Improving socio-emotional competencies in pre-school pupils through emotional education

Mejora de las competencias socioemocionales en alumnos de educación infantil a través de la educación emocional

Noelia SALAS ROMÁN. Teacher. CEIP Pérez de Hita state primary school (*noelasalroman@hotmail.es*).
Margarita ALCAIDE RISOTO, PhD. Associate Professor. Universidad Camilo José Cela (*malcaide@ucjc.edu*).
Carlos HUE GARCÍA, PhD. Psychologist (*carloshuegarcia@gmail.com*).

Abstract:

Working with pupils on appropriate social-emotional education in schools will bring numerous benefits for human beings and for the society of the future (Monjas and González, 2000). The objective of this research is to verify to what extent the students who participate in the programme significantly improve their emotional and social competence. The method used was a quasi-experimental pre-test/post-test design with a non-equivalent control group. Statistical analysis was performed using IBM SPSS software (version 25.0) and the EXCEL spreadsheet (Microsoft Office 2019) and the non-parametric Wilcoxon and Mann Whitney test was used to see if there were statistically significant differences between the different groups. A total of 173 5-year-old pupils participated in the study, of which 89 were from the experimental group and 84 from the control group, all of them from Murcia (Spain). The experimental group was enrolled in the Annual Emotional Intelligence Programme (EMOTI[1]) (Hurtado and Salas, 2019), and the measuring instrument used was the questionnaire for students on social competence (Caruana and Tercero, 2011). The results showed that the children who participated in the study were less aggressive and showed greater social and communicative competence. After the programme, the pupils in the experimental group interact with each other in a more sociable way and better express their emotions; they develop less violent behaviour and better know how to resolve conflict situations, which has a very positive impact on their emotional and social development.

Keywords: violent behaviour, emotional intelligence, infant education, social competencies, conflict.

Resumen:

Trabajar una adecuada educación socioemocional en las escuelas con los alumnos va a reportar numerosos beneficios para el ser humano y para la sociedad del futuro (Monjas y González, 2000). El objetivo de esta investigación es comprobar en qué medida los alumnos que participan en el programa mejoran significativamente su competencia emocional y social. El método que se utilizó fue un diseño cuasiexperimental pretest-postest con grupo control no equivalente. Se realizó el análisis estadístico mediante el software IBM SPSS (versión 25) y se utilizó la prueba no paramétrica de Wilcoxon y Mann Whitney para ver si había diferencias estadísticamente significativas entre los diferentes grupos. En el estudio participaron un total de 173 alumnos de 5 años, de los cuales 89 eran del grupo experimental y 84 pertenecientes al grupo control, todos ellos de Murcia (España). Al grupo experimental se le aplicó el Programa Anual de Inteligencia Emocional (EMOTI[1]) (Hurtado y Salas, 2019) y el instrumento de medida utilizado fue el cuestionario dirigido a alumnos sobre competencia social (Caruana y Tercero, 2011). Los resultados manifestaron que los niños que participaron en el estudio son menos agresivos y tienen mayor competencia social y comunicativa. Tras la aplicación del programa los alumnos del grupo experimental interactúan entre sí de manera más sociable y expresando sus emociones; desarrollan menos conductas violentas y saben resolver situaciones de conflicto, lo que repercute muy positivamente en su desarrollo emocional y social.

Descriptores: conductas violentas, inteligencia emocional, educación infantil, competencias sociales, conflicto.

1. Introduction

The term 'emotional intelligence' has its precedent in what has been defined as social intelligence (Rodríguez, 2013).

Within the field of psychology, specifically that of learning, Thorndike (1920) formulates the term 'social intelligence' as "the ability to understand and manage men and women, boys and girls —to act wisely in human relations" (p. 228).

Social intelligence, according to Bisquerra (2009), refers to:

A model of personality and behaviour which includes a series of elements such as social sensitivity, communication, social understanding, moral judgement, resolution of social problems, a pro-social attitude, empathy, social skills, expressiveness, an understanding of people and groups, getting along with people, being warm and caring towards others, being open to new experiences and ideas, the ability to gain perspective, knowledge of social norms, social adaptability, etc. (p. 122).

The origin of the term 'emotional intelligence' began with Gardner's theory (1983), as it was included for the first time

in the concept of intelligence in social relationships and personal skills. According to this author, along with other kinds of intelligence, there are interpersonal and intrapersonal intelligences, which are the foundation of what we now know as emotional intelligence. Taking this significant influence on intelligence as the starting point, the theories that have defined measurement indicators have always taken this socio-emotional perspective into consideration (Peinado and Gallego, 2016).

Mayer and Salovey (1997) believe that:

Emotional Intelligence involves the ability to accurately perceive, appraise, and express emotions, the ability to access and/or generate feelings when they facilitate thought, the ability to also understand emotion and emotional knowledge, and the ability to regulate emotions that promote emotional and intellectual growth (p. 10).

For Goleman (1995 p.68), emotional intelligence "is a meta-ability determining how well we can use whatever other skills we have." He considers it to be the most significant aspect of those involved in personal balance, successful personal interactions, and workplace performance.

Mestre et al. (2017) maintain that it is the ability to resolve problems when the information we use originates in our emotions.

