NÁDIA SALGADO PEREIRA
ALEXANDRA MARQUES PINTO

Including educational dance in an after-school socioemotional learning program significantly improves pupils' self-management and relationship skills? A quasi experimental study

This a post-print version of:
Pereira, N. S., & Marques-Pinto, A. (2017). Including educational dance in an after-school socioemotional learning program significantly improves pupils' self-management and relationship skills? A quasi experimental study. The Arts in Psychotherapy, 53, 36-43. Available at: http://www.sciencedirect.com/science/article/pii/S0197455616300491

Including educational dance in an after-school socio-emotional learning program significantly improves pupils' self-management and relationship skills? A quasi experimental study

Pereira, N. S.[a], & Marques-Pinto, A.[b]

[a] Universidade de Lisboa, Instituto de Ciências Sociais, Avenida Professor Aníbal de Bettencourt, 9, 1600-189 Lisboa, Portugal

[b] Universidade de Lisboa, Faculdade de Psicologia, Centro de Investigação em Ciências Psicológicas, Alameda da Universidade, 1649-013 Lisboa, Portugal

Abstract

The present study sets out to assess the efficacy of a Socio-Emotional Learning after-school program, *Experiencing Emotions*, on the socio-emotional skills of middle school pupils, as well as on their well-being and school engagement. The program distinguishes itself from other Socio-Emotional Learning interventions by using Educational Dance activities in the domain of Education through Art. The sample included 83 middle school pupils from three Portuguese state schools, aged between 9 and 13 years, 45 of the pupils participated in the program and 38 of the pupils participated in individual after-school control activities. Self-report questionnaires were filled in by the pupils and questionnaires were filled in by the teachers at the beginning and the end of the intervention. Results revealed a significant increase in the socio-emotional skills of the pupils who participated in the program in the domains of self-management and relationship skills, comparing with the pupils who participated in the control condition. No significant differences were found between the intervention and the control groups in emotional, psychological and social well-being, or in the behavioral dimension of school engagement. Implications for research and practice are discussed.

Keywords: efficacy; socio-emotional learning; after-school program; middle school pupils; well-being; school engagement

Effects of an After-school Socio-Emotional Learning Program on Middle School Pupils

Over the last decade, the perspective that the role of schools should be restricted to academic skills has evolved to a more holistic approach (Elbertson, Brackett, & Weissberg, 2010), which considers that schools should offer more than academic instruction to promote the success of children and youths in school and life (Greenberg et al., 2003). In this sense, schools should not only value the cognitive development of children and youths, but also their social and emotional development (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011).

Hence, programs under the common title Socio-Emotional Learning (SEL) geared towards the promotion of social and emotional skills have been developed in a number of countries such as the United States, England, Northern Ireland, Australia, Sweden, Singapore (Humphrey, 2013). More recently SEL programs have also been developed in Portugal (Coelho, Sousa, & Figueira, 2014; Raimundo, Marques-Pinto, & Lima, 2013). Socio-emotional skills are considered necessary for the understanding and management of life tasks such as school learning, relationship building and adaptation to the demands of contemporary society, and according to the Collaborative for Academic, Social and Emotional Learning organization (CASEL, 2015) cover five main domains: self-awareness, defined as the ability to accurately recognize one's emotions and thoughts and their influence on behaviors; social awareness, referring to the ability to take the perspective of others, to understand social and ethical norms, and to recognize resources and support.; self-management, concerning the ability to regulate one's emotions, thoughts, and behaviors; relationship skills, defined as the ability to establish and maintain healthy and rewarding relationships; and responsible decision-making, related to the ability to make constructive and respectful choices about

personal behavior and social interactions based on, for instance, the consequences of various actions.

Socio-emotional skills have been positively associated with fundamental areas of development, namely with children and youths' subjective well-being (Zins, Weissberg, Wang, & Walberg, 2004). Subjective well-being is currently viewed as a multidimensional construct entailing three main dimensions: an emotional dimension related to life satisfaction and the experiencing of positive emotions while minimizing negative ones (Diener, 1984); a psychological dimension centered on personal accomplishment (Ryff, 1989); and a social dimension which is related to how well individuals function in their social lives (Keyes, 1998).

The impact of SEL programs on middle school pupils is well documented in the literature, particularly in terms of their positive effects on socio-emotional competencies and attitudes towards the self, others, and school (Durlak et al., 2011). Furthermore, their impact is known to increase pro-social behaviors, reduce conduct and internalizing problems, in addition to promoting school success (Payton et al., 2008; Social and Character Development Research Consortium, 2010). School success is dependent on a vast array of variables related to school attitudes, behavior and performance (Zins et al., 2004). For example, school engagement seems to be positively associated with academic success (Upadyaya & Salmela-Aro, 2013) comprising an emotional dimension (e.g., school identification), a cognitive dimension (e.g., self-regulation strategies), and a behavioral dimension (e.g., adherence, participation and engagement in school tasks and school-related activities) (Christenson, Reschly, & Wylie, 2012). Promoting pupils' school engagement may, thus, contribute to their academic success, and may be achieved through their participation in SEL programs (Durlak et al., 2011; Payton et al., 2008).

Most SEL programs are part of school *curricula* and use natural groups such as classes, as recommended by CASEL (2015). Nevertheless, several SEL programs referred to as after-school programs have also been implemented after the school day, such as extracurricular activities, or when school is not in session, such as on holidays (Gullotta, 2015). Research on SEL after-school programs has indicated that they are, indeed, efficacious. The results of 57 studies revealed that SEL after-school programs were successful in promoting socio-emotional skills of children and youths of different ages, from distinct ethnic and socio-economic groups, in urban, suburban and rural settings (Payton et al., 2008). Furthermore, another meta-analysis of after-school programs promoting personal and social skills (Durlak & Weissberg, 2007) concluded that the programs had a positive impact on school bonding, self-efficacy and self-esteem, behavioral adjustment indicators and school success.

