Preliminary findings from RULER Approach in Spanish teachers' emotional intelligence and work engagement

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Abstract

Introduction. The goal of this study was to assess the effectiveness of a socio-emotional learning program, RULER, on enhancing both the emotional intelligence and work-related outcomes in Spanish teachers. Measures included: Ability emotional intelligence, assessed by the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) and work-related outcomes, such as engagement and burnout.

Method. Two private schools from the Autonomous Community of Madrid participated in the study. Once the schools were assigned to experimental or control condition randomly, a total of fifty-four teachers served in the present research, $n=32$ teachers participated in the SEL program, $n=22$ teachers remained as control group.

Results. Multivariate analysis of covariance (MANCOVA) revealed that the SEL group obtained significantly better results in the areas of emotional perception, understanding, and regulation, as also in those related to satisfaction, and commitment to their work, after twenty-four hours of SEL training, across three months, compared with control group.

Discussion and Conclusion: These findings expand the literature on the impact of scientific-based programs in the development of personal resources and social and emotional competence in adult population. The paper also discusses practical implications and future research of socio-emotional interventions among adult population, for the development of personal and professional skills, as key factors for an optimal teaching practice.

Keywords: socio-emotional learning, emotional intelligence, teachers, socio-emotional intervention, professional development.

Resumen

Introducción. El objetivo de este estudio fue evaluar el impacto de un programa de educación socio-emocional, el método RULER, en Inteligencia emocional como habilidad, evaluada por el test de inteligencia emocional Mayer-Salovey-Caruso (MSCEIT), así como en el compromiso y estrés laboral.

Método. Participaron en el mismo dos escuelas privadas de la Comunidad Autónoma de Madrid (España). Una vez que las escuelas fueron asignadas a la condición experimental o control aleatoriamente, un total de cincuenta y cuatro profesores participaron en la presente investigación, grupo RULER (n= 32), grupo control (n= 22).

Resultados. El análisis multivariado de covarianza (MANCOVA) reveló que tras 24 horas de formación repartidas a lo largo de tres meses, el grupo RULER obtuvo resultados significativamente mejores en las habilidades de percepción, comprensión y regulación emocional, así como en variables relacionadas con la satisfacción y compromiso en su trabajo docente, en comparación con el grupo control.

Discusión y conclusiones. Estos hallazgos amplían la literatura sobre el impacto de los programas científicos en el desarrollo de los recursos personales, así como la competencia social y emocional en población adulta. El artículo también discute las implicaciones prácticas y líneas futuras de la intervención socio-emocional en población adulta, para el desarrollo de habilidades personales y profesionales, como factores clave para una óptima labor docente.

Palabras Clave: educación socio-emocional, inteligencia emocional, profesores, intervención socio-emocional, desarrollo profesional.

Introduction

The teaching profession is essentially emotional. The way in which educators process and manage their own emotions, as well as the manner in which they relate to the emotions of their students, is the distinguishing element of an optimal teaching and learning environment (Yin, Lee, Zhang and Jin, 2013; Kurki, Järvenoja, Järvelä, and Mykkänen, 2016). At the same time, this characteristic makes teaching one of the occupations with the highest levels of professional burnout and exhaustion (Betoret, 2009). The high responsibility inherent in the teaching profession, as well as effective responses to students' academic and personal needs, can lead to job dissatisfaction, with there being a consequent risk of work-related stress or burnout (Chang, 2013) and important implications for professionals' mental health (Aloe, Amo and Shanahan, 2014). Emotional competencies for coping with these demands can be a decisive factor in professionals' performance as teachers. Moreover, contextual demands may even be related to emotional and workplace well-being, if the professional in question perceives that she or he has the personal resources needed to deal with them (Bakker, Hakanen, Demerouti, and Xanthopoulou, 2007; De Jonge and Dormann, 2006). These competencies have been conceptualized under the term emotional intelligence (EI), which is defined as the set of mental abilities that facilitate the processing of emotional information (Mayer and Salovey, 1997). The proper recognition, use and understanding of emotions in relation to both oneself and others, as well as effective management of them, are related to cognitive capacities for facing situations of emotional intensity. They encourage the successful resolution of conflicts, more healthy social relations and effective stress management (Mayer, Roberts, and Barsade, 2008). Moreover, the aforementioned skills and, in particular, emotional regulation, are an important source of internal personal resources, which are associated with superior psychological adjustment and emotional well-being (Extremera and Rey, 2016).

