

Evaluation of the Emotional Education program “Happy 8-12” for the assertive resolution of conflicts among peers

**Filella, G.¹, Cabello, E.¹, Pérez-Escoda, N.², Ros-Morente,
A.¹**

¹ Department of Pedagogy and Psychology, University of Lleida, Lleida

² Departament of Research Methods and Diagnosis in Education, University of
Barcelona, Barcelona

Spain

Correspondence: Gemma Filella Guiu. Av. de l'Estudi General, 4. 25001 Lleida. Spain. gfilella@pip.udl.cat

© Education & Psychology I+D+i and Ilustre Colegio Oficial de la Psicología (Spain)

Resumen

Introducción. La convivencia en los centros educativos conlleva inevitablemente conflictos interpersonales entre iguales, lo cual puede incidir negativamente en el bienestar y en el rendimiento de los alumnos. En este sentido, el objetivo de este estudio es presentar y describir la evaluación del *Programa de Educación Emocional gamificado Happy 8-12*. Este videojuego está enfocado a la educación de las competencias emocionales de los alumnos con el fin de poder resolver conflictos de manera más assertiva. El programa consta de 25 conflictos que los alumnos deben resolver siguiendo el proceso de regulación emocional basado en el marco teórico del Grupo de Investigación en Orientación Psicopedagógica (GROP).

Método. La muestra del estudio está constituida por 574 alumnos de 5º y 6º curso de educación primaria. 301 de ellos eran niños (52.4%) y 273 eran niñas (47.6%). La media de edad fue de 10.53, con una desviación estándar de .662. Se ha seguido un diseño cuasi experimental pretest y postest con grupo control. Los instrumentos y técnicas utilizados han sido: QDE_9-13, STAIC, CESC; cuestionario de clima de patio, registro anecdótico de conductas conflictivas y rendimiento académico.

Resultados. Los resultados indican que Happy 8-12 mejora de manera significativa las competencias emocionales, disminuye los niveles de ansiedad, mejora el clima social de aula y el clima de patio, reduciendo el número de conflictos entre iguales y aumentando sensiblemente el rendimiento académico.

Discusión y conclusión. Los resultados de este estudio demuestran que educar la gestión de las emociones mejora el bienestar de los alumnos y actúa como estrategia de prevención de conductas disruptivas graves, incluido el acoso escolar, beneficiando en gran medida la convivencia de los centros educativos.

Palabras Clave: Gamificación, competencias emocionales, clima, videojuego, resolución de conflictos.

Recibido: 13.12.15

Aceptación Inicial: 12.01.16

Aceptación final: 16.10.16

Abstract

Introduction. Coexistence in schools inevitably implies conflicts among peers, which can have a negative impact in both the students' well-being and their academic achievement. In this sense, the main objective of the present article is to introduce and describe the evaluation of the *Training Program in Emotional Management Happy 8-12*. This software focuses on the education of the pupils' emotional competences in order to solve conflicts in an assertive way. The program consists of 25 conflicts which students need to solve according to the management program of emotions developed by the Psychopedagogic Orientation Group (GROP).

Method. The sample of the study consisted of 574 students of 5th and 6th grade of primary education. 301 of the participants were boys (52.4%) and 273 were girls (47.6%). Average age was 10.53, with a standard deviation of .662. The design employed in the present work was a quasi experimental design with pretest and posttest with a control group. The instruments and techniques used for the evaluation were: QDE, STAIC, CES, playground climate, anecdotic registration of conflict behaviours and academic performance.

Results. Our results indicated that Happy 8-12 significantly improved the emotional competences of the students, reduced anxiety levels, and ameliorated the atmosphere in both the playground and in the class, noticeably augmenting the academic success.

Conclusión. The results of this study show that training the management of emotions improves students' well-being at the same time that it acts as a preventive strategy for more severe disruptive behaviours, such as bullying. It also optimises the coexistence in the educative centres.

Keywords: Gamification, emotional competences, coexistence, video game, conflicts resolution.

Reception: 12.13.15

Initial acceptance: 01.12.16

Final acceptance: 10.16.16

Introduction

It is undeniable that coexistence in schools, as it happens in society in general, may involve conflicts. Nowadays, there is a consensus that aggression among peers is not due to an excess of hostility, but to a lack of skills and effective strategies to solve social problems in an efficient way (Ortega, 2008).

Importance of the coexistence problems in schools

While it is true that conflicts that are not managed properly tend to increase their magnitude, leading to even more serious situations such as bullying, these phenomena involve very negative consequences at any level of intensity for the general well-being of the students, making their learning process more difficult. Thus, it has been shown that experiencing aggression by peers has a negative impact on academic achievement and on personal development, also increasing the possibility of developing anxiety symptoms or a negative and aggressive perception of the school environment (Caballo, Arias, Calderero, Salazar,& Irurtia, 2011; Cerezo, 2006; Martorell, González, Rasal, & Estellés, 2009; Pérez, Gázquez, Mercader, Molero, & García, 2011).