One of the main reasons for valuing after-school programs is the need for after-school care and supervision of the children and adolescents of working parents (Gottfredson, Cross, Wilson, & Rorie, 2010) considering that young people are at higher risk of engaging in negative and unhealthy behaviors while their parents are at work (Gullotta, 2015). Another reason is related to the lack of time and adequate training by the teachers to include interventions in the school *curricula* geared towards pupils' personal and social development (Humphrey, Lendrum, & Wigelsworth, 2013; Perikkou, Kokkinou, Panagiotakos, & Yannakoulia, 2015). In Portugal, for instance, the increase in the academic demands of the *curricula* in the transition from elementary to middle school make it more difficult for teachers to prepare and include this type of content in classes. Therefore, after-school programs may be a valuable option in particular cultural contexts where it is more unlikely to have SEL programs included in the academic *curricula*, as the same time as a safe and caring environment is offered to the children and adolescents while their parents are at work.

However, after-school programs, since they are optional, have some particular limitations such as low attendance rates and possible sample losses (Gottfredson et al., 2010; Gopalan et al., 2013; Hayes, Chapple, & Ramirez, 2014). Therefore, after-school program activities need to be appealing to the target population in order to maximize their attendance and continuation. Children and youth-targeted programs that rely on artistic activities seem to match the interests of this population, thus, enhancing their attraction and subsequent participation rates (Hutzel, Russell, & Gross, 2010; Wright, John, Alaggia, & Sheel, 2006). Therefore, the use of art-based activities in school programs may be useful to promote children and youths' engagement.

Education through Art and Art Therapy are examples of art-based approaches with similar methodologies used by psychologists and other professionals in school interventions with children and youth, sharing in some cases identical origins. For instance, in the UK, Educational Dance, known in the USA as Creative Dance, a specific approach within the Education through Art realm which uses movement and dance to develop physical, psychological and emotional skills (Sousa, 2003), has its roots in the work of Laban (1963) concerning the use of dance and movement in education to promote children's development. Likewise, Dance Movement Therapy (DMT), in the UK, also followed the contributions of Laban's work, and dance and movement began to be used in treatment and therapeutic contexts (Payne, 1997). The main difference between these two types of intervention resides in their particular aims. Educational Dance is not a form of psychotherapy, even though it may have therapeutic effects, while DMT focuses on the psychotherapeutic use of movement and dance, aimed to therapeutic needs (Meekums, 2002). Therefore, in educational settings, Art Therapy entails the use of different forms of art to treat problems and difficulties experienced by the pupils, following a psychotherapeutic approach (Payne, 1997). In contrast, Education through Art interventions in schools follow a more preventive and

promotional approach, where different forms of art are used to enhance pupils' overall development (Sousa, 2003), despite the presence or the absence of problems or difficulties.

Specifically regarding SEL interventions in schools, there seems to be a lack of studies on the development and evaluation of SEL programs using art-based approaches, such as Education through Art and Art Therapy. These type of approaches may be suitable in the context of SEL interventions considering the results of a recent study indicating that art therapy programs may prevent the development of psychological problems in youth by increasing their resilience and their social and emotional functioning (Sitzer & Stockwell, 2015). Moreover, research concerning art-based community work with youth in socio economic challenging contexts suggests that art-based programs have a significant impact on enhancing the social skills of children and youths, namely relationship, conflict solving and team work skills (Wright, et al., 2006; Wright, Alaggia, & Krygsman, 2014).

Therefore, Education through Art, designed to promote personal and social skills through artistic activities (Sousa, 2003), may be an appropriate tool for SEL after-school programs of preventive and universal nature, targeting all pupils, while Art Therapy may be a more suitable tool to SEL interventions targeting pupils in risk situations or experiencing socio-emotional and behavioral problems. However, to our knowledge, the efficacy of SEL programs by means of Education through Art or Art Therapy activities has not yet been evaluated.

Experiencing Emotions **Program**

The *Experiencing Emotions* program builds on previous work consisting of the planning of the program by means of a case study of a Portuguese state school (reference deleted to maintain the integrity of the review process). The program is grounded in other SEL programs (Merrell, Carrizales, Feuerborn, Gueldner, & Tran, 2007; Roffey, 2006) and in the literature on SEL (Ciarrochi & Mayer, 2007; Merrell & Gueldner, 2010), and Educational

Dance in the domain of Education through Art (Payne, 1997; Sousa, 2003). *Experiencing Emotions* is an after-school program targeting middle school pupils, which consists of 12 hourly sessions to be implemented as extracurricular activities in schools, and aims to develop pupils' socio-emotional skills in the main areas considered in SEL programs (CASEL, 2015): self-awareness, social awareness, self-management, relationship skills and responsible decision-making. The program also includes contents on multiculturality, due to the lack of SEL programs that also comprise these contents. Programs developed in school contexts should contain inclusive practices to guide pupils towards understanding their own cultural background, as well as those of others, thus, enabling them to be able to deal with a multicultural society in an appropriate manner (Kennedy, Bronte-Tinkew, & Matthews, 2007). Furthermore, the efficacy of these programs may be broadened to target a larger *spectrum* of pupils (Merrell & Gueldner, 2010), one of the factors deemed important for the success of such interventions (Nation et al., 2003).

The structure and main contents of the program are presented in Table 1. Procedures are based on Educational Dance activities, using movement and dance activities, some of them guided by music, to promote physical, emotional and social skills (Sousa, 2003), thus, contributing towards the development of relations among thoughts, emotions and behaviors (Meekums, 2002). Music is used in the sessions of the program to facilitate pupils' expression during some of the movement and dance exercises. In contrast, Music Therapy refers to the use of music with the aim of accomplishing therapeutic goals within a therapeutic relationship (McFerran & Rickson, 2014). In each session of the program, the socio-emotional and multicultural contents are tackled in an implicit manner with the participants, through group dynamics using Educational Dance activities, and moments of reflection and group discussion on the program content are encouraged.