Numerous investigations have found how EI skills relate to higher performance, professional success, better working conditions and improved coping strategies among different professional groups (Blanco-Donoso, Demerouti, Garrosa, Moreno-Jimenez and Carmona, 2015). They provide greater tolerance of stress and, therefore, greater engagement or positive emotionality at work (Blanco-Donoso et al., 2015). In contrast, professionals with weaker emotional skills are characterized by their having a more negative interpretation of the demands of the environment, their own activities and their perception of self-efficacy, and so

they implement more maladaptive coping styles (Johnston, Hansen, Birney and Stough, 2010).

These associations have additionally been observed in samples of teachers. EI skills facilitate more affective relationships and more positive expectations, and they elicit more optimal responses in relation to the individual's environment (Brackett, Palomera, Mojsa-Kaja, Reyes, and Salovey, 2010). In general, these skills can promote the effective management of challenging situations, optimize relations, acknowledge limitations, model, influence students' behaviour/performance, attend to their personal needs, and facilitate the establishing of appropriate academic goals (Saklofske, Austin, Mastoras, Beaton and Osborne, 2012). Therefore, these processes—which are both emotional and social—seem to underpin superior workplace well-being and optimal performance on the part of these professionals (Rey, Extremera, and Pena, 2016).

Programmes for the development of emotional intelligence

Programmes for developing EI skills, which in the literature are called social and emotional learning (SEL) programmes, are based on promoting five sets of emotional, cognitive and behavioural competencies: (a) *self-awareness skills; (b) emotional management; (c) social awareness; (d) interpersonal relations and (e) responsible decision making* (Durlak, Domitrovich, Weissberg, and Gullotta, 2015). In this regard, the *ability model of EI* (Mayer and Salovey, 1997) conceptualizes and integrates these competencies in a single, scientifically sound and easily assessable construct (Mayer, Roberts and Barsade, 2008). SEL programmes are based on the promotion of social and emotional aspects from an early age in order to prevent problems and to develop mechanisms for optimal psychological adjustment (Durlak, Weissberg, Dymnicki, Taylor and Schellinger, 2011).

Effectiveness of SEL programmes among students

The effectiveness of SEL programmes has been demonstrated in various studies and has been supported by recent reviews focused on these initiatives (Durlak et al., 2011; Durlak et al., 2015). In particular, there is ample scientific evidence showing the positive impact of these initiatives in the development of socio-emotional competencies in relation to conflict resolution and class atmosphere (Hagelskamp, Brackett, Rivers, and Salovey, 2013; Reyes, Brackett, Rivers, Elbertson and Salovey, 2012). The same is true when it comes to students'

mental health and psychological adjustment (Ruiz-Aranda, Castillo, Salguero, Cabello, Fernández-Berrocal and Balluerka, 2012), the development of prosocial behaviour and reduction in aggressive behaviour (Castillo, Cabello, Herrero-Lázaro, Rodríguez-Carvajal and Fernández-Berrocal, in review; Castillo, Salguero, Fernández-Berrocal and Balluerka, 2013), and increased academic performance and school outcomes, compared to students who did not receive such programmes (Brackett, Rivers, Reyes and Salovey, 2012).

SEL programmes aimed at the educational community in general

However, the impact of such SEL initiatives does not have to be limited only to students; it can also be extended to teachers and the educational community in general. Moreover, it is accepted that education professionals must have a range of socio-emotional competencies to be an effective model of emotional management when faced with students, to resolve new situations or to respond to conflicting scenarios (Jennings and Greenberg, 2009). There is an erroneous impression that these competencies are personal characteristics that teachers either possess or not based on luck, or at best that they have the opportunity to develop them over their professional career, and that little can be done to develop them through formal training (Pérez-Escoda et al., 2012; Talvio et al., 2013). However, an area that holds promise, but about which so far barely any evidence has been obtained, is the benefit that education professionals may obtain from receiving intervention programmes for developing and mastering EI skills (Jennings and Greenberg, 2009), not only because of the direct impact on the optimal development of their students and on improvement of their performance, but also because of the effect of the aforementioned skills on the personal and professional development of the teachers themselves. In particular, according to previous research, these competencies can decisively facilitate teachers' personal growth and emotional well-being, as well as the development of their engagement in and satisfaction with their teaching duties, aspects that are very relevant to promoting more effective educational environments (Brackett et al., 2010).

