SPORT, EDUCATION AND QUALITY OF LIFE

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CENTRO DE INVESTIGAÇÃO EM QUALIDADE DE VIDA

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FOREWORD(S)

FOREWORD

Honoured by the invitation to foreword this work on sport sciences and education sciences, I would like to briefly state that it can be perceived in two parts, complementing each other not only by the comprehensiveness of the themes but also by the specificities interconnecting them.

Under this framework, the first part of this book deals with the precocity of the practice, whose work Slow down, *I'm in a hurry - better late than… early in sports specialization* indicates a rise in the number of children and young people who increasingly "specialize" early and erroneously in a single sport, a reality well-developed and well-supported by bibliography.

As for the theme *Parental Involvement in Sport: What Parents Think About the Coach Functions*, this study aims at the importance of parental involvement in the sports practice of children taking into account their motivation and enhancing the parents' perception regarding the quality of their children and that of the coach by means of a qualitative research study that reveals the possibility of field studies of undeniable scientific value.

Also within the scope of the sporting process, it recognizes the importance of training young people whenever there is the possibility of social and personal nature experiences whose study - centred in football - shows the perception of "school" coordinators regarding the *Contributions to improve the training process in Youth Football* …, perceiving the work processes with players and the youngster's educational responsible, as well as the main skills of coaches in the training context. It is also important to highlight the "teaching of a collective game" in the training of coaches, as well as the game contribution to the overall development of the child, selecting the best learning situations through "reduced conditioned games" and creating situational contexts that ca be *transferred* to the game.

At the end of the 1st part of the book it is acknowledged that the evolution of sports practice is based on children's movement, being an integral part of the child's development, an aspect well evidenced in the article dedicated to *Spatial Orienteering in preschool children and the importance of familiarity with outdoor locations in mapping education* and showing the differences between children orientation (3-5 years old) in familiar and unfamiliar spaces, revealing that spatial orientation and child development are present in a set of sensorimotor references of paramount importance in the development of children's motricity. In this sense, the (already generalized) understanding that human movement is the "bodily aspect of education" seems to be unquestionable, where the prevailing concern lies in the individual's bodily and personal development, and also in the nature of the *teaching-learning* process, foreseeing the dynamism of the bodily and personal evolution. Following this viewpoint, understanding "*sport as a pedagogy*" establishes interactions with education sciences, a fact that is acknowledged as an added value not only in school but also in society in general, and based on the knowledge of a serious sporting practice that represents an educational possibility of great value (recognized by parents) regarding the functional and behavioural development, going beyond the "simple and obvious" "winning" and "losing". But it is also perceived that sporting activity has a *unique context* as it obeys specific rules accepted by practitioners (and that only them can change), whose ethical and aesthetic applications, also of a unique character, should not result in the loss of education values that are fundamental to the personal and social development of the student.

So, the sporting practice of children and young people cannot allow victory (the winners) to be more valuable than practice itself, or for "motor practice" to be assumed exclusively as entertainment and/or "to spend energy" ... or even such practice to be inadequate with the principles of effort and of the student's psychomotor and personal development, bearing in mind that these

premises are revealed in the knowledge of teachers/coaches and in the methodology they apply, especially at lower age groups. As a result, the reflection on *Education and development: contributions of social and community psychology for understanding school* that arises from the application of these projects remind us the words of Ramiro Marques (2001), when the author affirms that the School, being an instrument of society, has the function of "*creating people by people*" and that it "creates" people because it shapes their behaviour, instils ideas and points them their vocation (profession). It also attends other "education values" such as concepts like conviviality, friendship and solidarity, always foreseeing the development of personality and citizenship. It also highlights the interest in studying physical activity and quality of life, a project that proposes a pedagogical intervention in physical activity and leads us to the project *Fisica(Mente): from research to educational intervention*. Such aspects are emphasized in the *Day Care Project Group (Grupo Projeto Creche): training forum for promoting well-being*, which promotes the well-being of participants and their perception on quality of life as, in fact, education only exists when there is development. It is therefore demonstrated that this educational (pedagogical) intervention proposal influences positively the life of higher education students by relating the variables *physical activity, quality of life and mental health*.

It is precisely in this sense that motor behaviour, in its Sport Sciences aspect, is necessary in school as a civic reason for existence, making students "learn with others how to be themselves" (John Dewey and António Sérgio), this being the "educational matter" - of Education Sciences - that teachers will have to manage to allow living according to social ethics, respecting rules and commitments and not subverting coexistence, friendship and social spirit (group).

Hence, it is the study of the *child's motricity* - in its various aspects - that offers such opportunity, provided that their motor practice - from drawing to sports - has the indispensable rigor and seriousness in the execution of rituals and in demanding a bodily effort

(physical and mental), and also regarding aggression and violence, thus contributing to a more conscious and participative attitude of the family.

Finally, I stand next to the authors of this work regarding the intertwined preoccupations related to sports practice, education and health, which they have expressed so well in this work

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Sport, Education and Quality of Life. The authors reflect the meaning of the way of life through education and training, especially sports, as a contribution to the quality of life of young people and adults. The teaching and learning process of sports practices configures the development of the practitioner towards the best relationship with the environment, which is almost always complex and stressful in modern or hypermodern society. This theme is the genesis of the "*Centro de Investigação em Qualidade de Vida*"" (Centre for Research in Quality of Life), through the necessary crossing of areas, concepts and research methodologies, seeking social and human knowledge on the quality of life of citizens.

This work is an excellent example of cooperation and collaboration between several higher education hubs. The ability to establish bridges and connection paths between schools, departments and researchers is a decisive factor for the success of organizations that provide polytechnic higher education. The REDESPP is a network of 14 higher education schools in the area of sport, being therefore an important partner of this scientific dissemination initiative.

The labour of this network, of approximately 200 teachers with more than 140 doctorates, has a very broad spectrum; from formal education in the educational system, in the sport system, up to the community intervention with different populations (elderly or children) and also special or therapeutic groups, hypertensive or diabetic patients, or people with disabilities. The network supports the development of research in sport, whether in laboratory or in the actual context of the action, contributing to a better education and training of students in order to promote better intervention for quality of life. Sharing scientific knowledge in the field of sport is one of the biggest challenges to the network. Given the eminently applied and professional character of this scientific area, it is important to develop the associated and comprising sectors of intervention.

There are several fields of application of the knowledge developed in sport sciences, which are strongly human and social, reflecting the era in which we live: from infant education, motor development and motor learning, to adult education in sport performance and quality of life practices, the analysis of human movement, the motor and psychomotor control, the biomechanical and physiological studies of high performance sport, the dynamics of collective sport games, up to the creativity of individual aesthetic expression. In sport we also have connections with social areas such as the management of organizations, tourism, health and education. In this way, the network embodies the various applications integrated in the polytechnic higher education system.

In line with its goals, the REDESPP has resources to intervene in regional (national) intervention/action sporting projects as a physical activity for citizens' quality of life (youth, adults, the elderly), in intervention programs to support sport, in the areas of performance and participation using the installed laboratories, in the initial and continuous training of physical exercise instructors, sport coaches, nature sport technicians, sport management technicians, etc. (Professional Higher Education Courses, Bachelor Degrees, Masters), in requalification programs of sport professionals of diverse sectors of activity (athletes, coaches, instructors, etc.), in training projects for Masters in specialization areas, through regional and/or thematic consortia, in research projects related to sport sciences, especially in social impact areas (physical activity, health, populations, sport performance, etc.), and in the partnership with the SEJD (and the IPDJ) in order to facilitate and implement intervention policies in the community through sport.

We consider the intervention of the network's schools in sport and sport training to be principal: a) covering the whole value chain in the specific professional aspects of teaching and sport training services within the free association sector with higher or lower recognition degree (whether as a practitioner or competitor, a coach, an administrator and manager, a referee or as a sport facilities techni-

cian, or another modality sport agent); b) intervening in public and private sport services in the area of physical condition and active lifestyles (whether as a participant, as a physical activity technician or technical director in gymnasiums, health clubs and sport academies, or in other institutions and physical activity, exercise and health programs); c) intervening in the services related to nature, leisure and adventure sports associated to active tourism and leisure contexts (namely activities developed in marinas, race tracks, thermal spas or other facilities and equipment to support the practice of sport animation in contexts of tourist animation; activities and events of nature sport in air, land and water in contexts of nature tourism; activities and events of traditional games, hunting, fishing or others linked to rural tourism; or sport activities of fitness and well-being in specific areas such as maritime tourism, among others); d) mobilizing schools of the education system through the curricular area (expression and physical-motor education in the first cycle of basic education, the physical education subject in the remaining cycles of primary and secondary education, sport science and human kinetics teaching in higher education) as well as the areas of curricular enrichment and complementing (physical and sport activities for the curricular enrichment activities of the 1st cycle, school sport in the remaining cycles of basic and secondary education and sport and physical activity in higher education); e) acting in sport administration and management services in public or private institutions (whether in the macro-institutional public organization and administration or transverse associations publicly recognized, or in the management of organizations and events related to sport modalities, in the management of small companies and sport clubs of various modalities and purposes); f) supporting the services of sport facilities and equipment (whether through the clothing and materials market for the efficient and healthy sport activity, or through the construction and equipping of leisure and sport facilities resulting from the increasingly innovative technological investment); g) promoting sport innovation and research services (either through the activities of higher education research centres, or

supervision services like high-performance centres, among others, either through companies in the sector of physical condition and health, facilities and sport equipment).

Sport, Education and Quality of Life. The various chapters of this book reflect the concepts intertwined in the title. Its importance is a fundamental mix for the development of complex knowledge on quality of life. This book is the result of such sharing experience, reflected and internalized in education in the development of citizens by sports, for a better quality of life.

The work is structured in two scopes, one in education and sport training context, including its most relevant actors, athletes, coaches and parents. And the other, related to the education and development of young people and children for a better quality of life. Early specialization in sport is studied and its impact on young athletes and their development. It seeks to know what parents think of their children coaches, and how this can have a significant influence on the educational process of young people through sport.

A detailed and careful analysis of the technical competence and structures of coordination, direction and supervision of the youth training processes in Soccer is carried out. It also develops a study on the use of problems in the teaching of collective sports, contributing through sport to the autonomy and decision-making capacity of young people. The spatial orientation of children is studied using maps, contributing to a global and comprehensive training in a quality ecological environment. It discusses the value and contribution of social and community psychology to school success, as a space for intervention and training for the well-being of citizens. An intervention project for the quality of life is developed, associated to mental health problems of young people, using sport and physical activity as mechanisms to reinforce such quality. It reveals a complex and extensive research and intervention program with early childhood educators promoting integrated training and developing the quality of life through practices that promote

well-being, where physical activity and sport also intervene. There is enormous relevance regarding the study of the quality of life in a complex perspective of this phenomenon, making it almost mandatory knowledge to be produced in a network, through various partners seeking common goals. Sport training and research have networks with a high impact on this goal, such as the REDESPP. When social facts are extremely complex, such as sport and education, they allow significant connections to study the human and social aspects, which are very important for the quality of life of citizens. Thus, the presented book "Sport, Education and Quality of Life" reflects the complexity of the possible approach to the phenomenon of quality of life, portraying some segments of the researched knowledge. This work is a CIEQV improvement creation, presenting its cross-research strategy with several conceptual connections between education, sport, training, physical activity, having a recognized and relevant effect on knowledge.

José F. Rodrigues

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FOREWORD

Following its research, the CIEQV - Life Quality Research Center mission is to contribute to the production of knowledge and innovation to promote the improvement of the human being quality of life. In global terms, it focuses its research in the areas of food and its production (food safety and sustainable agriculture), physical activity as a condition for the citizens' quality of life, motor behaviour and education in its various aspects, connected to the creation and use of innovative and applied technology and to the quality of life of people at work. In this way, the research promoted by the CIEQV will have a multidisciplinary, interdisciplinary and transdisciplinary approach to knowledge in the mentioned domains in order to promote innovation and scientific excellence.

The book "Sport, Education and Quality of Life" is an extraordinary document as it brings together the CIEQV mission. Our society tends to associate Quality of Life with the presence or absence of diseases or pathologies. However, the concept of Quality of Life is much broader and supported by several researchers. In this mindset, this book and its various chapters clearly demonstrate how Education and Sports contribute to Quality of Life. The differentiated approaches to diverse themes and issues help to understand the concept of Quality of Life, which I consider an important milestone in the development of our society. There are concrete proposals that contribute to the improvement of the Quality of Life, clues to deepen the themes and reflections that may raise new research topics. Readers will have a book that meets different types of interests. For readers outside this area, the book will certainly help raising awareness thereof. For readers who want to understand how the Education and Sport areas race for Quality of Life, this book presents different perspectives. For readers who are researchers in these or similar areas, this book will be a great tool to aid in their current and future researches. Finally, for casual or outdated readers, this book's easy reading will stimulate them on the

importance of Quality of Life in our society as it directly contributes to the survival of the human being.

My thanks to all CIEQV researchers and colleagues who have come forward to write this book and thus assist the Center in its mission.

I wish you a wonderful reading!

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Coordinator of the CIEQV

PART I

Slow down, I'm in a hurry - better late than… early in sports specialization

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Summary: The number of children and young people who are engaged in the practice of a single sport seems to be increasing with annual regularity, following a logic of early sports specialization. In this chapter, we question this reality at various levels and point out alternatives.

Keywords: Early sports specialization; Sports success; Multivariate sports practice

Introduction

In sporting terms, is it desirable to specialize early or late? This is an issue that is no longer new but whose pertinence is apparently increasingly present in our daily lives. Some sporting success cases of practitioners who have started their sports careers early have led people to believe that the sooner and more intensely the specialized training of a particular sporting modality begins, the greater the probability of a successful performance. The sports offer for children is becoming more and more publicized, and it is not uncommon to see 4-year-olds or even under-age children starting their sporting practice in a given sport, and only in that sport. It is also no longer uncommon, and it seems to be accepted without any reservation, the raising of children of these ages to specific positions in a given sports modality...

In this chapter, we intend to alert to this issue and present a series of data and reflections that will enable those who deal with children

to decide in the most appropriate way, hoping that such choice will fall on a possible late specialization (not everyone will want to follow the sporting path up to a specialized practice) based on a previous multivariate practice, not only related to sports but also, and above all, where free play is a substantial part.

Definition of Early Sports Specialization (ESS)

The word Early refers to something done or occurring before the adequate time. Although there is still disagreement regarding - for example, the training/competition volumes and intensities that would indicate that a given athlete has been subject to early specialization (e.g., for Hill and Simons, 1989, the volume and intensity of training is absolutely indifferent, only requiring the exclusive participation in a sports modality, contrary to Soberlak and Côté, 2003) - it is relatively consensual to consider the existence of an ESS when:

i) there is intense participation in only one sport; (ii) on an annual basis (more than 8 months per year); iii) and/or giving up all other sports to focus on only one, before puberty (Jayanthi, Pinkham, Dugas, Patrick, & Labella, 2013; LaPrade, Agel, Baker et al., 2016; Malina, 2010; Myer, Jayanthi, DiFiori et al.,2016). As a possible hierarchy within this specialization, Jayanthi, LaBella, Fischer, Pasulka and Dugas, (2015), propose that it depends on the number of components present (i, ii or iii) to consider being before highly specialized young athletes (three of the mentioned components present) or moderately specialized (two) or slightly specialized (when they have only one of the mentioned components), leaving aside in this classification the issue of the training intensity or volume.

Causes for its existence

Despite the increasing number of opinions against the ESS, the number of events and publicity with this early matrix is also increasing. According to Malina (2010), in the United States of America the participation rate in organized sports was 6% for 6-year-old children (or less) in 1997, mounting to 12% in 2008. A study conducted by Hill and Simons (1989) found that 71.3% of the 152 Illinois State High School sports directors surveyed indicated that sports specialization had increased at this schooling level over the previous ten years. In addition, 60.5% of these directors felt that this specialization would continue to increase in the next decade. So, it will be important to understand and identify the causes for the continuance of this phenomenon.

- Expectation of future sports success

It seems that the above reason is one of the most evident and strongest for the ESS continuance. In fact, if there is a causal link between an ESS and the probability of having a higher athletic success, it is (would be) understandable that such is (would have been) decided. However, according to LaPrade et al. (2016), there is no evidence that the ESS is a requisite for adult high-level performance. Several studies on this theme (Lidor & Lavyan, 2002; Moesch, Elbe, Hauge, & Wikman, 2011; Gullich & Emrich, 2006) actually suggest that late specialization will be more effective than an early one, as elite athletes tend to have practiced various sports since a low age and, as a rule, not starting their specialization before the 12-15-year-old age group. Gullich (2014) found in a retrospective work with all athletes of the main German professional championship (Bundesliga) that most young players selected at a particularly low age were soon put off in place of others who had developed more effectively outside the sports academies for young people, and out of the national youth teams. In fact, most of the

young players selected early did not reach adolescence in those national youth teams. Malina (2010), citing Ljach (1997), indicates that only 0.14% of 35,000 high-level Russian athletes training in sports schools have succeeded in that sport. Gullich and Hemrich (2006) studied the sporting path of 1,588 Olympic athletes in Germany and concluded that success in youth, the training volume of the practiced sport and the inclusion in support programs did not have a significant long-term effect on success in elite sports. On the other hand, international athletes indicate having had a training volume while youngsters that was higher only in sports other than that currently practiced, with a more gradual and delayed path to specialization in their current sport. In a study held on field hockey, basketball and netball elite athletes, Baker, Côté and Abernethy (2003) showed that athletes who needed fewer hours of practice in their specific sport to reach a high level, namely regarding the quality of their decision-making, had participated in many different sports activities before reaching such high performance. Having surveyed 3,090 athletes from different competitions (high school, university and professional), also Buckley et. al (2017) detected significantly different rates of ESS among university (46%) and professional (67.7%) athletes, revealing the already mentioned tendency towards the increase of early sports specialization. It should be also noted that only 22.3% of the professional athletes stated they wanted their own children to specialize in a single sport during childhood/adolescence, 27.4% during higher education and 30.56% during high school. In a review of 12 studies, Jayanthi et al. (2013) has shown that a multivariate sports practice at low ages is more conducive to a later attainment of an elite practitioner status for most sports.

Thus, it appears to exist evidences that there is an advantage in a multilateral, diversified training, contrary to a specialization in a given sport in an early stage (ESS), even when focusing only on the goal of achieving high success in a particular sport. In this regard, the Portuguese physician Abel Salazar (1889-1946) had an ex-

pression that became famous. He stated that a physician who only knows about medicine, doesn't even know what medicine is. Thus, even having (only) in mind the success in a given sports modality, it seems to be advantageous for the athlete having previously practiced other sports as well as tried other specific positions within the same modality in which he became specialized.

It is also worth noting the approach of Côté, Lidor and Hackfort (2009), who emphasize that it is very important for children/young people, both in terms of foreseeing a high-level status and regarding future continuous involvement in recreational practices, to have a multivariate sports practice and deliberate play practice. In the latter, it may be possible to practice the likely future specialization sport, but without the constraints to respect strict rules - free play, street play - and without the goal for improving performance, as opposed to a unilateral sports practice and with a high deliberate practice, aiming at optimizing the performance. Peculiarly, and seeking to verify the consequences of a more specialized sport practice against a more varied one at young ages and in different motor capabilities, Fransen, Pion, Vandendriessche, et al. (2012), using a sample of 735 boys from three age groups (6-8, 8-10, and 10-12 years old), found a positive effect of a multivariate sports practice on strength, speed, endurance and gross motor function.

- Access to scholarships and other future financial benefits

Although, as far as we know, the first element does not happen in Portugal (access to scholarships), this seems to be a reason that leads many athletes (in fact, many parents of athletes, who are usually the ones who support their studies) to bet on an ESS as a means to be detected and possibly selected for school teams, with the aforementioned compensation (such is the case of the US, where a higher education is indeed expensive). Nevertheless, Malina (2010) points out the illusory nature of this procedure, given

the data from 1999 and 2000 where only about 2% of participants in US school sports - secondary education - were able to access a full or partial scholarship (where full scholarship only occurred for about 1.1% participants). In addition, even in cases where the scholarship was granted, it rarely managed to meet all costs involved in attending higher education. Moreover, the investment made by parents so that their children could be selected (e.g., thousands of miles in their own car for training sessions) ends up, in many cases, not covering the probable or actual financial return.

Alongside the pursuit of a scholarship, there may also be the desire for a future well-paid professional practice. Thus, no wonder athletes (and mostly, the parents) see this as a desirable possibility, betting on an early start and foreseeing a possible early talent detection. However, as we have already pointed out, future success does not seem to be linked to an ESS. So, this seems to be a bet with a very low probability of success. In addition, and as we shall see further on, the likelihood of an early sports practice dropout is high when sports practice and specialization are also early. This may occur even in cases where individuals have been classified as *talents - an expression that will often only mean an advanced state of maturity compared to colleagues of the same chronological age*, with little or no (or even adverse) future competitive advantage.

- Local sporting offer, practice convenience and sports philosophy of the clubs

The role that parents have in the beginning and in the continuance of sport practice for children and young people is acknowledged. In fact, parents are those who, in most cases, transport their children to and from training. Thus, it is not surprising that it is convenient that children practice in only one place and one club, as parents have to combine work schedules with training schedules. On the other hand, the possible need to enrol in more than one club, with

duplication of insurance and other bureaucratic, administrative and financial matters (e.g. investment in varied sports equipment) may dissuade parents from enrolling children in more than one sporting modality, if that implies not being able to practice them in the same club.

On the other hand, even in cases where the same club offers more than one sporting modality, the dispersion of the athlete is rarely seen with good eyes, often through the opinion of the coaches (who consider their modality more important than others; that athletes should not waste time practicing other modalities in detriment of the main one, or even fearing a definitive change to those other modalities - ultimately, the goal is having athletes practicing a modality that guarantees a monthly income...).

As coaches with responsibilities at associative and federation level, we came across situations where athletes were pushed up against the wall, pressured to choose between a certain sport practice and another.

Possible consequences of an early sports specialization

There seems to be a scarce or even inconclusive scientific evidence to refute the fact that an ESS may give the child the opportunity for an elite performance in the future. However, the risks associated with this practice can be high and quite penalizing. Is it worth risking?