The present study

The present study entails an alternative approach to SEL programs, the *Experiencing Emotions* SEL program using Education through Art, with a view to better contributing to pupils' responsiveness towards after-school interventions by choosing activities that may be more appealing and interesting to children and adolescents. The quality of implementation of the program was measured in another study (reference deleted to maintain the integrity of the review process) which revealed high responsiveness rates by the participants towards the program. Since Education through Art activities, to our knowledge, have not yet been used in the context of SEL programs, the present study aims to assess the efficacy of the *Experiencing Emotions* program on the socio-emotional skills of middle school pupils, and also to ascertain the effects of the intervention on these pupils' emotional, psychological and social well-being, and on the behavioral dimension of school engagement. The program was expected to lead to greater gains in terms of the pupils socio-emotional competencies when compared with the control group. (Hypothesis 1). It was also expected that the program would have positive effects on pupils' emotional, psychological and social well-being, and on pupils' behavioral school engagement, in comparison with the control group (Hypothesis 2).

Method

Design. The present study used a 2 (intervention and control) X 2 (pre and post test) quasi-experimental design.

Participants. The initial sample consisted of 105 pupils from three randomly chosen state schools in Lisbon, from low to medium socio-economic backgrounds. However, since not all pupils participated in the same number of program and control sessions, only the pupils who attended at least 9 sessions (3/4 of the total sessions) were selected for the present study. The final sample consisted of 83 pupils, 45 participated in the program and 38 in the control condition. The program sample consisted of 27 5^{th} grade pupils (60%), 16 6^{th} grade pupils (36%) and two 7^{th} grade pupils (4%), aged between 10 and 12 years (M = 10.62; SD

= .72); 39 girls (87%) and 6 boys (13%); 29 pupils (64%) from Portuguese nationality/ethnicity and 16 (36%) from other nationality/ethnicity (e. g., Brazilian, Cape Verdean, Gypsy). The control sample consisted of 20 5th grade pupils (53%), 12 6th grade pupils (32%), 5 7th grade pupils (13%) and one 8th grade pupil (3%), aged from 9 to 13 years (M = 10.87; SD = 1.12); 27 girls (71%) and 11 boys (29%); 24 pupils (63%) from Portuguese nationality/ethnicity and 14 pupils (37%) from other nationality/ethnicity.

Measures. The efficacy of the program on the socio-emotional skills of the pupils and its effects on their well-being and school engagement were assessed through self-report measures filled in by the pupils, and also measures filled in by the teachers since this type of evaluation enables teachers to assess the learning of socio-emotional skills by the pupils on the basis of their daily behavior (Durlak et al., 2011).

Socio-emotional skills measures. Measures were selected according to the five main SEL domains of self-awareness, social awareness, self-management, relationship skills and responsible decision-making (CASEL, 2015). Regarding the self-awareness domain, it was selected a measure of the ability to perceive and understand emotion, the Perceiving and Understanding Emotion scale (15 items, e. g. "When I don't like something, I immediately let it show"; Cronbach α = .84 in the Portuguese adaptation study, and Cronbach α = .86 in the present study sample), of the Emotional Skills and Competence Questionnaire (ESCQ; Taksic (2000), a self-report measure with a five point scale ranging from 1 (never) to 5 (frequently), adapted to the Portuguese population (Faria & Lima-Santos, 2005). Referring to the SEL social awareness domain, another scale of the ESCQ (Taksic, 2000) measuring the ability to express and label emotion was selected, the Expressing and Labeling Emotion scale (14 items, e. g. "I can tell when someone is trying to hide a bad mood"; Cronbach α = .83 in the Portuguese adaptation study, and Cronbach α = .84 in the present study sample). Concerning the self-management SEL domain, two measures were selected, the Managing and Regulating

Emotion scale (16 items, e. g. “When someone praises me, I work more enthusiastically”; Cronbach α = .64 in the Portuguese adaptation study, and Cronbach α = .75 in the present study sample) of the ESCQ (Taksic, 2000), measuring the ability to manage and regulate emotion; and a measure of skills related to self-restraint, cooperation and compliance with the demands of rules and expectations, the Self-management sub-scale (10 items, e. g. “Remains calm when problems arise”; Cronbach α = .83 in the Portuguese adaptation study, and Cronbach α = .82 in the present study sample), of the Scale A of the School Social Behavior Scales (SSBS-2) developed by Merrell (2002) and adapted to the Portuguese population (Raimundo et al., 2012). This measure is filled in by the teachers, using a five point scale ranging from 1 (never) to 5 (very often). Regarding the relationship skills SEL domain, another sub-scale of the SSBS-2 was selected, the Peer Relations sub-scale, filled in by the teachers, (14 items, e. g. “Understands other pupils’ problems and needs”; Cronbach α = .91 in the Portuguese adaptation study, and Cronbach α = .92 in the present sample study) which measured skills that are important for the establishment of positive relationships with peers and for gaining social acceptance (Merrell, 2002). Finally, an indicator of the responsible-decision making domain was measured through the Interpersonal Negotiation scale (8 items, e.g. “When my best friend and I don’t agree on what to do, I might: a. Try to convince my friend, b. Listen to my friend and work it out, c. Get upset and go away to be by myself, d. Go along with my friend; Cronbach α = .68 in the Portuguese adaptation study, as well as in the present study sample) of the Relationship Questionnaire (Rel-Q; Schultz, Selman, & LaRusso, 2003), adapted to the Portuguese population (reference deleted to maintain the integrity of the review process). According to the CASEL criteria this scale is an appropriate measure of this SEL domain (Denham, Ji, & Hamre, 2010) since it evaluates how an individual takes the perspectives of self and others into account and coordinate them while considering the consequences of different actions (Schultz, Selman, & LaRusso, 2003). Each

item of this scale had 4 multiple-choice answers and the respondent not only had to choose the most suitable, but also to rate it as “poor”, “ok”, “good” or “excellent”. The two results were combined into a mean composite result.