Among the most significant effects of such interventions is the impact on the quality of interpersonal relationships and the development of a positive climate in class that involves both students and teachers. It has been shown that classrooms in which SEL programmes are integrated are characterized by the achieving of a more positive educational climate for learning, higher levels of motivation among both teachers and students, and better relations between these two groups (Castillo, Fernández-Berrocal, and Brackett, 2013; Roeser, Skinner,

Beers, and Jennings, 2012; Talvio et al., 2013). Previous research also shows how programmes of this kind successfully increase and develop EI and self-efficacy skills among teaching staff (Pool and Qualter, 2012). These results therefore indicate an important way to enhance the effectiveness and quality of the teaching and learning process (Natahnson, Rivers, Flynn and Brackett, 2016). One of the SEL programmes aimed at the educational community in general, the main idea of which is to train in and improve a number of variables that are relevant to personal and professional well-being, is the RULER Approach (Bracket and Rivers, 2013), which is centred on an approach that promotes EI skills and is scientifically based on the theoretical model of EI as a skill (Mayer and Salovey, 1997). RULER consists of a series of tools and educational practices that are integrated into the school curriculum (Natahnson, et al., 2016). However, results concerning the effectiveness of SEL programmes among an adult population (Pool and Qualter, 2012) are still very scarce, and even scarcer in Spanish educational contexts, so it is necessary to delve into the potential implications and benefits during adulthood.

Evaluation of socio-emotional competencies with MSCEIT

One of the problems with research in the area of SEL interventions concerns the evaluation measures and theoretical approaches that underpin the described socio-emotional competencies. Specifically, the ability model of EI conceives these competencies as mental skills. They therefore must be measured by execution tasks, as this concept requires techniques that evaluate a person's actual implementation of them in a given situation. The results found with MSCEIT confirm the nature of the EI construct as a clearly defined mental ability with appropriate structural validity, in terms of both the branches or factors that make up the measure and the overall score (Mayer, Salovey and Caruso, 2002; Extremera and Fernández-Berrocal, 2009). Additionally, confirmatory factor analysis has shown the appropriateness of the original hierarchical model for EI in a large Spanish sample (Sánchez-García, Extremera and Fernández-Berrocal, 2016). Therefore, the conceptualization of EI abilities included under the theoretical model described makes it possible to transcend the most stable concepts theoretically included in mixed models (e.g., Bar-On, 2006; Petrides and Furnham, 2003), such as motivation, optimism or tolerance of stress, in order to analyse the specific contribution of these competences in a precise way (Mayer, Roberts, and Barsade, 2008). Therefore, MSCEIT provides a way to evaluate such competencies in a precise and objective manner, as well as to observe the impact of intervention programmes with real implementation measures.

Objectives and hypotheses

The *objective* of this study is to verify the effectiveness of the RULER Approach—a programme based on the ability model of EI (Mayer and Salovey, 1997)—in the context of evaluating SEL programmes. We *hypothesize* that the RULER Approach will have a positive effect on the development of EI skills (evaluated by a real execution task) as well as on workplace satisfaction, the level of engagement in and commitment to teaching and reduction of the levels of workplace stress and burnout.

