors such as Esposito (1993), suggests that the kurtosis should be less than 3.3 and even Kine (2005) proposed a value up to 10) using Spssv23 program and the results are presented in table 13. As observed in the previous table, there are differences between the intelligence and emotional measures among people that work and the students, who had the lowest scores.

Cristián Venegas González – Mauricio Castillo-Vergara, 2018, Vol.2, Issue.9, pp.36-52

Table 13: Test of Statistics^a

	EP1	EP2	EP3	EP4	EO1	EO2	EO3	EO4	UE1	UE2	UE3	UE4	RE1	RE2	RE3	RE4
Mann–																
Whitney U	8127	6239	6295,5	6641,5	7404	7190,5	6185	7063,5	6546,5	7361	6180	6689	6318,5	6524	5806,5	5816
test																
Wilco-	13587	11699	11755,5	12101,5	12864	12650,5	11645	12523,5	12006,5	12821	11640	12149	11778,5	11984	11266,5	11276
xon's W	15507	110//	11755,5	12101,5	12001	12000,0	11043	12020,0	12000,5	12021	11040	1214)	11770,5	11704	11200,5	11270
Z	-0,067	-3,563	-3,395	-2,821	-1,391	-1,748	-3,508	-2,036	-2,975	-1,477	-3,678	-2,892	-3,34	-3,055	-4,16	-4,351
Asym-																
ptotic Sig-	0,947	0	0,001	0,005	0,164	0,081	0	0,042	0,003	0,14	0	0,004	0,001	0,002	0	0
nifican-ce	0,947	U	0,001	0,003	0,104	0,001	U	0,042	0,003	0,14	U	0,004	0,001	0,002	U	U
(bilateral)																

^aGrouping Variable: Activity performed Source: Own Elaboration

5. DISCUSSION

This investigation has demonstrated that WLEIS (Wong & Law, 2002) is a valid instrument to be applied in Chilean reality. The internal structure was analyzed through several procedures and the results corresponded to those originally planned, as to say, four different variables (abilities) and sixteen elements that evaluate the emotional intelligence. Therefore, the descriptive analysis and the characteristics of the items confirm that each item is important to measure the EI. As in the original scale, WLEIS exploratory and confirmatory factor analysis confirm an structure of four factors. This finding is consistent to the definition of EI as a multidimensional construct. The factors are also similar to four factors in the conceptual factor of Salovey and Mayer (1990). In addition, the internal consistency reliability results of this study are similar to other validity studies of WLEIS (BitmiŞ & Ergeneli (2014) and Carvalho (2016)). The convergent and discriminant validity of the four factors necessary to support the instrument's approach were also determined (Conte, 2005). Therefore, this instrument has a stable structure.

In addition, the results of this study showed that the people that work obtained a higher score than the students of engineering, which, in first instance, would be interesting in future researches to determine the critical factors that determined the greater difference in the emotional intelligence of people that work, to incorporate in the future academic guidelines of the universities.

This study has limitations. In general, the results obtained can be considered preliminary and exploratory due to the relatively small sample size, which requires further consolidation through reliability and validity studies in larger representative samples (due to budgetary limitations). Future researches are necessary to test the reliability and psychometric properties of WLEIS in Chilean workers and students. Because the participants were recruited from specific geographic areas of the country, a more heterogeneous sample selection would also give a better understanding of the reliability of the instrument for Chilean society in general. Nevertheless, the results show an acceptable instrument validity and reliability.

6. CONCLUSIONS

In conclusion, this study provides evidence about the internal consistence of WLEIS, confirming the original model proposed by Wong and Law (2002). It is considered a preliminary attempt to study the implementation of WLEIS and its underlying EI model to the layout of Chilean society. Empirical evidence about internal consistency and validity of the instrument will allow researchers, teachers and professionals of the phycology area to have a reliable self-report for the evaluation of EI and to intervene in the community, with important implications in terms of improving the subjective and phycological well-being of people.

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