Well-being and school engagement measures. Pupils’ well-being was measured through a self-report questionnaire, the Mental Health Continuum-Short Form (MHC-SF; Keyes, 2002), adapted to the Portuguese population (Matos et al. 2010), consisting on 14 items which measured each dimension of well-being: emotional, psychological and social. The Emotional Well-being scale comprised 3 items (e. g., “Satisfied”; Cronbach α = .85 in the Portuguese adaptation study, and Cronbach α = .66 in the present study sample), the Psychological Well-being scale 6 items (e. g. “That you had experiences that allowed you to grow and become a better person”; Cronbach α = .83 in the Portuguese adaptation study, and Cronbach α = .79 in the present study sample) and the Social Well-being scale 5 items (e. g. “That the way that our society works makes sense to you”; Cronbach α = .80 in the Portuguese adaptation study, as well as in the present study sample). The behavioral dimension of school engagement was measured by the teachers through the sub-scale Academic Behavior of the SSBS-2 (Merrell, 2002) which comprises 8 items (e. g. “Completes assigned activities on time”; Cronbach α = .91 in the Portuguese adaptation study, and Cronbach α = .88 in the present study sample) measuring competent performance and engagement in academic tasks.

Procedure. The study was approved by the Scientific Council of the Faculty of Psychology of the University of Lisbon, the entity responsible, at the time, for the ethic and scientific evaluation of research projects. The study and implementation of the program and control activities were conducted after authorization was received from the administrative school council of the three schools involved. The activities were announced at each school in the beginning of the school year, and the pupils from different classes who were interested in

the program activities and in the control activities voluntarily signed up according to their interest in participating in one or another type of activity. A request for written informed consent was sent to their parents to obtain the required permission. The groups were created according to the number of enrolments with a limit of 15 participants for the program groups and 20 participants for the control groups. In total, 7 groups of the program and 5 groups of the control condition were created with a total of 105 pupils. The sample of the present study consisted of the 83 pupils who attended at least ¾ of the program and control sessions (at least 9 of the total 12 sessions). Weekly hourly sessions of the program took place in an appropriate classroom at the schools under study, and were conducted by a psychologist with previous specialized training in the field of Educational Dance. The control sessions consisted of individual handicraft activities and had the same duration and frequency of the program sessions, and were implemented by the same psychologist. No socio-emotional skills were involved in the control activities. Both groups were tested and re-tested under the same conditions. The measures were filled in by both groups in paper-pencil format in classrooms at the schools under study. The data from the outcome measures were collected prior to the first session of the intervention (pre-test session) and after the last session (post-test session). Demographic data were collected at pre-test. All data were collected by the same researcher in both groups using the same verbal instructions and measures. Teachers filled in the questionnaires at home following standard written instructions, they were unaware of which pupils were part of the program or the control condition, and were only informed that the pupils were participating in after-school activities.

Data analysis. Initial analysis were performed to determine whether the intervention group and the control group differed in gender, age, grade and nationality/ethnicity, using independent t tests for continuous variables and chi-square analyses for categorical variables. The impact of the program on pupils' socio-emotional skills and its effects on pupils' well-

being and school engagement was estimated by means of a repeated measures analysis of covariance (ANCOVA) based on the General Linear Model (GLM) with condition (intervention and control) as the fixed factor and the pre-test values of the outcomes as covariates, as well as age, gender, grade and nationality/ethnicity. The dependent variables were the scales and the sub-scales of the outcome measures. The dependent variables which measured pupils' socio-emotional skills referring to the main SEL domains were the Perceiving and Understanding Emotion scale (self-awareness domain); Expressing and Labeling Emotion" scale (social awareness domain); Managing and Regulating Emotion scale and Self-management sub-scale (self-management domain); Peer Relations sub-scale (relationship skills domain); and Interpersonal Negotiation" scale (responsible decision-making domain). The Emotional Well-being, Psychological Well-being and Social Well-being scales were the dependent variables referring to pupils' well-being, and the Academic Behavior sub-scale measured pupils' behavioral school engagement. Although the Cronbach alpha values indicating that the measures have good internal consistency are generally above 0.7, values above 0.6 are considered adequate for exploratory research (Nunnally, 1978). Therefore, Cronbach alpha values above 0.6 were considered to reflect adequate internal consistency of the outcome measures.

Results

Results from the qui-square and t-test analyses revealed that the intervention group and the control group did not differ significantly concerning age, $t(81) = -1.21$, $p = .23$, gender, $\chi^2(1) = 3.08$, $p = .10$, grade $\chi^2(3) = 3.33$, $p = .34$, and nationality/ethnicity, $\chi^2(1) = .02$, $p = 1.01$.

ANCOVA assumptions were previously tested. The sphericity assumption was met since the variables had only two levels, thus, Mauchly's test equaled 1 indicating perfect

sphericity (Field, 2009). The assumption of equality of variances analyzed through the Levene's test revealed no significant differences concerning all the outcome measures.

The general results of the ANCOVA analysis are presented in Table 2 by comparing the results of the outcome measures according to the groups (intervention and control), while pre-test, age, gender, grade, and nationality/ethnicity differences were controlled. Results related with pupils' socio-emotional skills indicated that the pupils who participated in the program had significantly higher results (M = 4.16, SD = .48) in the Self-management sub-scale, referring to the self-management SEL domain, $F(1, 1) = 4.56$, $p = .04$, $\eta^2 = .06$, than the pupils from the control condition (M = 3.85, SD = .57). The same result was observed in the Peer Relations sub-scale, $F(1, 1) = 5.43$, $p = .02$, $\eta^2 = .07$, relative to the relationship skills SEL domain, with the intervention pupils revealing higher results (M = 3.72, SD = .61) than the pupils from the control condition (M = 3.37, SD = .62). No significant differences were found between the intervention and the control groups concerning the remaining outcome measures of the SEL domains of self-awareness, social awareness and responsible decision-making. No significant results were also found between the intervention and the control groups considering pupils' well-being and behavioral school engagement.