Method

Participants

The sample was composed of 54 professionals (teachers and managers, of which 79% were women) from two schools in the Comunidad de Madrid region of Spain: School 1 (Experimental) and School 2 (Control). Both schools are private and are located in the same area, a residential, socio-economically upper-middle class part of Madrid. The two schools have similar curricular projects, share the same educational consultant and have a similar methodological model—that is, they use methodological strategies based on Gardner's multiple intelligences (Gardner, 1983) and Kagan's cooperative learning (Kagan, 1994). The teachers' ages ranged from 23 to 59 (M=35.98; SD=8.45). In total, 27% of the teachers worked at the early-childhood age (3-5 years), 51% at the primary age, 12% at high school level and 6% in primary/secondary teaching. The remaining 4% formed part of management and orientation teams. Teachers belonging to the experimental school received the intervention programme. The group of teachers who received the RULER training comprised 32 participants (27 women) aged between 23 and 56 (M=34.06; SD=7.16). They had between 1 and 20 years of experience (M = 7.54; SD = 4.54). Similarly, the control group comprised 22 participants (16 women) aged between 25 and 59 (M=39.41;) (SD=9.60). They had between 4 and 15 years of experience (M=9.08; SD=3.53). All participants in the research gave their informed consent for the variables under study to be evaluated.

Instruments

Emotional intelligence (MSCEIT; Mayer, Salovey and Carruso, 2002), Spanish adaptation (Extremera and Fernández-Berrocal, 2009). This execution measure for EI evaluates

each of the branches of the ability model of EI using 141 items, organized in 4 branches or main areas of the construct: *Emotional perception*, measured by means of 2 subscales that evaluate the identification of emotions through facial expressions and images. *Emotional facilitation*, which includes another 2 subscales that evaluate to what extent emotions can be used in different situations and the way in which they may be associated with feelings. *Emotional understanding*, which includes two subscales that evaluate knowledge about the combination of emotions, causes and consequences, as well as the evolution and the development of them. *Emotional regulation*, which is made up of another 2 subscales that evaluate the use of efficacious emotional regulation strategies to handle one's own emotions and those of others. This scale's particularity is that the results correspond to the person's actual execution when faced with different tasks and emotional situations. Correct answers are graded according to a benchmarking criterion. The reliability coefficients for the four branches range from 0.71 to 0.92 (Mayer, Salovey, et al., 2002; Extremera and Fernández-Berrocal, 2009; Sánchez-García, Extremera and Fernández-Berrocal, 2016).

Work engagement. We used the Spanish version of the Utrecht Work Engagement Scale (UWES; Schaufeli, Salanova, González-Romá, and Bakker, 2002). The instrument defines work engagement as a positive workplace mind state. It is a 7-point Likert scale (0=*never* to 6=*always*) composed of 15 items distributed over three factors: *Vigour*, defined as high levels of energy and mental resilience while working, as well as a willingness to make an effort in one's own work and persistence in the face of difficulties. *Dedication*, referring to the sense of meaning, inspiration, pride and challenge at work; and *Absorption,* a dimension related to complete concentration and engagement at work, in which it seems that difficulties cease and the time passes quickly. In our sample study, we obtained rates of $\alpha = 0.87$ (vigour); $\alpha = 0.90$ (dedication) and $\alpha = 0.87$ (absorption).

Burnout To evaluate burnout or work-related stress, we used the Spanish version of the Maslach Burnout Inventory (MBI-ES; Maslach, Jackson, and Leiter, 1996). This is a Likert scale of 22 six-point items (1=*never*; 6=*always*). It is designed to assess three aspects of burnout: *Emotional exhaustion*, which describes the degree of work-related stress; *Depersonalization*, which evaluates cognitive distancing, indifference or a cynical attitude while working; and *Personal accomplishment*, which is related to feelings of efficacy and achievement at work (unlike the previous two dimensions, low levels of this aspect correspond to high le-

vels of burnout). This instrument has shown appropriate psychometric indices (Seisdedos, 1997). In relation to our study sample, we obtained rates of $\alpha=0.83$ (emotional exhaustion); $\alpha=0.48$ (depersonalization) and $\alpha=0.90$ (personal accomplishment).

Procedure

The present research is a quasi-experimental pre-post study with one experimental group (school 1) and one control group (school 2). The research group made a formal proposal to the management of the schools for them to participate in the study. The two schools voluntarily decided to participate. We randomly assigned experimental status to school 1, and school 2 served as the control group. The pre-test data were collected from both the experimental sample and the control sample before the RULER training began. Post-test data were obtained from both the experimental group and the control group a year later.