The negative consequences can be revealed in several domains of life, highlighting the physical and psychosocial areas. According to DiFiori et al. (2014); Fitness (2000); Myer et al. (2015), ESS can lead to overuse injuries, burnout (state of physical, emotional and social incapacity, among others, to practice sports), or dropout (early dropping out of sports practice). For example, burnout episodes are common (Moesch, Elbe, Hauge, & Wikman, 2011) and the way the career is ended may also depend on how it was start-

ed. There are also several reports of problems such as alcohol and drug addiction, depression, eating disorders, identity misperception, decreased self-confidence, and suicide attempts (Wylleman, Alfermann, & Lavallee, 2004).

Hence, some of these consequences at different levels can be:

At physical level:

Overuse injuries (excess use) may have an intrinsic or extrinsic origin (DiFiori et al., 2014), being largely linked to an ESS (Brenner, 2007; CôTé, Lidor, & Hackfort, 2009; DiFiori et al., 2014 Jayanthi, LaBella, Fischer, Pasulka, & Dugas, 2015; Myer et al., 2015). This type of injury consists of a micro-trauma in the bone, muscle or tendon after a repeated and excessive stress (training or competition) without these structures having sufficient time to recover or for the normal natural recovery process to occur (Brenner, 2007; DiFiori et al., 2014). This imbalance between loads and the adequate recovery is quite penalizing in children and young athletes (DiFiori et al., 2014). The risk of this type of injury increases considerably with ESS in a specific modality, regardless of the training volume and/or age (Jayanthi et al., 2015). It is estimated that on average 8% of young athletes annually interrupt their participation in sport due to an overuse injury (Emery, Roy, Hagel, Macpherson, & Nettel-Aguirre, 2016). A pioneering study investigated four modalities (250 elite young athletes aged 8 to 16 years old) and detected prevalence rates of overuse injuries of 63% in swimming; 33% in gymnastics and tennis, and 15% in football players (Baxter-Jones, Maffulli, & Helms, 1993). A study of young athletes with overuse injuries concluded that more specialized athletes were more susceptible to overuse injuries (Jayanthi, Pinkham, Durazo-Arivu, Dugas, & Luke, 2011). More recently, a study of 1,190 athletes with ages 7-18 years old concluded that the more specialized ones were about twice as likely to have a severe overuse injury (Jayanthi et al., 2015).

Most of the overuse lesions occur during peak growth, typically be-

tween 12 and 14 years old (Myer et al., 2011). In many situations, children and young people cannot identify symptoms of fatigue and injury until they are very debilitated (Brenner, 2007, Callender, 2010). On the other hand, up to this date there is still no conclusive research that specifically indicates that volume, load, intensity and type of training/competition, coupled with lack of rest and recovery (DiFiori et al., 2014), can be considered negative and resulting in physical damage (Kaleth & Mikesky, 2010).

In this sense, we highlight recent investigations that point out as problematic: (i) a sports practice volume exceeding 16 hours per week, (ii) a weekly number of hours of sports practice higher than the age of the child (Jayanthi et al., 2015, Myer et al., 2015), or even (iii) a sports practice exceeding twice the number of weekly hours for deliberate practice (Jayanthi et al., 2015). The definition, classification, way of reporting the injury and the fact that they occur differently in various modalities, lead to not very robust conclusions (Brooks & Fuller, 2006; DiFiori et al., 2014). Classifying an injury due to overuse only when the sports practice stops underestimates the actual number of this type of injuries (DiFiori et al., 2014).

During certain key periods of the biological development, excess training and competition can have harmful effects on children and young people. For example, the growth of the so-called long bones occurs mainly at the level of the epiphyseal plate cartilage, and it is observed that a high incidence of lesions in children and young people occurs in these growth hubs, highly vulnerable to traumatic injuries, with a resistance two to five times less than that of the ligaments and proximal joint capsules (Brenner, 2007). Thus, actions that may result in ligament strain in adults often lead to fractures in children since their ligaments, as mentioned, are relatively stronger than their epiphyseal plates. This imbalance of forces may lead to osteochondritis (DiFiori et al., 2014; Kulund, 1982) such as the Sinding-Larsen-Johansson Syndrome - knee - or the Osgood-Schlatter Disease - knee -, the Sever Disease - heel - (Baker et al., 2009; DiFiori et al., 2014) or the Little Leaguer's Elbow - shoulder - (DiFiori

et al., 2014). During the development and growth courses, growth peaks may lead to motor coordination problems which, coupled with (weak) technical and mechanical competence in a particular modality, can lead to injury (Kaleth & Mikesky, 2010). We also have more severe effort/stress fractures, which occur increasingly in children and young people. For example, most epiphyseal stress fractures are solved with adequate rest, nevertheless, some may result in growth disorders and joint deformity (DiFiori et al., 2014).

Reports of possible delays in the development of female athletes, namely gymnasts and ballet dancers, were documented in the 90s (Malina, 1998, 1999). However, scientific evidence associated with this phenomenon is scarce and recent studies indicate that it is necessary to take into account the physical and aesthetic demand of these modalities and to try to study the cause-effect relation at stake (Malina, 2010; Malina, Bouchard, & Bar-Or, 2004; Stager, Wigglesworth, & Hatler, 1990).

We could speculate on the benefit the ESS will then bring to children and young people at physical level. In muscular terms, strength training does not imply improvements in the skeletal muscle other than its better activation/use because the increase of its volume will be dependent during puberty on the circulation of specific hormones, namely the testosterone (Faigenbaum et al., 2009; Lloyd et al., 2016). In cardiovascular terms, the limitations of a small heart and lower blood volume do not allow the appearance of high-performance athletes in cardiovascular endurance efforts (Kaleth & Mikesky, 2010). However, although investigations are limited, they do not evidence cardiovascular problems associated with intense training in children (DiFiori et al., 2014; Brenner, 2016). On the other hand, at the level of the nervous system, in childhood there is no research that supports that the myelination process accelerates with a more intense/frequent sports activity (Kaleth & Mikesky, 2010). Therefore, there is no scientific evidence supporting the physical benefits of an ESS.

At psychosocial and psychological level:

When we refer to injuries it is usual to associate this term with questions of physical nature. However, damages resulting from an inadequate sporting practice (where the ESS is included) may have emotional, psychological, social and even economic repercussions. As they are on most occasions invisible to the perception of adults or neglected by children and young athletes, these occurrences tend not to be intervened, or to be intervened too late, leading to very negative consequences on their sporting and personal life. In this psychosocial domain, one of the major concerns over the last 20 years is that the ESS leads to the decrease of the pleasure hypothetically linked to sports practice (Baker et al., 2009).

Does any human embrace a sporting modality with another intrinsic goal other than to obtain pleasure and happiness from its practice? The ESS decreases considerably this intrinsic motivation and the pleasure of practicing a particular modality (Wall & Côté, 2007). In fact, this limitation in choosing other sporting modalities may even lead to children and young athletes never discovering a modality that would give them more pleasure, a better performance or allow them to practice it throughout life (Brenner, 2016).

A larger involvement in training and competitions of a sporting modality can lead to several social dysfunctions. The social isolation from their peers and a less ability to relate outside the sports context may lead to relationship alterations, not only with peers but also with the family (Malina, 2010). Lack of free time for other activities, including sports, loss of social opportunities, less ability to solve social conflicts, may be other negative consequences of the ESS. On the other hand, the independence of these children and young athletes is completely set aside by the manipulation of life (personal and related to sports) by the supervisory bodies of competitions, the clubs' agendas, the interests of coaches and parents and even by the media. The natural inability to deal with pressure and expectations, victories and defeats or even fame (Malina, 2010) can have

dramatic consequences not only in childhood/adolescence as well as in adulthood. This manipulation may even go as far as to falsify ages (Malina, 2010) since the sports system is mostly based on competitions by chronological age and sex, not respecting the biological and behavioural development (Capranica & Millard-Stafford, 2011). This leads to those who are more advanced, in maturity terms, having an advantage over others, especially in the current sports environment.

At the level of eating disorders:

Eating disorders are linked with sports practice and also with modalities where body image (aesthetics) is a requirement such as gymnastics, dance, figure skating and swimming (Baker et al., 2009; Malina, 2010). There is a fear of not being selected due to body composition or image and it can lead to eating disorders. Pressure from coaches, judges or even supporters can lead to these kind of disorders. It is not only a matter of losing body weight, as there are modalities in which the opposite is "preferable" (i.e. American football, rugby) and that can lead to overweight/obesity. In recent years there seems to be an increasing concern about the body image of children and young athletes (Davison, Earnest, & Birch, 2002), leading to the use of supplements or even doping (Brenner, 2016). The lack of knowledge in nutrition and/or the use of supplements and the ease with which these products are available in the market can seduce children and young athletes to use them intentionally or unknowingly, forced or not by coaches, parents or other influential agents.

At economic level:

Achieving fame ... scholarships ...: only 0.2% to 0.5% of US university athletes reach a professional level (Brenner, 2007). But, if this does not even happen in Portugal, why is there so much hurry imposed on those who want (should want) to go slowly and confidently? Due to the interests of the clubs? Expectations (exacer-

bated) of parents who are later on undertaken by their children (Callender, 2010)? Pressures from industries linked to sports?

Moreover, the case of parents who have to travel long distances to take their children to sporting academies of major clubs, their investment in sports equipment and medical care for injuries and/or psychological counselling, along with a possible low productivity by spending so much time in these tasks.

The sports industry and all its hostile communication is another source for an ESS (Malina, 2010). Currently, a network of highly specialized and deep-rooted economic interests orbits around sport. Advertising encourages children (often subliminally) to purchase expensive sports materials, which are frequently inappropriate but "fashionable". On the other hand, the biggest sponsors of sporting events on the planet are worldwide-known brands of alcohol, fast food or others that desperately try to clean up the negative image imputed to them (or that should be so) as they are not encouraging healthy living habits, much less those compatible with sport activity.

What about scouts who run thousands of miles in search of the next "Cristiano Ronaldo" at ages as low as 5 years old (Sokolove, 2010) in search of the gold pot? Next, let us look at the financing granted to sporting clubs in Portugal by local authorities. Competition and victory are funded and rewarded, not taking into account the quality of training and not supporting in a clear and meaningful way those who do not even want to compete but aspire a pleasurable and healthy physical and/or sporting practice!

DSS - TSS (Diversified Sports Practice with probable Timely Sports Specialization

In spite of the many doubts that still arise regarding the (in) efficiency or even the pernicious effects of an ESS, it seems to us that regarding the pedagogical, humanist and respected aspect of the

individuality and health of the child, it makes sense to follow the guidelines presented below. Thus, we herein present the following proposal of intervention model and pedagogical care to be held at the different training levels by the various training agents.

We clearly defend a Diversified Sports Practice (DSS), not early, with a probable Timely or opportune Sport Specialization (TSS), i.e. performed in the proper time. What should be in the mind of the child or young athlete, and of those around them, is that there is time to practice and compete as an adult and that personal well-being must prevail over any other interest. The main goal of participating in sports should always be to promote a healthy practice of physical activity that is continued throughout life, as well as an entertaining and healthy competition (Brenner, 2007). But is sporting specialization not possible? Yes, it is. In due time and always decided by the athletes and respecting their interests. In this sense, there are several models of development of sports "careers", being puberty the period where there seems to be greater consensus regarding the beginning of this specialization process.

A diversified sporting experience of strong recreational character is proposed to children from 6 to 12 years old. The beginning of sports specialization is proposed between the ages of 13 and 15, and from the age of 16, a phase of investment in the sports career (Côté et al., 2009; Stambulova, Alfermann, Statler, & CôTé, 2009). A free, unstructured practice and supervised by adults (e.g. street games), i.e. an informal or implicit learning (Malina, 2010), may well also have a role in this model of sport diversification.

For example, in US women's tennis, the Women's Tennis Association precludes competition before the age of 14, with progressive increases up to 18 year-olds. After 10 years of follow-up, this measure led to a 2-year increase in the duration of careers and a dropout reduction from 7% to 1% (Otis et al., 2006).

The multi-sport athlete has a potential for continuing the practice of

physical activity throughout life far superior to those who specialize early in a single sports modality (Brenner, 2007), also because young athletes that participate in a variety of sports have fewer injuries and uphold sports practice longer than those who specialize in a sports modality before puberty (Fitness, 2000).

Thus, we suggest a Diversified Sports Practice with the probability of a Timely Sports Specialization (DSS - TSS) and we recommend:

- Proposing a practice in which the child/youngster do not exercise the repetition of sports gestures of a single modality, thus having a multivariate, diversified sports practice. In organizational terms, and considering an annual practice, it may have a more sequential character (e.g., 3 months practicing one sport, 3 months another and 3 months one more, with a stop of 2/3 months, as recommended by the American Academy of Paediatrics Council on Sports Medicine and Fitness) or a more alternating character (e.g. 3 weekly trainings for 9 months, each of such trainings corresponding to a different sports modality);

- Ensuring that the models to support sports practice by local authorities or other entities do not favour or encourage an early "acute eagerness for medals" and a bias in the clubs type of training by awarding financially any results at a young levels; the ending of championships and classifications of any kind at young levels, at least until the age of 15; being very cautious in implementing talent detection programs, not only because of false expectations they may create in those who are chosen early, but also because of the possible (prejudicial) future consequences, as mentioned before; to realize that any system that promotes or encourages behaviours in which sports success is sought too early is a system that may be jeopardizing not only the future sports success of many children but above all a future healthy relationship with sports. This is particularly relevant at a time when the Special Eurobarometer 472 - Sport and physical activity reveals that, among other worrying data, in Portugal, 68% of the enquired (15 years old or more) never

practice any physical or sporting activity (contrary to their Finnish, Swedish or Danish equals, who have the highest percentages of a regular physical practice or sporting activity);

- Those responsible for the federated sports practice should strive to facilitate this multivariate sports practice (in particular by reflecting on insurance issues, competitive models, etc.), by promoting tournaments/meetings (more than championships) with various sporting modalities and a "competitive" balance, abandoning the exclusive concept of a practice by chronological age, taking into account the natural and often patent discrepancies between children/youngsters of the same chronological age;

- Planning interesting trainings, adapted to the ages with which one works and with playful character, as suggested by Brenner (2007);

- Promoting educational training sessions for parents, showing them the benefit of a long time of playful practice, self-regulated by their children, trying not to impose too early a given sporting modality for the reasons already presented. The practice of children is often chosen by the parents, based on economic viewpoints (sports with the possibility of a financial return), tradition (the sport they practiced or that is practiced in the region/country) or for convenience (sports available in a more convenient location);

- Sports clubs should be organized in such a way as to enable a young athlete to practice more than one sporting modality without entailing a burden or stigma. On the contrary, this multivariate sports practice should be encouraged and valued until they are 13 years old. If the club does not have a diversified offer, it should also promote protocols with other clubs so that the same offer can be guaranteed in mutual articulation;

- Coaches' courses and higher education courses should emphasize the viewpoint defended herein and, at the same time, there should be a serious investment in the training of the various sports agents, namely sports leaders;

- The media following the phenomenon of young sports practice should also attend training courses on this subject, because, as we know, their power is immense and should be used in a pedagogical sense. Verbs such as “to humiliate”, “to crush”, among others, should be definitively banned from the context of young (at least) sports practice, just as it would be quite salutary to abandon “dramatic headlines” and praising articles when the concern is to obtain results without any interest in the sporting future of children and young people.

There is a long way to go for this DSS - TSS paradigm to be implemented. Children and young athletes, coaches, leaders, parents, supporters, media, brands investing in sports, physicians, physiotherapists, psychologists and other players in this phenomenon must be educated in this sense. Children and young athletes have to be heard and also realize what their (actual) goals are. Adults have to put pressure aside, have common sense in their expectations, and perhaps… forget their failures and frustrations as athletes, not looking at their child as the “ the goose that laid golden eggs”. If too pressed, such “eggs” can quickly turn into iron eggs and rust, killing those promising young geese...

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Parental Involvement in Sport: What Parents Think About the Coach Functions

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Summary: This qualitative study analyses the importance of parental involvement in the sporting practice of their children. Educational guardians (i.e. parents) (n=4) of young athletes (14 and 15 years old) who practiced Basketball and Kickboxing answered semi-structured interviews, revealing the importance of parental involvement in their children's sports practice and on the perception of their potential and personal satisfaction.

Keywords: Training; Coach; Parental Involvement; Sports Practice

Introduction

As the years mark the lives of human beings and generations are sensed in the history of each individual, physical activity is increasingly seen as a fundamental piece of the puzzle that we, as sports coaches, try to unravel by grounding the scientific and empirical foundations at our disposal with our efforts, sweat and dedication.

Currently, practicing physical activities is valued in terms of social and professional success as not everyone can "afford the luxury" of including physical activity in their living standards. It is still valued for its potential health benefits (Barata, 1997).

Each individual has within himself a universe of variations, characteristics, conditions and aspirations that are constantly in interac-

tion and which influence the way in which he/she is in life, whether at personal, professional, cultural, social or economic level. It is therefore necessary to mention that every life needs goals and these must be properly thought out, considered and defined. Only in this way is it possible for the individual to orientate his thinking, behaviour and decision-making. And in this case, our aim as professionals is to create goals within our society that make people wanting to move in a healthy, consistent, coherent and sincere way.

In current society there is an increase of credibility to start physical activity in childhood, rather than it being implemented only in adulthood. According to Barata (1997), the encouragement of sports practice in childhood is of particular importance, both for the direct benefits it can provide the child and for the potential protective role it can have in adult life.

Parallel to the aforementioned idea, the pertinence of denoting the relevance of the adolescence stage within sports practice emerges. According to Claes (2007), adolescence arises at the crossroad of a decisive change in the social life of individuals as this phase is characterized by a progressive disinvestment on family life, favouring an intense involvement in the relational life outside.

Man has a peculiar nature with a very marked social trait which is felt and reflected in the most varied situations of daily life and in different outlines. Thus, in addition to the benefits aimed at the prevention and maintenance of health, we must also consider another aspect: the social nature of the human being. This highlights the intrinsic need of the human being to integrate an extremely complex society and full of nuances. According to the model proposed by Maslow, theorizing human motivation hierarchically according to different levels of needs, namely the social ones, we highlight those of association, participation, friendship, affection, love and acceptance. When satisfied, these needs rise feelings of self-confidence, status, power and favours interpersonal relationships (Fachada, 2010). Given the importance of satisfying the human being needs

in a society in which the task of instilling physical activity in citizens is so difficult, the social aspect of physical activity can play in our favour.

Sport practice in adolescence in collective and individual modalities

A strategy that seems to be efficient encouraging the practice of physical activity is the participation of adolescents in sports of collective nature, as fun is inherently associated with social interaction, competition, personal challenge and to the achievement of life goals. According to some studies, this aspect seems to increase self-esteem, reduce the risk of obesity, improve body image and increase muscle gain (Lee et al., 2018).

When children and adolescents participate in structured activities such as sports, they show higher levels of intrinsic motivation, effort, and concentration compared to situations in which they only watch television or socialize with friends (Larson, 1994; Vandell et al., 2005, quoted by Holt, 2008). It is important to highlight that according to Ryan and Deci (2000), the intrinsic motivation is related to the fact that an activity is performed for the satisfaction inherent to it, the fun itself and for the perceived challenge.

On the other hand, extrinsic motivation is linked to situations in which the individual performs an activity to receive results that are not necessarily related to the activity itself, such as external benefits, pressures or prizes. In fact, when sports practice is deliberate and therefore not imposed by external factors, children show higher levels of involvement in training and seek to receive appropriate technical and tactical information from coaches and also appropriate from their point of view (Bloom, 1985, Côté et al., 2007 quoted by Harwood & Knight, 2015).

Sport provides a context in which adolescents develop their own identities and explore their emotions (Hansen et al., 2003 quoted

by Holt, 2008). According to Tysoe (2014), basketball is used as positive in the developmental path of adolescents and as a distraction tool to any negative influences that may arise. Having an inherent social component, basketball is a strong foundation in the social and personal development of this age group.

Sports practice offers individuals countless undeniable benefits, having high significance in the life and existence of everyone. We shall find a recipe for a healthy life by adding to all these benefits the practice of a contact sport, with technique, where we can release energy from stress, work the sense of opportunity, agility, movement coordination, and toning the body (Lima, 2015).

Currently, the concept of being "mentally strong" refers us to athletes who are mentally disciplined, who respond to situations of greater pressure in a way that allows them to maintain calm and energized, thus provoking an increase in positive energy flow during crisis situations and adopting the adequate approach towards problems, pressure, errors and within the context of competition itself (Loehr, 1986 quoted by Minjina, 2014).

Combat sports are thus a way for young people to acquire certain emotional, cognitive, and physical and physiological abilities and skills that will be paramount in their adulthood.

Parental involvement, social support, parental figures and their influence on children's sporting practice

According to Marcen et al. (2013), parents have a vital influence on the participation of children in the practice of physical activity. The value parents give to sports activities and to competition, the meaning and importance they give to success or failure and to the sporting spirit can be decisive to the behaviour of children towards sports practice at medium and long term. In addition, the parents' own behaviour promotes in their children a self-perception of competence, thus modelling their achievement expectations throughout their development.

Hence, parental involvement plays an important role in the personal satisfaction of children regarding sports practice as well as their performance and success. The importance of the emotional support offered by parents to their children both in training and in competitions is undeniable and paramount when guiding children and young people towards success and satisfaction, both personally and as athletes. According to Dorsch et al. (2009) quoted by Harwood and Knight (2015), in addition to being able to deal with the aggressiveness of the children, parents should be able to efficiently deal with a wide range of emotions that arise during competitions. An example is the ability of parents to empathize with situations in which children feel disappointed or upset, becoming themselves also disappointed and upset.

Adolescents who perceive higher levels of social support from their parents tend to participate in sports activities. Contrarily, those who perceive low parental support have higher levels of morbidity and mortality (Lee et al., 2018). Still, when children perceive their parents as a source of pressure due to too high expectations, criticism made during games or lack to show love after competitions, they may even experience the negative side of sports practice (Gould, Lauer, Rolo, Jannes, & Pennisi, 2006; Knight, Neely, & Holt, 2011; Sagar & Lavallee, 2010 quoted by Knight, Dorsch, Osai, Haderlie, & Sellars, 2016).