No significant differences were found between the pupils concerning pre-test, age, gender, and grade. Only one nationality/ethnicity significant difference was found in the Peer Relations sub-scale, $F(1, 1) = 7.29$, $p = .009$, $\eta^2 = .09$, with the Portuguese pupils (M = 3.84, SD = .61) revealing higher results than the pupils from other nationality/ethnicity (M = 3.5, SD = .57).

Discussion

The main purpose of the present study was to assess the effects of an after-school SEL program, *Experiencing Emotions*, using Educational Dance activities in the domain of

Education through Art, on middle school pupils' socio-emotional competencies, as well as on their well-being and school engagement.

Firstly, the results revealed that the pupils significantly developed their socio-emotional skills after having participated in the *Experiencing Emotions* program in the areas of self-management and relationship skills, and that this increase was significant in comparison with the control group, which supports the first hypothesis of the present study.

However, significant results relative to the self-management SEL domain were only found in the measure filled in by the teachers (Self-management sub-scale of the SSBS-2 scale) and not in the measure filled in by the pupils (Managing and Regulating Emotion scale of the ESCQ). Since teachers did not know which pupils participated in the program or in the control condition when they answered the questionnaires, this result is most probably due to the inappropriateness of the self-report measures filled in by the pupils to reflect the effects of the program. Research points out a number of concerns about the use of self-report measures, namely response bias factors such as social desirability, and the role of teachers and parents has been more valued to evaluate behaviors based on the contexts where they are likely to occur (Elliott, Frey, & Davies, 2015). Furthermore, people tend to overestimate how well they adapt to emotional events, and pupils' assessments of themselves tend to be overrated and to agree only moderately with those of their teachers as they often lack the knowledge and expertise required to assess their competence adequately (Dunning, Heath, & Suls, 2004). Therefore, the lack of positive results in the socio-emotional self-report measures of the present study may be explained by pupils having overestimated their socio-emotional skills before the intervention, while simultaneously not having sufficient knowledge to evaluate themselves realistically. At the end of the intervention, the pupils who participated in the program had more information on socio-emotional skills, and were consequently probably more aware of potential difficulties they had not been aware of before.

The significant difference found in nationality/ethnicity concerning the relationship skills SEL domain suggests that this increase was higher in the Portuguese pupils who participated in the program in comparison with those of other nationalities and ethnicities. This result may be interpreted according to cultural differences related to the relationship skills SEL domain (Hecht & Shin, 2015). Perhaps it was easier for the Portuguese pupils to develop relationship skills than for the pupils of other nationalities and ethnicities since adaptation to the specific cultural features of relationships was less demanding for the Portuguese pupils given their familiarity with the cultural references of their homeland.

Contrary to the second hypothesis of this study, no significant increase was observed in the emotional, psychological and social well-being of the pupils who participated in the program, nor in their behavioral school engagement, in comparison with the pupils from the control condition. One possible interpretation of these results may be that the extension of the program was not enough to lead to these effects which are distal and not direct effects of the program such as the socio-emotional skills. Another possible explanation may be that the control group condition also consisted of after-school activities, and being engaged in enjoyable activities in their free time at school may have influenced pupils' well-being and their positive engagement with school tasks and school-related activities which, thus, may have led to the lack of differences between the two conditions. In fact, research has shown that after-school activities may contribute to pupils' feeling more intrinsically motivated and to putting more effort into their activities (Fredricks & Simpkins, 2011; Grogan, Henrick, & Malikina, 2014; Vandell et al., 2005).

Overall, the findings of the present study indicate that the *Experiencing Emotions* SEL program may contribute to increasing middle school pupils' socio-emotional skills in the domains of self-management and relationship skills. The fact that a SEL program using Education through Art activities has contributed to significantly improve participants' socio-

emotional skills suggests that Education through Art may be an appropriate tool for SEL programs, in keeping with other studies showing that the arts may be used to promote resilience and social and emotional competencies in children and youths (Sitzer & Stockwell, 2015; Wright, et al., 2006; Wright, Alaggia, & Krygsman, 2014). If these types of activities were inadequate procedures in the context of SEL, then no significant results would probably have been found. However, further research using a different design would be needed to come to such, as referred to in the following lines.

Limitations and future directions

The present study has some limitations that should be taken into consideration. First, the design does not allow for an analysis of the advantages of a SEL program using Education through Art in comparison with the SEL programs usually developed in after-school settings. In this respect, further research is needed to compare the *Experiencing Emotions* program with a more traditional after-school SEL program, and with a control group taking part in Education through Art activities with no SEL contents. This design would enable an understanding of the relative efficacy of each kind of approach within after-school SEL programs, and also a comparison of pupils' responsiveness towards each kind of approach by assessing dimensions such as pupils' interest, satisfaction and attendance, since responsiveness is one of the main aspects associated with the efficacy of programs (Berkel, Mauricio, Schoenfelder, & Sandler, 2011). Although the present study cannot conclude if the improvement in pupils' socio-emotional skills is strictly due to the SEL program, to the Education through Art activities, or to both together, the results are encouraging since positive effects of the *Experiencing Emotions* program were found in participants' socio-emotional skills, thus pointing to its potential in the promotion of children and youths' SEL competencies. Thus, the findings of the present study encourage further work analyzing the relationship between Education through Art and SEL. Other important limitations of the

