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# A Brief Version of the Difficulties in Emotion Regulation Scale (DERS): Validity Evidence in Ecuadorian Population

**Escala de Dificultades en la Regulación Emocional (DERS): evidencia de validez en población ecuatoriana**

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## Abstract.

Due to the scarcity of evaluation instruments on the construct of difficulties in emotional regulation in the Ecuadorian university context, the objective of the present study was to adapt linguistically and to study the psychometric properties of the Difficulty Scale in Emotional Regulation (DERS) in a sample of Ecuadorian university students. A non-probability sample of 1172 participants between 17 and 32 years of age ( $M = 21.99$ ;  $DT = 2.49$ ), which consisted of 58.6% women and 41.4% men, was used. The research was carried out in three stages. The first study evaluated the Ecuadorian linguistic adaptation of the scale. The second study referred to the factorization by main axes identifying five factors (Lack of emotional understanding; Limited access to regulation strategies; Difficulties in impulse control; Interferences in goal-directed behaviors; Lack of emotional clarity) theoretically interpretable, which explain 49.22% of the variance. The third study developed a confirmatory factor analysis that specified an acceptable fit of the model ( $GFI = .95$ ;  $AGFI = .95$ ;  $NFI = .94$ ;  $RMR = .11$ ). The reliability coefficients are acceptable as .90 Cronbach's alpha and .91 McDonald's omega. In conclusion, it is mentioned that the Ecuadorian version of the DERS in a university sample exhibits good psychometric characteristics of internal structure and responses.

## Resumen.

Debido a la escasez de instrumentos de evaluación sobre el constructo de dificultades en la regulación emocional en el contexto universitario ecuatoriano, el objetivo del presente estudio fue adaptar lingüísticamente y estudiar las propiedades psicométricas de la Escala de dificultades en la regulación emocional (DERS) en una muestra de estudiantes universitarios ecuatorianos. Se empleó una muestra no probabilística de 1172 participantes de 17 a 32 años de edad ( $M = 21.99$ ;  $DT = 2.49$ ), de los cuales 58.6% eran mujeres y 41.4% hombres. La investigación se desplegó en tres etapas: el primer estudio desarrolló la adaptación lingüística ecuatoriana de la escala. El segundo estudio se refirió a la factorización por ejes principales identificando cinco factores (Falta de comprensión emocional; Acceso limitado a estrategias de regulación; Dificultades en el control de impulsos; Interferencias en conductas dirigidas a metas; Falta de claridad emocional) interpretables teóricamente, que explican el 49.22% de la varianza. El tercer estudio desarrolló un análisis factorial confirmatorio, el cual indicó un ajuste aceptable del modelo ( $GFI = .95$ ;  $AGFI = .95$ ;  $NFI = .94$ ;  $RMR = .11$ ). Los coeficientes de fiabilidad se revelaron aceptables de .90 alfa de Cronbach y .91 omega de McDonald. Como conclusión se menciona que la versión ecuatoriana de la DERS en una muestra universitaria exhibe buenas características psicométricas de estructura interna y fiabilidad.

## Keywords.

Emotional Regulation, Psychometric Analysis, Ecuadorian university students.

## Palabras Clave.

Regulación emocional, análisis psicométrico, universitarios ecuatorianos.

## 1. Introduction

In recent times, the study of emotions in the university context versus academic achievement has been a subject of great interest (Lasarte et al., 2019; Pekrun et al., 2002; Supervía et al., 2020; Vera & Morales, 2019). Even though there is an extensive literature that involves the study of various psychological factors related to university performance (Martínez-Montegudo, 2019; Parasi, 2019; Toro, 2019), these have denoted the undeniable role of emotions in the academic particularities that the student is studying (González et al., 2009; Pekrun et al., 2000; Turner & Schallert, 2001).

Regarding the construct of emotional regulation, it is considered that students experience a wide repertoire of emotions during their learning experiences at university (Medrano & Trógolo, 2014), such as manifested emotions of rejoicing, illusion, conceit, consolation, anger, distress, discouragement, and shyness (Pekrun et al., 2002). Therefore, the relationship between emotional regulation and university development is complex, managing to determine what students do academically (Diego et al., 2018; Medrano & Trógolo, 2014).