There are also numerous investigations that relate conflictive behaviours with the lack of emotional skills of the students involved (Bisquerra, 2008, 2014; Ceballos, Correa, Correa, Rodríguez, Rodríguez, Vega, 2010; Extremera & Fernández-Berrocal, 2003; Garaigordobil & Oñederra, 2010; Jiménez Benedit, 2008; Jiménez, 2009; Romera, Rodríguez, & Ortega, 2015; entre otros). In fact, as it has been demonstrated, emotions play a key role in any conflict situation. Consequently, for more than a decade, various emotional education programs are being incorporated in schools, both at a national (Bisquerra, Soldevila, Ribes, Filella & Agulló, 2005; Güell & Muñoz, 2003; López-Cassà, 2003; Monjas 1999; Pascual & Cuadrado, 2001; Renom, 2003; Vallés & Vallès, 2000; entre muchos otros) and an international level (Olweus, 2001; Espelage & Swearer, 2004; Juvonen & Graham; 2001; among others). In the United States it has been created the novel Collaborative for Academic, Social and Emotional Learning (CASEL), which started applying programs in Nortern American schools under the premise that problems that concern childhood and adolescents in schools are caused by social and emotional difficulties. These programs aim at taking action in a preventive way in order to foster the development of social and emotional skills from a very early age, which helps

providing a more positive and stimulating environment for the students (Greenberg et al., 2003).

Empirical evidence regarding the benefits of the emotional education programs are very acknowledged in the scientific field, especially when these interventions are well implemented and evaluated (Pérez-González, 2008). These programs have shown their efficacy in the prevention of conflicts in schools, specifically, they clearly improve prosocial behaviours and diminish negative and disruptive behaviours (Eisenberg & Spinrad, 2004). Additionally, studies like the one developed by Davidson (2012) have confirmed that the Social-Emotional Learning is an excellent strategy for the emotional regulation which fosters important adaptations and changes at a neurological level (Davidson, 2012). Also, in longitudinal studies like in the one carried out by Duncan et al. (2007), it has been shown that the successful development of socio-emotional skills in schools can predict other types of mediators of academic achievement such as self-esteem, adaptation in schools, participation in class, motivation towards learning and satisfactory relationships with peers and teachers.

In this same direction, recent studies undertaken in Spain (for example, Caballo et al., 2011; Pérez et al., 2011) have determined that there is a direct relationship among emotional intelligence and mental health, being the last one especially important for the academic achievement. At a scholar level, emotional education carries important results such as the improvement of self-esteem, enhancing interpersonal relationships and improving academic achievement. Moreover, thanks to the abilities of recognizing and handling affective states, experimenting feelings of their own and having the capacity of repairing negative emotional states, students also show a decrease of their anxious and depressive symptoms, as well as their self-destructive thoughts and aggressive behaviour (Extremera & Fernández-Berrocal, 2001; Extremera & Fernández-Berrocal, 2003; Pérez-Escoda, López-Cassà, & Torrado, 2012; Pérez-Escoda, Torrado Fonseca, López-Cassà, & Fernández Arranz, 2014; Vallés & Vallés, 2000).

In emotional education programs emotional competences are developed and it can be established that there are different models. This investigation was based in the model presented by GROP (Group of Investigation in Psychopedagogic Orientation), which suggests a model of competences based on a solid theoretical framework. The competences that the model include can be grouped in five dimensions: emotional awareness, emotion regulation, person-

al autonomy, social competence and competences for life and well-being (Bisquerra & Pérez, 2007).

Happy 8-12 program

Happy 8-12 is a video game specifically designed to help children learn how to manage their emotions and solve those conflicts that may appear in their daily life in an assertive way. This software presents 25 conflicts, 15 take place in school while 10 are among siblings in the family context. As an example, we show two of them. In the scholar context: ‘Núria is a girl who usually lies in order to have friends’, and in the family context: ‘You play chess with your brother and, when he loses, he accuses you of cheating’. Given the conflict, the student will have to choose among different options, being only one of the answers correct (the most assertive one).

The videogame takes into account the orientations of developmental psychology, the cognitive-linguistic abilities and the development of the six moral stages of Piaget-Kohlberg. Regarding the emotion regulation strategies are based on the model of Gross (2007), which points at three regulation strategies which are applied in the present program: attention deployment, cognitive reevaluation and situation modification. Also, the resolution of the conflicts follows the scheme: conflict-emotional awareness-traffic light (stop)- emotion regulation strategies and answer to the conflict.

Objetives

In view of the above, the general objective of the present work is showing the process and the results of the evaluation of the program Happy 8-12. Specifically, it is aimed to assess the effects of the Happy 8-12 video game over emotional competences, the levels of anxiety, climate, and the students achievement, as well as the valoration of the whole procedure of teachers and students.

