

---

DOI: <https://doi.org/10.53555/ephijer.v1i2.11>

---

## KIDSTALENTUM: OUTDOOR TRAINING PROGRAM TO IMPROVE EMOTIONAL INTELLIGENCE IN ADOLESCENTS IN MANCHESTER UNITED SOCCER SCHOOLS, LISBON

Mário Fortes Santos PHD<sup>1\*</sup>, María Jesús Carrasco-Santos PHD<sup>2</sup>, Maria da Glória Salazar d' Eça Costa Franco PHD<sup>3</sup>, José Luis Minguete Chinchilla PHD<sup>4</sup>, Miguel Reinoso-Caparrós PHD<sup>5</sup>, Sara Bahia PHD<sup>6</sup>, Natalie Santos MD<sup>7</sup>, Maria João Pereira Beja PHD<sup>8</sup>

*\*Corresponding Author: -*

---

### **Abstract:-**

*This paper intends to evaluate the Outdoor Training methodology, widely used by consultants working for the emotional and social skills of entrepreneurs, in order to verify if it is also valid for working with adolescents, specifically, for developing their emotional intelligence skills. With this in mind, we chose an experimental study involving two groups of 30 adolescents, one as an experimental group and the other as a control group. They were students of the Manchester United Soccer Schools, Lisbon, Portugal. For the assessment of emotional intelligence, we used the Bar-On Emotional Quotient Inventory: Youth Version. The data obtained point to the evidence of improvements in the emotional skills of adaptability, interpersonal relationships, positive mood, and stress management.*

**Keywords:-***Talent; emotional intelligence; outdoor training; soccer; adolescents.*

## INTRODUCTION

We live in a time in which the economic and social situation demands more and more talented individuals with good social-emotional skills and who are prepared for present challenges. The need to improve the levels of the socio-emotional skills of adolescents and young people is a requirement of modern society, preparing them to meet the challenges of today's labour markets.

Our study is inserted in the context of the investigations that have been carried out to enhance the development of socio-emotional skills in adolescents with the aim of training talented individuals. Thus, basing ourselves on the theories of Goleman and Bar-On, we developed the KidsTalentum program, a program that uses the Outdoor Training methodology for the development of socio-emotional skills.

We chose the Outdoor Training methodology to work on socio-emotional skills and taking into account the good results reported by some investigations: Reinoso (2009) who applied it to businessmen, Molina (2011) who adapted it for university students and the work of Outward Bound which worked on the same skills with adolescents (Watters, 1986).

We carried out our study with adolescents between 11 and 13 years of age, students at a soccer school. We tailored the KidsTalentum program to this theme because football is a sport of the masses that attracts and motivates adolescents all over the world regardless of age, ethnicity or social conditions, afforded by its normative and instrumental simplicity, a privileged space to create possible talent. Our aim is to create a tool for working skills to enhance the emotional intelligence of youths and adolescents, especially at a time when every day produces social and cognitive problems at this age, because children and adolescents are often not endowed with intra and inter-relational skills, motivation, stress management, resilience, communication, social responsibility, adaptability, leadership, and other skills, enabling them to have another kind of maturity, and better results in the challenges they deal with in daily life.

## Literature Review

### Talent and Emotional Intelligence

These days, the word talent is perfectly fashionable, everybody talks about Mozart, Gaudi, Einstein, John Lennon, Madonna, Bill Gates, Pelé, Eusébio, Cristiano Ronaldo, why? In modern and contemporary society, there is a common idea that there are always individuals who are more gifted and more able to use their potential to accomplish remarkable feats in any field you can think of. For Williams (2000) talented people are those who regularly demonstrate an exceptional ability and performance over a range of activities and situations or in a specialized field or specialized area. They consistently show high prowess in transferable activity areas, i.e. a comparable capacity in situations where they have not been evaluated but in which they prove to be highly effective. Thus, the meaning of the word "talent" suggests something very valuable and unusual.

Almeida (2004) defines the term talent in its connotation applied to people management, as an individual who brings to the table a privileged set of skills that differentiates him or her from others. These skills refer to "knowing how to act responsibly and recognizably, which implies mobilizing, integrating, transferring knowledge, resources and skills that add economic value to the organization and social value to the individual" (Fleury & Fleury, 2001, p. 188).

However, as Bloom (1985) found in his study with talented individuals in several areas, none of the participant subject who had high levels of performance in their area of expertise, would have achieved success without an environment of support and encouragement. Accepting that talent is part of a favourable base of genetic origin, it is argued that it can only be achieved through various factors of environmental origin, among which are the possibility to be worked on by good teachers, support from an attentive family and available access to favourable conditions of practice.

Talent also involves, in addition to cognitive skills (such as the combination of strategic thinking, functional skills and ability to deliver results) skills related to the social and emotional sphere, such as leadership, teamwork, emotional maturity, ability to communicate, ability to attract and inspire other talents and entrepreneurial instincts (Michaels, Handfield-Jones, & Axelrod, 2001). Araújo, Cruz and Almeida (2016) stressed the importance of emotions, emotional regulation and motivation in the expression of talent, reinforcing the effect of emotion on cognition so often ignored, as Newton (2013) alerts.

"Emotion," "emotional intelligence", "socio-emotional skills" and "emotional education" are also words which are very much in use. While initially the most valued was intelligence quotient (IQ), a logical-mathematical intelligence, the late twentieth century recorded a change of mentality, beginning to question IQ, as the predominant factor for achieving social and professional success, and a rise in the defence of EQ (emotional coefficient). The IQ of a person does not contribute, neither to their emotional balance, nor to their own mental health. It is the social and emotional skills that are responsible for our emotional and mental stability as well as our social and rational adjustment (Goleman, 2002).

For Goleman (1995) people who develop proper socio-emotional skills tend to feel more satisfied, efficient and better able to master the mental habits that determine their productivity. The work of Goleman has helped to clarify the importance of emotional intelligence, relating our feelings and our thoughts more explicitly, showing the interconnections between emotional and executive areas of the brain, and are in fact quite important as they are directly related to teaching and learning.