Intervention: The RULER Approach

The idea that emotions are essential for learning, decision making, and academic, social, and personal success is the foundation on which the RULER approach is built. RULER is a SEL intervention based on the theoretical model of the four branches of EI described previously (Mayer and Salovey, 1997). The training pursued the following objectives: (a) develop teachers' emotional skills in learning; (b) exploit emotional skills to become good educational professionals and improve personal/professional relations; (c) deal with stress; and (d) establish and build the necessary requirements to integrate RULER tools within the school's educational curriculum. Teachers received training covering the four tools that comprise the foundations of emotional education. These are intended to be applied first on their own and integrated into teachers' daily personal/professional lives for several months, and they are then to be taught and integrated in their classes. For a description of the tools, content and procedures, see Brackett, Rivers, Maurer, Elbertson, and Kremenitzer (2011). Specifically, SEL training is conceptualized on the basis of five key skills that make up the RULER acronym:

• Recognizing emotions to obtain valuable information on the environment;

• Understanding the causes and consequences of the emotions of the educational community to predict behaviour;

• Labelling emotions to describe emotional experience in a precise and complete way;

• Expressing emotions to communicate properly and according to the context;

• Regulating one's own emotions to exploit the constructive power of emotions.

Skills training focused on accurately perceiving emotions at both the personal and interpersonal levels, understanding emotional information and acquiring a repertoire of skills to handle negative emotions is one of the more promising paths for producing teachers who are more positive and effective in educational organizations. However, few initiatives, especially in Spain, have concentrated their efforts on improving emotional competencies among teachers and education managers, in spite of the fact that these competencies have been widely associated with cognitive, social and personal development among an adult population (Mayer, Roberts and Barsade, 2008). RULER, however, promotes a change in school culture and an integration of the foundational tools in its educational project, as well as in curricular objectives. For a recent review and a description of the theory of change, tools and evidence, see Nathanson, Rivers, Flynn and Brackett (2016).

In the present study, the teachers, all of whom worked at the same school, received extended training over a 3-month period. Training consisted of 24 contact hours conducted over 8 sessions of 3 hours outside working hours. This first phase of training was based on having the teachers learn the foundations of emotional education with four tools *(Charter, Mood Meter, Meta-Moment and Blueprint).* These RULER tools promote personal and social awareness of emotions, improve one's ability to understand and regulate one's own emotions and increase empathy and taking perspective. They improve class atmosphere and develop skills in interpersonal emotional management and regulation. For a full description of the tools that make up the approach, see Brackett et al. (2011).

Data analysis

Firstly, descriptive analyses and reliability indices of the measures used were conducted. Second, analysis of correlations between the variables of EI, work engagement and burnout was performed. Student's t-test analysis was then performed for each of the variables at pre-test level in order to examine if there were significant differences between the experimental and control groups prior to the intervention.

To assess the effectiveness of the intervention in relation to EI skills and variables related to workplace well-being, multivariate analysis of covariance (MANCOVA) was performed for each of the variables of interest (EI, engagement and burnout). This statistical

analysis made it possible to evaluate the inter-subject effectiveness of the intervention at the post-test level for each of the dependent variables. Sex and pre-test measures were included as covariables. The effect sizes were calculated using partial η^2. These data were analysed using the SPSS 22.0 statistical package.

Results

Descriptive analyses and reliability indices

The results for means and standard deviations and the reliability coefficients of the variables examined in this study are presented in Table 1.

Table 1. Descriptive statistics and reliability indices

	N	*Mean*	*SD*	*Cronbach's α*
1. Emotional perception	54	103.60	12.93	0.92
2. Emotional facilitation	54	99.04	10.07	0.71
3. Emotional understanding	54	100.91	11.15	0.80
4. Emotional regulation	54	104.59	11.93	0.83
5. Vigour	54	5.16	0.66	0.87
6. Dedication	54	5.45	0.57	0.90
7. Absorption	54	4.97	0.94	0.87
8. Exhaustion	54	2.07	1.00	0.83
9. Depersonalization	54	0.66	0.73	0.48
10. Personal accomplishment	54	5.05	0.56	0.90

Correlational analysis

The results of the analysis of correlation between the variables of *emotional intelligence*, *engagement* and *burnout* can be seen in Table 2.