Emotional intelligence is the capacity to recognise our own and others' emotions and to be able to regulate them. It includes all the skills which help us resolve conflicts related to emotions and feelings (Bisquerra et al., 2015). For these authors, recognising

what is happening to us and knowing how to behave accordingly are characteristics that will have repercussions on human well-being, and this can only be achieved through emotional education.

In recent decades, there has been an increase in scientific interest when it comes to studying the importance of emotional intelligence at school and its relevance in the educational environment (Alfaro et al., 2016; Salavera et al., 2017). To develop socio-emotional competence in the early years, the pre-school stage is an ideal time for preventive and educational procedures designed with the aim of fostering social and emotional development and the acquisition of social skills (Erath, 2011).

School is the best place to develop programmes which promote the development of socio-emotional skills and interaction with others, through offsetting or eliminating any problematic behaviours that the child may acquire during their development (Armas 2007).

Education provides life-long tools and it is essential to take care of emotional development, being a vital element in cognitive development. This involves strengthening pupils' emotional competence in order to foster a positive attitude to life, as well as their development in social skills and empathy in order to improve their interactions with others (Bisquerra, 2009).

Emotions are one of the factors involved in the construction of our personality and the way in which we relate to society, influencing a person's developmental processes

and how they establish secure socio-affective relationships (Cruz et al., 2021).

In the first stages of schooling, emotional development plays an important role in life and it is a prerequisite for children to progress in the different areas of their development. Teachers consider this work to be necessary and, therefore, the real educational challenge is to set educational objectives, which are put into effect through activities that foster children's emotional growth (Viloria, 2005).

Parents and teachers are role models in the learning process and in the concept a child has of themselves, which means that if the teacher shows trust and respect to their pupils and if they allow children to express their feelings, etc., the pupils' self-esteem can grow; if, on the other hand, the teacher does not respect their pupils, they ridicule them, or they do not let them express their emotions, etc., the pupils will only focus on their own defects and limitations, leading to lower self-esteem among these pupils and consequently in their social relationships (Romera, 2017; Sainz and Serrada, 2019).

For Goleman (1995), education of emotions is necessary, and in several countries, educational programmes are already being put into practice with the aim of achieving greater social and emotional development among pupils, thereby increasing their emotional intelligence. The emotional development of pupils is not a one-person task; it involves the family and school sharing knowledge.

According to Frías (2015), schools successfully offering programmes in social and emotional learning, as well as improving the acquisition of socio-emotional skills, have reported an increase in academic success, an improvement in teacher/pupil relationships, and a decrease in behavioural problems (Cerda et al., 2019).

In this sense, the 'Annual EMOTI Programme in Emotional Intelligence for Pre-School Education' (*Programa Anual EMOTI de inteligencia emocional para la educación infantil*) (Hurtado and Salas, 2019) used in this research, has the backing of the Department of Education and Culture of Murcia (Resolution of 10 October, 2018) as well as the Department of Education and Sports of the Regional Government of Andalusia (Resolution of 8 July, 2019), and has been certified by the Spanish Association of Emotional Education.

This is a prevention programme with a universal approach based on a model of emotional and cognitive skills, with the objective involving the child's overall development, as specified in the formal curriculum for the pre-school stage. Therefore, it takes a three-track approach: biological, psychological, and socio-emotional, focusing on the child's affective development and personality. It is composed of four areas of emotional competence, of which the first three are included in intrapersonal competencies (knowing oneself), and the fourth area concerns interpersonal competencies (knowing others). Each area contains 6-7 activities, which comes to 25 activities in addition to two more annually, making a total of 27 activities. All the areas work on empathy as a common core idea (see Graph 1).

GRAPH 1. Areas of emotional competence in the EMOTI programme.
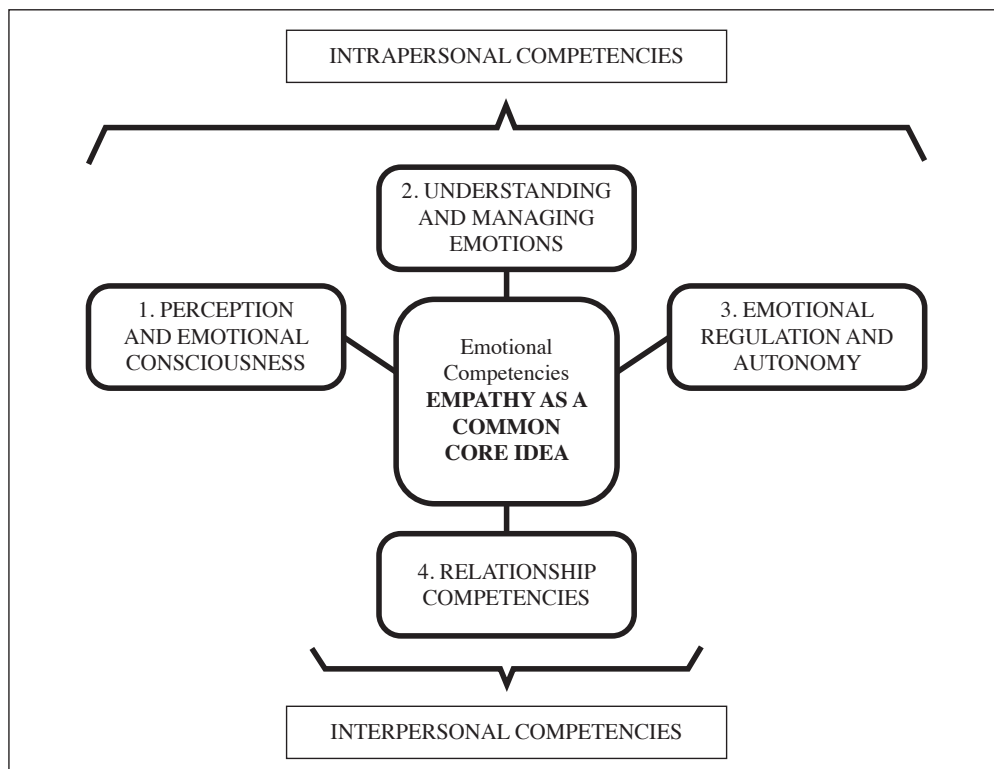
Source: Hurtado and Salas, 2019.