Method

Participants

The total sample was composed by 574 students, 301 were boys (52.4%) and 273 were girls (47.6%). All the students were in 5th grade (n=278; 48.4%) and 6th grade (n=296; 51.6%) of primary school. The average age of the participants was 10.53, with a standard deviation of

.662. The experimental group comprised 351 students of 6 schools (62% of the total). The control group was consisted of 223 students of 4 primary schools (38% of the total) that volunteered to participate. There were no statistically significant differences among groups regarding sex and grade, which granted the adequate composition of the control group to analyse the stipulated objectives of the investigation.

Instrumentos

Emotional Development Questionnaire (CDE_9-13; López & Pérez, 2010 (GROP)). This self-informed instrument taps the principal concepts regarding emotional education (Bisquerra & Pérez, 2007). It has a total of 38 items and it allows extracting a global score. Additionally, if it is considered necessary, it is possible to obtain the subscales of Emotional Awareness, Emotion Regulation, Emotional Autonomy, Social Competence and Life's Competences (see Table 2). For the present work, the global score was employed for being more informative regarding the objectives. In order to complement the results of CDE 9-13 a qualitative situational analysis was carried out, which verified the proper functioning of the questionnaire: Situational test (post-test). This is a ad hoc test which presents the students a conflictive situation. Students have to answer how they feel, what they think about it and how they would act towards the conflict. The test has open questions which require a categorical analysis to be analysed.

State-Trait Anxiety Inventory for Children (STAIC; Seisdedos, N., 1989; Spielberger, 1973). Created by Spielberger, C.D. (1973; 1982). Later adapted to the Spanish population by Seisdedos, N. (1989) and it explores two independent scales, one to evaluate Anxiety State (A-I) and another to assess Anxiety Treat (A-R). The first one is composed by 20 items which assess the level of anxiety in a given moment, the second one aims at identifying with another 20 items how the subject feels in general. In the present study only Anxiety State was used in order to tap the different levels of anxiety that students may present in the moment of the data collection.

Social Classroom Climate Questionnaire (Spanish version) (CES; Pérez, A., Ramos, G., López, E., 2010). This scale is composed by 90 items which in turn assess 9 subscales (interest/respect/preoccupation, satisfaction/expectatives, relationship, competitiveness/favouritism, communication, cooperation/democracy, norms/discipline, group cohesion, physical organisation of the classroom) which are grouped in four dimensions (relationship,

communication, interest and satisfaction). It shows a stable factorial structure with two factors of social climate: 1) related to the centre, and 2) related to the teachers.

Climate Playground Questionnaire. Developed ad hoc. It consists of 4 dimensions following the theoretic frame of the Defensor del Pueblo (2000). This questionnaire was designed in order to assess the climate of the playground in the participant educative centres through the opinion of the students. The rating took place with a scale that ranges from 1 (I did not like it at all) to 5 (I loved it). Once the interjudges reliability test was performed, the results of the internal consistency showed an Alfa de Cronbach of 0.84, which was considered satisfactory.

Anecdotal register of conflict behaviours in the playground. Developed ad hoc. This register has been designed to recognise in a systematic way all the conflicts that take place in the playground of the schools. Once the interjudges reliability test was performed, the results of the internal consistency showed an Alfa de Cronbach of 0.81, which was considered satisfactory.

Results (marks) of the compulsory subjects (Spanish, Maths, English) of each student before and after the training with Happy 8-12.

Opinion questionnaire of Happy 8-12 for the students. Developed ad hoc. This questionnaire offers the feedback of the students after following the program with Happy 8-12 during the academic course. It has twelve questions. After the interjudges reliability test was performed, the results of the internal consistency showed an Alfa de Cronbach of 0.91, which was considered highly satisfactory.

Opinion questionnaire of Happy 8-12 for the teachers. Developed ad hoc. This questionnaire shows the feedback of the teachers after undergoing the program of Happy 12-16 during the academic course. It has nine questions. The interjudges reliability was satisfactory, with a value of 0.88.

Procedure

In order to implement the present investigation, our team got in contact with the Department of Education of Catalonia to present the study and obtain all the necessary permits to

work in the schools. Once this was achieved, all the participant schools were contacted so as to start the research. However, prior to the administration of Happy 8-12 software and other instruments, two postdoctoral students with previous training, provided guidance to all the teachers, tutors and management teams of each one of the schools. This consisted in 30 hours of training of all the staff that participated in the investigation. After the training, the pretest protocol was administered. Later, the schools of the experimental group followed the program of the Happy 8-12 software and, finally, the data collection of the posttest protocol was collected.

Data analysis

The method that was chosen for the present research was a quasi experimental design with pretest and posttest and a control group. All the participants completed the protocol with self-informed tests and they were observed during the beginning of the study with systematic observation. This was designed in order to assess the level of conflicts in the playground through an observation register. Only the experimental group ($n=351$) underwent the training with the videogame Happy 8-12. Finally, all the participants completed the protocol once again at the end of the study.