In fact, it is essential that parents understand their children's desires: what they want to achieve in the future and what to accomplish in the present. This brings us back to the interaction between children's self-awareness of their own goals and the parents' awareness, according to Knight and Holt (2014) quoted in Harwood and Knight (2015). Expectations are guided by moral, social and cultural factors, standards, and values (Olkkonen, 2016). It is essential for parents to be able to adjust their expectations towards those of their children, giving them freedom of choice and decision.

When sports practice is deliberate and therefore not imposed

by external factors, children show higher levels of involvement in training and seek to receive appropriate technical and tactical information from coaches and also appropriate from their point of view (Bloom, 1985; Côté et al., 2007 quoted in Harwood, & Knight, 2015).

Studies have shown that the parents of athletes with a high degree of commitment to their sport practice show willingness and pleasure accompanying their children and attending competitions and tournaments, being often present in training sessions (Csikszentmihalyi, Rathunde, & Whalen, 1993; Monsaas, 1985; Sloam, 1985 quoted by Côté, 1999).

The importance of parental experience in the sporting practice of children

The experience of parents in sports and physical activity is a determining factor in the development of children regarding this area. According to Hardwood and Knight (2015) parents' knowledge of this reality increases the likelihood of children reaching their sporting potential, provides a positive psycho-social experience and a large array of personal outcomes throughout the development process. For this to be possible parents must strive to develop interpersonal, intrapersonal and organizational capacities for a consistent and coherent support.

It is essential that parents provide their children with appropriate opportunities in sporting experience and living. Likewise, according to Hardwood and Knight (2015), parents should be effective and supportive providers, allowing children to optimize both their performance and their taste for sports practice.

The adequacy of the opportunities offered by parents can also influence the longevity of their children's involvement in sports, their psychosocial experiences and the actual probability of suffering injuries (Côté, Baker, & Abernethy, 2007; Frases-Thomas & Côté,

2009; Fraser- Thomas, Côté, & Dakin, 2008 quoted by Harwood, & Knight, 2015).

Key characteristics of a coach/master in the adolescence phase

The encouragement, concern and education given to the athlete by the coach are key ingredients. Both immediately before and during competitions, the coach's quick and inspiring conversations with athletes ensure that enthusiasm is kept and provides them with the necessary moral support (Minjina, 2014).

It is important that coaches have the ability to create a favourable environment for learning and improving the training content, as well as for players to express their full potential (Pinheiro & Santos, 2017).

Method

The study presented has a qualitative nature and has involved the collection of information through semi-structured interviews held with four educational guardians (i.e. parents) (n=4) whose children are actively in sports practice, and two of them practice the collective modality of Basketball and two others practice the individual modality of Kickboxing.

Each parent was assigned a number to better understand the results. Thus, parents whose children practice Basketball are parents #1 and #2 and parents whose children practice Kickboxing are parents #3 and #4.

For the analysis, integration and interpretation of the information collected during the interviews, 10 different categories were made, grouping the different answers given by the parents according to subtopics, highlighting the relevance of each one to the scope of this study and according to the goals mentioned above.

Presentation of Results

The results presented are related to the perception of parents regarding different variables that may influence the sports practice of their pupils.

Table 1. Perception of Educational Guardians (usually parents) on the Sporting Practice of their Children

Categories	Answers
Parental involvement in their children's sporting practice	"Yes, always, so far yes. Because I like it, because he is my son ... "(father #4)
	"... he feels support from the father" (father #4)
	"... but I think that if I'm not there, it's also good because he's going to feel freer (...) so to let him start having his freedom" (father #4)
	"It may also be the pressure, my father is there, I cannot make a bad figure" (father #4)
	"I usually follow almost every training" (father #3)
	"At first I thought so, when she was not still feeling at ease" (father #3)
	"I cannot go to the training sessions (...) I go to the games every weekend" (father #1)
	"(...) I tell her many times that she has to rethink what she is doing in the middle of a team (...) that I hopes she will contribute" (father #1)
	" (…)I always talk about her rethinking why she's in Basketball" (father #1)
	"There is a phase in their age, especially around 8, where the presence of parents on the stands is extremely important ... they feel someone is there ... to encourage, to cheer" (father #1)
	"In general, I think if we want them to feel proud, we parents should be present at least there, because that is when they show us what they are learning and doing" (father #1)
	"(I follow) practically everyone (the games) because I also love basketball (...) it's cool, it's good to encourage them, it's good to be present so they do not feel abandoned and lose interest" (father #2)

Parents' perception of the sporting quality and potential of their children	"Yes, he has evolving to a much higher level". (Father #4) "Right now, I think she's in the right place" (father #3) "She likes to work in a team that has good growth goals (…), to qualify in better conditions (...) winning teams" (father #1) "She is currently on a winning team, but I could also saw on another team" (father #1) "He will be able to play in better teams than the one he represents, but we have the habit of dedicating ourselves to the club because we do everything for the club as if it is ours" (father #1) "The club in which she plays is more a family arrangement, they are friends, the children are friends to all" (father #2) "In my opinion, I would even took her out of that club" (father #2)
Parents' expectations of regarding their children's future sporting practice	"... I liked it, because a professional athlete always develops other abilities even for future life: discipline, concentration, more dedication..." (father #4) "Yes, I liked it, because my child would have other aims, goals" (father #3) "Yes, I would like my child to be a professional" (father #3) "(...) but I do not know if I see in her a performance that is necessary in basketball" (father #1) "She has a huge passion for the modality, but I think the job market itself is not so variable that it would receive any kind of person" (father #1) "She would need many physical and performance conditions to be a professional" (father #1) "I do not see her as a professional athlete (...) because she does this because she likes" (father #1) "No (I liked my daughter to be a professional athlete) because I think they have many other things to do in life and a professional activity requires a lot of dedication" (father #2)
Parents' perception of the current coach/master behaviour, interaction with athletes, and the role they play in their lives	“(...) always encouraging. Corrects very respectfully(...)"(father #4) "(...) very positive incentive, never negative" (father #4) "(...)never hot-tempered, always keeps his pose (...) always pedagogical" (father #4) "(...) because if we're going to be negatively talking to athletes, they also do not feel comfortable to develop" (father #4) "(...) but never neglects the other athletes" (father #4) "(...) I am an athlete who does not compete and yet he is always there to correct, to see, to encourage and to motivate" (father #4) "Someone who can do a great job" (father #4) "He's enthusiastic, very communicative" (father #4) "He usually gets upset if we have bad refereeing, not with the athlete" (father #4) "I've never seen him upset with an athlete because he did not win a fight" (father #4)

Parents' perception of the current coach/master behaviour, interaction with athletes, and the role they play in their lives	"During training you feel an incentive for the next competitions" (father #4) "I find him a correct and very professional person" (father #3) "He is a friendly person, I do not find him aggressive, on the contrary... "(father #3) "He gets results by playful means, but with rules" (father #3) "No defects to point out" (father #3) "I find him amazing" (father #3) "I feel he treats everyone in the same way, even the champions and initiates..." (father # 3) "During the combats he is not aggressive, on the contrary, he praises them" (father #3) "(...) he's a very reasonable person (...) I think he's an enthusiast" (father #3) "Everyone that combats has the same opportunities" (father #3) "He is extremely aggressive" (father #1) "He demands many things we think are irrational (...) there are training sessions where I think he exaggerates" (father #1) "(...) he is very disciplined (...)I often think he is irrational (...) and his reasons turn out to be a bit childish" (father #1) "however, in general he is a coach who shouts but a pedagogue (...) he then explains why things are done that way" (father #1) "(...) all coaches have their favourite athletes (...) but he tries to give a play chance to all players, and we cannot really notice a differentiation" (father #1) "The difference has to do with the response the athlete gives back (...) if he is a dedicated athlete, he values that and thus gives such athlete more opportunities". (Father #1) "(...) they are not all the same as they do not all have the same dedication" (father #1) "When there are important games, he puts the good ones to play. When they are games where everyone can play, he gives everyone an opportunity (...) it has also to do with the competition itself "(father #1) "(...) he imposes enormous rigor" (father #1) "G. is strict in tactics (...) he asks for complicated things and at the minimum fail he is capable of taking out 5 players and putting 5 players on field (...) some days he shouts so people on the stands hear him, to demand silence" (father #1) (praising) "Because it is very rare in him" (father #1) "in games, there is zero tolerance (...) always correcting" (father #1) "He is friendly and aggressive when he has to be, but he is not hostile" (father #2)

Parents' perception of the current coach/master behaviour, interaction with athletes, and the role they play in their lives	" Actually, the coach is nice to my daughter but not to everyone" (father #2) "Praises them always" (father #2) "Nobody ever stays out (...) they all play, even if it's only for 3 minutes!" (Father #2) "(...) if he is someone with a good background and a positive attitude, this is important because then he will only teach good things (...) focus, concentration, an effort to improve" (father #4) "What is important is the way she trains, the way she cares" (father #3) "He also trains, but also tries to understand the other side (...) he is also a friend. That is important" (father #3) "I think he passes the values I expect from sports (...) ability to overcome difficulties, confrontation with fears and limitations, confrontation with what I did wrong and having to accept (...) sometimes unfair confrontation. He makes the rules, but he himself does not comply with them "(father # 1)
Opinion of athletes about the current coach/master	“She likes him very much” (father #3) “Showing himself pleased… not quite!” (father #1) “He is unbearable and grumpy, he's always screaming but she likes him like that "(father #1) "he knows how to get her to execute steps and techniques that she feels confident that he will teach her" (father #1) "She does not like him for the person himself but for what he transmits her" (father #1)

The importance and relevance of the parent-coach/master relationship	"As an athlete, I do not feel such need because I realize what is going on during the training and even in the competitions" (father #4) "... he is promptly available to talk about, solve and explain all situations" (father #4) "... I talk to him at the end of training or at the end of the competition" (father #4) "I do not think it's important to have meetings because in all trainings we have the opportunity to do so if there's anything we want to say" (father #3) "to meetings… actual meetings… maybe not even he can attend them, as happens with parents. There is no time for it "(father #3) "I think it's important that parents receive from the coach ... the warnings he wants parents to help and that they should give to children" (father #1) “the coach should advise parents more often (…) so that they have all the same care to be present in the stands, to support them and to be in all matches"(father #1) "(...) sometimes there is lack of attendance, absence, loss of games stupidly, because there was a father who forgot and was not there..." (father # 1) "(...) I also think it is important to include a little more… in the middle of the sports family" (father #1) "hear from the coach what he thinks of our children" (father #1)
Motivation of athletes for sports practice and reasons that led parents to encourage them to do so	“…I started to train through a friend of mine who practices and then, he was “dragged” with me, liked it and stayed "(father #4) "It was a natural preference" (father #3) "It was actually Rita's goal to find her place on the team" (father #1) "(…) she was self-excluding from school groups (…) basketball is one of the modalities in which you have to try to receive the ball (…) it's a team sport (…) she had to say she wanted to receive the ball" (father #1) "(...) it was a way of forcing her to socialize" (father #1) "It was more or less imposed because Leonor always had a hard time clinging to things" (father #2) "(...) and basketball was an activity that combined with her because it has more movement and the girl is tall … that was the main reason" (father # 2)

Reaction, posture and attitude of parents towards the success and failure of their children after competitions	"…I usually talk to him, but failure is always part of success "(father #4) "... I think we should encourage constructive criticism and that's what I do" (father #4) "... if he loses, I get irritated. But being angry one is not humiliating someone"(Father #4) "... naturally, if he wins, I'm happy, very happy ..." (father #4) "... warn him where he was wrong and what to correct" (father #4) "... we usually talk when trainings finish" (father #3) "…usually when she comes more discouraged or something did not go well" (father #3) "…I do not see it as a failure, there are better days than others" (father #3) "... of the few results that we obtained I was very satisfied, I brought a medal" (father #3) "(…) I do not talk about what she did technically badly (…) it is not her failure while launching ... the issue is that she does not technically get available to receive the ball ... she already knows she is going to take a hit on the descend" (father #1) "(...) even if they lose, I'm always happy for their performance because I know they gave the best of them" (father #1) "I like to talk about good things, although bad things get stuck on my mouth (…) I usually only talk about good things" (father #2) "What is my reaction? (to success) It is not due to my daughter! It's due to the team!" (father #2)

The key characteristics for being a youth coach/ master	“having an “iron fist”(father #4) "explaining what he wants" (father # 4) "athlete incentive" (father #4) "to be understanding" (father #3) "being demanding without being aggressive" (father #3) "They feel that besides having a master, they have "someone with whom they can talk" (father #3) "He has to be an inspiration" (father #1) "He has to be an example" (father #1) "He has to be compliant (...) he has to do what he says in terms of sport" (father #1) “Being disciplined" (father #1) "(...) not treat all players the same way (...) he has to have a psychology adapted to each of them ... empathy, understanding" (father #1) "The coach interaction is very important... empathy is fundamental" (father #2) "Having a lot of empathy" (father #2) "Having some background education in education" (father #2) "It takes a lot of courage to teach kids of this age group!" (father #2)

In the eyes of parents: the importance of sports in their children's lives	“It is very important” (father #4) “for school performance, focus, concentration (...) then, also on health "(father #4) "... if we train with a goal, it helps focus on studies too" (father #4) "... they end up being more focused and attentive" (father #4) "... they control easily that type of anxiety, nervousness" (father #4) "I always encouraged him to play sports" (father #4) "... and the best way is letting him feel such benefit in the chosen sport" (father #4) "It is essential because it is transferred from here to school and vice versa" (father #3) “(…)athletes are always the best students "(father #3) "(...) disciplined with a healthier life (...) always accompanied by athletes" (father #3) "(...) healthier young people who do not go to other ways with vulnerability" (father #3) "My daughter has been playing sports since she was 3 (...) this is to keep" (father #3) "(...) sport is her social life (…) where she unloads energy, where she feels fulfilled, where her self-esteem rises"(father #1) “(…)today's kids do not go out to get a coffee, they do not go out to the beach together, they do not go out to go to the movies together (…) it's not a habit they have and I insist on that a lot, that they should meet with each other"(father #1) "(...) for her, it's the routine to get out of the school routine and that's what gives her that motivation and strength to study" (father #1) "(...) it is her way of organizing herself in terms of time and work between school and sports" (father #1) "It's important that they practice sport for all reasons ... (...) it also helps them focus on their studies, having less time to study optimizes the time they study" (father #2)

Discussion of results

Regarding category no.1 - the parental involvement in the sporting practice of their children - generally, there seemed to be congruence between the parents regarding their pleasure, as parents, to accompany the children both to training sessions and competitions. The answers obtained were:

- "*he feels support from the father*" (father #4),

- "*I go to the games every weekend*" (father #1),

- "*In general, I think if we want them to feel proud, we parents should be present at least there, because that is when they show us what they are learning and doing*" (father #1)

-"*it's good to encourage them, it's good to be present so they do not feel abandoned and lose interest*" (father #2). These answers indicate the importance parents give to their children seeing them on the stands, both in trainings and matches.

However, we found in the same category that this issue was also approached by questioning if parents would limit their children's freedom with their presence and create pressure thus influencing their performance. This point of view was shown in answers pointing to this fact:

- "*but I think that if I'm not there, it's also good because he's going to feel freer (...) so to let him start having his freedom*" (father #4)

- "*It may also be the pressure, my father is there, I cannot make a bad figure*" (father #4).

Parents' support is a facilitator both for participation in sports practice and for their performance (Left & Holyle, 1995 quoted by Marcen et al., 2013). According to Harwood and Knight (2015), parents are an important source of social support for their children to offer them the tools they need to optimize their opportunities, experiences and the development itself. Parents should thus avoid behaviours and attitudes that could result in extra pressure for their children.

For category no. 2 - Parents' perception of the sporting quality and potential of their children - the goal was to try to understand how parents perceive the sporting quality of their children within the current club and the possibility that these later integrate a better club.

In general, answers given by the parents demonstrate belief in the quality and potential of their children:

- "*She is currently on a winning team but I could also saw her on another team*" (father #1),

- "*The club in which she plays is more a family arrangement, they are friends, the children are friends to all (…) in my opinion, I would even took her out of that club*" (father #2)

Simultaneously, it was observed that some parents feel that the children are in the club appropriate to their potential, at least currently:

- "*Right now I think she's in the right place*" (father #3),

- "*Yes, he has evolved to a much higher level*". (father #4)

As for category no.3 - Parents' expectations of regarding their children's future sporting practice - there was a divergence of parent's opinions when asked if they would like their children to choose a professional sports career

Some stated they were keen on their children becoming professionals in the future:

- "*…I would like it, because a professional athlete always develops other abilities even for future life: discipline, concentration, more dedication …*" (father #4)

- "*Yes, I would like it, because my child would have other aims, goals*" (father #3).

On the other hand, there were answers like:

- "*She would need higher physical and performance capabilities to be a professiona*l" (father #1),

- "*I am not seeing her as a professional athlete (…) she does it because she likes it*" (father #1),

- "*No, I would not like my daughter to be a professional athlete because I think they have many other things to do in life and a professional activity requires a lot of dedication*" (father #2).

According to the theoretical support presented, not all children demonstrate an interest in pursuing an elite and professional career. The same happens with their parents, who also do not aspire such a future for their children, according to Côté and Hay (2002) quoted by Harwood, & Knight (2015). Thus, some children choose a path directed only to the practice of physical activity in a recreational setting (Côté et al., 2007 quoted by Harwood, & Knight, 2015).

Regarding category no. 4 - Parents' perception of the current coach/master behaviour, interaction with athletes, and the role they play in their lives - different opinions were also obtained between the four parents.

There were answers regarding the coach or master as:

- "*…always encouraging. Corrects very respectfully*" (father #4),

- "*… very positive incentive, never negative*" (father #4),

- "*…never hot-tempered, always keeps his pose (...) always pedagogical*" (father #4), - "*He's enthusiastic, very communicative*" (father #4),

- "*I've never seen him upset with an athlete because he did not win a combat*" (father #4),

- "*I find him a very correct and professional person*" (father #3),

- "*He is a friendly person, I do not find him aggressive, on the contrary...*" (father #3),

- "*He gets results by playful means, but with rules*" (father #3),

- "*No defects to point out (…)I find him amazing*" (father #3),

- "*I feel he treats everyone in the same way, even the champions and initiates…*" (father #3),

- "*During the combats he is not aggressive, on the contrary, he praises them*" (father #3),

- "*He is friendly and aggressive when he has to be, but he is not hostile*" (father #2),

- "*He always praises them*" (father #2), "

- *(…) he's a very reasonable person (...) I think he encourages*" (father #3),

- "*What is important is the way he trains, the way he cares (…)*

- "*He also trains, but also tries to understand the other side (...) he is also a friend. That is important*" (father #3);

- "*I think he passes the values I expect from sports (...) ability to overcome difficulties, confrontation with fears and limitations, confrontation with what I did wrong and having to accept (...) sometimes there is a bit unfair confrontation. He makes the rules, but he himself does not comply with them*" (father #1).

These answers give us an extremely positive view of parents regarding their child's coaches and masters, appearing satisfied and pleased at the most diverse levels.

Also, there were answers like:

- "*He is extremely aggressive*" (father #1);

- "*He demands many things we think are irrational (...) there are training sessions where I think he exaggerates*" (father #1);

- "*(…) he is very disciplined (...)I often think he is irrational (...) and his reasons turn out to be a bit childish*" (father #1);

- "*however, in general he is a coach who shouts but a pedagogue*

(...) he then explains why things are done that way" (father #1).

On the other hand, these answers reflect a different view of the previous one, emphasizing other aspects inherent to the practice of sports and the specific coach.

According to Pinheiro et al. (2012), one of the strategies that may contribute to a closer relationship between coaches and parents is holding a meeting at the beginning of the season, making known the goals of their work, as well as what parents are expected to develop.

As for category no. 5 - The opinion of athletes about the current coach/master - we obtained answers that generally indicate satisfaction towards the current coach/master:

- "*She likes him very much*" (father #3),

- "*He is unbearable and grumpy, he's always screaming but she likes him that way*" (father #1),

- "*he knows how to get her to execute steps and techniques that she feels confident that he will teach her*" (father #1),

- "*She does not like him for the person he is but for what he transmits her*" (father #1)

Regarding category no. 6 - The importance and relevance of the parent-coach/master relationship - parents expressed their opinion on the possibility of meetings between the parents and the coach/master to a better interaction between both parties. The answers pointed to different opinions.

Some parents considered the idea of meetings relevant. Others, not so much. However, everyone agreed on the importance of communication between parents and the coach/master:

- "*As an athlete, I do not feel such need because I realize what is going on during the training and even in the competitions*" (father #4),

- "…"*... he is promptly available to talk about, solve and explain all situations*" (father #4),

- "*I do not think it's important to have meetings because in all trainings we have the opportunity to do so if there's anything we want to say*" (father #3),

- "*I think it's important that parents receive from the coach ... the warnings he wants parents to help and that they should give to children*" (father #1),

- "*the coach should advise parents more often (…) so that they have all the same care to be present in the stands, to support them and to be in all matches*" (father #1),

- "*(…)sometimes there is lack of attendance, absence, loss of games stupidly, because there was a father who forgot and was not there…*" (father #1),

- "*(…) I also think it is important to include a little more… in the middle of the sports family*" (father #1).

For category no. 7 - Motivation of athletes for sports practice and reasons that led parents to encourage them to do so - we got answers such as:

- "*…I started to train through a friend of mine who practices and then, he was "dragged*" with me, liked it and stayed" (father #4),

- "*It was a natural preference*" (father #3),

- "*It was actually Rita's goal to find her place on the team*" (father #1)

- "*(…) she was self-excluding from school groups (…) basketball is one of the modalities in which you have to try to receive the ball (…) it's a team sport (…) she had to say she wanted to receive the ball*" (father #1),

- "*(…) it was a way of forcing her to socialize*" (father #1),

- "*It was a little bit imposed because Leonor always had a hard time clinging to things*" (father #2).