Regarding the theoretical description of the construct, Thompson defines emotional regulation as “the set of extrinsic and intrinsic processes responsible for monitoring, evaluating and modifying emotional reactions, especially their intensity and characteristics over time, with the aim of achieving the own goals” (1994, pp. 27–28). However, Gross (1998) exposes emotional regulation as “the process by which individuals order their emotions, how they experience and express them” (p. 275). These arguments establish that emotional regulation is a mechanism by which emotional expression is harmonized in order to achieve an explicit objective. On the other hand, regarding the psychopathological representation of the construct, various investigations mention that difficulties in emotional regulation are associated with certain characteristic mechanisms in mental disorders (C. Silva, 2005), such as anxiety and depression (Mennin et al., 2007), additions (McNally et al., 2003), eating behavior problems (Pascual et al., 2011; Serppe et al., 2018; J. R. Silva, 2008), schizophrenic outbreaks (Kring & Neale, 1996), personality disorders (Glenn & Klonsky, 2009; Gratz & Roemer, 2008), among others. However, considering the measurement of the construct, significant relevance has been denoted on measurement questionnaires for emotional regulation (Kinkead et al., 2011), ranging from a structured interview to self-applied scalar tests (Caprara & Pastorelli, 1993; Gálvez-Hernández et al., 2019; Garnefski et al., 2001; Gratz & Roemer, 2004; Greenwald et al., 2003; Gross & John, 2003; Hoshmand & Austin, 1987; Kamholz et al., 2006; Katz et al., 1999; Lane et al., 1990; Larsen & Prizmic, 2004; Rovira et al., 2012; Schutz et al., 2004; Stanton et al., 2000).

According to this wide variety of instruments, it is considered that the Scale of difficulties in emotional regulation (DERS; Gratz & Roemer, 2004) manages to denote an influx in both its composition and its use in research and clinical practice. It has recently adapted to the Latin American context in countries such as Chile (Guzmán-González et al., 2014), Colombia (Muñoz-Martínez et al., 2016), and Argentina (Medrano & Trógolo, 2014), showing good properties on Psychometric validity and reliability, ranging from .72 to .85 of Cronbach’s alpha coefficient, and denoting it as “good” in terms of fit and reliability.

DERS was initially developed to be used in the field of clinical psychology; however, subsequent studies highlight its usefulness in non-clinical populations, as is the case of the university student population (Hervás & Jódar, 2008; Tejeda et al., 2012). According to Gratz and Roemer (2004), it is not possible to evaluate and understand emotional regulation without considering the specific context in which the situational demands and individual goals are developed.

Despite the wide variety of instruments to assess emotional regulation in various contexts, a standardized measuring instrument to assess this psychological notion is needed in Ecuador; therefore, this research corresponds to an instrumental study, where the psychometric properties are examined by DERS in the Ecuadorian university population, concerning the purpose of study, to develop the translation of DERS into the Ecuadorian cultural dialect, as well as to study its structure and internal consistency of the scale in the Ecuadorian population.

## 2. Method

### 2.1 Design

The present investigation of instrumental design considered three studies: the first was to develop the translation of the original version of the scale into the Ecuadorian dialect with the translation-back-translation process; the second was to explore the underlying factors of the scale using Exploratory Factor Analysis; and the third study was to confirm the factorial structure found and submit it to a Confirmatory Factor Analysis, as well as to analyze the reliability of the instrument.

### 2.2 Participants

The first study had a homogeneous target sample of  $n=29$  university students. However, the following two studies consisted of  $n=586$  participants each, corresponding to an accidental non-probabilistic sample (Hernández Sampieri et al., 2015), with a total universe of  $n=1172$  participants from 17 to 32 years of age ( $M=21.99$ ;  $DT=2.49$ ), which 58.6% were women and 41.4% were men. All of them were undergraduate students of psychology at the Catholic University of Cuenca in Ecuador. Regar-

ding the selection criteria, for the inclusion criterion, university psychology students who signed the informed consent were considered, and participants who were under the influence of narcotic drugs, except tobacco, were excluded as part of the criteria.