Data was processed with the software SPSS 20.0. Descriptive statistics of the quantitative variables analysed with the comparation pretest and posttest can be viewed in Table 1. In order to assess the effect of the Happy 8-12 video game in the experimental group, an analysis with the general linear model was carried out. Differently, the variables regarding playground climate were analysed with a Wolcoxon test, given that the data did not follow normality. Furthermore, eta squared was obtained for the emotional competences and social climate in the classroom in order to evaluate the effect size of both variables.

Results

As it can be observed, after checking with a situational test that QDE had a proper functioning regarding its response patter (see Table 1), the results of the global scale of QDE were analysed in depth. These revealed that the scores of QDE of the experimental group improved after the administration of Happy 8-12, which did not happen in the control group. These differences among the two groups were statistically significant for Emotional Devel-

opment after the administration of the program ($F(0,148)=5.81; \eta^2=0.11; p<0.02$). Effect size was not high, which can be explained by the stable nature of the emotional competences.

Table 1. Average values of the results of the control (n=223) and the experimental (n=351) groups in the tests (n=574).

Test	Group	Pre Happy 8-12 score	Post Happy 8-12 score	Media Change pre/post	Change pre/post F; p-value
<i>QDE (Total)</i>	Experimental	6.85	6.91	-0.06	5.81; .16
	Control	7.14	7.02	0.12	
<i>STAIC</i>	Experimental	60.71	42.72	17.99	9.33; <.001
	Control	43.31	34.74	8.57	
<i>Climate Social Interest</i>	Experimental	16.41	16.67	0.26	8.49; <.001
	Control	16.20	17.10	0.90	
<i>Climate Social Competitivty</i>	Experimental	11.03	11.23	0.20	2.91; .09
	Control	11.14	10.99	-0.15	
<i>Climate Social Relationships</i>	Experimental	9.36	9.71	0.35	0.11; .74
	Control	9.35	9.75	0.4	
<i>Climate Social Satisfaction</i>	Experimental	29.03	29.65	0.62	0.01; .93
	Control	29.19	29.78	0.59	
<i>Climate Social Organization</i>	Experimental	5.98	6.26	0.28	4.33; .04
	Control	6.17	6.17	0.00	
<i>Climate Social Cohesion</i>	Experimental	10.13	10.29	0.16	0.98; .32
	Control	9.98	10.31	0.33	
<i>Climate Social Norms</i>	Experimental	14.98	15.22	0.24	0.54; .44
	Control	14.79	14.88	0.09	
<i>Climate Social Cooperation</i>	Experimental	8.78	8.82	-0.04	3.40; .07
	Control	8.69	8.43	0.26	
<i>Climate Social Comunication</i>	Experimental	19.24	19.59	0.35	0.11; .74
	Control	19.19	19.52	0.43	
<i>Academic achievement (maths)</i>	Experimental	6.50	6.53	0.03	.001; .97
	Control	6.54	6.55	0.01	
<i>Academic achievement (Spanish)</i>	Experimental	6.40	6.56	0.12	5.713; .02
	Control	6.83	6.91	0.03	
<i>Academic achievement (English)</i>	Experimental	6.62	6.77	0.15	.303; .58
	Control	6.37	6.69	0.32	

As it can be seen in Table 2, a high percentage of the students of the experimental group can name their emotions at the posttest (79.2%). Similarly, another high percentage is the one that refers to those students that can give an assertive response (52.6%). Differently, only a 32.8% of the students have a pattern of regulating thoughts.

Table 2. Results of the post hoc questionnaire of QDE in the experimental group in the post-test.

Emotional awareness	Percentage and N
improper answer	2.7% (8)
no identification of the emotion	6.2% (18)
no precision of the emotion	11.9% (35)
precision of the emotion	79.2% (232)
<i>Emotion regulation</i>	

improper answer	1.7% (5)
no regulating thought: passivity	1.7% (5)
no regulating thought: negativity	63.8% (187)
regulating thought	32.8% (96)
<i>Comportamiento</i>	
improper answer	1% (3)
passivity	0.4% (1)
negativity	20.1% (59)
mixt	9.2% (27)
assertivity	52.6% (154)

Importantly, STAIC results obtained in both groups (control and experimental) show a decrease in the level of anxiety-state, although in the case of the experimental group there is a higher drop of the levels of anxiety after the administration of Happy 8-12 (see Table 1). This decrease in anxiety was strongly significant at a statistical level (differences among averages in the experimental group: 17.99; $F=9.33$; $p <0.001$).