For category no. 8 - Reaction, posture and attitude of parents towards the success and failure of their children after competitions - when questioned on what behaviour they adopt towards the success and failure of their children, most parents gave answers:

- "*..I usually speak with him, but failure is always part of any success (…)I think we should encourage constructive criticism and that's what I do*" (father #4)

- "*…warn him where he was wrong and what he should correct*" (father #4)

- "*…we usually talk when trainings finish (…) usually when she comes more discouraged or something did not go well*" (father #3)

- "*…I do not see it as a failure, there are better days than others*" (father #3)

- " *(…)I do not talk about what she did wrong technically (…)even if they lose, I'm always happy for their performance because I know they gave the best of them*" (father #1)

However, we had answers from one of the parents such as:

- "*I like to talk about good things, although bad things get stuck on my mouth (…) I usually only talk about good things*" (father #2)

- "*What is my reaction? (to success) It is not due to my daughter! It's due to the team!*" (father #2)

In fact, as mentioned by to Lally and Kerr (2008) and Wylleman and Lavallee (2004) quoted by Harwood and Knight (2015), parents also experience transition periods as individuals and this is an important factor in their influence on children's' sports path, allowing them to adapt positively to their developmental needs. Moreover, the emotional support given by parents is seen as an essential tool

in the parent-child relationship, especially after hard competitions or even in case of failure (Harwood & Knight, 2015).

In fact, there is also a common concern among parents of children and young athletes, a conscious concern not to have a negative influence on their children or their sporting experiences in order to ensure that they are adequately involved (Knight, Dorsch, Osai, Haderlie, & Sellars, 2016).

As for category no. 9 - The key characteristics for being a youth coach/master - there were answers pointing out to characteristics such as:

- "*Having an "iron fist*"" (father #4)

- "*Explaining what he wants*" (father #4)

- "*To be understanding" and "demanding without being aggressive*" (father #3)

- "*They feel that besides having a master, they have* "*someone with whom they can talk with*" (father #3)

- "*(…) not treat all players the same way (...) he has to have a psychology adapted to each of them (...) empathy, understanding*" (father #1)

- "*He has to be an inspiration", "an example" and "he has to be disciplined*" (father #1)

- "*He has to be compliant (...) he has to do what he says in terms of sport*" (father #1)

- "*Empathy is key*" (father #2)

- "*Having some background education in education*" (father #2)

- "*It takes a lot of courage to teach kids of this age group!*" (father #2)

According to Pinheiro & Santos (2017), it is essential that the coach is be able to adopt a "chameleonic" conduct, searching to adapt to the different contexts and personalities of athletes. Still, it also has the "Hercules" task to adapt and adjust to different practitioners, rather than waiting for them to do so (Pinheiro & Santos, 2017).

Regarding category no. 10 - the importance of sports in their children's lives - aspects were pointed out as:

- "*It is very important for school performance, focus, concentration (...) then, also on health*" (father #4),

- "*it also helps to focus on studies (…) they end up being more focused and attentive*" (father #4),

- "*…they control easily that type of anxiety, nervousness*" (father #4),

- "*It is essential because it is transferred from here to school and vice versa (…) athletes are always the best students*" (father #3),

- "*(…) disciplined and with a healthier life (...) always accompanied by athletes*" (father #3),

- "*(…) healthier young people who do not go to other ways with the usual vulnerability*" (father #3),

- "*(…)"(...) sport is her social life (…) where she unloads energy, where she feels fulfilled, where her self-esteem rises*" (father #1),

- "*(…)today's kids do not go out to get a coffee, they do not go out to the beach together, they do not go out to go to the movies together (…) it's not a habit they have and I insist on that a lot, that they should meet with each other (…) they have no schedule to meet*" (father #1),

- "*(…)for her, it's the routine to get out of the school routine and that's what gives her that motivation and strength to study (…)it is her way of organizing herself in terms of time and work between*

school and sports" (father #1),

- "*It's important they practice sport for all reasons ... (...) it also helps them focus on their studies, having less time to study optimizes the time they study*" (father #2)

Participation of young people in sports is vital because those who spend more time in a given activity get more benefits than those who practice less regularly or do not practice at all (Simpkins et al., 2005; Cooper et al., 1999 quoted by Holt, 2008).

Evidence also emphasizes the idea that when sports practice is properly structured and young people are surrounded by adults properly trained in the area and who show concern and care, the greater the likelihood of athlete development to be positive (Petitpas et al., 2004 quoted by Holt, 2008).

The information obtained in the answers aforementioned refers us to Barata (2007) when he argues that physical activity is linked to the promotion and maintenance of the individual well-being and as a fundamental tool in the growth of Man as a social being, thus requiring to be successful in integrating society. Physical activity is also a response to social nature needs, in addition to the aforementioned physical and physiological needs. We can thus refer to the catalytic role of social integration and to learning the conducts and behaviours that sports provide to children and youngsters, easing the transition from the family environment to society.

Conclusions

In the course of this study it was possible to infer some lines of thought that led to certain conclusions already explained and discussed in previous studies of this area.

In fact, parental involvement plays a key role in the sporting path of children and adolescents. The presence of parents in both training

and competition situations is crucial for athletes to maximize their potential as well as the demanded performance. We can thus say that social support is an anchor for children and youngsters in their sport path. Parents should take their place as their safe haven, where their children can resort whenever they feel the need to do so, whether in success, failure, training or competition.

The perception that the parents have on the sporting quality of their children also has a relevant role in the results obtained by athletes. This issue seems to be related to the support provided, or lack thereof. It is believable that depending on the perception parents have, more or less support will be given by them to the athletes, both in the short and in the long term, foreseeing a professional future in the area.

An aspect that raises curiosity is that positive responses were given by parents whose children practice kickboxing and negative responses by parents whose children practice basketball. There was a clear distinction between the opinions of parents linked to an individual modality and those linked to a collective modality.

The expectations parents develop towards their children and their sports practice influence their performance and self-perception of competence. Therefore, expectations may or may not reinforce beliefs, both positive and negative, that young people may about themselves.

The parents' perception of the current coach or master is particularly relevant since they are the ones who will provide specific knowledge to athletes, will instil in them specific values and enrich their sporting, personal and social life. This entails certain responsibilities and needs the opinion of parents, entrusting them part of the children's development and growth.

The perception that the athletes themselves have of the coach/master is also important, being a motivating and commitment element in sports practice.

Another aspect analysed in this study was the relevance, from the parents' perspective, of their interaction with the coach/master in order to obtain regular information on their children (performance and behaviour) and obtain the necessary guidance by the professional so to support them in the most appropriate way. Opinions have pointed to a congruence regarding the importance of talking to the coach or master about the child performance, but not all parents consider necessary to hold meetings specifically for that purpose.

The parents' attitude and how they deal with both success and failure of their children also seems to influence athletes' performance as well as their self-image and competence perception. The answers obtained mostly indicate a very active conduct on the part of the parents in situations experienced by the children in order to help them through constructive talk to deal with both success and failure, always encouraging effort, dedication and commitment to the team, the club and themselves.

Parents were also asked about the characteristics they consider essential in a coach or master of this age group. In general, the mentioned characteristics show the ability of empathy, understanding, to inspire athletes with sports and life values, to instil a sense of responsibility, commitment, discipline and coherence. It was also mentioned the importance of the coach professional training in education so to allow performing his pedagogical role adequately and efficiently.

Ultimately, it was sought to ascertain the importance parents give to sports practice for the lives of children. Parents generally mentioned important aspects related to health, school performance, focus on school and daily tasks, the capacity to deal with and control the anxiety experienced in specific situations of daily life, and regarding the values transmitted by sports at professional level.

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Contributions to improve the training process in Youth Football: A study with coordinators of Training Schools

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Summary: The sports practice is of recognized importance in the training of young people. Since football is one of the most practiced modalities in Portugal, it is appropriate to know the perception of school coordinators about the youth training process, competition, the relationship with players and educational guardians (i.e. parents) as well as the main competences of coaches to exercise their activity in the training context.

Keywords: Training; Coach; youth training; Football

Introduction

Child and youth sports have been referred to as a strong educational tool, allowing pedagogical experiences that will cause indelible marks in the lives of young people (Pinheiro, Costa, Joel & Sequeira, 2008). However, literature is unanimous by pointing out that it is not the sporting practice in itself what educates or not young people but, above all, the quality with which it is carried out, this being a responsibility of the relevant adults (Pinheiro, Costa & Sequeira, 2008).

In Portugal, the sport that attracts a greater number of players is in fact football, perhaps for being the modality with more media attention, leading the younger ones to adhere easily.

Hence, considering that sport can be a structuring pillar in the educational process of the young and knowing that in Portugal a very significant number choose to play football, it is important to know the perception and the opinion that coaches of children and youth have about the training and competition processes.

Thus, this study aimed at knowing how Youth Football school coordinators think, train and manage. For this, 3 coordinators of football training schools of the Lisbon district were interviewed, using a semi-structured interview. The three have more than 5 years of experience in football *coaching*, with higher education degree in the area of Physical Education and Sport.

This chapter is organized in subchapters, each corresponding to one of the questions asked to the coordinators. In order to maintain the confidentiality of the coaches interviewed, in their answers they will be referenced as coach 1, coach 2 and coach 3.

How much time is dedicated to the different elements of the training (Physical, Technical-Tactical and Psychological)?

It is not uncommon to observe in the training levels the training of exercises collected from adult training, without accounting for the motor behaviours and development of the technical skills necessary in these ages (Neto, 2016). This is mostly due to the desire to obtain results in a short term, leading to treat children as if they were small adults.

Within the same line of thought, Brito et. al (2004) state that training with young people should provide a great diversity of motor experiences to the young athlete, rather than an early specialization.

In fact, these authors convey us the importance of the multilateral work carried out in the initial phases of the athlete's development.

Coach 1 corroborates the opinion of the authors, stating that be-

tween the ages 6 and 9 it is essential for the coach to promote a vast motor repertoire in children, passing not only by the specific stimuli of a single modality.

" *With the training levels ""traquinas"" (6-year-old kids) and ""petizes""* (*7 to 8-year-old- kids), I would say that a good percentage of my training has to be dedicated to the training of motor and coordinating capacities and relation with the ball*".

However, from juvenile levels, the work of coach 1 passes in large percentage by the technical-tactical aspects, that is, by implementing his game model, assuming that there already exists a good basis of multilateral development that allows a work fundamentally aimed at the modality. Another determining factor of this option is the short time of weekly training, forcing the work to be exclusively specific. In this way, the development of physical and psychological components is enhanced as a result of tactical exercises.

"*So, I would say that 80 to 85% of my training is dedicated to technical-tactical aspects, where physical and psychological work appears coincidentally. When I want to create some competitiveness or stress level in athletes, I start a competition exercise. Imagine 7 against 7 where the team that loses has a punishment*".

Coach 2 does not care about the percentage distribution of the training factors and tries to work all together and with big transference to the game. This way, he does not compromise any of the factors.

"*We work the principles of the match through reduced and conditioned games*".

The distribution of the percentage of each training factor cannot be the same when we speak about different levels because at each age the needs will be different, such as the goal, that is, the needs of a child will not be exactly the same as a junior. The psychological component will not be the most relevant in a children team. In the

other extreme of importance will be the technical and tactical factors. "*At technical or tactical level, those are whom I send the most time with in my training sessions. It does not mean that others are not important, but it depends on the level*".

Does it make sense to carry out Strength Training in Youth Levels?

A few years ago Strength Training was seen as something directed only at men and associated with the bodies of bodybuilding athletes. Fortunately this thinking has been refuted through science and accepted by professionals, who recognize countless benefits not only for men and women as well as for children.

According to the *American Academy for Paediatric e American Orthopaedic Society for sports Medicine*, the benefits of this work in children are the increase of localized muscular strength and endurance, a lower incidence of injuries and an performance improvement in sports activities due to delayed fatigue.

All those interviewed are unanimous regarding the importance of Strength work mainly in the levels of initiates, thus preventing many injuries. Coach 1 mentions that at these ages the muscular imbalances are beginning to be evident, being thus prejudicial. Since football is a sport in which athletes give more attention to the dominant member for a large part of the time, these imbalances are increasingly accentuated. Despite the importance of the theme, the lack of time leads to neglect this work.

"*It would make sense to work Strength with juveniles in the perspective of injury prevention, since some types of injuries begin to appear precisely due to the existence of muscular asymmetries. I am sure that in these ages there are already differentials between the members and the agonist and antagonist muscles*".

Coach 2 tells us that he performs Strength work mainly beginning

in the levels of initiates, with a training of about 30 minutes. This work complies with the training principles as it begins by learning the movements, passing by an effective work with body weight and ending with the belief that at the end of the season there will be application of higher loads.

"*It is a work essentially based on the weight of the body, being structured so that at the end of the year they begin to work with additional body loads*".

In the perspective of coach 1, the Strength work with younger levels should not be performed the same way as with the more experienced ones, nor with the same goals, i.e., Strength work should be adapted while working stimuli that were once obtained in the streets, which nowadays happens less frequently due to the appearance of the technologies.

"*For kids of the levels "petizes" and "traquinas", I believe that if we do things like climbing up and down the wall-bar, crawling, climbing up a table, jumping down from a table… that is the proper strength work for such age group*".

Coach 2 and Coach 3 agree with Coach 1 in the sense that multilateral work in the lower levels is of paramount importance. Despite this, they do not agree that this multilateral work is considered a Strength training. Coach 2 states that "*There is no reason for Strength work... what they need to do more at these ages is multilateral work and ball work*".

Which are the best "Warming-up" Exercises before Training?

The literature is unanimous in considering that the Training Unit should be divided in 3 moments, namely, Initial Part or predisposition to practice, Fundamental Part and Return to Calm or conclusion. What we commonly call the "warm-up" should be contained in the phase of predisposition to practice and aims at preparing

the athlete physiologically and psychologically for the fundamental phase.

Coach 1 mentions once again that the requirements of the different levels are different and the same applies to the “warm-up”, because the rate of muscle mass increases in puberty and thus the goals of warming-up take longer to be fulfilled.

"*Juveniles already have a muscular mass different from a child, they already have frequent problems at physical level, demanding a daily job not only related with the game. This means that it is important to do skippings, changes of direction, adductions, abductions, that is, a more general work*”.

As mentioned previously, movement is key to the warm-up. So, coach 1 gives us a specific example: "*I make a pass to the colleague in front of me, I stay behind the queue and while waiting, I do the skipping. The one who received the ball makes a pass to the front row, and does adductions while waiting*". This coach believes that in this way he is preparing his athletes from the physiological point of view, but already with an incidence in technical aspects.

Coach 2 mentions that on Strength training days he makes a small joint mobilization. On other days, simple coordination exercises or pass and reception ball exercises, that is, something related with the game.

Regarding the warm-up he will carry out throughout the season, Coach 3 chooses to first evaluate what his team is capable of and from there onwards he will provide several warm-up exercises before the season starts, which will accompany them throughout the season, never neglecting to carry out exercises that, in his opinion, are mandatory regardless the quality of the current team.

"*I always do warm-up drills, conditioned passing drills ... as for the typical passing drills between players in a square with 1 in the middle and 3 outside, I never do that, I make it more complex*".

But does warming-up differ according to the ambient temperature? Coach 1 argues it does. As the goal of warm-up is to increase body temperature, it is easy to realize that preparing a body in a 5° C environment will take longer than in an environment of 18° C. An inadequate warm-up increases the probability of injury and preparation for the fundamental part will not be the best.

"*There are times of the year when it is very cold. Then, I think we have to do a more boring mechanic warm-up, which is running, changes of direction, adductions, abductions, dynamic stretches*".

Prioritizing training factors: Does it make sense?

Football is a sport that requires not only high standards of the physical component, but also a strong psychological contribution, where factors like colleagues, opponents, the ball and others appear, highly demanding the mental functions of athletes (Tavares, 1998).

In the view of coach 3, the most important components to be worked are technique and decision- making.

Coach 2 mentions that a single match has Decision-Making and Strength in it, so, "*it's a bit difficult separate all, because a match in itself has it all*". In the "*petizes*" and "*traquinas*" levels, although giving more importance and emphasis to the technical aspects, the training goes through exercises that generally encompass all components, not having specific exercises to work some components. This coach says: "*When we prepare an exercise we usually think about it, but not in an analytical way, more like a guided discovery*".

Coach 1 tells us that the decision-making process "is perceiving what I must do in each moment, that is, I must pass, lead the ball, pass to the one on right or to the left". Tavares (1998) corroborates the thought of coach 1 as the athlete should choose the most appropriate solution in the shortest possible time. Coach 1 adds

that it is not enough simply to be quick to figure out what to do but also to be able to execute the decision - "*I would say that someone who has the ability to make good decisions, "reading" the game correctly, but does not execute, he cannot be player*". During the interview Coach 1 asked a very interesting question: "Why does a 5 or 6-year-old child have no ability to make good decisions?" According to him "*so that I can make good decisions, I need good technical and physical skills. In addition, the decision-making process is a process that implies a little of abstraction*".

Likewise, coach 2 and coach 3 agree that the technical and coordinating aspects are the most important. Coach 1 has the same premise, defending it arguing that "the development of certain physical qualities and technical competencies occur more intensely and with higher quality in sensitive periods, between childhood and puberty", as stated by Martin (1982).

Another aspect commented by coach 1 is that learning the game becomes easier when the athlete has a good relationship with the ball and a good coordination ability. These methodologies are not always respected by coaches because they want to apply adult training methods that naturally have different goals, needs and competencies. As a summary, coach 1 mentions what he wants from the "*petizes*" and "*traquinas*" levels: "*I do not want a team of "petizes" to take possession of the ball, doing 5, 6 and 7 passes, I want a team with athletes who know how to make an oriented reception, how to run to the goal line, and how to drive the ball, to dribble and to finish the pass*"

Is stretching important after training?

There are many, including sports professionals, who confuse the concepts of flexibility and stretching, which shall not be addressed in the context of this chapter.

The first interviewed explains that during training there are small disruptions in muscle tissue due to training loads. Ruivo (2015) states that inflammatory processes occur due to these muscle disruptions, releasing prostaglandin and bradykinin, which will subsequently connect to pain receptors.

If stretching at the end of the training does not prevent "the pains of the next day", then why stretch? Coach 1 states that the reason for static stretching at the end of training or competition is to favour the realignment of muscle fibres, aiming at improving the efficiency of muscle contraction mechanics, agreeing with Ruivo (2015). For these reasons and the shortening that occurs in youngsters, much because of the current lifestyle, coach 1 carries out stretches at the end of training.

"*Muscular shortening are usual at these ages because kids have already acquired running and walking patterns that are often incorrect, because they have already spent a lot of time sitting in school, having also acquired bad habits playing a lot of time with tablets… thus needing to correct these shortening problems by stretching at the end of the sessio*n".

Coach 2 says that the stretches he uses are mainly from the program "Active global stretching", because they allow stretching more than one muscular group.

Due to the lack of time, Coach 2 mentions that stretching is not always done with the "*petizes*" and "*traquinas*" levels, and they occasionally done in 2 to 3 minutes. With other levels with more time, it is done in almost every training.

Coach 2 mentions the fact that in the "*petizes*" and "*traquinas*" levels training is short and when it finishes there is quickly another team ready to occupy the field, compromising stretching, thus not taking advantage of opportunity.

Regarding the "*petizes*" and "*traquinas*" levels, although acknowl-

edging the benefits of stretching at these ages, Coach 1 prefers to end the training session with playful and entertaining activities because he believes it is important for children to leave feeling happy as it will trigger a greater taste for sports.

Side line Throw-in: with the foot or with the hand?

An attentive look at a football game in the training levels reveals that the side line throw-in is many times poorly executed by the young, and this is due to different factors. For Coach 3 the most common mistakes are when they "*jump or do not complete the throw, do not make a continuous movement and jump with both feet*". Coach 1 agrees with the difficulty because there is a technical requirement in coordinating the feet, legs, arms, and hands, that is, "involving the lower and the upper limbs".

Coach 2 provides a different point of view, where failure can be due to lack of strength and the anatomy of the youngster not allowing him to launch with the correct technique. In the hypothetical presence of an opponent player with a larger body size than the throwing one, the latter will not be able to do it successfully because the ball will not reach the team mate. "*A kid 1.20 meter tall makes the throw, and then appears a kid 1.40 or 1.50 tall ahead... the ball does not pass*". Another reason that makes all the difference is that the coach often does not explain how throws are made. Coaches 1 and 2 share the same opinion, saying that who "*gets the ball is doing it by air and with effect*". Poorly executed throws lead to an increased difficulty on reception and a possible ball loss. Instead, those made with the foot seem a solution to fill these frailties. Although not wanting to enter into the discussion of using this in juniors and senior levels, the interviewed believe that this solution could bring football some benefits, namely, there would be more danger situations because a throw in the last third of the field would be paralleled to a corner, with more finishing passes and increased chances of goal achievement. In addition, Coach 2 concludes that

with this measure we would be training once again the pass technique. This conclusion is validated by coach 1 when he states that "*every time there is a throw, there is one more pass. Now imagine that a kid makes 5 throws or 7 per game, then he makes 7 more passes*". Those who receive the ball would also benefit since it would arrive with higher quality, thus being more successful in receiving.

Coach 3 is the only one that refers a negative point in using this, indicating that "*they stop learning how to throw, and when they are older they will not be able to do it also*". In spite of the above, the three agree with the possibility of being optional, that is, that athletes of training levels carry out the side line throw-in with the foot or the hand.

Position specialization: when should it happen?

We see coaches, as well as parents, intending too early that the child plays only in a certain position, thinking that the sooner they start specializing in a modality and position, the more likely they are to become professionals. The truth is that we only become really good at something, whether in sport or in another area, when we repeat it over and over again over time. Bearing in mind the Long-Term Training theory discussed and developed by several authors such as Bompa (1999, 2000) and Smith (2003), in order to reach a high level in sport it is required a process lasting around six to ten years, depending on the modality.

Coach 2 corroborates this thinking by saying that "*players should have as much knowledge as possible on all positions*", making the player more versatile.

The interviewed do not accept position specialization until the Children and Initiates levels, and from these levels on it becomes more and more accentuated, as coach 2 says: "*Everyone should play in all positions up to a certain level, I believe this applies until the initiates' level*".