As claimed by many authors, including Goleman (1995), each individual carrier of this ability has acquired skills such as self-control, self-awareness, motivation, empathy, resilience, communication and leadership. Bar-On (2001) argues ten competencies: self-concept, emotional self-awareness, assertiveness, stress tolerance, impulse control, sense of reality, flexibility, problem solving, empathy and interpersonal relationships. Each of which is itself a construct of the component or factor of emotional intelligence and each of them can be crafted in emotional education.

So we should see emotional education as a key component in education, as advocated by Goleman (1995): the sooner adolescents begin to develop emotional intelligence, the quicker they can become talents.

Lantieri in his book "Inteligencia Emocional Infantil y Juvenil" (2008), argues that students are more gifted for life if in their study program, together with the academic foundation, they include a preparation of foundations, in social and emotional skills. Several investigations indicate that the implementation of socio-emotional learning programs in schools has a positive impact on the academic performance of students when assessed through grades and standardized tests (Durlak, Weissberg, Dymnichi, Taylor, & Schellinger, 2011; Fleming et al, 2005; Greenberg et al. 2003). The adolescents who participate in these programs can acquire various capabilities such as self-awareness, ability to master disturbing emotions, greater sensitivity to deal with the emotions of others, and greater interpersonal skills, since the basis of these attitudes is built from childhood.

However, if we maintain a small conversation with any teacher of elementary or secondary education, on the main needs of students, it is interesting to note that most report the deficit of values as the biggest complaint they have about their pupils, emphasizing in this way, four core values as the most important: teamwork, respect, critical thinking and self-esteem (Reinoso, 2009). And that the school must prepare the future talent of the country and analyse the necessary socio-emotional skills that an individual must possess to be considered gifted, our aim is to create a program using a methodology that is fundamentally based on education through experience, the Outdoor Training, for the development of these skills. The great value of outdoor training is that it is the only method of training that acts on the personal dimensions of each individual, thereby improving the skills of Emotional Intelligence (Deane & Harré, 2014; HayGroup, 2006).

### **Outdoor Training**

Outdoor Training is an innovative methodology that uses natural space to pose challenges and adventures for individuals, in which participants are taken out of their comfort zone and encouraged to face challenges, overcome their limits and overcome the problems posed. The training activities conducted outside conventional lessons, activities known as Outdoor Training, part of an overall training plan, enable more efficient and faster learning than traditional training. It allows you to learn acting in real time in which the assimilation of knowledge, attitudes and behaviours occur more deeply and effectively. Among other advantages, the participants internalize what has been taught in a much easier fashion because they are learning and participating in a motivating context. With the Outdoor Training comes a change of attitude, facilitating personal development. Participants are in charge of analysing their own progress and how to apply it (De la Vega, 1999). You can then select a new training tool for the school, because it is composed of a set of carefully sequenced activities which are drawn through an experiential model, inserted in nature and designed to facilitate the development and transmission of values to the participants.

Outdoor orientation programs, or "outside the doors", have shown that one of the greater benefits acquired in these projects is personal growth (Vlamiš, Bell, & Gass, 2011), associated with increased self-efficacy (Hinton, Twilley, & Mittelstaedt, 2007) and improved retention (Huber, 2012). They also have an important and positive role in defining the social skills of the participants and the development of social networks (Austin et al, 2010; Gass, Garvey, & Sugarman, 2003), social integration (Bell, 2006; Lathrop, Connell, & Howard, 2012), adjusting to the skills of small groups, social self-efficiency (Zimmer, 2007), and reducing stereotypes (Galloway, 2000). A review of research in this area held by Bell, Gass, Nafziger, and Starbuck (2014), also illustrates the positive impact of three variables related to academic success: increasing grade point average, the decrease in academic abandonment, and students' increased levels of development. These variables are important indicators of success. The increase in the average grade leads to higher levels of learning, the lower abandonment variable represents that students fit in more adequately and that there is greater support among students; and the student development variable demonstrates the growth of the student as a person (Bell et al., 2014).

In the Outdoor Training programs challenges are used to facilitate the process of managing individuals outside of their comfort zones, in the hope that they experience a sense of imbalance that will boost them to develop new, and ideally healthier, mechanisms to address and recover their balance (Fletcher & Hinkle, 2002; Gass, 1990; Nadler, 1983). This is how change and growth occur.

Starting from the analysis of the most important items in the studies related to outdoor training programs we can state that, in recent years, very important studies have been conducted regarding the importance of these programs in the development of socio-emotional skills. It should be noted that there are empirical studies of entrepreneurs and college students, but there are none specifically targeting school children of the first six years of schooling. Given this finding, it turns out that our study becomes increasingly relevant and emerging, given the need that exists to create programs that use this methodology and demonstrate an empirical way that this methodology is effective to develop the above skills in this age group.

### **The KidsTalentum Program**

The main purpose of KidsTalentum is to develop in adolescents, values and principles (of a personal, social, moral and environmental nature) to ensure and enable their coexistence with their peers, so that when there may be differences, they will be able to reflect and discuss them in order to come to solutions that benefit the group or team, and understand that, given the differences, respect for diversity is required. With activities that use the outdoor training methodology, we intend to strengthen behaviours of mutual help, honesty, responsibility and equality (Reinoso, 2009).

The KidsTalentum program is based on the Outdoor Training methodology that draws on experiential education based on the philosophy of uniting theory with practice capturing more attention from participants, providing a more effective and lasting learning (Cadavid et al., 1999). According to a study by Motorola University (2002, cited by Moreira & Munck, 2010), when a participant attends a lecture passively, the use of the content is only 5%, whereas it can reach

85% when there they have an active participation in the process, which means that participation, the activity, the experience provides learning. Education through experience is a holistic education, which aims to involve both the physical aspects and the emotional and intellectual aspects of a person, combining experience, perception, cognition and behaviour (Jiménez & Gómez, 2008).

By using the Outdoor Training methodology in our program we hope that the technique provides the development of socio-emotional skills with a superior rate of use than other methodologies, for the outdoor experience favours the break from paradigms, overcoming limits and challenges, the ability to deal with emotions, experiencing them, controlling them, favouring change.