Regarding social classroom climate and as it can be seen in Table 1, results of the subscale Interest show a statistically significant difference when comparing the execution of the students in the pre and post evaluations among experimental and control groups ($F= 8.49$; $\eta^2=0.10$; $p <0.001$). A similar pattern was found for the subscale of Organization ($F=4.33$; $\eta^2=0.08$; $p=0.04$). In both cases the effect size is discrete, which can be explained once again, by the nature of these variables. The other subscales, although they clearly showed the same tendency they did not result statistically significant (see Table 1). It is important to note that only two scales of the social classroom climate questionnaire were statistically significant and sensitive to the effects of interaction (Interest and Satisfaction), meaning that they both increase after the training with Happy 8-12, while they diminish in the control group. Regarding Interest scale, both variables, sex and course, had a direct effect in the final scores of the subscales, resulting higher among girls and older students (sex: $F(0,148)=4.223$; $p<.04$; course: $F(0,148)=12.959$; $p<.001$). Concerning Satisfaction subscale, only the variable course showed an interaction effect in favour of the older students $F=6.462$; $p=.011$.

It was also interesting to analyse the obtained results with the Climate Playground Questionnaire. Due to the absence of normality of the variable, the Wilcoxon nonparametric test was carried out in order to compare the scores of both the control and the experimental group. As it shows Table 3, in the control group, although there were lower scores since the

very beginning, there was only one scale that showed a statistically significant change (Do you cheer others up when they are sad?). In a different manner, in the experimental group, various statistically significant changes were observed, which were associated to the Happy 8-12 administration (see Table 3).

Table 3. Wilcoxon nonparametric test results comparing pre and post phases regarding playground climate scores in the control and the experimental group.

	Control group				Experimental group			
	X pre	X post	Z	p	X pre	X post	Z	p
<i>Do you insult your mates?</i>	35.00	37.15	-.338	.735	52.10	50.50	-3.781	<0.001
<i>Do you assault your mates?</i>	45.22	46.76	-.235	.814	88.30	65.88	-4.348	<0.001
<i>Do you hide things?</i>	35.67	39.43	-.183	.855	62.15	67.93	-1.492	.136
<i>Do you let other children participate?</i>	43.27	43.69	-.846	.397	77.30	59.55	-.275	.784
<i>Do you threaten your mates?</i>	19.45	21.78	-.266	.790	31.11	33.27	-1.064	.287
<i>Do you often curse?</i>	42.77	50.45	-1.939	.052	71.44	76.46	-1.673	.094
<i>Do you cheer others up when they are sad?</i>	53.64	43.52	-1.957	.050	77.20	74.82	-.105	.916
<i>Do you play during the playground break?</i>	21.08	17.92	-.449	.653	46.47	37.05	-.584	.559
<i>Do you feel ignored?</i>	33.68	35.53	-.721	.471	61.76	57.30	-2.449	.014

Hereinafter, the number of observed conflicts during the playground was studied. In this case there were also statistically significant changes between the control group and the experimental group. Namely, in the control group a total of 28 conflicts were observed, which raised a 7% in the posttest register. Differently, the experimental group showed a higher number of conflicts in the pretest (37 conflicts) but after the administration of Happy 8-12 the number dropped a 16%.

Regarding academic achievement, data showed that Spanish language marks significantly improved after undergoing the training with Happy 8-12 (see Table 1). Once the program was finished in the schools participating in the experimental group, the views of teachers and students were sought. Results are shown in the following table:

Table 4. Results of the questionnaire to find out the opinion of students and teachers, being 0 the minimum score and 5 the maximum.

<i>Students</i>	Average	<i>Teachers</i>	Average
1. Did you like the video game?	4.30	1. Did you like the video game?	3,65
2. Is it easy to play with?	4.54	2. Do you see using this video game in the school as a feasible option?	4,18
3. Is it fun?	4.20	3. Happy 8-12 is adequate for your students age?	3,35
4. Would you like to play with Happy 8-12 once a week in school?	4.32	4. Do you think that information is needed in order to apply it in school?	3, 35
5. Did any of the situations of the video game happen to you?	3.00	5. Do you believe it can be a useful tool to help conflict resolution?	3,88
6. Do you think it will help you to not get angry in the playground?	4.03	6. Do you think that it achieves the goals that it has?	3,82
7. Do you think it can help you to say things better to other people?	4.29	7. Do you think it could help systematize conflict solving?	3,82

Discussion and conclusions

Conflictive behaviours are highly related to the management of emotions of the students in the sense that an unsuccessful way of dealing with emotions involves a less assertive resolution of conflict situations (Bisquerra, 2014; Filella, 2014). Moreover, a number of studies have associated a poor emotional management with a lower academic achievement and with a more vulnerable emotional state in students (Extremera & Fernández-Berrocal; 2004; Spinrad, Eisenberg, Harris, Hanish, Fabes et al., 2004). The recent rise of social and emotional programs that has been taking place during the last decade (for example, CASEL) has contributed to the emergence of new interventions regarding emotions and focused in the development of social and emotional abilities so as to improve the child's development not only at an academic level, but also a personal area (Greenberg et al., 2003).