Table 2. Analysis of correlation between different variables

	1	2	3	4	5	6	7	8	9	10
1.Emotional perception	----	0.53**	0.15	0.45**	0.24	0.31*	0.03	-0.26	-0.20	0.16
2.Emotional facilitation		----	0.21	0.42**	0.26	0.26	0.08	-0.08	-0.21	0.13
3.Emotional understanding			----	0.19	0.06	0.00	0.00	-0.02	0.14	-0.05
4. Emotional regulation				----	0.23	0.23	0.27*	-0.05	-0.21	0.11

5. Vigour	----	0.61**	0.38**	-0.27*	-0.17	0.61**
6. Dedication		----	0.59**	-0.22	-0.17	0.57**
7. Absorption			----	-0.15	-0.19	0.57**
8. Exhaustion				----	0.38**	-0.33*
9. Depersonalization					----	-0.14
10. Personal accomplishment						----

** *p<0.01*

Pre-test differences

At the pre-test level, the results showed no significant differences for the variable of *EI* [Wilks's lambda *F* (4.56)=0.06; *p*=0.99]. Nor were significant differences for the measure of *work engagement* [Wilks's lambda *F* (3.59)=0.68; *p*=0.56] found. Similarly, the results also showed differences between groups at the pre-test level for the variable of *burnout* [Wilks's lambda *F* (3.58)=2.30; *p*=0.86]. See Table 3.

Table 3. Pre-test measures for experimental and control groups

	Pre-test			
	RULER (*n*=32)		control (*n*=22)	
	M	*SD*	*M*	*SD*
Emotional intelligence				
Perception	103.73	2.06	102.58	2.55
Facilitation	99.64	1.66	98.79	2.06
Understanding	101.95	1.95	102.33	2.42
Regulation	105.11	1.98	105.37	2.46
Engagement				
Vigour	4.96	0.14	5.24	1.97
Dedication	5.32	0.14	5.42	0.19
Absorption	4.85	0.17	5	0.24
Burnout				
Emotional exhaustion	1.8	0.16	2.38	0.2
Depersonalization	0.55	0.12	0.81	0.15
Personal accomplishment	4.82	0.14	5.08	0.17

RULER Effectiveness

Table 4 shows the means and standard deviation at the post-test level. With the aim of testing the effectiveness in period 2 (post-test) between the experimental group and the control group, MANCOVA analysis was conducted. The results show that teachers who received RULER training—as opposed to teachers in the control group—obtained higher scores significantly in *EI* skills [Wilks's lambda F (4.43)=7.95; p=0.00; η^2=0.42], in *engagement* [Wilks's lambda F (3.46)=6.85; p=0.00; η^2=0.31] and in *burnout* [Wilks's lambda F (3.47)=3.60; p=0.02; η^2 =0.19]. In particular, the univariate contrasts indicate that teachers who received training obtained higher scores in the dimensions of *perception and emotional regulation and understanding* , although the effect was not significant for the dimension of *emotional facilitation*, in comparison to the control group. On the other hand, the training was effective for all dimensions of engagement*, vigour, dedication* and *absorption*, as well as for the positive dimension of burnout, *personal accomplishment* at work. However, there was no significant effect on the variable of *depersonalization* or in a reduction in levels of *emotional exhaustion.*

Table 4. Post-intervention differences between experimental and control groups

		RULER (*n*=32)		control (*n*=22)			
		M	*SD*	*M*	*SD*	*p*	η^2
Emotional intelligence							
	Perception	101.48	13.24	92.66	14.74	0.008	0.14
	Facilitation	93.1	9.75	90.45	14.45	0.343	0.02
	Understanding	106.65	10.35	89.62	14.5	0.001	0.37
	Regulation	107.2	12.66	95.33	17.33	0.004	0.17
Engagement							
	Vigour	5.21	1.09	4.59	0.91	0.001	0.22
	Dedication	5.34	1.21	4.6	0.88	0.001	0.23
	Absorption	4.94	1.17	4.49	0.97	0.044	0.07
Burnout							
	Emotional exhaustion	1.73	0.89	2.43	0.93	0.114	0.05
	Depersonalization	0.52	0.66	1.07	0.93	0.054	0.08
	Personal accomplishment	5	1.06	4.56	1.25	0.018	0.11

Note: Sex, age and pre-test measures were used as covariables in all analysis.