### 2.3 Instruments

*Difficulties in Emotion Regulation Scale* –DERS– (Gratz & Roemer, 2004) is a self-applied questionnaire, which allows to measure the difficulties in emotional regulation and different aspects of it. Composed of 36 items measured on a five-point Likert scale (from “Almost never/0-10% of the time” to “Almost always/90-100% of the time”). Regarding its reliability and internal composition, the scale is made up of the dimensions: Limited access to regulation strategies Strategies  $\alpha=.88$  (8 items), Impulse control difficulties Impulse  $\alpha=.86$  (6 items), Interference in Goals-directed behaviors  $\alpha=.89$  (5 items), Lack of emotional acceptance Nonacceptance  $\alpha=.85$  (6 items), Lack of emotional awareness Awareness  $\alpha=.80$  (6 items), and Lack of emotional clarity Clarity  $\alpha=.84$  (5 items). In addition, the instrument has predictive validity and a high total internal consistency ( $\alpha=.93$ ). The interpretation is made with the sum of all of its items or with the specific sum of each subscale.

*Sociodemographic questionnaire.* A short survey that collects personal data such as age, gender, and level of study was prepared.

### 2.4 Process

As for the first study, the scale translation was developed in order to linguistically adapt the instrument, following the required standards (Beaton et al., 2000; Bullinger et al., 1998; Muñiz et al., 2013; Streiner & Norman, 2008)) of the International Commission for Evaluation Tests (Hambleton & Kanjee, 1995; Hambleton & Bollwark, 1991). Therefore, this required four experts in bilingual translation (Spanish-English). The first couple translated autonomously the original questionnaire into Spanish, originating two translated documents. Subsequently, the second pair of translators carried out the back translation of both documents into the original language (English) of the scale (Harkness & Schoua-Glusberg, 1998; Streiner & Norman, 2008). The successive translated documents were studied and compared by two experts in psychometrics, denoting their semantic equality. Due to this, a version adapted to the Ecuatorian dialect was obtained, with which, from a sample ( $n=29$ ) made up of Ecuatorian university students, a pilot test was carried out in order to know its feasibility (Argimon & Jiménez, 2013; García et al., 2009). After that, its semantic understanding was ensured, considering the final version of the scale.

Subsequently, the Department of Ethics of the Catholic University of Cuenca certified both the research and the informed consent, which under the APA code of

ethics for research and data confidentiality (APA,1994), students who wanted to join the second and third research study proceeded voluntarily to sign the document in writing.

Both for the analysis of the second and third studies, the data collection process was carried out during teaching hours, highlighting the anonymous nature of the information collected (Behnke, 2006), for which the Ecuatorian linguistic version of DERS determined in the first study, combined with sociodemographic information. After that, the analysis of the psychometric properties of the scale was carried out transversally (Ramada-Rodilla et al., 2013; Streiner & Norman, 2008), in order to have a reliable measurement instrument (Carvajal et al., 2011).

### 2.5 Analysis of data

In the second and third study, the description of the sociodemographic variables was performed, as well as the univariate and multivariate normality analysis (Mardia Coefficient) on the matrix of the observed variables data.

Subsequently, a cross-validation procedure was performed in order to know the internal composition of factors determined in DERS.

In the second study, corresponding to the exploratory factor analysis, the convenience of this analysis was assessed in advance using the KMO test (Kaiser-Meyer-Olkin) and the Bartlett sphericity test, and the same method by Gratz and Roemer (2004), of factor extraction by factorization of main axes, was used. However, given the relevance of the data, a type of oblique rotation (Promax) was used.

Concerning the third study, a confirmatory factor analysis was developed in order to demonstrate whether the structure achieved by main axes was replicated. According to the breach of the assumption of multivariate normality in the data matrix, the statistical estimation procedure was Unweighted least squares (ULS), an estimation procedure that provides appropriate evaluations, without the requirement of the assumption of normality in the data (Ruiz, 2000). The fit of the model was evaluated by managing several values, some of which are the Goodness of Fit Index (GFI), Normed Fit Index (NFI), and the Adjusted Goodness of Fit Index (AGFI), whose values, equal or greater than .90, are deciphered as values corresponding to an admissible fit of the model (Hu & Bentler, 1999). In addition to this, the Residual Mean Square Root (RMR) was also obtained, of which a small value is interpreted as a good model (Tabachnick & Fidell, 2007).