The present study was designed to explore the results of a training program (Happy 8-12) created to train and improve emotional competences. Ultimately, this video game aims at preventing conflicts in the school environment of children aged 8 to 12 years old. This format enhances motivation of students and thus, it improves the learning process of students at the same time that it constitutes an aid for the teacher (McGonigal, 2011). Additionally, this software is intended as a preventive strategy for conflict situations or even bullying, decrease

the levels of anxiety in the class, improving the climate in the playground and in the class, promoting academic achievement and the assertive resolution of conflicts.

Results show that, as it was expected, the training with Happy 8-12 showed an improvement in emotional competences in a statistically significant way, which is congruent with one of the objectives set in the beginning of the study. It is important to note that the impact in the learning was discreet in comparison to other variables. This can be explained because other variables such as emotional competences or social climate require of a longer period of time for their total change and training, possibly more than an academic course.

While it is true that achieving a better management of thoughts seems to require a slower learning process, which has been traditionally explained as a process that includes a considerable difficulty to change (for example, Beck, 1979), results showed a high percentage of change in the post hoc questionnaire of QDE. Furthermore, results are consistent with previous literature which claims that a more successful management of emotional competences also improves the emotional state of students in the classroom (e.g. Davidson, 2012; Pérez-Escoda, Torrado, & Fernández, 2014).

Similar results were found for the climate in the class where, although not all the scales resulted statistically significant, all of them showed a clear tendency to an improvement of the climate in those centres which applied Happy 8-12 program. Results for climate in the playground were comparable to the ones found for the climate in the class, which showed the same tendency for the experimental group. This shows once again that the training of the social and emotional abilities not only improves the conflict resolution in a given moment, but also improves the climate in scholar centres in the long term (Brackett, Rivers, Reyes, & Salovey, 2010; Wang, Vaillancourt, Brittain, McDougall, Krygsman, & Smith, 2014).

Regarding academic achievement, although there was a clear tendency in all the subjects, Spanish marks were the only ones that resulted statistically significant for the students who underwent the program with Happy 8-12. This can be explained by the fact that all the marks were collected shortly after the procedure with the software, which evidences that a later evaluation may be required in order to explore the evolution of the marks in the long run.

Finally, once the study was completed, it was decided to collect the views about Happy 8-12 software of both groups involved in the study (teachers and students). Although it might be considered of minor importance, the opinion of the students and the teachers could highly influence or bias the results of the software, since a low motivation could lead to a smaller effect of the procedure. Additionally, an unreasonably high evaluation may result in a skewed vision of the program. In the present study, teachers and students showed their satisfaction with the video game, without being excessive or disproportionate. Moreover, the teachers held that according to their opinion, the program is very suitable to work in class. Therefore, it can be concluded that obtained results are not a product of a bias in terms of motivation and that they are in line with what it was expected.

Prospective

The present study focused in the efficacy of a gamified program for children aged from 8 to 12 years old, which was designed to train and improve emotional competences and to act as a preventive tool. Results show that not only emotional competences improved, but also the emotional state, the school climate (in the class and in the playground) and the academic achievement. That is to say, those students who underwent the program with Happy 8-12 were less anxious, with better academic results, and with a better management of their emotions in comparison to the students of the control group.

It is important to note that the approach that defends this kind of programs as preventive tools in schools (for example, CASEL) is gaining ground and has achieved promising results (Rimm-Kaufman, Larsen, Baroody, Curby, Ko, Thomas, Merritt, Abry, & DeCoster, 2014). However, these procedures must be framed in a proper climate of the school, with mediation programs and with the participation of the educative community. Only in this way it is possible to anticipate conflict situations and to cope with any consequence of violence or aggression (Ibarrola e Iriarte, 2012; Medina , 2010; Torrego, 2006).

Despite the fact that the results of the present investigation show the effectiveness of Happy 8-12, future research should assess the effects of the program in the long term. Given the stable nature of the studied variables, particularly the ones regarding emotional competences, a research which covered more than one academic year may show more conclusive

outcomes. Furthermore, studies with a longer period of training may enable a more detailed evaluation of the preventive capacity of this type of programs.

As a conclusion, this study aimed at shedding light on the idea and the need of developing tools which can be applied before a problem takes place. The training of social and emotional variables will enhance the improvement of the competences of the student from a very early age, helping the prevention of conflicts in school.