By conducting this program we intend to work on the development and growth of two distinct dimensions: the Personal Dimension - Work groups oriented to personal challenges, to develop self-knowledge, self-observation, and to develop stress management skills and mood itself, with the consequent decrease in levels of anxiety and frustration, which may have some impact on self-confidence, self-esteem and assessment of self; and the Social Dimension - Work groups aimed at solving interpersonal problems to develop communication skills, teamwork, leadership, decision-making as a team, and stress management and mood of the group, which may have an impact on adapting to change in the development of interpersonal relationships, conflict resolution, development of others and solidarity.

The KT program covers the characteristics listed by Priest, 2001, namely: Innovative: The activities can be considered unique, since it is a program held outdoors, outside participants' comfort space; Experiential: Work is done in completely different situations from the conventional context in which participants live; Real: Works on diagnosed needs, applied to the reality of what it aims to achieve; Impressive: The degree of retention is high, because these activities require a lot of attention from participants, because they present innovative situations that cause a lot of activity; Fun: The variety of available activities together with the informal and relaxed atmosphere of the program, generates a learning experience which is enjoyable and fun; Motivating: Delivery and excitement level is so high that, in fact, it causes the participants to change behaviour, learning, troubleshooting, and produces changes in each group; Feedback: allows practitioners to express their experiences and recognize their course of action. Thus, this form of action facilitates a diagnosis at the individual and group level, so that we can establish an action plan (developed in the medium term), with the aim of improving the behaviours and skills referenced in this program. Transferable: Different studies show that participants, when they reach their workplaces, have marked changes in their behaviour from day to day.

Given these features and supported by the literature review, the program was divided into teaching units so that each corresponded to a specific objective, consisting of a theoretical block and an outdoor activity that complements and interests the participants. Taking into consideration the age group that we are working with, the activities were designed to have a low emotional impact, with minimal risk in terms of participant's physical integrity. They can be prepared quickly and conveniently; they do not require mountainous terrain; they can quickly lead to pedagogical reflection; they can be done in order to focus on particular aspects of the organizational process.

These activities can take place in a football field and require little or no preparation, except the initial information, the provision of equipment and the appropriate safety instructions.

However, based on the use of learning areas defended by experimental learning (Tuson, 1994), the programs are developed in nature, out of the comfort zone (football pitch). The inherent risk and unpredictability of the natural environment are particularly effective in generating imbalance because there are consequences that cannot be avoided, and therefore motivate the action (McKenzie, 2003; Walsh & Golins, 1976).

The groups are helped - just helped - by learning facilitators. Facilitators are what the name implies - not teachers or lecturers (although occasionally they have to resort to those skills) or persons in charge of bringing a group to exams, they are people whose mission it is to help others identify their own learning, to apply the path of discovery.

Based on the foregoing, in operational terms, this research aims to identify the contribution of the KidsTalentum program, linked to soccer practice, for the building of skills and competencies of emotional intelligence from the coach / teacher perspective, on one side, and young people themselves on the other.

## **Methodology**

Due to the characteristics of our work, we have decided to conduct a quasi-experimental quantitative study of pre- and post-test with control group and an experimental group, who participated in the outdoor training activities.

## **Population and Sample**

For the present study, as target population all students and teachers of the Manchester United School Lisboa - Futebol by Carlos Queiroz were selected. Our sample consists of two groups of students: the control group (n = 30) and experimental group (n = 30). We were able to count on the teachers of the students in the experimental group and the control group. Students are all male. In the control group, there are 16 students (53.3%) aged 12 and 14 students (46.7%) who are 13 years old. In the experimental group, there is a predominance of 13 year old students (n = 19; 63%), the rest are 12 years old (n = 11; 36.7%), and there are no statistically significant differences with the control group.

## **Instruments**

The data collection instrument was the Bar-On scale (EQ-i: YV, Bar-On & Parker, 2002) adapted by Kerkoski (2008) for the Brazilian population, which was then submitted to children and teachers for validation studies by Santos (2012), in order to apply it to the Portuguese population.

The EQ-i: YV children's version contains 60 self-report questions divided into seven dimensions; Intrapersonal, interpersonal, stress management, adaptability, general mood, total emotional intelligence, positive impression. The authors define each scale according to the characterization of individuals who have high scores for each. On the Intrapersonal scale, individuals with high scores understand their emotions and are able to express and communicate their feelings and needs. On the interpersonal scale, these individuals have satisfactory interpersonal relationships, are good listeners and are able to understand and appreciate the feelings of others. High levels of in the stress management range describe individuals who are flexible and realistic changes and good managers in finding ways to deal with positive everyday problems. Individuals with high adaptability levels are generally calm and work well under pressure, are rarely impulsive and can calmly respond to a stressful event. The general mood scale describes people who are good at dealing with daily events and are typically happy. Finally, the positive impression scale, these individuals seek to create a positive impression of themselves.

In turn, the EQi for teachers consists of 60 questions regarding their student, distributed in the same dimensions. The value of the overall Cronbach's alpha obtained for students (.97) and teachers (.97) are considered very good, indicating that the scales are reliable.

### Procedures

We applied the Outdoor Training program in Football by Queiroz Manchester United Soccer Schools in June 2010. The research consisted of a quasi-experimental design in three phases: pre-test, intervention and post-test with two perfectly distinct groups: control group participated in the pre-test, continued its regular practice of training on the school field with their coaches, and two weeks later were submitted to the post-test. The experimental group, with its coach and researchers from the University of Malaga moved to the Adventure Park of Jamor in order to carry out activities designed to develop the KidsTalentum program, inspired by the Outdoor Training methodology. The experimental group was organized into two different subgroups of 15 participants for every day of activity.

The program was developed in 5 sessions:

- A first session for presentation of the program and implementation of the pre-test, with a duration between 2 and 3 hours;
- Three sessions of challenges of Outdoor Training, starting at 9 am and finishing around at 5 pm;
- And a final closing session, with the presentation of a film with the highlights of the week, the debriefs performed and awareness of students, with a duration between 2 and 3 hours.