Coach 1 goes further in his reflection and even says that "*it does not make much sense to have already goalkeepers in "petizes "and "traquinas". From the "Benjamins" level on there are kids who clearly like to be goalkeepers*". The reflection about the goalkeepers did not end here, telling a true episode of his life as a football coach to justify the belief that if a goalkeeper sometimes wishes to train in another position, the coach should encourage it.

"*I was in a club and trained a kid who was a goalkeeper and had immense technical quality with his feet. While in the children level, this kid did an x-ray to the wrist which determined a bone age with a growth up to 1.75 meter and the possibility of being a goalkeeper in this club became impossible. This kid had a lot of play quality with his feet, because they also allowed him in many moments of the training to play in the front position. He ended up in the left defence and did not stop playing*".

Coach 3 has a thinking contrary to coach 1, stating that this possibility is not easily managed or understood in the most correct way by athletes at the highest levels: "*It is difficult to make the transfer from being a goalkeeper and now playing in another position or vice versa*".

For coach 2, over time and with the experience of going through all positions, the athlete will begin to understand where he feels most comfortable, where he has more success, specializing and channelling himself to specific positions thus based on the athlete's will. "*Specialization should not be done by the coach, I think it is something that will happen naturally*".

Nevertheless, for coach 2, coach must have sensitivity so that the athlete does not fail constantly, leading to exit sports practice. This sensitivity can take into account the morphological conditions of the child. "*Kids with some type of obesity who maybe cannot be in positions where they have to run too much may find it unpleasant because they end up not being able to run or not being so long in the filed*".

Coach 1 does not mention the morphological conditions, but the technical qualities of the child, because for a team to play it is necessary having players with good technical quality in specific positions. This measure benefits the whole team, making it possible for all team members to play the ball more often. With this, we predict that the determining position will be the middle field because the contact with the ball is bigger and there is the responsibility to make the connection between the defence and the advanced line, distributing game to the front and to the side corridors: "*If the players with more quality play in the middle field, it will be an advantage because they also make the other players play*". This thought is not only limited to higher levels but also to those of "*petizes*" and "*traquinas*". Another aspect revealed by coach 3 is to see if the player feels comfortable in the position and understands why he plays in several positions. It presents his club where "*a "traquina" questioned the coach why he was putting him on the side position, where he did not like to play, wanting to play in advanced positions because the side ones do not score goals*". It is implicit the need for sensitivity on the part of the coach while explaining these needs, especially to younger athletes as "Not everyone has the sensitivity to train "*traquinas*" and "*petizes*"".

Coach 2 also refers the weight of parents who do not understand the needs and benefits of athletes passing by various positions.

The problem of unbalanced results in training levels

Just by accessing the website of the different district football associations we can see 15-0, 20-0 and even 30-0 matches every week. Two years ago, in the "*Benjamins*" level of a Lisbon series, the result between two teams was 41-0 and key question is: who benefits from these differentials?

For coach 2 these results "*are violent and a serious problem*". Coaches 1 and 3 agree. Coach 3 says that in the current season

his Children team suffered a thrashing 14-1 against an elite club. "*Last weekend we were playing against an elite club. Needless to say that our defeat was 14 to 1. At the interval we were losing 8 to 0*". To increase the problematic situation, the game was being broadcasted on TV, "*when they knew about the TV broadcasting they became even more nervous*".

The damage is obvious for a losing team, namely demotivation, little contact with the ball, frustration and shame. Coach 1 says "*what pleasure would someone have when most of the time we play the ball with the hand because we have to go get it inside the goal?*". And for those who win, will it be beneficial at these ages? For coach 1 this is not desired as we are not giving the right stimulus to the athlete to overcome and develop his potential because the training principles indicate that it should be challenging and capable of breaking the homeostasis. However, when you win by a difference of 15, 20 or 30 goals, such training was certainly not challenging for the athlete as it did not force him to do his best "*in that training, for that game, we did not train much and we developed scarce skills*".

It is therefore essential to find and develop alternatives and measures to reduce the large difference of goals between opponents. Coaches 1 and 2 share the same opinion about one of the solutions, which would be to divide the competitive teams by levels, that is, the teams that have good results each year and players of a superior quality should play more often with each other, even because this allows choosing the best of the best during the pre-season.

Hence, coach 2 states that "There could be a golden league, a silver league, a bronze league". In this regard, coach 1 reflects that it would be "*preferable for the major players to play with each other 5 or 6 times ... I believe that in those cases there would be no thrashing*".

Another hypothesis proposed by coach 2 (already applied in a league he organized) is the possibility of receiving the ball inside the area of the goal kick. In the traditional format, athletes must receive the ball out of the area and are immediately pressured by the opponent. Thus, most of the time, the team cannot leave their defensive space, especially when the pressing team is of higher quality. Hence, when it is possible to receive the ball inside the area, without pressure on the part of the opponent, this will give time and space to go out to play.

"*This is the measure we adopted so that football is played in the foot and to avoid these kind of thrashes*".

The existence of rules and factors to match scores in games is crucial for everyone to take benefit from the physical activity, making the championship more competitive and healthy. One possibility that coach 3 would like to implement is "*from a certain result on, for example 5 to 0, to take out an athlete from the opposing team*" or better: "*the loosing team should include one more player*". Coach 1 defends that regulation in the games should also balance the scale "*from the 5 to 0 on, the opposite team could only defend in its middle field*".

Coach 3 sees as a barrier to the implementation of what was said previously: the lack of practice and knowledge of those responsible for these measures. "*People who should privilege these factors do not do so because they do not have such practical knowledge*".

Organization of competitive elements in training levels

All the interviewed were unanimous about the poor organization of the competitive elements at the different training levels. The most benevolent was coach 3 noting that there have been some improvements, now being more balanced and therefore bringing greater benefits to the practice of sports.

Coach 1 promptly indicates two suggestions to improve substantially the competitive elements in the ranks with young athletes. The first suggestion involves a reflection on the starting date of the national junior championships. This championship starts on the same date as the First League, in August, so the pre-season will have to start in July. If we think about the ages of juniors, 17 and 18 years, and compare them with the year of schooling, except for cases of failing a year, we find that they are in the 12th schooling grade. This year the exams season ends in July, making it easy to identify the inexistence of vacations.

In this division, there is the will and possibility of a professional career as a football player, so the sacrifice factor will have to be present. Even so, coach 1 finds a gap in this process in addition to the inexistence of vacations. "*The problem is that the championship starts in August and for 3 weeks, because of the national teams*".

The second suggestion is related to the weekly performance on games, saying that "*I think maybe it would make sense for the kids to play every 15 days instead of playing every week, and to play 2 instead of 1*". This strategy could have a lot of benefits for athletes "*instead of kids taking part in a 50-minute game, they would participate in 2 games*" and for parents "*instead of having parents losing 4 weekends per month, they would lose only 2*". The third suggestion is to reflect on the protection of the referee, because with this gap there are games without referees and games with young people of 16 and 18 years old arbitrating and sometimes badly treated by fans. "*People give up because they do not earn enough and because physical integrity could be impaired*".

Coach 2 makes a few more suggestions, namely the possibility of receiving the ball in goal kicks inside the area without the pressure of the opposing team, as well as the possibility of choosing side line throw-ins with the hand or with the foot.

One last measure pointed out by coach 2 is that when the result

of the game is too unbalanced, the losing team has the possibility to put one more player on the field or withdraw a player from the team that is winning, or even shorten the playing time: "*I am more in favour that the team that is losing can put one more*". These measures are not always seen with the best eyes by coaches.

The "*Petizes*" and "*Traquinas*" levels: Which game format should be used?

According to Roberts and Treasure (1992), children before 12 do not have sufficient maturity and comprehension capacity to compete at competitive frameworks, including here the "*Petizes*" (6 years old) and the "*Traquinas*" (7,8 years old). From the perspective of coach 1 it is not desirable for kids to have competitive federated elements, believing this would lead the adults involved to confer importance to the competition, neglecting what is essential for kids. "*Because of parents and coaches, as soon as these tests are federated people will start to focus on the results and I think this is not desirable*". Coaches 2 and 3 share the same opinion as coach 1. For coach 3 the competition should be viewed as a way to educate and entertain. Coach 2 says that "*there was an attempt to create competitive teams at the "traquinas" and "petizes" levels and UEFA wanted to penalize the association for that*".

The creation of non-federated games is a solution mentioned by coach 1, stating that it reduces the harmful factors that may arise. "*There should be more municipal tournaments organized in partnership between the municipalities through the sports department and the district associations*". These tournaments would be regulated by associations thus avoiding each municipality to apply different game formats that might not fit the children's ages and abilities. "*It makes no sense to me that "petizes" and "traquinas" can play 7 against 7. But the players of big clubs can play because they have already developed technical qualities or tactics superior to others*". Coach 2 shares the same belief, adding that "*games*

should fit the characteristics of children".

When coach 3 arrived at the club where he is currently a coach and coordinator, he presented to the president a proposal for meetings between clubs at the "*petizes*" and "*traquinas*" levels. The club features an annual league with recreational encounters every 15 days, "*when I arrived, I presented this proposal to the president and he accepted it immediately and we did the first edition of "traquinas" and "petizes*".

Since the 7 to 7 format is not appropriate at these levels in most clubs, it has become important to know which forms are most accepted by the interviewed. For the "*Petizes*" coach 3 defends the 3 against 3 format, coach 2 prefers 4 against 4, and coach 1 argues that at these ages it could be 3 against 3, and 4 against 4. As for the "*Traquinas*", the coaches were unanimous in the format 5 against 5. It will be indifferent to these football game formats if it is a football field or futsal, as long as the sizes of the fields are respected.

As mentioned by coach 2, his team participated in a tournament without knowing the sizes and formats to play with the "*petizes*": "*6-year-old kids played 5 to 5 in a futsal field, defending a goal equal to that of a senior*". The solution found and adopted by this coach is to divide the football or futsal field in two or three parts. "*Currently we are doing 3, in order to have more contact with the ball, and the number of goals is totally different*".

The importance of implementing the 9vs9 Football

9vs9 Football appears as a strategy to reduce the enormous difference in the passage from 7vs7 football to 11vs11 football. Our three respondents consider that 9vs9 football is beneficial to learn the modality, serving as progression. Coach 1 says that before the existence of 9vs9 football, we were not fulfilling a very important training principle regarding the progression from simple to com-

plex: "*Progressivity was not fulfilled as a training principle*".

Making a critical analysis of the differentiating characteristics of 7vs7 football and 11vs11, we quickly identified the field dimensions and the number of athletes, increasing the tactical complexity. The more players, the less relation with the ball each element will have. Coach 3 mentions that "*athletes who change from 7vs7football to 11vs11 football have a huge shock*".

Coach 2 deepens this thinking stating that 9vs9 football is a value added for the logistics of smaller clubs: "*It is not easy to organize a squad of 11, where they normally need 15 to 16 players so that everything goes well throughout the season*". In clubs there are always athletes who give up for the most varied reasons: "*they have a bad behaviour and the father punishes them because of grades, or when they get sic*k". Another reason is the unpredictability of the number of athletes who arrive in the pre-season to fill the vacancies. Regarding his experience, this is not a reality "*in clubs where kids dream of being professionals, because they have 20, 30, 40 in the pre-season*".

After having explored and understood the benefits, it is essential to question the ability of clubs to implement 9vs9 football. According to coach 2, "*there are clubs that can do it and do not*". Coach 3 confirms the belief with an example from his current club: "*We do not have dimensions in the field to do this because we would have to expand it, and for that we would have to destroy the whole wall*".

So, 9vs9 football should be applicable to which level? Coach 1 proposes "*not in the rank of children, but in initiates*".

The Role and importance of parents in sports practice

Throughout this work we have verified that the focus on child and youth work is fun and training the youngster as an athlete and citizen. The maturation of an athlete's abilities is closely associated

with the family dynamics surrounding him (Gomes, 2010). According to the same author, the appropriate behaviours of parents can promote increased self-esteem, competence perception, self-efficacy, pleasure and even fun. Through this author we realize that for the accomplishment of the goals for these levels, the role of parents is determinant, and the coach should establish a way of communication with the parents for the clarification of doubts on the teaching-learning process. Coach 2 establishes communication as follows: "*We always have a meeting at the beginning and at the end of the season and whenever it is necessary. There were some coaches who complained that sometimes parents were out and had an inappropriate behaviour, having been warned about that*".

The desirable duties and behaviours should be explained to the parents during sports: respect for referee decisions, for opponents and a constant and enthusiastic support of their children's performance. In addition, parents should seek not to substitute the role of the coach and should not use offensive language, nor ridicule or shout at a child for making a mistake.

Coaches 1 e 2 experience at the moment a good conduct on the part of their athlete's parents, and coach 2 even mentioned that "*our parents should be an example for all others*".

During the training sessions, coach 3 believes that the good behaviour of parents in his club is felt due to their attendance, being able to control their behaviour and clarifying doubts. "*Thank God, in our training is no conduct that we can classify as improper, because we are here. That is the big difference*".

If, on the one hand, good behaviours have positive repercussions, bad ones will naturally lead to harmful consequences, where parents may be the main factor of demotivation, frustration and abandonment of young people's sports practice (Serpa & Teques, 2013). Coach 3 says that these factors "*end up influencing the*

game, especially athletes ..., implying their performance in the game, and everyone else loses". The same coach tells us that in a competitive framework, contrary to training sessions, "*there are always discrepancies. It has already happened this year and will happen again*". The explanation for this phenomenon is that "*in a competitive framework I am no longer present at all levels at the same time*".

Coach 2 classifies the parents' conduct as generally negative, with no citizenship when attending a football match. Lack of adaptation of behaviours and an excessive demand may arise because in Portugal it is the most practiced, visualized and commented sport. This importance generates a sense of wisdom on all aspects of the game, believing that they are prepared to interfere with their children's sporting practice. "*Parents are very fond of giving opinions because everybody believes he is a football expert ... They are out of the field and what they pass on to the kid their aggressive behaviours*".

The population culture is a reason pointed out by coach 3: "*This has a lot to do with our culture, we are Portuguese, we are Latin*", as well as the frustration felt by the parents regarding their life: "*Social life is not well and they vent at the matches*". In tune, coach 2 says that parents often act as "*bench coaches*".

Coach 1 uses the catharsis phenomenon to explain these behaviours. "*People are upset with their daily lives, their work, their wife, their husbands, and then they come to the field and think they can release the stress of the week in the game*". He also tells us that some "*parents aspired to be players and failed, seeing a second chance in their children*" and mentions a detail of high relevance only seen by a more clinical and interested eye on the effects of human behaviours: "*instead of asking if the kids had a good time, their question is whether the children have won*", shaping the minds of young people for results and not for fun and training. Whether it's the high demands or the lack of ability to reflect on positive acts

during the game, parents focus on scaling their children's faults "*instead of giving some positive feedback at the end of the game*"

The Coach Profile in training levels

For coach 2, "*the coach is increasingly a model, especially at the training levels. That's why he has to be a friend*". The coach can not only possess skills in physical, technical and tactical knowledge, he has to have relational skills.

Coach 2 denotes communication as one of the main characteristics, being necessary to adapt the language to the age group. He also states that the coach should be a motivator and have the sensitivity to identify if the athlete is sad, happy, the time of game played and the athlete's fears. In sum, it says that "*the coach is essentially an educator and an instructor on basics of sport*".

The educator role is also defended by coach 1, such as being patient and enthusiastic. He also tells us that there is a lack of importance given to a coach at training levels, daring to say that "*normally those who are coaches of training levels already have a secondary role in the eyes of others*". As a result, they earn less, they do not have the same working conditions, being targets of injustice and no one knows them apart from the club where that are carrying out the activity. "*If I ask most people who is the coach of children of the big clubs nobody knows, let alone the coach of children of other clubs with less media attention*". According to the same coach, it is fundamental for the coach to have passion for his work. He indicates a very particular example: "*I prefer that my children to be trained by individuals who know less about the technical or tactical part of football, but who are patient, enthusiastic and passionate, helping them above all to develop citizenship skills and a taste for sports*".

Coach 3 believes that the most important characteristics of a training coach are "*pedagogy, sensitivity and competence*". He affirms

that there are good and bad coaches, as in all professions: "*there are coaches with a coaching degree, already having a considerable curricula, but at the level of pedagogy and training skills they are fragile*". The selection of the best coaches becomes complicated especially in smaller clubs where the economic factor is decisive because "*nowadays nobody does anything for free, and the possibilities are thus shortened*". He also implemented a prerequisite in hiring coaches, which involves presenting the criminal record: "*In the current society we do not know where paedophilia can arise*".

Training levels: having fun, train or win?

Training is highly complex process, where it is necessary to understand the goals and the contours that it can undertake (Pereira, 2007). The same author points out that in the early societies they already practiced physical activity as an educational activity. In the educational process the fun factor inevitably arises and should not be forgotten by educators. Coach 2 is unsure in separating fun and training because "*kids have to feel happy with what they are doing and at the same time they are happy throughout a training process*".

This coach reaches a consensus where he puts "*fun first and training second, but it is not easy to disassociate both factors*". This difficulty in disassociating the two factors is also shared by coach 1 who, contrary to coach 2, does not separate them, believing they having the same level of importance. It is natural that there is a lack of awareness of the limits of play by the children, there are abuses and dispersion that the coach has to stop because "*the coach is not a clown and training is not the circus*".

As mentioned by coach 1 and 2, nowadays society is channelled to results, and the winning factor should be the least important at these levels. Coach 3 fully agrees with the rest on placing the winning factor in the last place of importance, putting training in the

first place, contrary to his colleagues: "*It does not mean that the competitive factor is not important, but for me the training is the most important of them all*".

"*Life is competitive and we have to prepare children to be competitive*". In this coach 1 opinion we can perceive that competitions have an important role in the athlete's development and personal overcoming, with a resulting constant evolution of the athlete. "*How do I top myself if I want to be better today than I was yesterday, and better tomorrow than today?*" The importance attached to the victory that adults convey to athletes damages the benefits of competition in controlling emotions within and outside the sporting context.

Like the authors Gaya and Torres (2004), the interviewed believes that winning and losing are mandatorily part of sports and athletes should be able to tolerate and be patient towards defeat and have some parsimony towards victory: "*When we lose we seem to be at a funeral, when we win it looks like we're in a marriage*". On the other hand, within the national juvenile or junior championships reality, fun and training factors continue to be an important part. However, the competitive requirement actually increases because victory begins to play a more relevant role, also due to the possibility of a professional football career: "*With a juvenile or junior team in a national championship, I cannot expect no competitive demand and thirst for victory*".

Conclusions

We will conclude this chapter with some conclusions presented by topics, thus facilitating their reading:

1-At the "*Petizes*", "*Traquinas*" and "Benjamins" levels, greater importance should be given to the training of coordinative aspects and individual technique, without neglecting training of decision-making;

2- The pre-training warm-up should prepare the athlete at the psychophysiological level for the specific effort to be performed, seeking to harmonize exercises of a general nature with the work on football technique;

3- The prioritization of training factors should take into account the age group with which one works, giving greater importance to multilateral work at the first levels ("*Petizes*", "*Traquinas*" and "Benjamins") and gradually assigning greater preponderance to the specific work.

4-Seek to create exercises that boost the simultaneous development of different training factors, namely through reduced and conditioned games.

5- It is important to always perform stretches at the end of the training session, even with little time available;

6- Avoiding early specialization of athletes in a specific position, to the detriment of allowing the experimentation of different positions;

7- Create mechanisms and strategies to prevent thrashings in games of training levels;

8- Rethinking the organization of competitive teams, addressing the issue of thrashings and the beginning of the national championships;

9- Privileging reduced formats at the training levels "*Petizes*" 4X4 and "*Traquinas*" 5X5.

10- Educate the athletes' parents by encouraging these Fair Play behaviours.

11- Coaches of training levels should be enthusiastic, passionate, patient and with a strong commitment to teaching the game.

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The teaching of collective sports through conditioned reduced games

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Summary: A more traditional view on teaching collective sports games separates learning from technical and tactical content, contrary to the Teaching Games for Understanding and Sport Education models. These new approaches challenge the teacher to adopt a student-centred style of teaching, to promote student/player reflection for a greater knowledge on the game.

Keywords: Training; PE; School Sports; Sports Training; Reduced Conditioned Games

The teaching of collective sports games in the context of Physical Education, School Sports and Sports Training

The best teaching strategies of collective sports games (CSG) have always been the subject of wide debate, whether in the field of training, physical education and/or school sports. Coaches, physical education and/or school sport teachers use different strategies to teach the technical and tactical contents planned for teaching the game. The main issue lies in the choice of the model to be used, that is, choosing a more traditional view in which technical skills are taught separately, or choosing models that seek not to develop separately the technical and tactical skills, promoting knowledge of the game by troubleshooting, in which students/players make decisions in contexts close to the reality of the game and with their internal logic. Naturally, these methodological options are also accompanied by decisions regarding the teaching styles and

the pedagogical intervention techniques used by the coach/master with students in the classroom/training context. The reduced conditioned games (RCG) fit in the cognitive and constructivism perspective, since they stimulate players/students to build a tactical knowledge through troubleshooting situations based on perception-action cycles. The choice of this teaching method is more attractive and motivating since students/athletes are stimulated to identify and solve problems, to make decisions, to reflect, which contributes to a greater knowledge of the game, with learning centred on the student/athlete and not on the teacher/coach.

Teaching models of collective sports games

Traditionally, the teaching of games is centred on the teacher/coach, resorting to an analytical process that compartmentalizes the game on physical, technical and tactical aspects (Clemente, 2012). These methods promote the teaching of games by simplifying their complex reality, where technical actions are repeated and automated in a decontextualized way and the understanding of the game is a result of the sum of the parts (technical and tactical) (Aquino et al. al., 2015). In this type of approach, content to be taught/trained is repeated until achieving mastery of the different techniques through a mechanical practice and without stimulating the decision-making factor (Costa & Nascimento, 2004). It is only after the mastery of the technical aspects that one starts to approach the game. This is a methodology that is not very motivating for students/players and with little applicability in games. Given the monotony and small challenge for the student/player in executing analytical exercises, it is possible to verify throughout practice the increase of errors resulting from the decrease of focus and attentiveness, as well as the increase of behaviours external to the task. Working a modality through this disintegrating view on the reality of the game does not promote its knowledge and understanding, the ability to reflect on the execution after a decision based on a particular context.