Referencias

- Beck, A., Rush, J., Shaw, B. & Emery, G. (1979). *Cognitive therapy of depression*. New York: Guilford Press.
- Bisquerra, R. (2000). *Educación emocional & bienestar*. Barcelona: Praxis.
- Bisquerra, R. (2008). Ecuación emocional para la convivencia. En: Jiménez Benedit. *Educación emocional y convivencia en el aula*. Madrid: Ministerio de Educación, Política social y Deporte.
- Bisquerra, R. (Coord.) (2014). *Prevención del acoso escolar con educación emocional*. Bilbao: Desclée de Brower.
- Bisquerra, R. & Pérez, M. (2007). Las competencias emocionales. *Educación XXI*, 10, 61-82. DOI: 10.5944/educxx1.1.10.297.
- Bisquerra, R., Soldevila. A., Ribes, R., Filella, G. & Agulló, M.J. (2005). Una propuesta de currículum emocional en educación infantil (3-6 años). *Cultura y Educación: Revista de teoría, investigación y práctica*, 17(1), 5-18.
- Brackett, M., Rivers, S., Reyes, M. & Salovey, P. (2010). Using emotional literacy to improve classroom social-emotional processes. Paper presented at the WT Grant/Spenser Grantees' Meeting, Washington, DC.
- Caballo, V., Arias, B. Calderero, M., Salazar, C. & Irurtia, M. J. (2011). Acoso escolar y ansiedad social en niños: análisis de su relación y desarrollo de nuevos instrumentos de evaluación. *Behavioral Psychology / Psicología Conductual*, 19(3), 591-609.
- Ceballos, E., Correa, N., Correa, A., Rodríguez, J., Rodríguez, B. & Vega, A. (2010). La voz del alumnado en el conflicto escolar. *Revista de Educación*, 359, 554-579. DOI: 10-4438/1988-592X-RE-2010-359-107.

- Cerezo, F. (2006). Violencia y victimización entre escolares. El bullying estrategias de identificación y elementos para la intervención a través el Test Bull-S. *Electronic Journal of research in Educational Psychology*, 4(2), 33-352.
- Cerezo, F. (2014). Diferencias en estatus social entre roles en “Bullying”: Un análisis socio-métrico, Bordón. *Revista de Pedagogía*, 66(2), 29-42.
- Davidson, R. (2012). *El perfil emocional de tu cerebro*. Barcelona: Destino.
- Defensor del Pueblo-UNICEF. (2000). *Violencia escolar: el maltrato entre iguales en la educación secundaria obligatoria*. C. Del Barrio, E. Martín, I. Montero, L. Hierro, I. Fernández, H. Gutiérrez & E. Ochaíta. Madrid: Defensor del Pueblo.
- Duncan, G. J., Claessens, A., Huston, A. C., Pagani, L. S., Engel, M., Sexton, H., Duckworth, K. & Japel, C. (2007). School readiness and later achievement. *Developmental Psychology*, 43(6), 1428-1446. DOI: doi.org/10.1037/0012-1649.43.6.1428.
- Eisenberg, N. & Spinrad, T.L. (2004). Emotion-related regulation: Sharpening the definition. *Child Development*, 75(2), 334-339. DOI: 10.1111/j.1467-8624.2004.00674.
- Espelage, D. L., Gutgsell, E. W., & Swearer, S. M. (Eds.). (2004). *Bullying in American schools: A social-ecological perspective on prevention and intervention*. London: Routledge.
- Extremera, N. & Fernández-Berrocal, P. (2001). El uso de las medidas de habilidad en el ámbito de la inteligencia emocional. *Boletín de Psicología*, 80, 59-77.
- Extremera, N. & Fernández-Berrocal, P. (2003). La inteligencia emocional en el contexto educativo: Hallazgos científicos de sus efectos en el aula. *Revista de Educación*, 332, 97-116.
- Extremera, N. & Fernández-Berrocal, P. (2004). El uso de las medidas de habilidad en el ámbito de la inteligencia emocional. *Boletín de Psicología*, 80, 59-77.
- Filella, G. (2014). *Aprendre a conviure*. Barcelona: Barcanova.
- Greenberg, M. T., Weissberg, R. P., O'Brien, M. U., Zins, J. E., Fredericks, L., Resnik, H., et al. (2003). Enhancing school-based prevention and youth development through coordinated social, emotional, and academic learning. *American Psychologist*, 58, 466–474. DOI: 10.1037/0003-066X.58.6-7.466.
- Gross, J. (2007). *Handbook of emotion regulation*. New York: Guilford Press.
- Güell, M., & Muñoz, J. (2003). *Educación emocional. Programa para la educación secundaria postobligatoria*. Barcelona: Praxis-Wolters Kluwer.
- Ibarrola, S., Iriarte, C. (2012). *La convivencia escolar en positivo. Mediación y resolución de conflictos*. Madrid: Pirámide.