The program sessions challenges are developed in accordance with a specific protocol, in three different moments: 1st moment: Briefing, which aims to resume the interaction of students and prepares them for the start of the activity or activities. Students are reminded of work in previous sessions, icebreaker activities are carried out, and the session objectives are communicated. 2nd moment: Activity development, the activities programmed for the day are carried out; 3rd Moment: Debrief, consisting of a reflective moment, about what happened during the activity or activities, with exploration of what skill was developed, and identification of the strengths and vulnerabilities of each student in achieving the goals of the activities. While exploration is done at group level, performance feedback on the activity has an individual character. Table 1 shows the program plan, including activities or challenges and skills developed by the experimental group.

**Table 1. Kids Talentum Program – Challenges and Skills Developed by the Experimental Group**

	Challenges	Skill dimensions	Specific skills
Day 1	Introduction of consultants and brief considerations on the <i>Kids Talentum</i> program		
	Pre-test		
Day 2	<i>Meltdown</i>	Interpersonal	Empathy, interpersonal relations
	Adventure Park	Stress management	Tolerance to real sense of stress, problem solving
	Magic Pencil	Adaptation	Sense of reality, problem solving
	All together	Interpersonal	Empathy, responsibility
	Gusano 4x4	Intrapersonal	Self-concept, self-awareness
	Mine field	Stress Management	Impulse control
	<i>Electric fence</i>	General mood	Optimism
	<i>Debrief Day 2</i>	All	All
Day 3	<i>Pipelines</i>	Intrapersonal	Assertiveness
	Platform	General mood	Happiness
	<i>Square rope</i>	Adaptation	Flexibility and solving problem
	Spider web	Intrapersonal	Independence, assessment self-
	Building a soccer stadium	All	All
	<i>Debrief Day 3</i>	All	All
Day 4	Finalising exercises	Intrapersonal	All
	Fitness and ball possession	Interpersonal	All
	Finalising exercises	Stress management	All
	Fitness and ball possession	General mood	All
	Reduced game	Adaptation	All
	<i>Debrief Day 4</i>	All	All
Day 5	Final <i>debrief</i> and conclusions conclusões finais	All	All

The challenges presented in Table 1 must provide six different criteria for a greater impact on learning: novelty, to allow the performance of new skills and solve different problems; excitement, in order to involve the participants in the activities provided; humor, ludic elements should be provided which will enable participants to laugh at themselves; challenges; compete with excitement and improving their imagination and intellect in order to find innovative solutions; competition having the will to challenge yourself and do better than others in a different environment.

Each of these activities may develop more than one skill. For example; in the “electric fence”; participants can develop communication skills; teamwork; leadership and selfmotivation. In this activity, we fixed a number of ropes attached to two trees, at 120 cm and 180 cm above the ground. The objective is that all the participants pass to the other side, between the ropes, without touching them.

In the 4th session, a football workout training plan was developed by the outdoor training consultants and the football coaches from Football By Carlos Queiroz, so that each activity allow to observe the cognitive and emotional behavior of participants, looking for reactions that may cause a student introspection about the skills developed on the two previous days. The aim of these activities is to link their knowledge and learning experiences to the context of their daily life.

## Results

The results obtained through the questionnaire Bar-On EQ-i in its various versions (teachers and students) have a normal distribution, so parametric tests will be used. Thus, and considering that the groups were not arranged randomly, to determine whether there are basic differences between them, T-Student tests were applied. Significant differences were found between the two groups on the scales EQ-i:YV from the pre-test: interpersonal ( $T(58) = -2.21, p = .031$ ), positive mood ( $T(58) = -9.03, p < .001$ ), and emotional intelligence ( $T(58) = -2.21, p = .031$ ), with higher values in the control group. In the scales of the EQ-I, filled by teachers, no significant differences were found. Whereas in pre-existing groups without random assignment the use of covariance analysis can provide biased results (Van Breukelen, 2006), an analysis of mixed ( $F$ ) variance (ANOVA) was performed to determine the effect of outdoor training in the different dimensions of emotional intelligence of students from their own point of view and from the perspective of their coach/teacher.

## Students' Perspective

With regard to the intrapersonal dimension, the results indicate that, without considering the effects of the program, there is a grade improvement on this scale from one moment to the other ( $F(1,58) = 21.54, p < .001, r = .27$ ). However, the results also indicate that the program has no significant effect on the variation of grades between the control group and the experimental group ( $F(1, 58) = 3.80, p = .056, r = .06$ ). Both groups increased their levels of intrapersonal skills similarly (see Table 2).

**Table 2.**  
*Results of Analysis of Mixed Variance for the Students' Perspective*

Dimensions	Group	Moment	Average (SD)	Moment effect $F(1,58)$	Program effect $F(1,58)$
Intrapersonal	Control	Pre	13.93 (2.13)	21.54**	3.80
		Post	14.60 (2.34)		
	Experimental	Pre	14.50 (2.31)		
		Post	16.13 (2.65)		
Interpersonal	Control	Pre	40.30 (4.65)	7.05*	4.18*
		Post	40.53 (4.17)		
	Experimental	Pre	37.53 (5.04)		
		Post	39.53 (4.61)		
Stress management	Control	Pre	27.70 (5.01)	20.57**	0.57
		Post	29.20 (4.25)		
	Experimental	Pre	26.77 (3.89)		
		Post	28.87 (4.71)		
Adaptability	Control	Pre	28.20 (4.19)	38.21**	6.63*
		Post	29.37 (4.20)		
	Experimental	Pre	27.07(4.26)		
		Post	29.90 (4.39)		
General mood	Control	Pre	45.47 (3.34)	35.95**	18.34**
		Post	45.93 (2.89)		
	Experimental	Pre	42.97 (4.36)		
		Post	45.77 (4.12)		
Global	Control	Pre	155.60 (11.98)	52.14**	11.48**
		Post	159.63 (10.09)		
	Experimental	Pre	148.83 (14.88)		
		Post	160.82 (14.79)		

*Note.* Effect of moment = 2 x pre minus post-test; effect of program = 2 x pre minus post-test + 2 x Control group minus experimental group

With regard to the interpersonal dimension, the results also indicate that there was an improvement in the grades of this scale ( $F(1, 58) = 7.05, p = .010, r = .11$ ). In this dimension, we find that the KidsTalentum program had a significant effect ( $F(1, 58) = 4.19, p = .045, r = .07$ ).