Discussion and Conclusions

The present study provides empirical support in relation to the positive impact that an SEL programme, the RULER approach, has on skills of *emotional perception, regulation and understanding*, as well as on the promotion of aspects related to *workplace performance* and *satisfaction* in a sample of Spanish teachers, compared with an equivalent control group that did not receive the same training. Our findings support previous research that shows how EI skills provide resources and strategies to deal with high emotional demands, thereby allowing superior satisfaction and well-being and a better quality of interactions, particularly among teachers (Brackett, Palomera, Mojsa-Kaja, Reyes and Salovey, 2010; Saklofske et al., 2012). The results obtained partially support our hypothesis. We can conclude that the RULER approach has a positive impact on EI competencies, specifically when it comes to understanding emotional information and the causes and consequences of emotions, using a broad emotional vocabulary and acquiring a repertoire of skills for managing emotions. And it seems that it halts loss of emotional perception and has been effective in promoting positive workplace variables (e.g., feelings of personal accomplishment, achievement and efficacy while working, as well as all variables related to work engagement, such as energy, concentration, pride and motivation in relation to professional performance). As a result, it facilitated greater emotional well-being and work engagement relative to the results obtained from the comparison group. However, no significant differences in levels of burnout were obtained. It seems that this may be because teachers began to include in their educational practices tools that facilitate encouragement of personal and social awareness, as well as promotion of a positive educational climate and effective conflict management. The use of tools of this type during the academic year raises the possibility that it provides greater opportunities for group work and more positive social interactions among students and teachers, as well as greater effectiveness in the management, perception and handling of emotions by teachers, which is crucial in promoting greater subjective perception of one's accomplishment and efficacy, greater tolerance to stress, positive affect while working, and better socio-emotional competencies and emotional adjustment (Brackett et al., 2010; Kurki, et al., 2016; Rey et al., 2016; Yin et al., 2013).

However, it should be noted that, in view of the results, the differences obtained indicate that in the group that received SEL training, increase EI skills and variables related to

workplace well-being, while in the control group, scores in these variables decreased. Specifically, *emotional perception* declined slightly in the RULER group, but fell fairly sharply in the control group. In the dimension of *emotional facilitation*, both measures decreased, although the decline was more pronounced in the control group. As for *emotional understanding*, there was an increase of almost five points in the experimental group, while there was a decrease in the control group. Finally, *emotional regulation* increased by two points in the experimental group, while it decreased in the control group. In a similar vein, these results were also reflected in the workplace variables, in which there were significant differences between the two conditions. Specifically, all variables related to *work engagement* and *satisfaction* slightly increased in the experimental group, while the control group reported a lower perception of workplace well-being. This divergent evolution in each of the two groups throughout the academic year is therefore what makes the differences particularly significant. Based on these results, we can assert that the RULER group fundamentally managed to develop the variables under study over the course of an academic year, while in some cases slowing decline. However, this may be due to the fact that, as post-test evaluation was conducted an academic year later, there is a general trend of a decrease in the outcomes studied with student's course (Anaya and López, 2014; Anaya and López 2015). We may therefore suppose that RULER can prevent and in some cases reduce this decrease.