Proper emotional development significantly affects a person's interpersonal and academic development. Childhood is the best stage to deal with learning socio-emotional skills, abilities, and competencies, which will lay the foundations for personality in adulthood (Frías, 2015).

According to Salas et al. (2018), it has been shown empirically that it is in childhood, within the family during the early years and later at school, when habits and routines are formed and persist into our adulthood. For this reason, it is of vital importance to implement intervention programmes that foster emotional intelligence at this stage, when we can create healthy habits and routines by providing children with strategies to resolve conflicts and develop social skills such as empathy, expressing feelings, and working cooperatively.

The reason why the conduction of scientific studies on pupils in the pre-school stage is of great importance is because it was found in literature on the subject that there are not many studies either for this educational stage or for the field of emotional intelligence and socio-emotional competencies, so the goal is that this study may provide data and shed light on these topics warranting further research. Therefore, there should be greater assessment of and scientific interest in the pre-school stage in order to achieve greater benefits and results than are currently being attained.

2. Methods

2.1. Objectives

The objectives proposed are as follows:

1. 1. To check if the pupils in the experimental group interact among themselves in a more sociable way by expressing their emotions than those in the control group.

2. 2. To confirm whether the children show fewer violent behaviours and are better at resolving conflict after the implementation of the programme than the pupils in the control group.

2.2. Design

In relation to the research design, a quasi-experimental pre-test/post-test design was used with a non-equivalent control group. Two measurements were taken, one at the start of the course and another at the end, both for the control group and the experimental group, who followed the 'Annual EMOTI Programme in Emotional Intelligence for Pre-School Education from 3-6 years' (Hurtado and Salas, 2019)

The participants completed the questionnaires, signing the informed consent form in order to participate in the study. Their decision to take part was voluntary, and anonymity and confidentiality were guaranteed in relation to data collection and processing.

2.3. Procedure

Regarding the research conducted, several meetings were held with the se-

nior management teams of the educational centres of the experimental and control groups. Furthermore, sessions and meetings were held at the Department of Education and Culture of the Autonomous Community of Murcia, specifically with the Directorate-General for Diversity and Educational Quality. Following these meetings, the Resolution of 10 October 2018 was published regarding the pilot experience for pre-school classes in the participating centres, beginning the research with the implementation of the 'Annual EMOTI Programme in Emotional Intelligence for Pre-School Education 3-6 years' (Hurtado and Salas, 2019). The programme was developed and implemented in the same way as the training course was put into effect for the senior management and teaching staff, thereby making it possible to programme and plan the educational intervention in the classroom as well as meetings regarding training and information with the families of the different groups of pupils. It was divided into three stages:

– 1st STAGE: Conducting the pretests. In October, the training course was held for the teaching staff and management at the experimental centre. Afterwards, the pretest was conducted with the pupils individually.

– 2nd STAGE: Running the programme. Once the first stage was over, the EMOTI programme was implemented with 27 activities (one a week, in sessions of an hour and a half) over a school year, treating

them as a curricular subject dealing with the development of emotional intelligence.

– 3rd STAGE: In May, the post-tests were administered and the data was analysed regarding running the programme in the test classrooms, with the aim of being able to make a comparative study between the participants and non-participants of this programme.

2.4. Participants

Subjects were selected using non-probability sampling with the groups previously established. Individual pupils who were easily accessible were used for the sample.

The sample was composed of 173 5-year-old pupils from middle socio-economic background in the third year of the second cycle of pre-school education during the 2018/19 school year in educational institutions across Murcia (Spain). On one hand, the experimental group was composed of a total of 89 pupils who went through the EMOTI Programme and, on the other, the control group was composed of 84 pupils.

2.5. Instrument

The instrument employed was the questionnaire to assess pupils' social competence (Caruana and Tercero, 2011). The questionnaire is composed of 37 questions to assess different aspects relating to situations involving conflict and/or aggression in the social interactions of pre-school pupils at the age of 5, by detecting types

of violence at school. It assesses variables relating to social interaction which reflect behaviour and characteristics involved in acquiring and sustaining acceptance, relationships, and friendships with other children and adults (Merrell, 2002). To assess all the pupils, the primary focus (Sierra, 2001) was on the data being collected exclusively by the researcher. The pupils answered the questionnaire individually using a numerical scale (0-3), answering with 'never,' 'hardly ever,' 'often,' and 'always.'