present study refer to the small size of the sample, as well as the grade, gender and age distribution imbalance. The sample includes mostly 5th and 6th grade pupils, aged 10 and 11 years and girls, therefore, the results should be carefully interpreted when considering boys and 3rd cycle pupils. A further limitation is the fact that the research was conducted in a Portuguese context which contributes to its ecological validity not allowing for the generalization of the results to other contexts. Lastly, a follow-up evaluation should have been included in this study to assess the temporal stability of the program's effects, as well as potential distal effects of the program considering that some studies report significant results at follow-up which were not found at post-test (Diekstra, 2008; Merrell, Juskelins, Tran, & Buchanan, 2008). Finally, both the program and the control sessions were conducted by the same psychologist which may lead to bias related with the expectations of the implementer. However, this aspect also presents advantages considering that it may help to reduce bias referring to the characteristics of the implementers, such as level of enthusiasm, clarity, empathy, among others, which is considered to be one of the main dimensions influencing the impact of the interventions (Domitrovich & Greenberg, 2000).

Despite these limitations, the results of the present study have important implications for research and practice. First of all, these findings offer a contribution to the validation of the *Experiencing Emotions* program in the promotion of pupils' social and emotional development in Portuguese after-school settings. Furthermore, this study is among the first to focus on a SEL program that uses Education through Art activities and, thus, sheds light on the potential utility of these kinds of activities in the context of SEL, particularly in extracurricular settings in schools. After-school SEL programs may be especially useful in cultural contexts where it is difficult to have SEL *curricula* interventions, but since most after-school programs are optional, it is important to think of activities that may be more appealing and interesting to the pupils in order to promote their responsiveness. In fact, one

of the recent guidelines for SEL interventions is that “active, moving and doing” activities are preferable to “passive, sitting, hearing-only” activities, and one of the four features of effective SEL programs is that the activities used to teach socio-emotional skills should entail movement, participation, manipulation, and practice (Gullotta, 2015). It is in this sense that school interventions such as the *Experiencing Emotions* program may add value to the already existing SEL programs.

Acknowledgements

Our research was approved and funded by the Fundação para a Ciência e a Tecnologia (FCT) of the Science and Education Ministry of Portugal (research grant number: SFRH/BD/76257/2011).

References

Berkel, C., Mauricio, A. M., Schoenfelder, E., & Sandler, I. N. (2011). Putting the pieces together: An integrated model of program implementation. *Prevention Science*, *12*(1), 23-33. doi: 10.1007/s11121-010-0186-1

Christenson, S. L., Reschly, A. L., & Wylie, C. (2012). *The handbook of research on student engagement*. New York, NY: Springer Science.

Ciarrochi, J., & Mayer, J. D. (2007). *Applying emotional intelligence: A practitioner's guide*. New York, NY: Psychology Press.

Coelho, V., Sousa, V., & Figueira, A. P. (2014). The impact of a school-based social and emotional learning program on the self-concept of middle school students collaborative for academic, social and emotional learning. *Revista de Psicodidáctica*, *19*(2), 347-365. doi: 10.1387/RevPsicodidact.10714

Collaborative for Academic, Social and Emotional Learning (2015). *CASEL guide: Effective social and emotional learning programs - middle and high school edition*. Chicago, IL: Author.

Denham, S. A., Ji, P., & Hamre, B. (2010). *Compendium of social-emotional learning and associated assessment measures.* Chicago, IL: Collaborative for Academic, Social, and Emotional Learning.

Diekstra, R. (2008). Effectiveness of school-based social and emotional education programs worldwide. In *Social and emotional education: An international analysis* (pp. 271-298). Santander, Spain: Fundación Marcelino Botín.

Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, *95*(3), 542-575. doi:10.1037/0033-2909.95.3.542

Domitrovich, C. E., & Greenberg, M. T. (2000). The study of implementation: Current findings from effective programs that prevent mental disorders in school-aged children.

Journal of Educational & Psychological Consultation, *11*(2), 193-221. http://dx.doi.org/10.1207/S1532768XJEPC1102_04

Dunning, D., Heath, C., & Suls, J. M. (2004). Flawed self-assessment: Implications for health, education, and the workplace. *Psychological Science in the Public Interest*, *5*(3), 69-106. doi: 10.1111/j.1529-1006.2004.00018.x

Durlak, J. A., & Weissberg, R. P. (2007). *Full Report: The impact of after-school programs that promote personal and social skills.* Chicago, IL: Collaborative for Academic, Social, and Emotional Learning.

Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development, 82*, 405–432. doi: 10.1111/j.1467-8624.2010.01564

Elbertson, N., Brackett, M., & Weissberg, R. (2010). School-based Social and Emotional Learning (SEL) programming: Current perspectives. In A. Hargreaves, A. Lieberman, M. Fullan, & D. Hopkins (Eds.), *Second international handbook of educational change* (pp. 1017-1032). London: Springer.

Elliott, S. N., Frey, J. R., & Davies, M. (2015). Systems for assessing and improving students' social skills to achieve academic competence. In J. A. Durlak, C. E. Domitrovich, R. P. Weissberg, & T. P. Gullotta (Eds.), *Handbook of social and emotional learning: Research and practice* (pp. 301-319). New York, NY: The Guilford Press.

Faria, L., & Lima Santos, N. (2005). *Adaptation of the Emotional Skills and Competence Questionnaire (ESCQ) to the Portuguese context*. Symposium conducted at the 9th European Congress of Psychology, Granada, Spain.

Field, A. P. (2009). *Discovering statistics using SPSS: and sex and drugs and rock 'n' roll* (third edition). London: Sage publications.