The weaknesses of the traditional teaching standpoints of the game lie in the huge number of unsuccessful students/players due to focusing on technical performance, with skilful players performing technical gestures rigidly and with limited decision-making ability, students/players depending on the teacher/coach to make decisions, not stimulating creativity, and most athletes/players revealing little knowledge of the game (Hopper, 2002).

Traditional models can be divided into partial or analytical, mixed and global (Costa & Nascimento, 2004). In the partial or analytical method, the teaching of the techniques is repeated and decontextualized regarding the game; the global teaching method proposes formal play, learning is done through trial and error where technique responds to different game situations, but the anarchy resulting from the teacher's/coach's lack of interference limits the tactical understanding; in the mixed method (partial or analytical and global), the technique is first taught until reaching an acceptable level for then start playing (Costa & Nascimento, 2004; Mendonça, 2014).

Regarding training, this traditional standpoint had and continues to have great acceptance with some coaches. This perspective is applied at training levels by separating the physical, technical, tactical and psychological work, where exercises have no relation with the characteristics of the game. This also continues with the evolution to integrated training, where the technical component and development of conditional skills are valued (Clemente & Mendes, 2015; Davids, Araujo, Correia, & Vilar, 2013).

According to Aquino et al. (2015) the training of an intelligent student/player is a concern of the CSG new teaching models, in which technical execution results from the tactical understanding of the game. The same authors point out that the global-functional and situational models with cognitive processes meet the aforementioned goal. The global-functional model seeks to present games in which the complexity and unpredictability of the CSGs are appropriate to the skills of students/players. Here, the learning

of technique and tactics takes place simultaneously and depending on one another, developing adaptation capacity and creation of motor solutions. The situational model promotes tactical understanding and decision-making by dividing the game into functional structures (e.g. 1x0+GR; 1x1+GR, 2x1+GR, ...). This structural approach aims at reducing the game complexity by modifying its functional structures, allowing technical development and tactical comprehension (Costa & Nascimento, 2004).

Within this new teaching standpoint on collective sports games there are currently two relevant models: Teaching Games for Understanding (TGfU) and Sport Education Model (SE) (Graça & Mesquita, 2007). The TGfU wants students/players to understand and know the game in order to make the best decisions at every moment. In this model, the game is seen as a problem-solving space (Clemente, 2012; Graça & Mesquita, 2007), so students/players understand the technical need and not a decontextualized technical execution (Hopper, 2002) allowing to learn the tactical aspects by practicing modified versions of the game (Davids, Araujo, Hristovski, Passos, & Chow, 2012). The SE is a curricular and instructional model that aims to train competent athletes who know about sports and are enthusiasts, using contexts that promote real sporting experiences (Siedentop, 1998; Siedentop, 2002). This model also intends that the teaching of the games is not done in a fragmented way through situations decontextualized from the game reality, but using situations that allow understanding and knowing the game, and technical improvement.

According to the aforementioned, we can see that the new teaching perspectives are centred on students, where their participation in learning is emphasized through exercises contextualized with the game reality, that is, according to the its internal logic. (Clemente, 2012). These new models aim to train students/players capable of making decisions while taking into account the requirements of the game situations, with creative ability and with a knowledge about the game, which allows reflexion on their decision-making.

In fact, this new CSG teaching paradigm encourages teachers and coaches to propose troubleshooting exercises, stimulating the ability to solve through cognitive and decision-making processes. In this constructivism perspective teachers and trainers are no longer emitters of recipes and solutions that are mechanically repeated, but they promote in students/players knowledge on the game and the development of a tactical intelligence without neglecting the learning and technical improvement, being nevertheless made through tactics. Teachers take on the role of guiding students in finding solutions to the different problem situations in the classroom/training and even in competition. Naturally, these teaching models need teachers to adapt their strategies regarding their teaching styles and intervention techniques. This will be discussed further on in this chapter. According to the aforementioned, the new teaching models seek that students/players build a knowledge of the games that can be evaluated by declarative knowledge (what to do?) and procedural (when, how and where?) (Aquino, et al., 2015).

Teaching models, teaching styles and pedagogical intervention techniques of *Sport Education*

The SE is a curricular and teaching model designed to provide authentic and educational sport experiences in the context of Physical Education (Siedentop, 1998). This model has three main goal for students: Sports competence, Sports literacy and Enthusiasm for sports.

A sports proficient student has sufficiently developed technical skills, understands and performs the tactical behaviour appropriate to the game's complexity, in order to participate in the game satisfactorily. Emphasis is given to tactical play as a problem-solving space rather than teaching technical skills separately, using reduced games for concurrent teaching of technical skills and tactical aspects (Siedentop, 1998). Seasons for teaching a collective

sports game can start with situations of 1x1, where emphasis is given to technical aspects, progressing to 2x2 situations, which combine technical aspects and the introduction of tactical ones, and lastly 3x3/4x4 situations, where tactical issues are more emphasized (Siedentop, 2002).

The model is developed according to six characteristics: sport seasons, membership, formal competition, final events, record of results and celebration.

Table 1- Key characteristics of the SE model (Siedentop, 1998)

Sport Seasons	They have a longer duration and replace the traditional didactic units of Physical Education classes, promoting greater contact of the student with the game and corresponding improvement in the learning results. Fewer modalities are addressed, but more deeply worked out, promoting better consolidation of knowledge.
Membership	The students build teams at the beginning of the season, being integrated until the end of the season. Students plan, practice and compete as a team. It fosters the sense of belonging, social values and personal growth, which is characteristic of sports experiences.
Formal Competition	A formal competition calendar is set, intermixed with practice sessions. The sports season consists of a set of tournaments according to the class level, and it can reach formal games.
Final Event	The final event marks the end of the season, embedded in a festive atmosphere, seeking to find the winner (characteristic of the sporting context) and mark the progress of students.
Record of Results	The statistical registers (scores, goals, points scored and suffered, blocks, times, etc.) are important feedback for students in order to set new goals. These registers mark the history, and set the records that give importance to the competition.
Celebration	The celebration character is a part of sports. In the SE model, teachers and students work together to promote the festive atmosphere to celebrate the achievement of improvements and goals as well as fair-play behaviour. It can involve the use of posters, award ceremonies, videos, etc.

Volleyball is an example of the above. Due to its characteristics, volleyball is a modality of high learning complexity to students. This is related to the fact that most of the technical gestures are of complex execution, huge individual responsibility, lack of ability to keep the ball, constant interruptions, incorrect decision-making, causing students frustration and demotivation. Taking into account the level of the students, it is possible to plan season competitions with games of 1x1/2x2 (learning and technical improvement), evolving to situations of 3x3 and 4x4 (introduction of tactical aspects). Taking into account the evolution of the students and the schooling year, the game can evolve to a formal game.

In the SE model, the teaching of games focuses on the student, undertaking responsibility in learning, and the teacher undertakes the guiding role. Students are encouraged to build knowledge on the game, and there is no longer a dependence on the teacher's systematic guidance. In this model there is a combination of direct instruction, collaborative work in groups (coaches and teams plan team organization, technical skills, tactics and strategies, with teachers working with coaches in planning training sessions to achieve the intended goals), and peer learning (among team members working towards a common goal) (Siedentop, 1998).

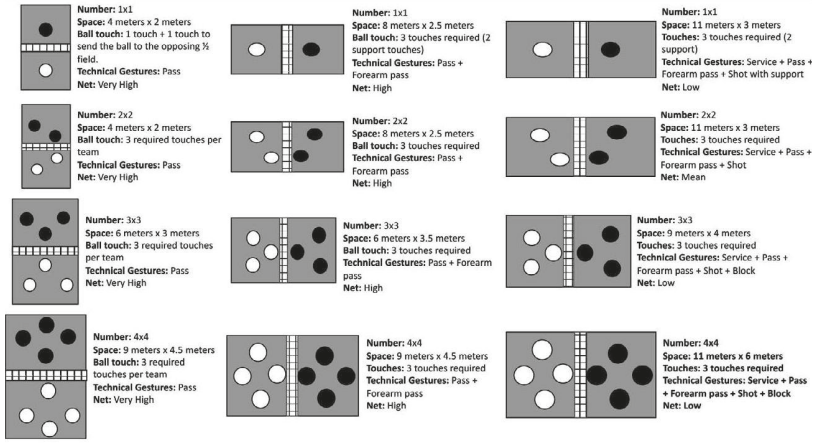

Figure 1. Progression of Reduced Games for Volleyball competitions

Teaching Games for Understanding

The TGfU model was crated as an alternative to CSG teaching models based on technique, as the traditional approach produces a large percentage of students with little success due to the emphasis given to the technique; students with technique mastery but with little decision-making skills; students depending on the teacher to make their decisions; and students with little knowledge on the games (Hopper, 2002).

The potential of this collective sports games teaching model lies in improving game performance using the following teaching strategies: explaining why tactics are needed; the questioning, discussion and practice of different tactical solutions with students/players to solve game situations; practicing tactical skills in RSG instead of having decontextualized exercises; teaching Crules and tactics at the beginning of learning to improve the students' and players' understanding of the game; and promoting students'/players' understanding that decision-making and technical execution does not occur just by playing, but rather through situations that promote the teaching of these matters (Turner & Martinek, 1999)

The TGfU model does not put aside the need of teaching the technique, however it suggests the specific technique work to be contextualized within the characteristics of the modality using modified game situations (Graça & Mesquita, 2007). In this sense, the learning situations focus on the game, aiming that students/players acquire a better knowledge of the game, tactical awareness and promote decision-making. According to Turner and Martinek (1999), the role of the teacher/coach in applying the model lies in setting the game format; watching the game; investigating the tactical issue and its solutions together with the students; observing the game and intervening to teach; and intervening to improve skills.

The application of the TGfU model is based on four pedagogical principles that guide the teacher intervention (Clemente, 2012; Griffin & Butler, 2005; Hopper, 2002; Stolz & Pill, 2014).

Table 2 - Pedagogical principles of the TGfU model

Game Sampling	The practice of similar games allows the transfer of tactical and strategic knowledge between modalities. Exposing various forms of play helps students to transfer their learning from one game to another.
Game modification by representation	RCG creation according to age and level of students/players. It consists of the use of a RCG with the same tactical structure of the advanced form of play (formal game).
Game modification by exaggeration	Changing the game structures (rules, space, time, tools) to promote, control or eradicate certain actions. The teacher/coach determines a tactical problem to define the constraints to be used in the exercise. Constraints are a guide for students/players to perform the intended tactical actions. This pedagogical principle keeps the natural integrity of the game.
Adjustment of the tactic complexity	The tactical problem should be adequate to the proficiency level of the student/player to stimulate their ability to understand and solve it. Content should be hierarchized according to complexity, keeping the game's nature and student/player finishing capacity.

Stolz and Pill (2014) state that 'questioning' is a pedagogical principle of the TGfU model. The authors indicate it is important to promote the students'/ players' thinking, with a view to better knowing what to do, when to do it, and why doing specific technical and tactical actions in finishing game situations. This knowledge results from the acquisition of reflective skills by the student/player on various game situation contexts, stimulating decision-making (Clemente, 2014). Hence, questioning is relevant as a pedagogical intervention technique in the ecological models of teaching collective sports games, so that the teacher/coach promotes during practice the qualitative increase of the student's/player's knowledge about the various aspects of the game (Clemente & Mendes, 2015).Following this line of thinking, the approach of the TGfU model is very similar to constructivism perspectives, where teaching is centred on the student player, being stimulated to reflect on problematic situations, to find solutions, relying on the teacher-coach orientation. Accordingly, to the above, the TGfU goals allow teachers/coaches to develop a guided learning style by setting goals (ways of play, with their tactical problems) and student/player guidance to

find solutions appropriate to ecological context.

Some investigations have been done to verify the complementarity between the SE and the TGfU models. According to Alexander and Penney (2005), the SE model has some limitations regarding how the teacher can contribute so that students improve their game performance, while the TGfU model allows students to be confronted with practice, promoting tactical and technical awareness, contributing to the improvement of decision-making. The same authors propose a link of the two models using the Clinic-Game Day model, in which there is a balance between the two teaching models, with learning of the games mediated by teachers and students.

By associating the two models, there is more emphasis on the teacher's action, implying a more intense teaching work, which implies significant gains in the ability of students for solving game situations, demonstrating greater literacy by understanding the principles, rules and structure of the games, with a constant transfer from game to game Hastie & Curtner-Smith, 2006).

One of the aspects that stands out in the models above-described is that they are in line with the principles of the ecological conception of practice and non-linear pedagogy, considering that the proposed exercises respect the interaction individual-task-context and the learning of the ability is based on the manipulation of restrictions (constraints), a fact that encouraged us to approach these perspectives.

The perspective of the ecological dynamics of game teaching

The ecological conception claims that practice should be based on learning exercises that represent the context constraints of the modality through the specificity of the relationship between the individual and the context (Alvarez & Gonzalez, 2014). This perspective claims that the context structure and physical constraints, the biomechanics of the individual's body, the perception of information variables and the demands of specific tasks jointly influence the

behaviour (Warren, 2006). Generating stable and flexible behaviours (Araujo, Davids, Chow, & Passos, 2009) implies the coordination of stable behaviour patterns (technique, tactics) and the ability to adapt behaviours to the context demands.

The individual-context interaction, where physical, information and task constraints are expressed (Warren, 2006), requires the student/player to adapt actions to the dynamic change of context. According to Araújo, Davids and Hristovski (2006), this required flexibility and adapted to the context and constraints of tasks implies controlling the perception of the action. Decision-making and intentional behaviour result from the student's/player's interaction with the environment, resulting from perception-action cycles.

In CSG, the context cannot be dissociated. Apart from the physical characteristics of the field, the markings of an exercise (caps, cones, etc...), it is necessary to take into account teammates and opponents. For a student/player to make appropriate decisions it is necessary to be able to detect the key affordances of the context (Renshaw, Davids, Shuttleworth, & Chow, 2009). Affordances are the possibilities of action for a particular individual-environment context (Alvarez & Gonzalez, 2014) and their detection is not an automatic process. A good level of understanding and knowledge requires some periods of practice for students and players to make decisions appropriate to the context, as well as an effective pedagogical intervention by the teacher/coach. We will address this specific matter below.

In this way, exercises should allow establishing perception-action cycles in real game contexts (Álvarez & Gonzalez, 2014), recreating game situations by manipulating the practice areas (e.g., width and length of fields) and the goals and rules of the game (task constraints) (Davids, Araujo, Correia, & Vilar, 2013). Davids, Araújo, Hristovski, Passos and Chow (2012) propose a set of criteria to develop an operational definition of "representative learning design".

Table 3 - Design of representative learning exercises (adapted from Davids et al., 2012)

Complex exercises	The proposed exercises challenge students/players to solve situations with different constraints and changing goals.
Exercises that provide access to relevant sources of information	Create exercises with characteristics specific of the modality that will interest the student/player. Tasks that stimulate the judgment and perception of students/players in characteristic situations of the game context.
Dynamic Exercises	Exercises that evolve over time. Games reduced equally and in numerical superiority (2x1-3x3), that help students/players to understand how to move to perform an action (movement-action), an goal that is not achieved in static situations.
Exercises that allow active perception	Exercises that place students/players in context situations in order to perceive information resulting from the attack-defence in order to achieve their goals.
Exercises defining achievable goals	Creation of exercises that allow to reaching goals with different levels of success, manipulating variables such as time and space to solve game situations.

According to the aforementioned, the great challenge of the teacher/coach is to create training sessions with exercises that comprise challenges for students/players, representative of the reality of the game and that promote decision-making. This ecological dynamic will allow students/players to perfect technical and tactical actions, promoting better knowledge of the game. While creating the exercises, it is important for the teacher/coach to identify the skill level of the student/player; the contents and goals to be trained; (Araujo, Davids, Chow, & Passos, 2009; Davids, Araujo, Hristovski, Passos, & Chow, 2012).

Non-Linear Pedagogy

The way teachers and trainers teach CSG has been changing due to the influence of the theoretical currents of constructivism, dynamical systems and ecological psychology (Serra-Olivares & Garcia-Rubio, 2017). Non-linear pedagogy is based on ecological psychology and on the dynamical systems theory (Chow, et al., 2007), guiding the professionals' practice using key principles related to

performance assessment, the structuring of practices and the best way to provide instruction and feedback (Chow, Renshaw, Button, Davids, & Keat, 2013). Nonlinear Pedagogy gives us the notion that student/player performance is dependent on the context and on the individual (Alvarez & Gonzalez, 2014), that is, the performance of a dynamical system (student/player) in executing a skill differs according to the different constraints (Serra-Olivares & Garcia-Rubio, 2017). The constraints influence directly or indirectly the decision-making and the actions in the game, which makes pertinent its manipulation by the teacher/coach based on the individual, group or team needs. Thus, it is essential for the teacher/coach to be aware of which constraints to control and manipulate in order to emphasize the practice and learning of specific contents. According to Clemente (2012), this ecological practice is characterized by great variability, which makes it rich in events, leading students/players to explore new ways of solving problem-situations in the game, which characterizes teaching by repetition without repetition. By using these constraints, teachers/coaches create exercises that promote perception-action cycles necessary for students to explore their action possibilities to reach the defined goal (Araujo, Davids, & Hristovski, 2006).

Table 4 - Types of constraints that influence behaviour (Álvarez & Gonzalez, 2014, Chow, Jia, Davids, Hristovski, Araujo, & Passos, 2011)

Context Constraints	• Social (ex.: public behaviour, presence of family members) • Field (ex.: light, temperature, type of floor) • Competition (ex. : Regional, National, International) • Atmospheric conditions (ex.: wind, rain)
Constraints of the Individual	• Personal characteristics (morphologic, physical, psychological, cognitive)
Task Constraints	• Constraints that contain relevant information to learn specific contents (game rules, technical-tactical goals, number of players, tools, play areas).

The key principles of non-linear pedagogy reinforce the theoretical foundations of the TGfU (Chow, et al., 2007) providing a theoretical logic for CSG teaching. According to the previously mentioned, the use of 'questioning' associated to the use of the RCG is characteristic of the non-linear pedagogy and of the TGfU model (Chow, Renshaw, Button, Davids, & Keat, 2013) foreseeing the qualitative increase of students'/players' knowledge on the various aspects of the game. Using the RCG and resorting appropriately to constraint manipulation, the teacher/coach can promote the learning of specific content regarding the game's technical and tactical skills (Chow, et al., 2009). The pedagogical principles that support the TGfU model shape the non-linear teaching model, where the RCG, through the correct manipulation of constraints, adjust the students'/players' perception to the goals defined by the teacher/coach (Clemente, 2012).

The creation of reduced conditioned games

In creating the RCG it is fundamental that the teacher/coach has a deep knowledge on the games and competence in the manipulation of the task constraints, adjusting the complexity to the level of students/players in order to lead them to the intended goals. The RCG is considered key by the coaches in the training process for the development of the players' physical, technical, tactical and psychological aspects (Alves, Clemente, Malico, Pinheiro, & Santos, 2017). Also in the context of Physical Education studies have shown that the use of RCG improves students' decision-making, as well as the effectiveness of technical skills and tactical means (Arias, Arroyo, Rabaz, Dominguez, & Villar-Alvarez, 2016; Lopez, Velez, Leon, Ortin, & Lopez, 2010).

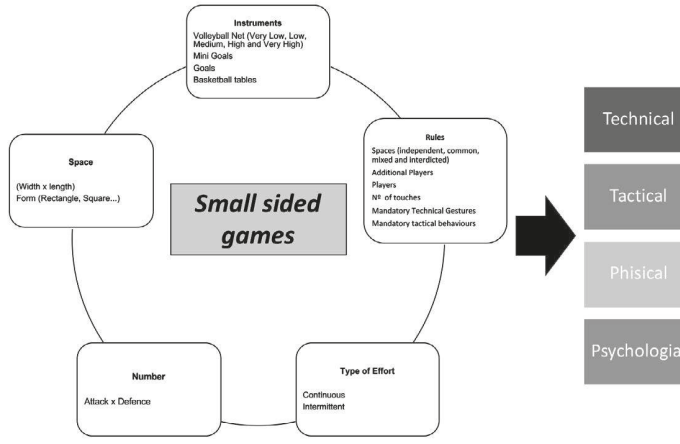

Figure 2. Task constraints for the construction of small sided games

In figure 2 we intend to summarize the task restrictions (constraints) to be manipulated by the teacher/coach, taking into account the objectives of the lesson or training.

The RCG planned for teaching collective sports games promote different tactical, technical and physical effects (Aguiar, Botelho, Lago, Maças, & Sampaio, 2012; Clemente, Martins, & Mendes, 2014; Clemente & Mendes, 2015). The behaviour of the teacher/coach while leading the class or training influences the physiological response of students/players. The existence or lack of encouragement on the part of the teacher/coach influences the intensity of the exercise, since the external motivation resulting from its supervision can increase the response of the athlete (Aguiar, Botelho, Lago, Maças, & Sampaio, 2012, Clemente, Martins, & Mendes, 2014).

Instruments

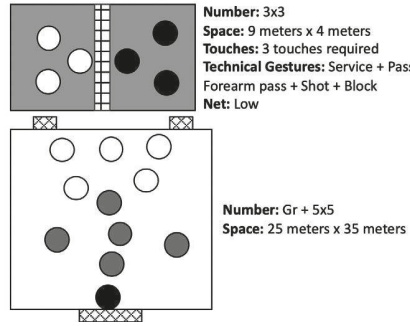

Figure 3. Volleyball and soccer exercises with the use of instruments

In creating exercises for CSG teaching, teachers/coaches can consider the use of goals, mini goals and a volleyball net at different heights. Figure 3 shows two examples for volleyball and football to accomplish technical and tactical goals. In the volleyball exercise we can promote the tactical aspects of attack and defence, as well as the fact that a low net promotes a shot and block technical action. In the football exercise the tactical aspects are quite emphasized. A team defends the regulatory goal, being stimulated a defence-attack transition to the mini goals, to take advantage of the opponent's spaces. The team that carries out the offensive towards the regulatory goal is encouraged to react quickly to losing the ball so that the opposing team cannot counter attack to the mini goals.