In view of the results, there is evidence that RULER tools are effective among an adult population. However, it seems that some competencies are more likely to be developed or improved than others. There are two branches of EI that did not increase in this study, namely *emotional facilitation* and *perception*. This may be due to the nature of the dimensions themselves. First, there is some criticism of the branch of emotional perception as it is assessed by MSCEIT, and this criticism could explain the results obtained—that is, there is an absence in the questionnaire of tasks that assess emotional perception at the individual level, or tasks to measure the ability via photographs or artistic designs. It seems that this branch is not susceptible to substantial changes, as MSCEIT's authors themselves have recognized (Mayer et al., 2008). On the other hand, it is possible that developing the facilitation branch may require a more continual use of RULER tools in order to be able to increase the capacity to use emotions in certain cognitive processes, in decision making or in relationships. Presumably, then, the effects in these branches may become visible in successive follow-up evaluations. Moreover, this lack of results is consistent with recent research among an adult population (Pool and Qualter, 2012). It seems, therefore, that when the effects of an intervention are eva-

luated, the results in the emotional facilitation branch are not so easily identifiable (MacCann, Fogarty, Zeidner, and Roberts, 2011).

On the other hand, the lack of results found with regard to a reduction in the levels of burnout may have come about because the sample of teachers who participated in this study did not experience sufficient levels of burnout or workplace stress, which would make it very difficult to obtain a certain effectiveness from the training if the levels in this dimension are very low to begin with (Pena and Extremera, 2012; Pena, Rey and Extremera, 2012). Specifically, the dimension of *depersonalization* is a particularly controversial variable when assessing teaching professionals. In fact, our sample of teachers had a reduced value of α=0.48. Therefore, the lack of effect may relate to a social desirability bias in reference to items that clasify students as if they were objects, or to a cynical attitude or insensitivity.

Limitations and future directions

The most important limitation of this work is the size of the sample and the lack of randomization at the level of the participants. The nature of the study itself and difficulties in terms of access to the sample or to schools that will allow the SEL intervention to be applied in a way that substantially involves their teaching staff and management are some of the reasons behind this limitation. The inclusion of a greater number of participants in a way that balances the levels of men and women in the training would make it possible to explore the existence of differences based on gender. In addition, the participation of a single school as the experimental group and another as the control group, does not make it possible to generalize the results to other Spanish samples, and so the participation of other schools would have made it possible to compare the effectiveness of the intervention among different professionals from other educational contexts (public or state assisted ones) and other socio-economic areas. Another important limitation is that the school that served as a control group to compare the effectiveness of the training, did not receive any kind of training at that time, and so comparison with other equivalent training would have been useful to compare and test the effectiveness of the SEL intervention. A third limitation in terms of workplace variables is the use of self-reporting measures. Therefore, for future research we suggest the inclusion of more objective measures of professional performance, satisfaction and work engagement, as well as evaluation by colleagues and students and/or within the professional environment. Moreover, we suggest that the effectiveness of this type of initiative be evaluated in the medium and

long term, including follow-up measures from 3 or 6 months, in order to assess the stability of results. In addition, it would be interesting to measure the impact on students with academic performance measures, psychosocial adjustment and school atmosphere among others, in order to test the implications of SEL development in the whole school community. In fact, there is extensive scientific evidence that shows the impact that variables related to work satisfaction or engagement in the teaching profession can have on the atmosphere that students need to experience if they are to perform and even develop in an optimal way. The absence of these variables may have important implications on the academic performance and motivation of students, and even on their mental health (Oberle and Schonert-Reichl, 2016; Reyes, Brackett, Rivers, White and Salovey, 2012).

This study aims to contribute to advancing our knowledge on the impact of the effective development of EI skills among an adult population. For the moment, in Spain, few initiatives have concentrated their efforts on assessing the effectiveness of SEL programmes. Despite their widely demonstrated relevance in the educational context, there is still an insufficient number of studies on the effectiveness of these initiatives among teachers and educational leaders. In addition, our research provides evidence of the effectiveness of a scientifically based training programme founded on the ability model of EI (Brackett and Rivers, 2013). The implementation of scientifically structured training and the use of execution measures and self-reporting measures—widely validated in the Spanish context—represent two of this study's strong points. The results have shown that teachers who received training in EI significantly increased their EI skills (emotional regulation and understanding) as measured through execution tasks (MSCEIT), as well as their work engagement and satisfaction. The results represent one of the most promising paths for encouraging an improvement in workplace, personal and social performance among teachers, given its influence on the development of more productive teaching and learning environments and a more optimal class environment (Aloe et al., 2014). In conclusion, SEL training can be a key tool for promoting workplace well-being and professional development among teachers in Spanish educational contexts.

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