In terms of the internal consistency reliability of the instruments, the questionnaire on the pupils' social competence was measured using Cronbach's alpha, which assumes that the items are measuring the same construct and that there is a strong correlation between them. The result was good reliability, with a Cronbach's alpha value of 0.716.

Regarding validation, factor analysis was used, in which the principal component method was employed with Varimax Rotation, which assumes that the factors are independent of each other and minimises the number of variables with high factor loadings in one factor. In the factor analysis, a score of 0.769 for the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was achieved and a significant p-value ($p < 0.05$) was obtained in Bartlett's Test of Sphericity.

2.6. Data analysis

Previously descriptive and graphical analysis of the variables under consideration was performed, separated by groups. The quantitative variables were submit-

ted to the Kolmogorov-Smirnov and the Shapiro-Wilk Tests for Normality (depending on whether there were more than or fewer than 50 samples in each group) in order to determine if we should then use parametric or non-parametric tests in the objective test.

For this study, due to the sample size and the non-normality of our variables, the administration of non-parametric tests was always chosen, given that when the quantitative variable is not normally distributed in the different categories in the categorical variable, we will always administer non-parametric tests.

3. Results

All the questions asked in the questionnaire on social competence (Caruana and Tercero, 2011) were analysed together to see if there were significant differences (see table 1). There were none found. They were also analysed individually and separated by control group and experimental group, with differences found for some of the items. Furthermore, between the pre-test and post-test for each item on the questionnaire using a Likert Scale, an ordinal numerical variable (0 = never, 3 = always) was assigned, and inversely so for the items that were asked using a negative form.

TABLE 1. Tests for independent samples. The post-test questionnaire was administered to pupils to assess their social competence in the control group and the experimental group according to the total mean.

Group		Social Competence Pre	Social Competence Post
Control	Mean	64.7561	66.1786
	Dev. Deviation	4.55030	3.97632
Experimental	Mean	64.2584	65.2022
	Dev. Deviation	5.14456	4.36978
Total	Mean	64.4971	65.1618
	Dev. Deviation	4.86086	4.28726

Source: Own elaboration.

For this study, the data analysis was conducted using the software package SPSS (version 25.0). The non-parametric Wilcoxon Test was used to determine the possible differences in the 37 items between the pre-test and the post-test in both groups, and the non-parametric Mann Whitney U Tests for Independence were used to see if there were statistically significant differences between the different groups.

In general, in the pre- and post-social competence variable, there are no statistically significant differences in the control and experimental groups, but we can find significant differences in some of the items (see Table 2).

TABLE 2. Tests for independent samples. The post-test questionnaire was administered to pupils to assess their social competence in the control and experimental groups.

	Group					
	Control		Experimental		Mann Whitney	
	Mean	Desv.	Mean	Desv.	Z	p
Q.4. If you see that somebody has a problem, do you tell your teacher?	.65	.857	1.04	.865	-3.164	.002
Q.5. If you see that somebody has a problem, do you tell your family?	.85	1.035	1.29	.894	-3.323	.001
Q.14. Take or hide their things	.61	.745	.39	.615	-1.958	.050
Q.22. They take or hide my things	.52	.871	.24	.477	-1.892	.050
Q.24. My classmates let me play with them	.71	.815	1.07	1.064	-2.074	.038
Q.28. I have insulted somebody in class	2.99	.109	2.85	.355	-3.225	.001
Q.29. I have insulted somebody at playtime	2.96	.187	2.80	.457	-3.035	.002
Q.31. I have hit somebody at playtime	2.93	.302	2.76	.501	-2.744	.006
Q.32. I have pushed somebody to annoy them in a queue	2.98	.153	2.82	.415	-3.192	.001

Source: Own elaboration.

In the results obtained, it is clear that there are significant values in favour of the experimental group, compared to the control group after administering the programme. The pupils in the experimental group have improved their communication with their adult role models, as they resort to the teacher when they have a problem and have learned to communicate more with their families. Furthermore, they ask their teacher and families for help if a classmate needs it, developing empathy and other social competencies necessary to interact with others. This is due to the fact that, through the 27 activities included in the implementation of the programme, work has been conducted with the pupils on aspects of communication that are very relevant to social interactions, such as how to express and become aware of our emotions and show interest in others, as well as active listening, turn-taking when speaking, respecting others, and sustaining good relationships.

In aggressive behaviour related to bullying at school, there is a significant improvement in the experimental group compared to the control group, in the areas of taking or hiding classmates' belongings, as well as not insulting, hitting, or pushing friends in class or at playtime and letting other classmates play, thereby improving their social competencies. This is due to the fact that, during training with the pupils through the programme, emphasis is placed on resolving conflicts in a positive way through rejecting violence, regulating impulses and unpleasant emotions, and tolerating frustration.

The following table shows the tests for paired samples in the experimental group relating to the use of the tests (pre- and post-test) of the questionnaire administered to pupils (see Table 3).