Fredricks, J. A., & Simpkins, S. D. (2011). Promoting positive youth development through organized after- school activities: Taking a closer look at participation of ethnic minority youth. *Child Development Perspectives*, *6*(3), 1750-8606. doi: 10.1111/j.1750-8606.2011.00206.x

Gopalan, G., Alicea, S., Conover, K., Fuss, A., Gardner, L., Pardo, G., & McKay, M. (2013). Project Step-Up: Feasibility of a comprehensive school-based prevention program. *The Journal of Early Adolescence, 33*(1), 131-154. doi: 10.1177/0272431612467536

Gottfredson, D. G., Cross, A. B., Wilson, D. M., Rorie, M., & Connell, N. M. (2010). An experimental evaluation of the All-Stars prevention curriculum in a community after school setting. *Prevention Science, 11*(2), 142-154. doi: 10.1007/s11121-009-0156-7

Greenberg, M. T., Weissberg, R. P., O'Brien, M. U., Zins, J. E., Fredericks, L., Resnik, H., & Elias, M. J. (2003). Enhancing school-based prevention and youth development through coordinated social, emotional, and academic learning. *American Psychologist*, *58* (6/7), 466-474. doi: 10.1037/0003-066X.58.6-7.466

Grogan, K. E., Henrick, C.C., & Malikina, M. V. (2014). Student engagement in after-school programs, academic skills, and social competence among elementary school students. *Child Development Research*, 1-9. doi:10.1155/2014/498506

Gullotta, T. P. (2015). After-school programming and SEL. In J. A. Durlak, C. E. Domitrovich, R. P. Weissberg, & T. P. Gullotta (Eds.), *Handbook of social and emotional learning: Research and practice* (pp. 260-266). New York, NY: The Guilford Press.

Hayes, S. M., Chapple, S., & Ramirez, C. (2014). Strong, smart and bold strategies for improving attendance and retention in an after-school intervention. *Journal of Adolescent Health*, *54*, 64-69. doi:10.1016/j.jadohealth.2013.12.030

Humphrey, N. (2013). *Social and Emotional Learning: A critical appraisal*. London: Sage.

Humphrey, N., Lendrum, A., & Wigelsworth, M. (2013). Making the most of school-based prevention: Lessons from the social and emotional aspects of learning (SEAL) programme. *Emotional and Behavioural Difficulties*, *18*(3), 248 260. doi: 10.1080/13632752.2013.819251

Hutzel, K., Russell, R., & Gross, J. (2010). Eighth graders as role models: A service-learning art collaboration for social and emotional learning. *Arts Education*, *60*(3), 6-11.

Kennedy, E., Bronte-Tinkew, J., & Matthews, G. (2007). *Enhancing cultural competence in out-of-school time programs: What is it, and why is it important?* Washington, DC: Child Trends.

Keyes, C. L. M. (1998). Social well–being. *Social Psychology Quarterly*, *61*, 121–140. doi:10.2307/2787065

Keyes, C. L. M. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of Health and Social Behavior*, *43*, 207-222. doi: 10.1177/0022146514568348

Laban, R. (1963). *Modern educational dance*. London, UK: MacDonald & Evans.

Matos, A. P., André, R. S., Cherpe, S., Rodrigues, D., Figueira, C., & Pinto, A. M. (2010). Preliminary psychometric study of the Mental Health Continuum – Short Form – for youth, in a sample of Portuguese adolescents. *Psychologica*, *53*, 131-156.

McFarren, K. S., & Rickson, D. (2014). Community music therapy in schools: Realigning with the needs of contemporary students, staff and systems. I*nternational Journal of Community Music*, *7*(1), 75-92. doi: 10.1386/ijcm.7.1.75_1

Meekums, B. (2002). *Dance movement therapy: A creative psychotherapeutic approach.* London: Sage.

Merrell, K. (2002). *School Social Behavior Scales, second edition*. Eugene, OR: Assessment-Intervention Resources.

Merrell, K. W., Carrizales, D., Feuerborn, L., Gueldner, B. A., & Tran, O. K. (2007). Strong kids: A social & emotional learning curriculum. Baltimore, MD: Paul H. Brookes.

Merrell, K., Juskelis, M., Tran, O., & Buchanan, R. (2008). Social and emotional learning in the classroom: Evaluation of Strong Kids and Strong Teens on students' social-emotional knowledge and symptoms. *Journal of Applied School Psychology*, *24*, 209-224. doi: 10.1080/15377900802089981

Merrell, K. W., & Gueldner, B. A. (2010). *Social and emotional learning in the classroom: Promoting mental health and academic success.* New York, NY: The Guilford Press.

Nation, M., Crusto, C., Wandersman, A., Kumpfer, K. L., Seybolt, D., Morrisey-Kane, E., & Davino, K. (2003). What works in prevention: principles of effective prevention programs. *American Psychologist*, *58* (6/7), 449-456. doi: 10.1037/0003-066X.58.6-7.449

Nunnally, J. C. (1978). *Psychometric theory*. New York: McGraw-Hill.

Payne, H. (1997). *Creative movement & dance in groupwork*. London: Speechmark.

Payton, J., Weissberg, R. P., Durlak, J. A., Dymnicki, A. B., Taylor, R. D., Schellinger, K. B., & Pachan, M. (2008). *The positive impact of social and emotional learning for kindergarten to eighth-grade students: Findings from three scientific reviews.* Chicago, IL: Collaborative for Academic, Social and Emotional Learning.

Perikkou, A., Kokkinou, E., Panagiotakos, D. B., & Yannakoulia, M. (2015). Teachers' readiness to implement nutrition education programs: Beliefs, attitudes, and barriers. *Journal of Research in Childhood Education*, *29*(2), 202-211. doi: 10.1080/02568543.2015.1009202

Raimundo, R., Carapito, E., Pereira, A. I., Marques-Pinto, A., Lima, L., & Ribeiro, T. (2012). School Social Behavior Scales (SSBS-2): An adaptation study of the Portuguese version of the social competence scale. *Spanish Journal of Psychology*, *15*, 1473-1484. doi: 10.5209/rev_SJOP.2012.v15.n3.39431

Raimundo, R., Marques-Pinto, A., & Lima, M. L. (2013). The effects of a social-emotional learning program on elementary school children: The role of pupils' characteristics. *Psychology in the Schools*, *50*(2), 165-180. doi: 10.1002/pits.21667

Roffey, S. (2006). Circle time for emotional literacy. London: Sage.