The experimental group showed an improvement in this dimension, whereas in the control group values were stable. However, the effect of training is quite small.

The Stress Management results indicate that there was an improvement in grades ( $F(1, 58) = 20.57, p < .001, r = .26$ ). The outdoor training had no significant effect on this improvement ( $F(1, 58) = 0.57, p = .453, r = .01$ ). As seen in Table 2, the experimental group's increased stress management levels are similar to the control group.

In the adaptability dimension results indicate that there was a significant improvement ( $F(1, 58) = 38.21, p < .001, r = .40$ ). In this ability, KidsTalentum program has had a significant effect ( $F(1, 58) = 6.63, p = .013, r = .10$ ). The experimental group had a greater improvement than the control group. The size of the effect is small.

In the general mood scale the results indicate a significant improvement in this competency of moderate effect ( $F(1, 58) = 35.95, p < .001, r = .38$ ). In this dimension also the outdoor program had a small but significant effect ( $F(1, 58) = 18.34, p < .001, r = .24$ ). The experimental group had an increase in this ability, while the score of the control group remained more stable.

Finally, the total emotional intelligence scale found that there was a significant improvement, of moderate effect, noted between the first and the second time ( $F(1, 58) = 52.14, p < .001, r = .47$ ). The outdoor training had a significant effect on this improvement, with a small effect size ( $F(1, 58) = 11.48, p = .001, r = .16$ ). The experimental group showed greater improvement than the control group, from the perspective of the students (see Table 2).

### Teachers' Perspective

Then we expose the results in line with the perception that the teacher of the students have about the latter, shown in Table 3.

With regard to the intrapersonal dimension, the results indicate that there is a large improvement effect in grades on this scale ( $F(1, 58) = 191.30, p < .001, r = .76$ ). However, the results also indicate that KidsTalentum program does not significantly affect the variation of grades between the control group and the experimental group ( $F(1, 58) = 0.36, p = .552, r = .01$ ).

Both groups increased their levels of intrapersonal capabilities similarly.

**Table 3.**  
*Results of Analysis of Mixed Variance for the Teachers' Perspective*

Dimensions	Group	Moment	Average (SD)	Moment effect $F(1,58)$	Program effect $F(1,58)$
Intrapersonal	Control	Pre	13.23 (1.98)	191.30**	0.36
		Post	19.27 (1.87)		
	Experimental	Pre	13.23 (1.97)		
		Post	18.77 (2.43)		
Interpersonal	Control	Pre	22.80 (3.42)	767.82**	14.93**
		Post	37.20 (3.07)		
	Experimental	Pre	22.50 (3.25)		
		Post	41.57 (3.07)		
Stress management	Control	Pre	22.57 (3.40)	734.21**	31.69**
		Post	34.13 (3.44)		
	Experimental	Pre	23.13 (3.34)		
		Post	40.77 (3.29)		
Adaptability	Control	Pre	21.53 (3.40)	331.39**	8.50**
		Post	29.83 (2.17)		
	Experimental	Pre	22.27 (3.09)		
		Post	33.73 (2.84)		
General mood	Control	Pre	28.10 (5.16)	473.17**	6.41*
		Post	42.40 (3.78)		
	Experimental	Pre	28.90 (4.91)		
		Post	46.97 (3.97)		
Global	Control	Pre	108.23 (12.67)	912.63**	16.84**
		Post	162.83 (10.85)		
	Experimental	Pre	110.03 (11.35)		
		Post	181.80 (12.72)		

*Note.* Effect of moment = 2 x pre-test minus post-test; effect of program = 2 x pre-test minus post-test + 2 x control group minus experimental group

With regard to the interpersonal dimension, the results also indicate that there was an improvement in the grades, with a very large effect size ( $F(1, 58) = 767.82, p < .001, r = .93$ ). In this dimension, we found that training had a significant effect on this improvement ( $F(1, 58) = 14.93, p < .001, r = .20$ ). The experimental group showed a greater improvement than the control group.

Also the numbers of the Stress Management results indicate that there was an improvement in grades ( $F(1, 58) = 734.21, p < .001, r = .93$ ). The outdoor workout had a significant effect on this improvement, with a moderate effect size ( $F(1, 58) = 31.69, p < .001, r = .35$ ). The experimental group showed a greater improvement than the control group.

In the adaptability dimension results indicate that there was a significant improvement ( $F(1, 58) = 331.39, p < .001, r = .85$ ). Also for this competence, the outdoor training had a significant effect ( $F(1, 58) = 8.50, p = .005, r = .13$ ). The experimental group showed a greater improvement than the control group.

In the general mood scale the results indicate a significant improvement in this aptitude ( $F(1, 58) = 473.17, p < .001, r = .89$ ). In this dimension also the KidsTalentum program had a small significant effect ( $F(1, 58) = 6.41, p = .014, r = .10$ ). The experimental group showed a greater improvement than the control group.

Finally, in the total emotional intelligence scale we found a significant improvement of grades between the first and the second time ( $F(1, 58) = 912.63, p < .001, r = .94$ ). The outdoor training had a significant effect on this improvement ( $F(1, 58) = 16.84, p < .001, r = .22$ ). The experimental group showed a greater improvement than the control group.

## Discussion

The results indicate an improvement in the second time all dimensions of emotional intelligence were measured from the perspective of students and teachers in both the control group and the experimental. As Queirós (2004) indicates, sport itself, causes a marked improvement in the indicators that define EI, encourages the development of positive emotional states to encourage personal well-being, contributing to the prevention and/or reduction of depressive states. Therefore, it was expected that both young people in the control group and the experimental group presented improvements related to soccer practice. In a comprehensive summary of the studies consulted by Silva, Rosado and Serpa (2012) they found that individuals who resort to exercise indicate higher levels of emotional intelligence and sport was related, regularly, with more developed emotional intelligence skills compared to the standard general population in relation to non-practitioners.