Space

The definition of the game space is a relevant task constraint taking into account the goals defined by the teacher/coach. Studies have shown that an increase in the size of the field increases the exercise intensity (Halouani, Chtourou, Gabbett, Chaouachi, & Chamari, 2014), also bearing in mind variables like the number of

players, time, series and repetitions to obtain specific physiological responses (Aguiar, Botelho, Lago, Maças, & Sampaio, 2012; Little, 2009). With regard to technical aspects, the manipulation of the play space influences the frequency of execution of technical skills. Owen, Twist and Ford (2004) found that in smaller fields there is a greater frequency of technical actions. However, when the number increases, there is a decrease in technical actions by students/players. Little (2009) created a field classification (small, medium and large) according to studies held in football (Owen, Twist, & Ford, 2004; Rampinini, et al., 2007)

Table 5 - Classification of the size of fields for RCGs

	Width x length		
Game	**Small**	**Medium**	**Large**
3x3	12x20 m	15x25 m	18x30 m
4x4	16x24 m	20x30 m	24x36 m
5x5	20x28 m	25x35 m	30x42 m
6x6	24x32 m	30x40 m	36x48 m
1x1 holding the ball	5x10 m	10x15 m	15x20 m
2x2 holding the ball	10x15 m	15x20 m	20x25 m
3x3 holding the ball	15x20 m	20x25 m	25x30 m
4x4 holding the ball	20x15 m	25x30 m	30x35 m
5x5 holding the ball	25x30 m	30x35 m	35x40 m

For the volleyball modality, Gonçalves (2009) also classifies the field sizes by small (displacements not exceeding 1 step), medium (displacements of 2 to 3 steps) and large (displacements of more than 3 steps), also stating that fields can be narrow or wide (width) and short or long (length) depending on whether to increase or decrease the distances between students/players and cause longer or shorter ball trajectories.

Table 6 - Field sizes for Volleyball

Game	Sizes (Width x Length)
1x1 and 2x2	Children < 13 years old – 2/2,5 x 3/4 m
	>13 years old – 3 x 4/6m
3x3	2nd cycle – 3 x 6m
	3rd cycle – 4 x 8m
	High School – 4,5 x 12m
4x4	+ 1m in width and the same length of game 3x3.

The manipulation of the field size, as well as its geometric form, can also be important to learn and improve tactical contents. According to Castelo (2006), the use of different geometric forms (triangles, pentagons, hexagons, squares, rectangles) helps stimulate decision-making and motor behaviour. Fradua et al. (2013) presented a proposal with general recommendations for the creation of RCG for football taking into account the tactical goals of the various phases of the game.

Table 7 - Dimensions for the RCG with tactical goals for the different phases of the game

Tactical Goal	Individual play area (m2)	Length:Width Ratio	Length x Width (m) - game 5x5
Offensive construction	90	1:1	30x30
Transition	90	1:1,3	25x30
Finishing	90	1:1	30x30

Number

The number of students/players involved in the exercise influences the intensity of the RCG training. A reduction of the number of players increases the intensity of the exercise and when using additional players (that float between the two teams, e.g. Gr+4x-4+(1)+GR) the intensity is greater for these when compared to the

remaining elements of the teams (Aguiar, Botelho, Lago, Maças, & Sampaio, 2012; Clemente, Martins, & Mendes, 2014; Halouani, Chtourou, Gabbett, Chaouachi, & Chamari, 2014). The relationship between the variables space and number of players is key to achieve the specific training goals (Clemente & Mendes, 2015; Halouani, Chtourou, Gabbett, Chaouachi, & Chamari, 2014; Little, 2009).

The work of technical skills is favoured in games with a small number of players, since the number of technical actions increases with the decrease of the number of players (Aguiar, Botelho, Lago, Maças, & Sampaio, 2012). Gonçalves (2009) proposes that the 1x1 and 2x2 RCG in volleyball should be used to work the technique and the 3x3 and 4x4 situations to apply the technical and tactical solutions.

Rules

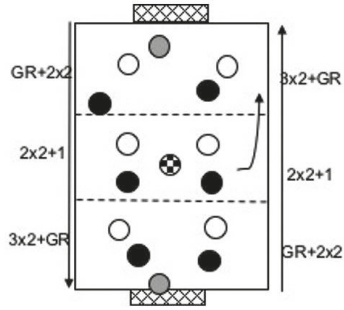

Figure 4. Football exercise with mixed spaces

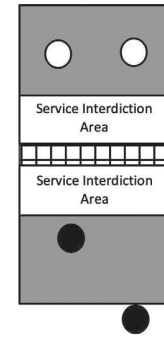

Figure 5. Volleyball exercise with interdicted spaces

While creating RCGs and changing the rules, teachers/coaches create constraints on the intended task, stimulating and guiding students/players to make decisions using technical skills and tactical solutions to solve problem situations. In this sense, research has shown that different types of changes in rules (e.g. goalkeep-

er use, use of mini goals, number of passes, defensive method) promote different physiological, technical and tactical responses (Halouani, Chtourou, Gabbett, Chaouachi, & Chamari, 2014)

The RCGs can be enriched from the tactical point of view defining spaces according to corridors and sectors or based on establishing independent, common, mixed or interdicted spaces (Castelo, 2006). In independent spaces, the defenders and attackers exercise their actions in specific spaces without interference of the opponents; the common spaces allow all the players to intervene in the different spaces of play; the mixed spaces allow defined players to interfere in different spaces of play, while the others can only play in their respective spaces; and the interdicted spaces prevent all players, or some players, from intervening in those spaces.

With regard to changing rules, teachers/coaches can use the constraints with obligatory technical actions (e.g. 1x1 volleyball game only with one pass), obligatory tactical behaviours (e.g.: 3x3 volleyball game, 3 obligatory touches per team, being the second touch given by the passer for a shot), using additional and neutral players in order to learn and improve technical and tactical skills. To encourage content learning it is essential for students/mid-level athletes to develop games with numerical superiority in attack and with low-level students to create low tactical complexity situations (3x1, 4x2) (Praxedes, Moreno, Gil-Arias, Claver, & Del Villar, 2018).

Type of effort

In creating the RCG, teachers/trainers can define a type of continuous or intermittent effort. In the RCGs with intermittent efforts, five variables should be taken into account: intensity, exercise duration, type of recovery (passive or active), duration of pauses and total volume (number of repetitions x duration), while RCGs with continuous efforts are characterized for a longer duration (10 to 30 minutes) (Halouani, Chtourou, Gabbett, Chaouachi, & Chamari,

2014). According to the same authors, in order for the physiological responses of the two methods to be effective, and given the planned objectives, teachers/coaches should bear in mind that the intensity of the exercises is influenced by the space and number of players, as well as the season timing when they are applied.

In short, as we can see throughout this chapter, RCGs are a key strategy in CSG education. The correct manipulation of task constraints allows students/players to learn and improve their technical and tactical skills, make decisions to solve problem situations that are in accordance with the characteristics of the modality. It should be noted that the mentioned manipulation of the task constraints is key to achieve the intended intensities in sports training.

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Spatial Orienteering in preschool children and the importance of familiarity with outdoor locations in mapping education

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SUMMARY: This study aims to verify the differences between 3 to 5-year-old children while locating 4 hidden objects resorting to a map (oblique aerial photography) according to their familiarity, or non-familiarity, with the place and orienteering. The sample of this study consisted of 218 children aged 3 to 5. It was concluded that space exploration develops better orienteering skills and that familiarity with orienteering activities develops spatial orientation skills in an unknown place in children aged 3 to 5.

Keywords: Spatial Orientation; Orienteering; Map; Children; Locating objects

Introduction

As a sporting activity, orienteering is defined as the ability to locate places and to use a map to choose a route from one place to another, in an unfamiliar wide place (Eccles, 2006). To orientate in unfamiliar place, a child needs to move (actual navigation) constantly collecting information about its surroundings (Coluccia & Louse, 2004). In an ecological perspective, while navigating children possibly have to regulate their locomotor activity in interaction with visual information flow, thus providing interaction between perceptual and motor mechanisms. Children change position in

space when navigating, which encourages them to detect new or differentiated visual information, previously hidden, allowing navigation reorganization. Whilst in action, the child's perception aids him/her to identify the route in a process of reciprocity between what is observed and the environment elements enhancing information gathering, in a specific cycle of direct perception and action (Gibson, 1986). In short, in a continuous cycle, what children perceive (the information they detect) while moving helps them to orient and keep moving to detect new information. In a review on the use of maps and the development of spatial cognition, Uttal (2000) concludes that maps play a particularly important role in the development of space perception.The author infers that the exposure to maps may influence and aid in the way children perceive an unfamiliar place. Geographic environments are generally too large to be observed and understood globally from any land point (Blaut, Stea, Spencer, & Blades, 2003). Maps were created for this reason. A map offers a set of information on the geographic space that otherwise would remain hidden or inaccessible by direct observation of the space (Uttal, 2000). According to Uttal (2000), maps can influence how we perceive spatial information. What we learn about an area using a map can influence the way we navigate. The same author refers that understanding the space through several location points can be very difficult relying solely on navigation, but maps facilitate this process because they provide information about an area. On the other hand, the space itself can influence the perception we have of the map. In assessing this mapping and orienteering ability in a study (Catling, 2006), children aged 3 and 5 were divided into two groups, where one group was given a map and the other group was not, however both had to locate a stuffed animal in a space which the children were familiar with. The study concluded that most of the children who used the map found the stuffed animal. Other studies have also found that, in a familiar outdoor space, most 3-year-olds use the map in line with the terrain to find an object (Blaut et al., 2003). Additionally, these authors found that being familiar with the space is related to

the ability tomore effectively plan a route over a photograph (Blaut et al., 2003) For children aged 5 and 6, about half of the children find all points (seven) using a map of an unfamiliar location/place, and older children draw more direct routes (Græsli, Bjerva, & Sigurjónsson, 2009).

Thus, some doubts arise. What is the relation between familiarity with an environment and the ability of a child to locate objects (control points) in a wide unfamiliar open space? On the other hand, if the child has contact with maps and orienteering, does the exposure to and contact with maps influence the way the child is oriented in unfamiliar place?

Children's individual traits orienteering help systematize and clarify the development of orienteering and all the structuring information involved in the perception-action process when concluding orienteering paths. Perceiving the development of orienteering centred on direct perception (Gibson, 1986) offers new insights and research opportunities. Hence, it will be possible to contribute to the process of child empowerment and to the creation of child autonomy regarding orienteering and exploration of unfamiliar geographical terrain by resorting to a map. Children's autonomy capacity is an added value for their self-perception and their ability to do something autonomously (Kilia, Zacharos, & Ravanis, 2015).

Based on the assumptions investigated, this study aims at verifying the differences between children aged 3 to 5 in locating 4 hidden objects (control points) using a map (oblique aerial photography) according to their familiarity, or not, with the location and their orienteering.

Methodology

Sample

In this study 218 children participated (Table1), of which 211 came from 16 kindergartens in the municipality of Porto de Mós and 7 from several areas outside the municipality of Porto de Mós. The sample was constituted, by direct invitation to kindergarten teachers and with the informed consent of the parents and the support of the statutory superiors in the case of kindergartens. Groups were created according to familiarity with the location or orienteering: (i) a group was unfamiliar with both place and orienteering; (ii) another group was familiar with the place but not with the orienteering; iii) and the last group was familiar with the orienteering (but not with the place).

Table 1 - Characterization of the sample

Age		Unfamiliar with both Place and Orienteering	Familiar with the Place	Familiar with the Orienteering	Total
	N	**34**	**22**	**4**	**60**
	Gender (♂-♀)	17-17	10-12	2-2	29-31
3 years old	Average age ± SD	3.6 ± 0.23	3.59 ± 0.19	3.58 ± 0.32	3.59 ± 0.22
	Age Range	0.91	0.65	0.7	0.91
	N	**35**	**46**	**3**	**84**
4 years old	Gender (♂-♀)	24-11	21-25	3-0	48-36
	Average age ± SD	4.48 ± 0.28	4.45 ± 0.28	4.46 ± 0.43	4.47 ± 0.28
	Age Range	0.95	0.91	0.86	0.97
	N	**38**	**36**	**0**	**74**
5 years old	Gender (♂-♀)	22-16	19-17	0	41-23
	Average age ± SD	5.52 ± 0.30	5.54 ± 0.30	0	5.53 ± 0.30
	Age Range	0.96	0.91	0	0.96
Total	**N**	**107**	**104**	**7**	**218**

Procedures

A free and informed consent form was obtained, and each child accepted to perform the study before the task was executed. Children had to locate four objects hidden in an open space, marked on an oblique aerial colour photograph, in an activity presented as a "treasure hunt" type game. The photograph was used as a map

measuring 12.8 cm x 20.1 cm with a scale of 1:200 to 1: 400 (cf. Plester, Richards, Blades, & Spencer, 2002). The useful area where the activity took place was of 2,339 m², where the average distance of the proposed route was approximately 242m (± 78) and 107m (± 77) distance in a straight line.

Instrumentation and Data Processing

The SPORTIdent electronic timing system was used for quantifying the points visited, the order and time spent (Figure 2.2). The data collected by the chip was later on processed using MT2003 software (*MTageOL V.10.3 de Stephan Krämer 1986 – 2008*), similar to that used by other authors (Sigurjónsson, 2009). Version 21 of the PASW SPSS software was used for a significance level ≤ 0.05, two-tailed. The Mann Whitney U test was used for comparison between genders and the Shapiro-Wilk test was used to verify the normality of data distribution. The Kruskall-Wallis test (H) was used (with Monte Carlo method), followed by the Mann-Whitney U test (U), with Bonferroni correction and estimated effect size for age comparison.

Results

No normal distribution was observed in any age for each group. For the group of children who were children unfamiliar with both place and orienteering, the samples are homoscedastic (Lévène) by the mean (W (2.98) = 1.229, ns), but not by the median (W (2.98) = 3,395, p <0.05). For the group of children familiar with the place, the samples are not homoscedastic (Lévène) by the mean W (2,101) = 23.63, p <0.001), nor by the median (W (2,101) = 7.29, p <0.001).For the group of children familiar with the orienteering, it is not possible to estimate the homoscedasticity.

Of the 218 children participating in the study, six refused to par-

ticipate, five of them aged 3 and one aged 5. Three of the 3-year-olds and the 5-year-old child belonged to the group unfamiliar with both place and orienteering. Two of the 3-year-olds belonged to the group familiar with the place. In some cases, the reason for not participating was because the children wanted to play in the waiting room ("I want to play the fishing game"). A child refused to attend because its mother unexpectedly appeared in the waiting room and upon arrival at the place of departure the child wanted to go to its mother. Other children simply refused. Children who refused to perform the task were not included in the following results but were accounted for in the overall results debated in the discussion.

Gender comparison regarding the number of points achieved

In the group of children unfamiliar with both place and orienteering there is no significant difference between genders in relation to the number of points achieved. For 3-year-olds (U = 103.0, ns), 4-year-olds (U = 101.5, ns) and 5-year-olds (U = 131.5, ns). In the group of children familiar with the place, there is also no significant difference between genders regarding the number of points achieved, for 3-year-olds (U = 28.5, ns), 4-year-olds (U = 226.5, ns) and 5-year-olds 171.0, ns). In the group that was familiar with the orienteering, no significant difference between genders was recorded, for 3-year-olds (U = 1.0, ns). For 4-year-olds are all boys and therefore it is not possible to make a comparison. Since there are no gender differences by age in each group, it was decided to join the gender by age for the remaining studies.

Number of points visited by group and by age

In the group of children unfamiliar with both place and orienteering (Table 2), children aged 3 averaged 1.48 (± 1.26) points in four pos-

sible points (29% of cases) and about 26% managed to achieve two points. The 4-year-old children averaged 2.76 (± 1.35) points (14.7% of the cases) and about 44% achieved all points. The 5-year-olds averaged 3.47 (± 1.25) points (83% of the cases), at this age 16% achieved between zero and two points, most of them achieved all points proposed.

Table 2 - Number of points visited by group and age

	Unfamiliar with both Place and Orienteering			Familiar with the Place			Familiar with the Orienteering		Total
	3 years	4 years	5 years	3 years	4 anos	5 anos	3 anos	4 anos	
CP Visited	F %	F %	F %	F %	F %	F %	F %	F %	Σ F %N
0	8 26	3 8.8	3 8.3	0 0	1 2.1	0 0	0 0	0 0	**15 7**
1	9 29	3 8.8	1 2.8	4 20	1 2.1	0 0	0 0	0 0	**18 8**
2	8 26	8 23.5	2 14.7	3 15	2 4.3	1 2.7	0 0	0 0	**24 11**
3	3 10	5 14.7	0 0	1 5	5 10.6	1 2.7	1 25	0 0	**16 8**
4	3 10	15 44.1	30 83	12 60	38 80.9	35 94.6	3 75	3 100	**139 66**
n total	**31**	**34**	**36**	**20**	**47**	**37**	**4**	**3**	**n 212**

For the group familiar with the place, children aged 3 averaged 3.05 (± 1.28) points out of four (60% of cases). Children aged 4 averaged 3.66 (± 0.841) points (80.9% of cases). The 5-year-old children averaged 3.92 (± 0.363) points (94.6% of the cases). In the group familiar with the orienteering, 3-year-olds children averaged 3.75 (± 1.262) points out of four (75% of cases). In this group the 4-year-olds children averaged four points (100% of cases).

Comparison between ages of the same experimental group

For the group of children unfamiliar with both place and orienteering, the comparison between ages and number of points showed that there was a significant difference ($H(2) = 32.07$, $p < 0.001$). When comparing pairs of ages for the number of points visited (Table 3), there was a significant difference between 3 and 4-year-olds ($U = 261.5$, $z = -3.576$, $p = 0.001$, $r = -0.44$), between 3 and 5 ($U = 164.5$, $z = -5.306$, $p = 0.001$, $r = -0.65$), and between 4 and 5 ($U = 400.0$, $z = -2.915$, $p < 0.01$, $r = -0.65$). Since the evolution

of medians over the ages shows a clear trend, the Jonckheere test was applied, revealing a significant trend (J = 2568. z = 5.79, p < 0.001, r = 0.58).

Table 3 - Comparison between ages within the same experimental group regarding the number of points achieved

	Unfamiliar with both Place and Orienteering		**Familiar with the Place**		**Familiar with the Orienteering**	
Groups in comparison	Mean±SD	*p*	Mean±SD	*p*	Mean±SD	*p*
3 years	1.48 ± 1.26	0.001	2.76 ± 1.35	0.044	3.47 ±1.25	0.386
4 years	2.76 ± 1.35	***	3.66 ± 0.84	***	3.92 ± 0.36	*
3 years	1.48 ± 1.26	0.001	4±	0.001	-	
5 years	3.47 ± 1.25	***	3.66 ± 0.84	***	-	
4 years	2.76 ± 1.35	0.004	4 ±	0.065	-	
5 years	3.47 ± 1.25	**	3.66 ± 0.84	*	-	

Note: * p > 0.05; ** p < 0.005; *** p < 0.001; a) Number of points achieved is constant for 4-year-olds.

Comparison between experimental groups by ages

At the age of 3 the comparison between groups for the number of points achieved revealed that there is a significant difference (H (2) = 17.80, p <0.001). Comparing the group unfamiliar with both place and orienteering to the group familiar with the place, it was verified that there is significant difference (U = 126.5, z = - 3,644, p <0.001, r = - 0.51). Comparing the group unfamiliar with both place and orienteering to the group familiar with the orienteering, it was verified that there is significant difference (U = 9.0, z = 2.814, p <0.005, r = 0.48). For the group familiar with the place compared to the group familiar with the orienteering, it was verified that there is no significant difference (U = 30.5, z = - 0.850, ns, r = - 0.17).

Table 4 - Comparison between Experimental Groups by Ages

Age groups	3 years		4 years		5 years	
Experimental groups compared	Mean±SD	ρ	Mean±SD	ρ	Mean±SD	ρ
Unfamiliar with both Place and Orienteering	1.48 ± 1.26	0.001 ***	2.76 ± 1.35	0.001 ***	3.47 ± 1.25	0.104 *
Familiar with the Place	3.05 ± 1.28		3.66 ± 0.84		3.92 ± 0.36	
Familiar with the Orienteering	3.75 ± 1.26	0.395 *	4 ± a)	0.410 *	-	
Familiar with the Place	3.05 ± 1.28		3.66 ± 0.84		-	
Unfamiliar with both Place and Orienteering	1.48 ± 1.26	0.005 **	2.76 ± 1.35	0.089 *	-	
Familiar with the Orienteering	3.75 ± 1.26		4 ± a)		-	

Note: * p> 0.05; ** p <0.005; *** p <0.001; a) Number of points achieved is constant for 4-year-olds.

For the 5-year-olds, the comparison of the group which was unfamiliar with the place and the orienteering to the group familiar with the place, it was verified that there is no significant difference (U = 586.0, z = -1.628, ns, r = - 0.19). As there were no 5-year-olds in the group which was familiar with the orienteering, no further comparisons were made.

Discussion

The aim of this study was to verify the differences in the number of points visited in a large outdoor place using an oblique aerial photograph, in a 2339 m² area, in a route with a mean distance between 242m (± 78) and 107m (± 77) in a straight line, by children aged 3 to 5, according to their familiarity, or non-familiarity, with the place and the orienteering. In addition, it was intended to determine the influence of the type of points (distinct and not distinct) in choosing the points visited.

In a first analysis of the results, it was verified that the task chosen for this study was appropriate for children aged 3 to 5. It was verified that about 97.25% (n = 212) of the children wished to participate and only 2.75% (n = 6) refused, this result was reinforced when 66% (n = 139) of the total sample visited the four proposed

points. The task proved to be captivating for the children, justifying the continuity of applying outdoor orienteering in pre-school children as a safe bet for their development. When working with children in these age groups it is expected that some will refuse to participate, albeit at a very small percentage, with greater incidence at age 3 if the child is unfamiliar with the place or the task . The participation percentage is similar to that obtained in previous studies with tasks to find hidden objects (Huttenlocher et al., 1999, Plester et al., 2002, Stea et al., 2004). It can thus be concluded that for some children it is still not possible to perceive the usefulness of the map as a tool that assists the task of locating hidden points. This fragility was reinforced when 7% (n = 15) of the children tried, but could not find any point. As previously stated by Plester et. al. (2002), it is particularly interesting to see that children do not give up looking even without finding any point.