Once the factorial structure was established, the reliability of the scale was known, using the Cronbach's alpha ( $\alpha$ ) coefficient (Nunnally, 1975) and the McDonald ( $\omega$ ) Omega coefficient 1999. Despite the classic use of Cronbach's alpha coefficient, the analysis of the Omega coefficient was incorporated into the study, a relatively new reliability estimator used in factor models (Ventura-

Table 1

Descriptive statistics and multivariate normality contrast

	Second study		Third Study		$\chi^2$	<i>df</i>	<i>p</i>
	<i>n</i>	%	<i>n</i>	%			
Gender					.088	1	.767
Female	341	58.20	346	59			
Male	245	41.80	240	41			
	$\bar{x}$	<i>SD</i>	$\bar{x}$	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>
Age	21.07	2.49	21.52	2.47	-3.073	1170	<b>.002</b>
Mardia's Coefficient					$\chi^2$	<i>df</i>	<i>p</i>
<i>A<sub>m</sub></i>	177.541		—		17433.454	8436	<b>.000</b>
<i>K<sub>m</sub></i>	1701.768				5965.014	1	<b>.000</b>
<i>A<sub>m</sub></i>	—		274.034		26908.420	8436	<b>.000</b>
<i>K<sub>m</sub></i>			1626.561		3579.713	1	<b>.000</b>

Note. The data in bold correspond to the level of significance (level .05).

León, 2018) that manages to present a high sensitivity compared to other estimators (Zinbarg et al., 2005), as well as its robustness when sampling heterogeneous populations, the reduced risk of overestimating reliability (Waller, 2008), and its ability for not having correlated errors, which are often limitations of Cronbach's alpha (Dunn et al., 2014; Ventura-León, 2018). Acceptable reliability values above .70 were considered in the present study (Nunnally & Bernstein, 1994).

Statistical analyzes were performed with computer programs: SPSS software vers. 24.0.0 combined with the AMOS 24 statistical package (IBM Corp., 2016) and the JASP 0.9.2 software (Love et al., 2015).

### 3. Results

#### 3.1 First study

Corresponding to the first study, as for the translation, it can be mentioned that of the 36 original items on the scale, 33 showed no problems and were translated literally. In the three remaining items, minimal changes had to be made, without modifying the meaning or structure of the item. Thus, the phrase “*My emotions feel overwhelming*”, which describes a specific environment, was replaced by “*I feel my emotions as stunners*”, which hints at a more neutral state. As for the phrase “*I experience my emotions as overwhelming and out of control*”, it was rephrased as “*I experience my emotions as stunning and out of control*”. As for the statement “*When I'm upset, I believe that wallowing in it is all I can do*”, it was modified to the phrase “*When I'm upset, I think that sinking into it is all I can do*”. The pilot test ( $n=35$ ) confirmed the congruence of the scale. Finally, as regards the understanding of the items, all the university students confirmed the feasibility of the instrument with clear and simple language.

In both the second and third studies, in the cross-validation process, the data collected did not show statistically significant differences according to gender, but

did show it according to age. Mardia's multivariate normality tests indicate the absence of normality in the variables observed for both subsamples (see Table 1).

#### 3.2 Second study

Corresponding to the second study, with  $n=586$  participants, the extraction of factors by main axes was developed with the promax rotation method. Data from the correlation matrix were reflected as appropriate for this kind of study [Bartlett's sphericity test ( $630$ ) =  $10920,894$ ;  $p < 0.001$ ; Kaiser-Meyer-Olkin Index = .931]. Five factors were obtained, according to the rule of eigenvalues greater than one. The five-factor solution explained 49.22% of the variance. Regarding the content of the items, it can be seen that two factors were merged: “lack of emotional acceptance” and “lack of emotional awareness”, together with two more items that saturate this new factor. Given that the theoretical content of these items is similar to each other than compared to the other dimensions, it can be believed that for this reason the factorial process fails to distinguish them. Precisely to reject this argument, a factorial analysis again, but only with these items.. All in all, the results showed again that these items corresponded to a single dimension or factor. Due to this, and due to the semantic characteristics of the items, the results show that it is more convenient to group them on a subscale. This is denoted in Table 2, which describes the data of the rotated configuration matrix; therefore, the first factor would be made up of fourteen items concerning the lack of *emotional compression*; the second would group eight items related to limited *access to regulatory strategies*; the third would consist of six items related to the *difficulties in impulse control*; the fourth would be grouped by four items, related to interferences in *goal-directed behaviors*; and the fifth would be grouped by four items related to the *lack of emotional clarity*.