In the results obtained, it can be seen that there are only significant values in some of the items, so on a statistical level, an improvement cannot be said to exist that favours the post-test over the pre-test in the experimental group. On a descriptive level though, there are in fact better scores, which shows that the pupils in the experimental group, after the implementation of the programme, are better at communicating their problems to their adult role models and show more empathy to their classmates, helping them if they need it. Furthermore, they develop fewer aggressive behaviours associated to bullying, with significant differences being observed which imply improvement, in terms of not hitting or pushing classmates in class or in a queue. Furthermore, they improve in pro-social behaviour, such as not bothering classmates and instead letting them work, not taking or hiding their things, not spoiling their work, and letting them play with other classmates, as well as not remaining alone or isolated. It can also be seen that, after administering the programme, pupils improve in their interactions with their peers and do not use emotional blackmail as a strategy to interact with each other, since, if they want something from another classmate, they do not give them something in exchange.

TABLE 3. Tests for paired samples. The questionnaire was administered to pupils to assess their social competence in the experimental group.

Wilcoxon Experimental Group	Means	Pre	Post	Z	P
Q.3. If you have a problem, do you leave without saying anything?		2.43	2.03	-2.445b	.014
Q.6. If you see that somebody has a problem, do you leave without saying anything?		2.53	2.21	-2.431b	.015
Q.10. Hit them in class		0.89	0.71	-1.950b	.050
Q.12. Push or annoy somebody in a queue		2.22	1.99	-1.921b	.050
Q.13. Bother them and stop them from working		1.99	2.25	-2.133b	.033
Q.18. They hit me in class		0.63	0.42	-2.234b	.025
Q.22. They take or hide my things		0.55	0.24	-3.434b	.001
Q.23. They spoil my work		0.55	0.28	-2.955b	.003
Q.25. My classmates do not want to sit with me		0.94	0.43	-3.402b	.001
Q.26. I have to play on my own at playtime		2.75	2.57	-2.189b	.029
Q.36. I have not let a classmate play with me		2.53	2.84	-3.787b	.000
Q.23. If I want something from a classmate, I give them something in exchange		0.62	0.36	-2.378b	.017

Source: Own elaboration.

Pre-school education assists pupils' social competence, even if they have not participated in any specific programmes. However, their development is greater if they do so (Monjas and González, 2000). These results show that the EMOTI programme encourages pupils' social competence since in general, in almost all the items, there was an improvement in the mean scores obtained in the experimental group compared to the control group. At a descriptive level, it can be interpreted that the pupils in the experimental group have achieved greater development of social competence and higher scores than the pupils in the control group.

4. Discussion

Very few studies with scientific evidence have been conducted during the pre-school educational stage, due to the high costs involved for the researcher, both physically and psychologically (Gelabert, 2014).

This study confirms that pupils that participate in the EMOTI programme improve in social competence, just as in other studies using programmes that foster the development of social skills and emotional intelligence in pupils. They show significant improvement in these abilities, as in the study conducted by Frías (2015), regarding students in the experimental group in the second cycle of pre-school education who improved in social competence, cooperation when playing, and daily interactions, as well as developing fewer problematic behaviours. It has been shown that children in the experimental group showed greater empathetic and affectionate behaviour towards their peers and adults, demonstrat-

ing interest and curiosity in relation to social situations, either through dialogue or play. The study conducted by Gelabert (2014) on pupils in the first cycle of preschool education also demonstrated that they improved in terms of self-concept, interaction with classmates and adults, and expression of sentiments and affection.

Furthermore, we found that there was an improvement in the pupils in the experimental group in relation to adult role models, trusting their teachers and family more when they have a problem, since they have improved their ability to express their emotions. These results have been confirmed by the studies conducted by Lopes et al. (2003), which show that high emotional intelligence is connected to a stronger parental bond and a lower number of conflicts or negative interactions with close friends, and is also connected with more positive relationships with friends. In addition, the study conducted by Velásquez and Fabián (2020) has results showing that the pupils' aggression levels decreased after the formative assessment of a pedagogical intervention in the classroom aimed at developing social competencies. The pupils also improved in pro-sociality, teamwork, and the communication skills needed for satisfactory coexistence.

In this research, once the programme has been administered, the pupils in the experimental group develop fewer violent behaviours and are better able to resolve conflict situations in a more sociable way, which has a very positive effect on the pupils' development of socio-emotional competencies; the children fight less, they respect

their classmates, they play together in a more sociable way and in turn let their classmates play with them, and it is all to a greater extent than the children in the control group. These results are corroborated by the study conducted by Extremera and Fernandez-Berrocal (2002), which demonstrates that pupils with a lower tendency to justify aggressive behaviours have a greater ability to recognise their emotions, regulate negative emotions and sustain positive ones, and have higher scores for mental health, lower levels of impulsiveness, and a lower tendency to suppress negative thoughts.

As they develop social competence, children show a decrease in problematic behaviours due to the fact that they are in pre-school education. Different studies state that correctly learning the necessary skills to develop social competence through programmes is associated with a reduction in behaviour problems (Garaigordobil et al., 2014; López et al., 2020).

Proper social competence will become a protective factor against the appearance of problems or behavioural disorders throughout life (Bornstein et al., 2010).

Another study conducted by Garaigordobil and García de Galdeano (2006) found that participants with a high level of empathy showed many positive social behaviours (pro-sociality, assertiveness, consideration, self-control, leadership), few negative social behaviours (passiveness, aggression, anti-sociality, withdrawal), and many assertive interaction strategies. They also have a high self-concept, a high capacity to analyse negative emotions, high emotional stabili-

ty, and a low level of aggressive behaviour, as well as many behaviours and traits of a creative personality. Furthermore, the Buitrago and Herrera study (2014) describes the influence of teachers' emotional intelligence in treating pupils' disruptive behaviour, so a necessary preliminary step in implementing school programmes on education in emotional intelligence is training the teachers who are going to be teaching these programmes (García 2021).