- Jiménez Benedit, M. (2008). *Educación emocional y convivencia en el aula*. Madrid: Ministerio de Educación, Política social y Deporte.
- Jiménez, M. (2009). Inteligencia emocional y rendimiento escolar: estado actual de la cuestión. *Revista Latinoamericana de Psicología*, 41(1), 69-79.
- Juvonen, J., & Graham, S. (Eds.). (2001). *Peer harassment in school: The plight of the vulnerable and victimized*. Guilford Press.
- López, E. & Pérez, N. (2010). *Un nuevo recurso para la convivencia: CDE 9-13*. En Parrilla, A. & López Melero, M. *Reinventar la formación docente. Parte-II La formación de los docentes y el currículum escolar: atención a la diversidad y formación para la convivencia*. Málaga. pp. 1-17.
- López-Cassà, E. (2003). *Educación Emocional. Programa para 3-6 años*. Barcelona: Praxis-Wolters Kluwer.
- McGonigal, J. (2011). *Reality is broken: Why games make us better and how they can change the world*. Nova York: Penguin Press.
- Martorell, C., González, R., Rasal, P., Estellés, R. (2009). Convivencia e inteligencia emocional en niños de edad escolar. *European Journal of Education and Psychology*, 2(1), 69-78.
- Medina, A. & Cacheiro, M. (2009). Características de la práctica docente: el proceso de profesionalización. En A. Medina & M.C. Domínguez (eds.), *Didáctica. Formación básica para profesionales de la educación*. Capítulo 10, pp. 423-457. Madrid: Universitas.
- Medina, M. (2010). La prevención de la violencia: la implicación de la comunidad educativa para evitar situaciones de acoso escolar. *Bordón. Revista de Pedagogía*, 62 (1), 93-107.
- Monjas, M. (1999). *Programa de enseñanza de habilidades de interacción social para niños y niñas en edad escolar (PEHIS)*. Madrid: CEPE.
- Moos, R. H., & Trickett, E. J. (1974) *Classroom environment scale manual*, Palo Alto, California: Consulting Psychologists Press.
- Olweus, D. (2001). Peer harassment: A critical analysis and some important issues. *Peer harassment in school: The plight of the vulnerable and victimized*, 3-20. DOI: 10.6018/analesps.29.2.148251.
- Ortega, R. (Dir.). (2008). *Disciplina y gestión de la convivencia. 10 ideas clave*. Barcelona: Graó.

- Pascual, V. & Cuadrado, M. (Coords.). (2001). *Educación Emocional: Programa de actividades para Educación Secundaria Obligatoria*. Madrid: Monografías Escuela Española. Editorial CISS Praxis.
- Pérez, A., Ramos, G., López, E. (2010). Clima social aula: percepción diferenciada de los alumnos de educación secundaria obligatoria. *Cultura y Educación: Culture and Education*, 22 (3), 259-281.
- Pérez, M., Gázquez, J., Mercader, I., Molero, M. & García, M. (2011). Rendimiento académico y conductas antisociales y delictivas en alumnos de Educación Secundaria Obligatoria. *International Journal of Psychology and Psychological Therapy*, 11(3), 401-412.
- Pérez-Escoda, N., López-Cassà, E. & Torrado, M. (2012). Competencias emocionales, autoestima y rendimiento académico en educación primaria. *I Congreso Nacional de Inteligencia Emocional*, Barcelona, 8-10 noviembre.
- Pérez-Escoda, N., Torrado, M., López-Cassà, E. & Fernández Arranz, M. (2014). Competencias emocionales y ansiedad en la educación primaria. *I Congreso Internacional de Educación Emocional* (X Jornadas de Educación Emocional), Barcelona, 4-6 abril.
- Pérez-González, J.C. (2008). Propuesta para la evaluación de programas de educación emocional. *Electronic Journal of Research in Educational Psychology*, 6(2), 523-546.
- Renom, A. (2003). *Educación Emocional. Programa para la Educación Primaria*. Barcelona: Praxis.
- Rimm-Kaufman, S. E., Larsen, R. A. A., Baroody, A. E., Curby, T. W., Ko, M., Thomas, J. B., Merritt, E. G., Abry, T. & DeCoster, J. (2014). Efficacy of the Responsive Classroom approach: Results from a 3-year, longitudinal randomized controlled trial. *American Educational Research Journal*, 1-37. DOI: 10.3102/0002831214523821.
- Romera, E., Rodríguez, S. & Ortega, R. (2015). Children's perceptions of bullying among peers through the use of graphic representation. *Cultura y Educación: Revista de teoría, investigación y práctica*, 27(1), 158-185. DOI: 10.1080/11356405.2015.1006850.
- Seisdedos, N. (1990). STAIC, *Cuestionario de autoevaluación*. Madrid. TEA Ediciones S.A.
- Spielberger, C.D. (1973). *Inventario de Ansiedad Estado - Rasgo para niños, STAIC*. Palo Alto, CA. Consulting Psychologists Press.
- Torregó, J. (Coords.). (2006). *Modelo integrado de mejora de la convivencia: estrategias de mediación y tratamiento de conflictos*. Barcelona: Graó.
- Valles, A. & Valles, C. (2000). *Inteligencia emocional. Aplicaciones educativas*. Madrid: Editorial EOS.

Wang, W., Vaillancourt, T., Brittain, H., McDougall,P., Krygsman,A., & Smith,D. (2014). School climate, peer victimization, and academic achievement: results from a multi-informant study. *School Psychology Quarterly*, 29, 360-37. DOI: 10.1037/spq0000084.