Table 2

Main axis factorization with promax rotation (configuration matrix) and factor correlations

Items	F1	F2	F3	F4	F5
Item 32	<b>.818</b>				
Item 33	<b>.792</b>				
Item 27	<b>.767</b>				
Item 36	<b>.752</b>				
Item 14	<b>.747</b>				
Item 19	<b>.745</b>				
Item 15	<b>.732</b>				
Item 18	<b>.713</b>				
Item 35	<b>.711</b>				
Item 26	<b>.690</b>				
Item 28	<b>.652</b>				
Item 16	<b>.648</b>			<b>.346</b>	
Item 13	<b>.539</b>				
Item 17	<b>.509</b>			<b>-.380</b>	<b>.365</b>
Item 30		<b>.831</b>			
Item 29	<b>.578</b>	<b>.825</b>		<b>.388</b>	
Item 25		<b>.790</b>			
Item 21		<b>.744</b>			<b>-.335</b>
Item 12		<b>.639</b>			
Item 23		<b>.637</b>			<b>-.334</b>
Item 11		<b>.604</b>			
Item 31		<b>.584</b>			
Item 2			<b>.755</b>		
Item 7			<b>.703</b>		<b>.401</b>
Item 8			<b>.700</b>		
Item 6			<b>.688</b>		
Item 1			<b>.652</b>		
Item 10			<b>.499</b>		<b>.314</b>
Item 5				<b>.647</b>	
Item 4		<b>.374</b>		<b>.620</b>	
Item 9				<b>.585</b>	
Item 3		<b>.395</b>		<b>.525</b>	
Item 22			<b>.425</b>		<b>.681</b>
Item 24			<b>.332</b>		<b>.586</b>
Item 34			<b>.320</b>		<b>.556</b>
Item 20					<b>.508</b>
Variance of the rotated factor:					
Factor	F1	F2	F3	F4	F5
	4.49	3.47	2.12	1.71	1.21
Factorial correlations:					
Factor	F1	F2	F3	F4	F5
F1	1				
F2	.66	1			
F3	-.07	-.07	1		
F4	.58	.57	.02	1	
F5	-.34	-.37	.42	-.22	1

Note. Data in bold correspond to factor loads greater than 0.30 in absolute value; theoretically grouped factor correspondence.

### 3.3 Third study

With  $n=586$  participants, this five-factor structure was examined using a confirmatory factor analysis, whose estimation procedure was performed by Unweighted Least Squares (ULS). Table 3 shows the final standardized values, whose adjustment was acceptable (Gaskin & Lim, 2016; Hu & Bentler, 1999) [ $\chi^2(584)=5512.724$ ; GFI=.95; AGFI=.95; NFI=.94; RMR=.11], respectively. All the weights and factor correlations were statistically significant ( $p<.001$ ), one by one.

Table 3

AFC: standardized parameters of the evaluated model

F1: Lack of emotional understanding.	
Item 32	.760
Item 33	.735
Item 27	.784
Item 36	.777
Item 14	.707
Item 19	.748
Item 15	.710
Item 18	.637
Item 35	.786
Item 26	.579
Item 28	.713
Item 16	.638
Item 13	.492
Item 17	.553
F2: Limited access to regulatory strategies.	
Item 30	.817
Item 29	.735
Item 25	.663
Item 21	.694
Item 12	.667
Item 23	.505
Item 11	.553
Item 31	.665
F3: Impulse control difficulties.	
Item 2	.701
Item 7	.771
Item 8	.660
Item 6	.626
Item 1	.597
Item 10	.502
F4: Interference in goal-directed behaviors.	
Item 5	.660
Item 4	.687
Item 9	.641
Item 3	.662
F5: Lack of emotional clarity.	
Item 22	.424
Item 24	.367
Item 34	.686
Item 20	.444

Note. The described composition of each item is found in the annex section of the research.

Finally, in terms of reliability, the internal consistency of each subscale was relatively good, since most of the Cronbach's alpha coefficients and McDonald's Omega coefficients showed higher values of .70 in most of the factors. For Factor 1 (fourteen items)  $\alpha=.93$ ,  $\omega=.93$ ; Factor 2 (eight items)  $\alpha=.83$ ,  $\omega=.86$ ; Factor 3 (six items)  $\alpha=.80$ ,  $\omega=.81$ ; factor 4 (four items)  $\alpha=.75$ ,  $\omega=.76$ ; and Factor 5 (four items)  $\alpha=.60$ ,  $\omega=.61$ , which presented comparatively low reliability. The total reliability of the scale has a Cronbach's alpha of .90 and a McDonald's omega coefficient of .91, respectively.