5. Conclusions

The results of this study demonstrate that the pupils who participate in the EMOTI programme showed fewer aggressive behaviours and greater social competence, as well as a greater ability to recognise and express their emotions and regulate their behaviour. Research by authors such as Hill et al. (2006) indicates that behaviour problems lessen over time until the subject reaches the age of 5 years, improving between 2 and 4 years. However, other authors believe that aggressive behaviours increase from the age of 6 years (Moreno, 2003).

Another important aspect is that, as children develop and mature, schooling and socialisation with other children naturally allow them to regulate their behaviour progressively. However, by implementing preventive programmes, this development can be improved (Fríasas, 2015; Rabal et al., 2021).

Intervention in behavioural problems using preventive programmes is a very valuable tool to combat risk factors and boost protection during early childhood. Later on,

intervention is less effective as many behavioural problems can become ingrained with the onset of mid-childhood (Webster-Stratton et al., 2012; Vergaray et al., 2021).

Therefore, once the programme has been completed, the pupils in the experimental group develop fewer violent behaviours and learn how to resolve conflict situations in a more empathetic way, which has a very positive effect on the pupil's emotional and social development. The children also play with their classmates and let their classmates play with them, all to a greater extent than the children in the control group.

As for the practical limitations, in order to conduct genuine self-analysis regarding this study, we have found the following:

1. The first limitation we have found is the virtual non-existence of validated questionnaires for use with children in pre-school education, which limits the options for usage in any research into this stage.

2. The implementation of the questionnaire as an assessment tool has been conducted orally and administered individually to children of five years old in the four educational institutions. This method of conducting the questionnaire is not used in other educational stages, as pupils are then capable of filling in the questionnaire by themselves and this is one of the reasons why, in general, there is a lack of variety in scientific studies in any academic field that refers to children of a young age, specifically regarding the study of the improvement of socio-emotional competencies in pre-school children. As a positive point, it may be noted that this aspect is at the same time a strong point of this study in relation to previous studies conducted.

3. The teachers' lack of training was initially a limitation, but it was possible to mitigate this by holding a training course for them on the programme which was going to be implemented in the classrooms.

As a final conclusion, we found that implementing the EMOTI programme with the pupils in the experimental group boosted the improvement of social competence as a variable in the study in pupils in the pre-school educational stage. It is necessary to pursue this line of investigation by implementing programmes which develop these competencies in pupils in order to improve our educational praxis.

Note

References

Alfaro, V., Bastias, J., & Salinas, F. J. (2016). Relación entre inteligencia emocional y notas de las áreas instrumentales en un grupo de tercero de Primaria [Relation betweem emotional intelligence and instrumental rupo marks in one rupo f third of first education]. *Revista electrónica de Formación del Profesorado*, *19* (3), 149-155. https://doi.org/10.6018/reifop.19.3.267301

Armas, M. (2007). *Prevención e intervención ante problemas de conducta: estrategias para centros educativos y familias [Prevention and intervention for behavioural problems: strategies for schools and families]*. Wolters Kluwer.

Bierman K. L., & Erath S. A. (2011). Programas de prevención e intervención que fomentan las relaciones positivas entre pares en la primera infancia [Prevention and intervention programmes promoting positive peer relations in early childhood]. In R. E. Tremblay, R. G. Barr, R. V. Peters, & M. Boivin (Eds.), *Enciclopedia sobre el desarrollo de la primera infancia* (pp. 43-47). Centre of Excellence.

Bisquerra, R. (2009). *Psicopedagogía de las emociones [Psychopedagogy of emotions]*. Síntesis.

Bisquerra, R., Pérez-González, J. C., & García, E. (2015). *Inteligencia emocional en educación [Emotional intelligence in education]*. Síntesis.

Bornstein, M. H., Hahn, C. S., & Haynes, O. M. (2010). Social competence, externalizing, and internalizing behavioral adjustment from early childhood through early adolescence: Developmental cascades. *Development and Psychopathology, 22* (4), 717-735. https://doi.org/10.1017/S0954579410000416

Buitrago, D., & Herrera, C. (2014). *La inteligencia emocional y el tratamiento de las conductas disruptivas en el aula de clase* [Master's thesis, Universidad del Tolima, Colombia]. Institutional Repository of the Universidad del Tolima - RIUT. https://goo.gl/0xs80S

Caruana, A., & Tercero, M. P. (2011). *Cultivando emociones: educación emocional de 3 a 8 años [Cultivating emotions: Emotional education from 3 to 8 years old]*. Conselleria d'Educació. Generalitat Valenciana.

Cerda, G., Pérez, C., Elipe, P., Casas, J. A., & Del Rey, R. (2019). Convivencia escolar y su relación con el rendimiento académico en el alumnado de Educación Primaria [School coexistence and its relationship with academic performance in Primary School pupils]. *Revista de Psicodidáctica*, *24*, 46-52.