However, the results also indicated that young people who participated in the Outdoor Training activities of the KidsTalentum program increased their emotional skills to a greater degree than the young people in the control group. Specifically, young people felt more competent at the interpersonal level, improving their ability to listen and understand and appreciate the feelings of others; in adaptability, learning to respond to stressful events adequately; and in positive mood, performing better when dealing with daily events and presenting more positive feelings.

From the teachers' point of view, the young people who participated in the KidsTalentum program showed greater improvement in all emotional skills than the young people in the control group, except for the intrapersonal dimension, which regards to the communication of each student, adapting to existing pressure in each of the challenges, in a constructive and natural way to overcome the vast majority of adversity. We emphasize that, from the perspective of the teachers, the program had a greater effect on stress management and interpersonal skills than in other skills.

However, it is important to note that the participation in the programme of the coaches who completed the EQI, indicates that they were aware of the groups' division, so that teachers' expectations can be showed in the results.

As a result, we can see significant improvement is consensual in the experimental group compared with the control group due to activities that induced needs that had to be realistic, change managers and eager to find positive ways to overcome any obstacles they encountered through the various challenges of the program.

In fact, research works had shown that the methodology of Outdoor Training promotes greater learning in interpersonal skills because, being held in nature, it contributes to captivate the interest of the participants by eliminating barriers and inhibitions; allowing people to be themselves, recognizing their strengths and their limitations; facilitating communication, trust, group cohesion; leading participants to react quickly and effectively when faced with the challenges presented. It also contributes to learning stress management skills and adaptability because it is an adventure program. Adventure activities teach young people to accept responsibility for their own behaviour, to learn mutual confidence and respect for themselves, their peers and authority figures. This methodology differs from conventional teaching methods, uniting the body and the mind in personal development activities, promoting self-knowledge, the formation of winning teams and management of adverse and unexpected situations (Dinsmore, 2004).

Similarly, the KidsTalentum program also seems to have helped young people in the development of positive humour, since the adventure activities, beyond providing challenging situations, can provide moments of joy, relaxation and harmony. Thus, experiencing sensations and emotions during the practice of adventure and similar dynamic activities can provide better administration and orientation of emotions, as evidenced by Tahara and Schwartz (2003).

These results are directly linked to the characteristics of the Outdoor Training programs we have discussed throughout this study, because it works on interpersonal skills, students are placed outside their comfort zone and are likely to experience emotionally rich situations, hence these awakenings justifying the figures presented.

It should be noted that, broadly speaking, students have the opportunity to experience this kind of feeling in daily school life and outside school, which makes it important to resort to Outdoor Training programs for young people to experience their maximum performance, much more easily, in holistic terms (physical, emotional, mental and spiritual).

In short, when comparing students who did not participate in KidsTalentum program with those who did participate, an effective change of behaviour of the latter was registered, which resulted in emotional intelligence gains, that is, these students achieve more satisfactory interpersonal relationships; become better listeners and more able to understand and appreciate the feelings of others, increasing their adaptability capacity since they become more flexible, realistic and can manage change; they can solve their daily problems, more appropriately; they are better able to manage stress, working well under pressure; they stop being so impulsive, increase levels of happiness and optimism, resulting in overall mood gains due to the positivity of their self-awareness, making them more pleasant company.

## Conclusion

The need to encourage emotional intelligence in the day-to-day life of children and young people is evident, both through the school institution and at other social levels, and this is an underlying conviction of the need to investigate this concept,



which implies emotional skills that potentiate successful ways of addressing environmental challenges and daily pressures (Bar-On, 2000).

Therefore, taking into account recent research, it behoves us to point out that adolescents with high emotional intelligence learn better; they have fewer behavioural problems; they are less violent, and are better at resolving conflicts; they are less likely to resort to self-destructive behaviour; they have greater ability to control impulses; they feel better about themselves; they have an easier time resisting pressures; they are more empathetic and thus better friends; they are happier and healthier, and more successful in their activities (Fernández-Berrocal & Aranda, 2008).

Thus, the development of the talent of adolescents presupposes, first, the personal dimension of their existence, which is consolidated in skills that allow the establishment of the sense of their identity. It involves addressing the social dimension of their existence, which consists in the acquisition of skills that enable them to establish proactive relational behaviours and their inclusion in social and school life. This prerogative refers to the way emotional intelligence works on personal and interpersonal relationships with significant others, expressed in the maxim "learning to live with oneself and with others."

We consider the outdoor training methodology provides the learning of standards of mature personal and interpersonal relationships and the development of personality. Therefore, it mainly aims to improve the skills concerning assertive communication, the establishment and cultivation of friendship, authentic communication, pressure management in problem solving and the ability to overcome conflicts and stress.

The results of our study support the conclusion that, in post-testing situation, there was a significant increase in emotional intelligence levels, notably a greater increase in the experimental group than in the control group, either through self-perception of students in the experimental group or according to the teacher / coach. Resulting from empirical data, we can say that there was a change of behaviour from pre-test to post-test, after applying the KidsTalentum program, resulting in gains in emotional intelligence.

Making a global synthesis, we can say that students in the experimental group after the application of the Outdoor Training methodology through KidsTalentum program, based on the positive ratings of total EQ, showed gains in their capacity to handle the daily demands and achieved higher levels of happiness and optimism, resulting in overall mood gains, reflecting a higher positivity of their self-awareness. Students in the experimental group compared to students in control group were seen as more apt to express and communicate their feelings and needs, creating more satisfactory interpersonal relationships; became better listeners and more able to grasp the feelings of others; they became more flexible, more realistic and better change managers; they gained more ability to solve everyday problems; could better manage the stress to which they were subjected, with more satisfactory forms of self-control.

However, this study has some limitations, such as the fact that students were not followed months after the implementation of the programme, in order to confirm the preservation of learned skills. Additionally, the fact that there was only a self-assessment test used does not allow us to state that the programme has had effects on the participants' day-to-day behaviour.