#### 4. Discussion

The purpose of the present study was to adapt DERS linguistically and culturally, as well as to evaluate the psychometric properties of the scale in the Ecuadorian university population. The results guarantee that the instrument has good psychometric properties of structure and internal consistency, being considered as *good* and *consistent*.

The new scale obtained is similar to the one originally conceived by the previous literature, since the Ecuadorian version subtly shows differences regarding dialectical compression, compared to the instrument originally recreated in the Anglo-Saxon language.

Due to the importance of developing a correct translation, for the conceptual equivalence of each item in the different cultural populations where the instruments are adapted (Carvajal et al., 2011), the scale is considered to measure the theoretical dimensions proposed by the authors, avoiding biases in the measurement of the construct. Precisely in the period of translation of the instrument, no significant problems in understanding were revealed, nor were unusual terminologies used. Precisely, the good conceptual and semantic equivalence in the new scale establishes the appropriation of the measure of difficulties in emotional regulation vis-à-vis the scientific community (Carvajal et al., 2011; Harkness & Schoua-Glusberg, 1998).

In addition to the above, the scale corresponds to an instrument of comfort and speed in its self-application. It is added the relevant aspect that was obtained through a pilot test, confirming the feasibility of the instrument for the Ecuadorian population. At this point it is necessary to mark the relevance that the scale uses a semantic structure that is easy to interpret, in order to avoid measurement errors (Argimon & Jiménez, 2013; Carvajal et al., 2011).

Regarding the factorial structure compared to the previously adapted Spanish and Latin scales, the results are similar to the Spanish adaptation (Hervás & Jódar, 2008), Chilean (Guzmán-González et al., 2014), and Argentinian (Medrano & Trógolo, 2014), where the five-factor solution is replicated due to the greater overlap of items grouped into the "lack of emotional compression" factor. However, the factor structure is different

compared to the brief scale found in the Colombian context (Muñoz-Martínez et al., 2016). This result is influenced possibly by the quality of the responses obtained and the type of population to which the instrumental evaluation was submitted. Likewise, it is necessary to highlight that the factors present moderate and low correlations, which would be interpreted as a Relevant aspect of differentiated factors (Brown, 2006), observed in the same way in the Colombian adaptation of the instrument (Muñoz-Martínez et al., 2016); therefore, it solidifies theoretically what was mentioned by the original authors in the creation of the instrument, because the instrument presents a marked dimensionality of the construct depending on the context to which it is applied.

Regarding the limitations of the study, the possibility of bias in the study population is mentioned due to the lack of variability, which does not make possible a generalization in the entire population, since the study population was only made up of university students. Consequently, the sampling was non-probabilistic of selection by volunteers. Likewise, regarding the statistical part of the data analysis, despite the fact that there are currently much more robust and powerful factor extraction and rotation methods (Ferrando & Lorenzo-Seva, 2017), in the present study we opted to follow the same factorial design taken by the authors to replicate a similar internal structure. Another limitation is that the relationship with other variables could not be evaluated in terms of convergent and discriminant validity, because there are no Ecuadorian standardized instruments that measure the construct alternatively. It is suggested that for future studies the involvement of a diverse population, in order to know if the structure found in the study is replicated and corresponds to a universal determinant in the Ecuadorian population, as well as in the calculations from factor analysis, it is suggested that for future analyzes these should be discriminated by more robust and current computations of statistical stability, unlike those originally used by the authors.

As a conclusion, it is mentioned that, according to a translation and adaptation procedure of DERS, an instrument adapted to the Ecuadorian culture has been obtained in a university sample, whose psychometric values are established as adequate. Likewise, it is mentioned that in this version, the scale is similar to the original, in terms of structure and semantic compression, as well as the proper definition of the construct as exposed by the original authors.