Cruz, P., Borjas, M. P., & López, M. (2021). Ludoevaluación de la emoción del miedo en educación infantil [Ludo-evaluation of the emotion of fear and personal self-esteem in early childhood education]. *Revista Latinoamericana de Ciencias Sociales, Niñez y Juventud*, *19* (1), 20-40. https://doi.org/10.11600/rlcsnj.19.1.4184

Erath, S. A. (2011). *Programas de prevención e intervención que fomentan las relaciones positivas entre pares en la primera infancia [Prevention and intervention programmes that promote positive peer relations in early childhood]*. Enciclopedia sobre el desarrollo de la primera infancia. https://1library.co/document/z3lvkj8z-programas-de-prevencion-e-intervencion-que-fomentan-las-relaciones-positivas-entre-pares-en-la-primera-infancia.html.

Extremera, N. y Fernández-Berrocal, P. (2002). La evaluación de la inteligencia emocional en el aula como factor protector de diversas conductas problema: violencia, impulsividad y desajuste emocional [The assessment of emotional intelligence in the classroom as a protective factor for various problem behaviours: violence, impulsivity and emotional maladjustment]. En F. A. Muñoz, B. Molina y F. Jiménez (Eds.), *Actas del I Congreso Hispanoamericano de Educación y Cultura de Paz* (pp. 599-605). Universidad de Granada.

Frías, M, (2015). *Mejora de la competencia social en niños de 2º ciclo de educación infantil a través del programa "Aprender a Convivir" [Improvement of social competence in children in the 2nd cycle of infant education through the "Learning to Live Together" programme]*. [Unpublished doctoral dissertation]. Universidad de Zaragoza.

Garaigordobil, M., & De Galdeano, P. G. (2006). Empatía en niños de 10 a 12 años. *Psicothema*, *18* (2), 180-186.

Garaigordobil, M., Martínez-Valderrey, V., & Aliria, J. (2014). Victimization, perception of violence, and social behaviour. *Journal for the Study of Education and Development*, *37* (1), 90-116. https://doi: 10.1080/02103702.2014.881651

García, B. (2021). Competencia emocional en maestros de educación infantil y primaria: fuentes de variabilidad y sugerencias de mejora [Emotional competence in early childhood and primary education teachers: Sources of variability and improvement suggestions]. *Revista Electrónica Interuniversitaria de Formación del Profesorado*, *24* (2). https://doi.org/10.6018/reifop.450111

Gardner, H. (1983). *Frames of Mind: The theory of multiple intelligences*. Basic Books.

Gelabert, J. M. (2014). *Intervención psicopedagógica en inteligencia emocional en educación infantil [Psychopedagogical intervention in emotional intelligence in early childhood education]* [Doctoral dissertation, Universidad Complutense de Madrid]. Repositorio Institucional de la UCM. https://eprints.ucm.es/id/eprint/28583/

Goleman, D. (1995). *Inteligencia emocional [Emotional intelligence]*. Kairós.

Hill, A. L., Degnan, K. A., Calkins, S. D., & Keane, S. P. (2006). Profiles of externalizing behavior problems for boys and girls across preschool: The roles of emotion regulation and inattention. *Developmental Psychology*, *42* (5), 913-928. https://doi.org/10.1037/0012-1649.42.5.913

Hurtado, A., & Salas, N. (2019). *Programa Anual Emoti de Inteligencia Emocional para Educación Infantil 3-6 años. "EMOTI"*. Autoedición.

Lopes, P. N., Salovey, P., & Straus, R. (2003). Emotional intelligence, personality, and the perceived quality of social relationships. *Personality and Individual Differences*, *35* (3), 641-658. https://doi.org/10.1016/S0191-8869(02)00242-8

López, V, Zagal, E., & Lagos, N. (2020). Competencias socioemocionales en el contexto educativo: Una reflexión desde la pedagogía contemporánea [Socio-emotional competences in the educational context: A reflection from contemporary pedagogy]. *Revista Reflexión e Investigación Educacional*, *3* (1), 149-160. http://revistas.ubiobio.cl/index.php/REINED/article/view/4508

Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey, & D. Sluyter (Eds.), *Emotional Development and Emotional Intelligence: implications for educators* (pp. 3-31). Basic Books.

Merrell, K. W. (2002). *Preschool and kindergarten behavior scales*. PROD-ED.

Mestre, J. M., Pérez, N., Guil, R., González de la Torre, G., & Núñez, J. M. (2017). El desarrollo de la inteligencia emocional a través de la optimización de las capacidades cognitivas a través de la educación obligatoria [The development of emotional intelligence through the optimisation of cognitive skills through compulsory education]. *Contextos Educativos*, *20*, 57-75.

Monjas, I., & González, B. (Dirs.) (2000). *Las habilidades sociales en el currículo [Social skills in the curriculum]*. Secretaría General Técnica. Centro de Publicaciones. Ministerio de Educación, Cultura y Deporte.

Moreno, M. C. (2003). Desarrollo de la conducta social de los 2 a los 6 años [Development of social behaviour from 2 to 6 years of age]. In J. Palacios, A. Marchesi, & C. Coll. (Comps.), *Desarrollo psicológico y educación. 1. Psicología evolutiva* (pp. 305-323). Alianza Editorial.

Peinado, A., & Gallego, R. (2016). *Programa Arco Iris de educación emocional de 3 a 12 años [Arco Iris emotional education programme for 3 to 12 year olds]*. Noubooks.