We emphasize that one of the limitations encountered had to do with the sample size, and the age and gender of the participants. The fact that we conducted our study in a football school has also resulted in limitations such as: the number of athletes to participate in the study and the fact that they are all male did not allow us to make a comparison between the two sexes. On the other hand, the age range chosen, under conditions and requirements of the Bar-On test, was from 11 to 13 years of age, limiting the sample size to 60 students. However, making a comparison with studies carried out in the same area, the sample seems reasonable. Nevertheless, the results cannot be extrapolated to other samples with the same characteristics. However, the results may provide important information in relation to the theme explored.

With regard to the measuring instrument used, we had some difficulty in validating it, which constituted as limiting in its application. Ideally, participants and teachers should have had a little more time to answer the instruments and should have performed a pilot study and a pivotal study, which is as a perspective for continuing this investigation.

We suggest conducting Outdoor Training studies and the application of KidsTalentum program to students from conventional schools, to prove that this methodology develops the emotional intelligence of students, which in turn, promotes academic success. It would also be important to submit participants to aptitude tests and not just a self-assessment scale.

We propose the development of an ongoing study of Outdoor Training in schools, over a school year and with a greater number of sessions, with the introduction of several moments of measure, so we can test progress by developing in the participants the emotional skills necessary for their personal and social development, similarly promoting academic success.

Another suggestion concerns the application of Outdoor Training methodology and KidsTalentum program in other sports, in order to develop in athletes certain skills, such as teamwork, leadership, solidarity, communication, resilience, self-esteem, stress management and self-control, which are characteristics inherent to talented individuals, as demonstrated in the literature review.

We end with the certainty that in an ever-changing society, it is necessary that each one of us, be committed to training, keeping in mind the need to keep up with changes, not only because we grow and update our knowledge, but because we contribute to the full development and adjustment to the real needs of our own training. It only remains to be said, in the first person, that this study resulted in scientific and professional skill gains to pursue future practice.

## References

- [1]. Almeida, W. (2004). *Captação e seleção de talentos: repensando a teoria e a prática*. São Paulo: Atlas.
- [2]. Araújo L, Cruz JFA, & Almeida LS (2016), Achieving scientific excellence: an exploratory study of the role of emotional and motivational factors, *High Ability Studies*, 1-16, <http://dx.doi.org/10.1080/13598139.2016.1264293>
- [3]. Austin, M.L., Martin, B., Yoshino, A., Schanning, K., Ogle, D.H., & Mittelstaedt, R. (2010). The intersection of community and place in an outdoor orientation program. *Journal of Outdoor Recreation, Education, and Leadership*, 2 (1), 74-92.
- [4]. Bar-On, R. (2000). *The Emotional Quotient Inventory (EQ – I): Technical Manual*. Toronto: Multi-Health Systems.
- [5]. Bar-On, R. (2001). Empirical support of the Bar-On model and measure of social and emotional competence. In *Tenth Biennial Meeting of the International Society for the Study of Individual Differences, Edinburgh, Program and Abstract Book*. (p. 10). Edinburgh, ISSID.
- [6]. Bar-On, R., & Parker, J. D. A. (2002). *Manual de inteligência emocional. Teoria, desenvolvimento, avaliação e aplicação em casa, na escola e no local de trabalho*. Porto Alegre: Artmed Editora.
- [7]. Bell, B. J., Gass, M.A., Nafziger, C. S., & Starbuck, J. D. (2014). The State of Knowledge of Outdoor Orientation Programas: Current Practices, Research, and Theory. *Journal of Experiential Education*, 37(1), 31-45. Doi: 10.1177/1053825913518891
- [8]. Bell, B.J. (2006). Wilderness orientation: exploring the relationship between college preorientation programs and social support. *Journal of Experiential Education*, 29 (2), 145-167. doi: 10.1177/105382590602900206
- [9]. Bloom, B. S. (1985). *Developing Talent in Young People*. New York: Ballantine Books.
- [10]. Cadavid, J. C., Callejas, A., Olave, T., Moreno, G. A., & Quiñónez, A. (1999, November). Outdoor Training: entrenamiento de habilidades y fortalecimiento de actitudes para el liderazgo y el trabajo de equipo. *I Simposio Nacional de Vivencias y Gestión en recreación*, Paipa, Colombia.
- [11]. De La Vega, I. (1999). Outdoor training: Aprendiendo en tiempo real. *Capital Humano*, 126, 59-62.
- [12]. Deane, K.L., & Harré, N. (2014). The Youth Adventure Programming Model. *Journal of Research on Adolescence*, 24(2), 293-308. doi: 10.1111/jora.12069
- [13]. Dinsmore, P. C. (2004). *TEAL – Treinamento experiencial ao ar livre: uma revolução em educação empresarial*. Rio de Janeiro: Senac Rio.
- [14]. 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 schoolbased universal interventions. *Child Development*, 82, 405–432. doi: 10.1111/j.14678624.2010.01564.x
- [15]. Fernández-Berrocal, P., & Aranda, D. (2008). Inteligencia emocional en la educación. *Revista Electrónica de Investigación Psicoeducativa*, 6(2), 421-436. Retrieved from [http://emotional.intelligence.uma.es/documentos/pdf66school\\_context.pdf](http://emotional.intelligence.uma.es/documentos/pdf66school_context.pdf)
- [16]. Fleming, C. B., Haggerty, K. P., Catalano, R. F., Harachi, T. W., Mazza, J. J., & Gruman, D. H. (2005). Do social and behavioral characteristics targeted by preventive interventions predict standardized test scores and grades? *Journal of School Health*, 75, 342–349. doi: 10.1111/j.1746-1561.2005.00048.x
- [17]. Fletcher, T. B., & Hinkle, J. S. (2002). Adventure based counseling: An innovation in counseling. *Journal of Counseling & Development*, 80(3), 277-285.
- [18]. Fleury, M. T., & Freury, A. (2001). Construindo o conceito de competência. *Revista de Administração Contemporânea*, 5(esp.), 183-196. doi: 10.1590/S1415-6552001000500010
- [19]. Galloway, S. P. (2000). Assessment in wilderness orientation programs: Efforts to improve college student retention. *Journal of Experiential Education*, 23(2), 75-84. doi: 10.1177/105382590002300205
- [20]. Gass, M. (1990). The longitudinal effects of an adventure orientation program on the retention of students. *Journal of College Student Development*, 31(1), 33-38.
- [21]. Gass, M., Garvey, D., & Sugarman, D. (2003). The long-term effects of a first-year student wilderness orientation program. *Journal of Experimental Education*, 26(1), 30-40. doi: 10.1177/105382590302600106
- [22]. Goleman, D. (1995). *Inteligência Emocional*. Rio de Janeiro: Objetiva.
- [23]. Goleman, D. (2002). *Working with emotional intelligence*. New York: Bantam Books.
- [24]. Greenberg, M. T., Weissberg, R. P., O'Brien, M. U., Zins, J. E., Fredericks, L., Resnik, H., & Elias, M. (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
- [25]. HayGroup (2006). *Factbook, Recursos Humanos*. Navarra: Aranzadi.
- [26]. Hinton, J. L., Twilley, D. L., & Mittelstaedt, R. D. (2007). An investigation of self-efficacy in a freshman wilderness experience program. *Research in Outdoor Education*, 8, 105-118.
- [27]. Huber, G. E. (2012). *The benefits of outdoor orientation programming in higher education and recommendations for the development of an outdoor orientation program at Kansas State University*. (Master Report). Kansas State University, Manhattan.
- [28]. Jiménez, P. J. & Gómez, V. (2008). Adventure sport tourism and outdoor training: Methodology. *RICYDE, The Internacional Journal of Sport Science*, 4(13), 69-79. doi:10.5232/ricyde2008.01306
- [29]. Kerkoski, M. J. (2008). *Pratica desportiva e inteligência emocional. Estudo da influência do desporto na aquisição de aptidões e competências de inteligência emocional*. (Doctoral Dissertation). Universidade do Minho, Braga.
- [30]. Lantieri, L. (2008). *Inteligencia emocional infantil y juvenil*. Madrid: Aguilar.