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well–being. *Journal of Personality and Social Psychology*, *57*, 1069–1081. doi:10.1037/0022-3514.57.6.1069

Schultz, L. H., Selman, R. L., & LaRusso, M. D. (2003). The assessment of psychosocial maturity in children and adolescents: Implications for the evaluation of school-based character education programs. *The Journal of Research in Character Education*, *1*(2), 67-87.

Sitzer, D. L., & Stockwell, A. B. (2015). The art of wellness: A 14-week art therapy program for at-risk youth. *The Arts in Psychotherapy*, *45*, 69-81. doi:10.1016/j.aip.2015.05.007

Social and Character Development Research Consortium. (2010). *Efficacy of schoolwide programs to promote social and character development and reduce problem behavior in elementary school children.* Washington, DC: National Center for Education Research, Institute of Education Sciences, U.S. Department of Education.

Sousa, A. B. (2003). *Educação pela arte e artes na educação*. [Education through art and arts in education] Lisbon, Portugal: Piaget Institute.

Taksic, V. (2000). Emotional Skills and Competence Questionnaire. Rijeka, Croatia: Author.

Upadyaya, K., & Salmela-Aro, K. (2013). Development of school engagement in association with academic success and well-being in varying social contexts. *European psychologist*, *18*(2), 136 -147. doi:10.1027/1016-9040/a000143

Vandell, D. L., Shernoff, D. J., Pierce, K. M., Bolt, D. M., Dadisman, K., & Brown, B. B. (2005). Activities, engagement, and emotion in after-school programs (and elsewhere). *New Directions for Youth Development*, *105*, 121–129. doi: 10.1002/yd.111

Wright, R., John, L., Alaggia, R., & Sheel, J. (2006). Community-based arts program for youth in low-income communities: A multi-method evaluation. *Child and Adolescent Social Work Journal*, *23*(5-6), 635-652. doi: 10.1007/s10560-006-0079-0

Wright, R., Alaggia, R., & Krygsman, A. (2014). Five-year follow-up study of the qualitative experiences of youth in an afterschool arts program in low-income communities. *Journal of Social Service Research*, *40*(2), 37-146. doi: 10.1080/01488376.2013.845130

Zins, J. E., Weissberg, R. P., Wang, M. P., & Walberg, H. J. (2004). *Building academic success on social and emotional learning. What does the research say?* New York: Teachers College Press.

Table 1

Structure and contents of Experiencing Emotions program

Units	Contents	Description of an example activity
1 –Understanding emotions (4 hourly sessions)	Self-awareness and Social awareness; Relationship skills	Pupils form pairs and, face to face, one of them makes movements and the other imitates while listening to music that transmits more positive or negative emotions.
	Knowing more about different cultures	Pupils form groups and each group has to prepare a dance improvisation to the sound of music representing a specific culture.
2 – Dealing with emotions (4 hourly sessions)	Self-management; Relationship skills	In pairs the goal is to dance to the sound of music while keeping a balloon between each other in contact with a part of each others' bodies without dropping the balloon or letting it pop.
	Rejecting prejudice and promoting inclusive practices	A piece of paper with the name of a culture or religion is stuck on each pupil's forehead. The goal is to greet peers by making gestures and movements.
3 – Having confidence and being responsible (4 hourly sessions)	Responsible decision-making; Relationship skills	Pupils use ropes and balls to improvise a dance to the sound of fast and energetic music, and afterwards using scarves to the sound of calm and slow music.
	Developing respect for different cultures	Forming pairs and, face to face, pupils have to create a tribal war dance. At the end, each pair has to be capable of making a peace dance, and of coming to an understanding.

Table 2

Results of the Time X Group Effects of the ANCOVA Analysis on Socio-emotional Skills, Well-being and School Engagement

Variables	Time	Means (SD)				
		Intervention group (n = 45)	Control group (n = 38)	F	η^2	p
Perceiving and Understanding Emotion	T1	4.79 (.69)	4.41 (1.08)	.81	.01	.37
	T2	4.58 (.80)	4.47 (.88)			
Expressing and Labeling Emotion	T1	4.71 (.75)	4.42 (1.01)	.76	.01	.39
	T2	4.68 (.80)	4.35 (.72)			
Managing and Regulating Emotion	T1	4.89 (.67)	4.64 (.79)	1.64	.02	.2
	T2	4.83 (.57)	4.53 (.65)			
Self-management	T1	3.93 (.59)	3.77 (.51)	4.56	.06	.04
	T2	4.16 (.48)	3.85 (.57)			
Peer Relations	T1	3.46 (.59)	3.46 (.59)	5.43	.07	.02
	T2	3.72 (.61)	3.37 (.61)			
Interpersonal Negotiation	T1	2.38 (.26)	2.33 (.31)	1.99	.03	.16
	T2	2.41 (.25)	2.30 (.35)			
Emotional Well-being	T1	3.65 (.96)	3.55 (1.15)	.25	0	.62
	T2	3.92 (.84)	3.81 (.93)			
Psychological Well-being	T1	3.38 (.94)	3.33 (1.08)	3.43	.04	.07
	T2	3.71 (.91)	3.26 (1.23)			
Social Well-being	T1	2.9 (.74)	2.8 (1.16)	.07	0	.8
	T2	2.87 (.91)	2.76 (1.31)			
Academic Behavior	T1	3.88 (.57)	3.46 (.62)	1.15	.02	.29
	T2	4.12 (.56)	3.78 (.57)			