Rabal, J. M, Perez, M., Ruiz, A., & Méndez, M. (2021). Organización escolar a través de las emociones en la etapa de Educación Infantil [School organization through emotions in Early Childhood Education]. *Brazilian Journal of Development, Curitiba*, 7 (1), 8848- 8869.

Resolution of the General Directorate of Attention to Diversity and Educational Quality by which instructions are given for the development of the experimental educational programme *"Emoti Annual Programme of Emotional Intelligence for Infant Education"* issued by the Regional Ministry of Education, Youth and Sports, of the Autonomous Community of Murcia, 10 October 2018. http://tramites.administracion.gob.es/comunidad/tramites/recurso/programa-educativo-emoti-de-inteligencia/e979c444-1a5e-4439-9cfc-170cbeab48ef

Resolution of the General Directorate of Educational Planning and Evaluation, by which the *"Emoti Annual Programme of Emotional Intelligence for Early Childhood Education"* is approved as curricular material for use in educational centres in Andalusia issued by the Ministry of Education and Sport of the Regional Government of Andalusia, 8 July 2019.

Rodríguez, M. F. (2013). La inteligencia emocional [Emotional intelligence]. *Revista de clases historia*, 7, 1-12.

Romera, M. (2017). *La familia la primera escuela de las emociones [The family, the first school of emotions]*. Ediciones destino.

Salas, N., Alcaide, M., & Hurtado, A. (2018). Programas de intervención en inteligencia emocional para la educación infantil. *Revista de Estilos de Aprendizaje, 11* (22), 137-165.

Sainz, V., & Serrada, A. (2019). *Autoestima, autoconcepto y rendimiento académico en alumnos de educación primaria [Self-esteem, self-concept and academic achievement in primary school students]*. Dikynson.

Salavera, C., Usán, P, & Jarie, L. (2017). Emotional intelligence and social skills on self-efficacy in Secondary Education students. Are there gender differences. *Journal of Adolescence*, *60*, 39-46. https://doi.org/10.1016/j.adolescence.2017.07.009

Sierra, B. (2001). *Técnicas de investigación social. Teoría y ejercicios [Social research techniques. Theory and exercises]*. Thomson.

Thorndike, E. (1920). Intelligence and its use. *Harper´s Magazine, 140*, 227-235.

Velásquez, A. M., & Fabián, S. (2020). Transformación de las normas sociales de aula. Evaluación formativa de una intervención basada en juegos. Voces y Silencios. *Revista Latinoamericana de Educación, 11* (1), 89-111.

Vergaray, R. P., Farfán, J. F., & Reynosa, E. (2021). Educación emocional en niños de primaria: una revisión sistemática [Emotional education in primary school children: a systematic review]. *Revista Científica Cultura, Comunicación y Desarrollo, 6* (2), 19-24.

Viloria, C. (2005*). La educación emocional en edades tempranas y el interés de su aplicación en la escuela. Programas de educación emocional, nuevo reto en la formación de los profesores [Emotional education at an early age and the interest of its application at school. Emotional education programmes, a new challenge in teacher training].* Universidad Autónoma de Madrid.

Webster-Stratton, C., Gaspar, M .F., & Seabra-Santos, M. J. (2012). Incredible Years Parent, Teachers and Children's Series: Transportability to portugal of early intervention programs for preventing conduct problems and promoting social and emotional competence. *Psychosocial Intervention, 21* (2) 157- 169. https://doi.org/10.5093/in2012a15

Webster-Stratton, C., Reid, M. J., & Stoolmiller, M. (2008). Preventing conduct problems and improving school readiness: evaluation of the Incredible Years Teacher and Child Training Programs in high-risk schools. *Journal of Child Psychology and Psychiatry, 49* (5), 471-488. https://doi.org/10.1111/j.1469-7610.2007.01861.x

Author biographies

Noelia Salas Román is a Teacher with a Bachelor's Degree in Early Childhood Education, with 18 years' teaching experience in different stages of the education system. She holds a Master's Degree in Conflict Resolution in the Classroom. She has conducted several studies on emotional intelligence and is a trainer on courses for teachers on emotional intelligence.

http://orcid.org/0000-0002-0670-3271

Margarita Alcaide Risoto is an Associate Professor at the Universidad Camilo José Cela. Doctor and graduate in Psychopedagogy, University of Jaén. Teacher on the doctoral programme at the Ibero-American University Foundation, in the subject of Applied Didactics. Member of the 'Research and Educational Development in Orientation' research group in Jaén and member of the international scientific board of the REID journal.

https://orcid.org/0000-0002-3580-1233

Carlos Hue García was an Adjunct Professor for twenty years at the Universidad de Zaragoza. He graduated in Psychology (1974) and Pedagogy (1975) at the Universidad Complutense de Madrid. He has wide-ranging experience from working as a psychologist and pedagogist for the Regional Government of Aragón, Spain. Among other publications, those of note are *Pensamiento emocional: un método para el desarrollo de la autoestima y el liderazgo* (*Emotional thinking: a method to develop self-esteem and leadership'*) (Mira, 2007) and *Bienestar docente y pensamiento emocional* (*Teacher well-being and emotional thinking*) (Wolters Kluwer, 2008). He gives courses, talks, and conferences at universities in Spain, Portugal, Peru, Colombia, Mexico, Chile, and Argentina.

https://orcid.org/0000-0001-6477-7044