- [31]. Lathrop, A.H., O'Connell, T.S., & Howard, R.A. (2012). The impact of an outdoor orientation program on First-Year Student Perceptions of life effectiveness and campus integration. *Collected Essays on Learning and Teaching*, 5, 92-97.
- [32]. McKenzie, M. (2003). Beyond "The Outward-Bound Process:" Rethinking Student Learning. *The Journal of Experiential Education*, 26(1), 8-23.
- [33]. Michaels, E., Handfield-Jones, H., & Axelrod, B. (2001). *The war for talent*. Boston: Harvard Business School Publishing.
- [34]. Molina, J. (2011). *Gestaltentum, desarrollo de competencias emocionales en alumnos universitarios bajo la metodología de formación «Outdoor Training»*. (Doctoral Dissertation). Universidad de Málaga, Malaga.
- [35]. Moreira, C. E., & Munck, L. (2010). Estilos de aprendizagem versus treinamento vivencial ao ar livre. *Revista de Administração da UFSM*, 3(1), 9-25.
- [36]. Nadler, D. A. (1983). The effective management of organizational change. In M.D. Dunnette (Ed.), *Handbook of industrial and organizational psychology* (pp.358-369). New York: John Wiley & Sons.
- [37]. Newton, D.P. (2013). Moods, emotions and creative thinking: A framework for teaching. *Thinking Skills & Creativity*, 8, 34-44. <https://doi.org/10.1016/j.tsc.2012.05.006>
- [38]. Priest, S. (2001). A program evaluation Primer. *The Journal of experiential education*, 24(1), 34-40. doi: 10.1177/105382590102400108
- [39]. Queirós, M. (2004). *Inteligência Emocional Percebido (IEP) e atividade física na terceira idade*. (Doctoral Dissertation). Universidad de Vigo, Vigo.
- [40]. Reinoso, M. (2009). *Outdoor Training y la Educación en Valores*. Sevilla: Wanceulen Editorial Deportiva, S.L.
- [41]. Santos, M.A. (2012). *Outdoor Training Como Metodología Para Mejorar La Inteligencia Emocional de Niños e Jovens*. (Dissertação de Doutoramento). Universidade de Málaga.
- [42]. Silva, J., Rosado, A., & Serpa, S. (2012). Inteligência Emocional e Prática Desportiva: Uma Análise Global. *Revista portuguesa de fisioterapia no Desporto*, 6(1), 17-29. Retirado de [http://www.apfio.pt/gifd\\_revista/media/12jan\\_vol6\\_n1/pdfs/jan2012\\_2\\_emocio.pdf](http://www.apfio.pt/gifd_revista/media/12jan_vol6_n1/pdfs/jan2012_2_emocio.pdf)
- [43]. Tahara, A. K. & Schwartz, G. M. (2003). Atividades de Aventura na natureza: investindo na qualidade de vida. *Lecturas*, 8(58). Retirado de <http://www.efdeportes.com/efd58/avent.htm>
- [44]. Tuson, M. (1994). *Outdoor Training for Employee Effectiveness*. Londres: Institute of Personnel Management.
- [45]. Van Breukelen, G. J. (2006). ANCOVA versus change from baseline: More power in randomized studies, more bias in nonrandomized studies. *Journal of Clinical Epidemiology*, 59(9), 920-925. doi: 10.1016/j.jclinepi.2006.02.007
- [46]. Vlamis, E., Bell, B. J., & Gass, M. (2011). Effects of a college adventure orientation program on student development behaviors. *Journal of Experiential Education*, 34(2), 127-148. doi: 10.5193/JEE34.2.127
- [47]. Walsh, V. & Golins, G. (1976). *The exploration of the Outward Bound process*. Denver, CO: Colorado Outward Bound School.
- [48]. Watters, R. (1986). Historical perspectives of outdoor and wilderness recreation in the United States. In R. Watters (Ed.), *Outdoor Program Manual* (pp. 1-9). Pocatello: Idaho State University Press.
- [49]. Williams, M. (2000). *The war for talent: Getting the best from the best*. London: CIPD.
- [50]. Zimmer, T.J. (2007). *The effects of wilderness-based programming and facilitated reflection on social self-efficacy among college students in freshman orientation programs*. (Dissertation of Master). University of Utah, Utah.