Having an adapted scale in Ecuador, dealing with the difficulties of emotional regulation in an Ecuadorian university sample, responds to the impetuous need to have standardized instruments in the country that study this construct from a clear and simple language, due to the undeniable role of emotions on the academic particularities that the student is studying (González et al., 2009; Pekrun et al., 2000; Turner & Schallert, 2001),

where emotional regulation plays an important role in academic performance (Diego et al., 2018; Medrano & Trógolo, 2014).

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## Appendix A

### Instrument adapted linguistically to the Ecuadorian population

DERS					
Por favor, indique cuántas veces le pasan las siguientes afirmaciones. Marque cada número con una cruz, según la escala que aparece a continuación:					
1 —————	2 —————	3 —————	4 —————	5 —————	
Casi nunca	Algunas veces	La mitad de las veces	La mayoría de las veces	Casi siempre	
(0–10%)	(11–35%)	(36–65%)	(66–90%)	(91–100%)	
1. Tengo claro lo que siento (tristeza, enfado, alegría...).	1	2	3	4	5
2. Pongo atención a cómo me siento.	1	2	3	4	5
3. Vivo mis emociones como si no tuviera el control de ellas.	1	2	3	4	5
4. No sé, cómo me siento.	1	2	3	4	5
5. Me cuesta entender mis sentimientos.	1	2	3	4	5
6. Estoy atento a mis emociones.	1	2	3	4	5
7. Sé exactamente cómo me estoy sintiendo.	1	2	3	4	5
8. Le doy importancia a lo que estoy sintiendo.	1	2	3	4	5
9. Suelo confundirme sobre lo que siento.	1	2	3	4	5
10. Cuando estoy molesto, sé reconocer cuáles son mis emociones (si es rabia, si es decepción...).	1	2	3	4	5
11. Cuando estoy molesto, me enfado conmigo mismo por sentirme de esa manera.	1	2	3	4	5
12. Cuando estoy molesto, me da vergüenza sentirme de esa manera.	1	2	3	4	5
13. Cuando estoy molesto, me cuesta terminar mis trabajos.	1	2	3	4	5
14. Cuando estoy molesto, pierdo el control.	1	2	3	4	5
15. Cuando estoy molesto, creo que estaré así durante mucho tiempo.	1	2	3	4	5
16. Cuando estoy molesto, creo que acabaré sintiéndome muy deprimido.	1	2	3	4	5
17. Cuando estoy molesto, creo que ese sentimiento es el adecuado.	1	2	3	4	5
18. Cuando estoy molesto, me cuesta centrarme en otras cosas.	1	2	3	4	5
19. Cuando estoy molesto, me siento fuera de control.	1	2	3	4	5
20. Cuando estoy molesto, realizo mis labores normalmente.	1	2	3	4	5
21. Cuando estoy molesto, me siento avergonzado de mí mismo por sentirme de esa manera.	1	2	3	4	5
22. Cuando estoy molesto, sé que puedo encontrar una manera de sentirme mejor.	1	2	3	4	5
23. Cuando estoy molesto, me siento como si fuera una persona débil.	1	2	3	4	5
24. Cuando estoy molesto, creo que puedo controlar mi comportamiento.	1	2	3	4	5
25. Cuando estoy molesto, me siento culpable por sentirme de esa manera.	1	2	3	4	5
26. Cuando estoy molesto, me cuesta concentrarme.	1	2	3	4	5
27. Cuando estoy molesto, me cuesta controlar mi conducta.	1	2	3	4	5
28. Cuando estoy molesto, creo que no hay nada que pueda hacer para conseguir sentirme mejor.	1	2	3	4	5
29. Cuando estoy molesto, me enfado conmigo mismo por sentirme de esa manera.	1	2	3	4	5
30. Cuando estoy molesto, empiezo a sentirme muy mal conmigo mismo.	1	2	3	4	5
31. Cuando estoy molesto, creo que solo así debo estar.	1	2	3	4	5
32. Cuando estoy molesto, pierdo el control sobre mi comportamiento.	1	2	3	4	5
33. Cuando estoy molesto, me cuesta pensar sobre cualquier otra cosa.	1	2	3	4	5
34. Cuando estoy molesto, me doy un tiempo para comprender lo que estoy sintiendo realmente.	1	2	3	4	5
35. Cuando estoy molesto, tardo mucho tiempo en sentirme mejor.	1	2	3	4	5
36. Cuando estoy molesto, mis emociones parecen desbordarse (escaparse de mis manos).	1	2	3	4	5