Without familiarity with the place or orienteering, approximately 10% (n = 3) of 3-year-olds performed four control points, which reinforces the idea that aided by maps, children of this age possess some orienteering competence (see Blaut et al., 2003). At all ages within the group unfamiliar with both place and orienteering, there are children who achieve four points and children who do not achieve any point. It was also found that in this group as age increases, the ability to find more control points also increases, as 3-year-olds performed 1-2 control points, 4-year-olds 2-4 points, and 5-year olds, for the most part, 4 control points. As the age increases, the child is better adapted to task involvement, even when unfamiliar with the place or the task of using a map to find places and objects. Thus, for an orientation activity it seems advisable in this age group not only to take the child's age into account, but also consider the child's capacity to respond to this type of situation, the information that links map, body and terrain (Keates, 1996, p.146), rather than solely on the basis of their age.

In the group familiar with the place, most of the children visited 4 points; in the 3-year-old group the percentage was 60%, 81%for

those aged 4, and for 5-year-olds, 95%. Here, it has also been found that as age increases, so does the ability to find more points. However, it seems evident that the differences are more pronounced between 3 and 5-year-olds. 4-year-olds do not differ from other ages in the number of points achieved. In this case, the behaviour pattern is different from the previous group, where all ages differed. Being familiar with the place attenuates the effect of the chronological age on the number of points to be achieved, which means that tasks should be similarly drawn if 3-year-olds are combined with 4-year-olds, and 4-year-olds with 5-year-olds, however, tasks for groups of 3-year-olds with 5-year-olds should be drawn in a differentiated way.

Comparing the number of points between age groups, in the 3-year-old group familiarity with the place and familiarity with the orienteering represent an advantage. The influence of experiences with the situations mentioned allow the child a better adaptation. Familiarity with orienteering in this case is particularly noteworthy; 75% (n = 3) achieved four points, while in the group unfamiliar with both place and orienteering, sharing the same condition of being unfamiliar with the place, the percentage of children who achieved four points is 10% (n = 3). In terms of development, this may mean that familiarity with orienteering increases the orientation skills in an unknown place, which suggests that the ability to interact and explore the surroundings is also greater, as well as their capacity for autonomy and to experience new perceptive and motor experiences. We can thus affirm that this can be a determining indicator for the adoption of programs with orienteering tasks in preschool ages as a means of development of perceptive and motor mechanisms that allow greater interaction with unknown places. However, this analysis should take into account that the group familiar with orienteering is very small due to the characteristics required to be part of this group and due to the need to move each child from several areas of the country to the orienteering task. In order to increase the number of elements in this group, we suggest that future studies

should develop orienteering practice during a given period in some kindergartens near the task site, and then repeat the experience with groups bearing similar dimensions.

Results indicate that at age 5 children are already fit for orienteering, whether or not they are familiar with the place. There is no difference between children regarding their ability to find hidden objects in a large outdoor place. If the task conditions are appropriate for their development, children of this age are able to carry out space orientation processes. Therefore, taking into account the results of this study and those of the study by Græsli et al. (2009), we suggest routes for 5-year-old children consisting of five to seven control points.

With regard to gender difference in achieving the number of control points, no difference was noted between age groups. There was also no difference between genders at any age in each group concerning the time spent on one, two, three or four control points. These results are in agreement with the results of the study by Coluccia and Louse (2004) and with studies more methodologically similar to that presented herein (Bjerva et al., 2009b; Græsli et al., 2009; Plester et al., 2002; Sigurjónsson, 2009) where it is concluded that studies with an ecological approach do not present significant differences between genders. Similarly, other authors who developed studies with children in object-finding tasks did not find difference between genders either (Huttenlocher, Newcombe, & Vasilyeva, 1999; Plester, B., Richards, J., Blades, M., & Spencer, 2002; Stea, Kerkman, Piñon, Middlebrook, & Rice, 2004).

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PART II

Education and Development: contributions of social and community psychology for understanding school

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Summary: Based on the idea that school has a unique and plural reality, with its own specific characteristics in terms of the uniqueness of its mission in society and in the construction of knowledge in a complex appreciative approach, it is our goal to address some analysis variables.

Keywords: Community; Development; Education, School.

For Matos (1997, p. 1), "*it is never enough saying that development alone can be considered as the purpose of education". This development concept "enshrines the notion of a permanent construction of both what the person is being acquainted with, what the person learns how to do, and even what the person becomes, a concept valid for all who live the school ethos and members of an educational community*" (...) Matos (1997, pp. 6-7) points out that "the school organization has a crucial role in creating a climate of change, in responding to innovation proposals and in the capacity for self-renewal. The isolated efforts of individuals to change their practices will be of little use if they take place outside the school dynamics" (Nóvoa, 1992, p. 41, quoting Matos, 1997, pp.6-7).

As Mintzberg (1995) points out, innovative organization cannot rely on any form of standardization to coordinate its activities. Thus, organizational innovation is the implementation of an attitude, a look for the future and to create new challenges, involving a joint effort

of the players in the organization as a whole. Leadership plays a very important role in the study and implementation of change in all organizations (Jesus, Campos, Alaiz & Alves, 2000). According to Nóvoa (Ventura, 1999, p. 1), after a traditional perspective that favoured "*whether the micro level of the classroom or the macro level of the educational system, a study of school organizations has emerged that proposes to opt for a mezzo level of understanding and intervention because the processes of change, innovation and education need the understanding of school institutions in all their technical, scientific and human complexity*".

Specifically, Education and Development are concerned with the components and processes that intervene in the life of groups where all members exist psychologically for each other and in a situation of interdependence with potential interaction. "*Psychology is usually defined as the science of human behaviour and social psychology as the branch of this science that deals with human interaction*" (Gergen, 2008, pp.475). A group can be defined as a group of people in interdependence who cooperate to reach the end that made them gather, with some durability in time and inevitability of communication. Regarding the concept of school organization, Costa (2003) states that there are different organizational images with which the school is visualized. Etymologically, the word organization comes from the Greek *organon* (organ, instrument) and is associated with order, coordination and purpose. Organizations are constructions that reflect the nature of the structure of the society to which they belong. Litterer (1970) sees organization as a social fabric in which people establish relationships among themselves whose purpose is to make possible the achievement of a set of goals and purposes. According to Sedano and Perez (1989, pp. 41-42), quoting Weber, an organization is a cooperative group perceived as "a social relation regulated by rules, orders and directions carried out by individuals or an administrative group". Bertrand and Guillemet (1994) state that it is possible to find five common points:

the behaviour of an organization is oriented largely by a culture, mission, purpose, intentions and goals; using knowledge, know-how to fulfil the tasks predicted and achieve the intended goals; it implies a structuring and integration of activities: formal division of labour, attribution of responsibilities, coordination, integration, centralization or decentralization; it is based on the participation of people and their characteristics: intelligence, sensitivity, motivation, personality; and, the organization is a whole with a nervous centre that organizes and controls all activities. According to Hogg and Vaughan (1998), in society we find different institutions: they all have a common point but show specific characteristics that give each institution an identity. The school is no exception, it has a complex reality given that, among the organizations that make up our society, the school organization has an influence on all the others. In their configuration, schools are different from other social organizations, as Costa (2003) underlines, namely in terms of the singularity of its mission, which is essentially pedagogical and educational: educational institutions thus reach a dimension where important decisions are made in educational, curricular and pedagogical terms.

The notion of cohesion is absolutely key to Kurt Lewin in the study of restricted groups (point out the force that holds together the molecules of a body and in physics language: tension, pressure, valence, global attraction). Cohesion factors may be extrinsic - those that precede the formation of such groups (functional dependence); and intrinsic factors - those belonging to the group (social and affective factors - attractiveness of a collective action, feeling of belonging to the group, common goal, interpersonal affinity, satisfaction of personal needs, motivations, communication, emotions and values) and operative and functional factors (distribution and articulation of roles, group behaviour and leadership mode) (Galinha, 2010, 2011 a) b). Also for the study of educational institutions and, starting from the studies of Moscovici, we define social representations as a kind of knowledge, socially elaborated

and shared, with a practical view and concurring for the construction of a common reality to a social group. Social Representation had the first theoretical basis with Serge Moscovici in 1961 with the work *Psychoanalysis, its image and its public*. The purpose of the Social Representation Theory is to explain the phenomena of the individual from a collective perspective, without losing sight of individuality (Hogg & Vaughan, 1998). Given the need for involvement, it is important for leaders to actively promote interaction processes and a collegial peer culture as a way to successfully promote ongoing professional development and to stimulate assessment systems that support teacher autonomy, encouraging them to respond positively to change (Day, 2001). Confirming this idea of interaction between school development and teacher development and the system itself, Kemmis (1987 quoting Garcia, 1999) claims the necessity of adopting a dialectical perspective that recognizes that schools cannot change without the commitment of teachers, institutions and systems that are interdependent and interactive in the reform process. Even if teachers are internally motivated for development, if they do not feel properly supported, they shall hardly adhere to change: a change that is not internalized will probably be symbolic and temporary... For example, the first cycle supervision presupposes a set of increased responsibilities for the intermediate managers (Formosinho, 1991). Day (2001) adds that school principals and leaders in general have a crucial role in creating professional learning philosophies that motivate teachers to systematically engage in individual and collective, formal and informal learning, solely and with others. Reflection on teaching is not merely an intellectual process, it requires emotional commitment and involves the mind and heart (Day, 2001). According to Parente (2006, p.106), resuming the concept of change, we can also say that the various levels of learning processes often find conditions conducive to their development.

Teachers' expectations on how to engage students in school activities can be fulfilled in part to the extent that the school environment

meets the basic psychological needs of students, as stated by Guimarães and Boruchovitch (2004). For the same authors, this is not an easy task, it depends on the effort to create autonomous and less controlling interactions, for example, "*providing choice opportunities and making students accountable for the consequences of their choices, sharing decision-making, listening and questioning students' arguments, among other strategies*" (Guimarães & Boruchovitch, 2004, pp.148-149). The authors also add that the need for competence can be nurtured by providing challenges adequate to the students' level of development and with information on their performance. According to Bergamini (1997) and Silva, Wolf, Costa, Costa and Magro (2006) there are no universal motivational strategies to promote the satisfaction and well-being of the individual within the organization. Jesus, Vieira, Almeida, Santos, Gomes, Martins (2009, p. 28) support an integrative perspective "*in a study on the integrative model of cognitive motivation theories, given the multiplicity of motivation theories to analyse the processes that allow explaining the dynamics, direction and persistence of behaviour*", provided "*the theories considered and introduced in a model have the same theoretical-epistemological assumptions and are complementary*". According to the authors, the global understanding of motivation requires an attitude of theoretical integration that seeks to combine the specificity and complementarity of several cognitivist motivation theories.

According to Genoves (2010), Educational intelligence is the leaders' ability to adjust education according to the needs and interests in order to contribute to a better development of individuals. War (2006) mentions that education starts from a radically positive assumption: any human being can be improved and anyone who is not in this line cannot dedicate to the task of educating (Tavares & Albuquerque, 1998). These are the basis of Howard Gardner studies, who published Frames of Mind in 1983, referring for the first time to multiple intelligences, defining it as a capacity to solve problems or to produce goods that have value in a cultural or collective

context. Emotional intelligence, according to Daniel Goleman, encompasses skills such as: self-motivation and persevering capacity despite adversity and frustration; impulse control and the ability to postpone satisfaction; the ability to control humour and to prevent anxiety from altering the reasoning faculties; empathy; hope. Thus including Gardner's interpersonal and intrapersonal intelligences.

In a study carried out with teachers on motivation in the teaching profession, it was verified that the most valued factors are the feeling of professional competence and the relationship with students (Jesus, 1998). On the other hand, if teachers feel professionally fulfilled and motivated in carrying out their activity, they become a contagious example for their students, who will have more competent teachers and committed to their duties (Marques, 2003). Motivation is a concept that is often invoked to explain variations of specific behaviours and is undoubtedly of great importance for the understanding of human behaviour (Fonseca, Galinha & Loureiro, 2017 a) b).

Since ancient times, leadership has been also the target of analysis and studies. For Bento (2006), in the twentieth century the so-called situational or contingency theories of leadership assume that the most appropriate behaviour for a leader depends on the specific situations or circumstances in which the leader is. One of the theoretical models that had more acceptance was the Fiedler's contingency model of (University of Illinois). Fiedler developed a scale called LPC (Least Preferred Co-worker) to measure leadership style. The goal of the LPC scale is to differentiate the leadership style focused on the relationship from the task-focused leadership style (Bento, 2006). The contingency organizational theory adjusts organization to its relevant environment, where it needs to be systematically adapted to the collective goals. The concept *it depends is opposite to that of one best way*. This organizational adjustment principle leads us to an adjustable leader and to a dynamic theory of leadership proposed by Fiedler in which there is no single style or characteristic leader in each situation, but rather

a leadership model that can achieve efficacy and the efficiency by controlling the situation (Chiavenato, 1999). In a study carried out, it was observed that 1) the transformational and transactional values of leadership models are predominant in comparison to the "*laissez faire*" model; 2) The perceptions of men and women are different; 3) Participants' perceptions vary with age; and (4) Transformational and transactional leaderships and their categories are linked to more positive outcomes (i.e., efficiency, satisfaction and extra effort) (Galinha, Vala, Jardim & Pereira, 2016, p.33). The new conception perceives the leader not as one who leads in a hierarchical and rigid way the process of influencing others to reach a goal, but as a meaningful manager, the one who leads his path and his support values. Thus, leadership is one of the most common themes in the study of organizations, although "*this prevalence has not achieved the same prominence in the case of educational organizations, particularly in some geographic contexts*" (Trigo & Costa, 2008). It is in this sense that these authors invoke the model of Management based on Values "*breaking the most technical-instrumental aspects of traditional management theories can contribute to a shared reflection with the leadership of educational organizations, especially taking into account the conceptualization of leadership as a dialogue about values*" (Trigo & Costa, 2008, p.1). Still regarding coaching, it is recent buzzword in the field of leadership and motivation. The practice, however, is old (Rego, Cunha, Marcelino & Oliveira, 2004). According to the authors, it is no longer up to the leader to discover what is best - this is something that must be done by every teacher/individual. It is up to them helping to discover intrinsically how to best express their skills. Two meanings of the term *coaching* help understanding its application to the world of institutions: on the one hand, coach is the trainer, one who helps in the development of skills; on the other hand, it is a means of transportation, which explains the process of self-development as a journey of discovery and improvement (Perez, 2009). *Coaching* can be taken as a process that aims to foster self-knowledge and drive the desire to improve over time.

It is therefore a leadership philosophy based on the idea that the development and acquisition of skills are continuous processes and the responsibility of all, and not only episodes limited in time and coming from the hierarchy. The choice of a profession and its exercise contribute decisively to the identity of the individual and lead to different degrees of satisfaction. The inclusive school also needs to respond to teachers' problems in terms of their quality of life, well-being and mental health (Picado, 2009). Due to a need for intervention, Sampaio, Stobäus, Mosquera and Jesus (2012, p. 2) accompanied a group of teachers from 2005 to 2008 to evaluate "*stress and occupational exhaustion variables, coping strategies, self-image and self-esteem, trying to better understand the situations that cause dissatisfaction, as well as organizing interventions addressing issues of dissatisfaction vs. well-being*". We consider that in a complex and dynamic society the role of institutions, particularly educational institutions, is key. The way people know, think, and feel is an emerging issue. Within social cognition, psychosocial well-being is a variable that assumes a unique prominence in the areas of human sciences because of the underlying complexity and importance it has to the life of individuals. Given the increase in quality requirements, strategies are necessary to regulate efficiency with respect for and promoting the dignity of people and their rights, as well as the satisfaction of their needs. The organizational relationship is important for the development of adequate interpersonal functioning and provides unique opportunities for learning specific skills. Social skills (such as communication) have been related to the sense of well-being since through them individuals can develop more rewarding interpersonal relationships, greater personal fulfilment, development and professional success (Ackroyd, Batt, Thompson & Tolbert, 2006). Social skills also include assertiveness, cooperation, among others (Chaves, Galinha & Gontijo, 2017). According to the founder of modern Positive Psychology Seligman, it "*is the study of the positive experiences, personalities and positive institutions that allow the flourishing of individuals, organizations and communities*". Adaptation and de-

velopment issues, and even the various issues of human survival have been more closely watched given the suffering and loss involved. (Santos, Ferreira, Figueiredo, Almeida & Silva, 2010, p. 2, Seligman, 2007). According to Siqueira and Padovam (2008, p. 207), researches on "*identity, private components and interdependence between the traditional concepts of subjective well-being and psychological well-being, plus proposals about the design and the components of well-being at work, are all contributions that consolidate the principles of positive psychology*". For Cunha, Rego and Lopes (2013, p. 314),"*the premises that humans adopt influence the way they act*" because thought influences our action and the way we act towards others. We point out the importance of Martin Seligman's perspective within organizations in general, and educational institutions in particular, in the sense of building a positive holistic profile of capabilities and possibilities.

Several investigations have shown that a large number of teachers "*feel that their profession is stressful (...) and many are in a state of emotional exhaustion*". *The teaching profession may be considered "a profession of physical and mental risk*" (Jesus, 2002, p.14-15). "*In an effort to systematize the main changes that occurred with direct or indirect implications in the teacher's work*" Esteve (1991; 1992) highlights the increasing demands on the teacher, the educational inhibition from other socialization agents, the development of information sources alternative to school, the breakdown of social consensus on education, increasing contradictions in teaching, the change of expectations regarding the education system, the change in society's support regarding the education system, lower social valuing of the teacher work, changes in curriculum content, changes in teacher-student relationships, fragmentation of the teachers' work, poor working conditions, and scarce material resources.

Sousa (2008) considers important for teachers to be psycholog-

ically strong, mature and accomplished people, psychologically balanced and accomplished personally and professionally. The author emphasizes that the performance of the teacher can only be comprehended in a global manner, the cognitive part being associated with the affective and emotional part influencing its personal fulfilment. Only a good developed of these two aspects allow for choice and decision-making, freedom and self-responsibility, participation and innovation. Nóvoa (1992) points out that educational success involves the ability to teach individuals capable of permanent recycling, of acquiring new behaviours and skills, capable of responding effectively to the constant appeals of change. For the change to occur it is necessary for the individual to feel that such change will be favourable and that there will be no loss, being also important that he/she feels involved in the process of change. In order to deal with these constraints, the teacher has to develop specific professional knowledge that involves skills that allow constant articulation of analysis and action, reason and values, goals and constraints (Perrenoud, 1993). This specific professional knowledge involves analysing uncertainties and contradictions; managing obstructions, conflicts; anticipate the other's strategies and their consequences; negotiate commitments and weigh the advantages and disadvantages.

Keyes, Hysom, and Lupo (Gonçalves, 2008) mention to the need to perceive well-being in the development of teachers. As a social being, it is important how teachers relate to others and how they feel accepted as well as how they accept others, seeking and needing to feel balanced regarding the people with whom they relate to feel integrated in the group they belong. "*We can thus understand why teachers feel unsatisfied with the prevailing representations in society. Despite having professional training at a higher level than other sectors, there is no social recognition towards their function*" (Gonçalves, 2008, p.8). In order to feel good in their role, teachers need to feel that society values their work. Some of the teachers' sense of well-being is feeling valued for their impact on the lives

of their students and how they ultimately contribute to the development of society. Seligman (Passarelli & Silva, 2007) states that well-being can be named as a stable extroversion where the positive affect on happiness seems to be related to an easy sociability. According to Siqueira and Padovam (2008, p.201), Ryan and Deci (2001), current approaches to well-being in the psychological field can "*be organized in two perspectives: one addressing the subjective state of happiness (hedonic well-being), called subjective well-being, and another that investigates human potential (eudaimonic well-being) which addresses the psychological well-being*". According to these authors and Siqueira and Padovam (2008, p.201), based on the Greek definitions, "*these two traditions of study reflect distinct philosophical views on happiness: whereas the former (hedonism) adopts view of well-being as pleasure or happiness, the second (eudemonism) is based on the notion that well-being consists in the full functioning of a person's potentialities, that is, the ability to think, use reasoning and common sense*". According to Giacomoni (2004, p. 43), subjective well-being (SWB) "*is an area of psychology that has grown in recent years. This area comprises studies that have used the most diverse concepts, such as: happiness, satisfaction, mood and positive affection, besides also being considered a subjective assessment of quality of life. It refers to what people think and how they feel about their lives*".

Current perspectives define the "*subjective well-being as a broad category of phenomena that includes people's emotional responses, satisfaction domains, and global judgments of life satisfaction*". Still according to Giacomoni (2004, p.44), Diener indicates that there are three aspects of subjective well-being that should be emphasized: subjectivity - well-being resides within the experience of the individual; the understanding that well-being is not only the absence of negative factors but also the presence of positive factors; well-being includes an overall dimension and not just a limited measure of a life aspect. For Giacomoni (2004), the main theories

and explanatory models of subjective well-being have historically been presented in two large opposing blocks called *bottom-up* versus *top-down*: the main initial theories of subjective well-being were concerned on identifying how external factors, situations and socio-demographic variables affected happiness.

These approaches known as bottom-up are based on the assumption that there is a series of universal and basic human needs, and that satisfaction makes happiness possible, or not. According to Giacomoni (2004, p.44), "*other factors linked by these theories are experiences of daily pleasurable related to positive affection, as the opposite, unpleasant events associated with negative affection*". In short, satisfaction and happiness derive from those happy experiences (Diener, Sandvik & Pavot, 1991).

Social relations thus become necessary for well-being, just as the sense of well-being favours social relations (Passareli & Silva, 2007). Confirming these studies, empirical results indicate that people tend to experience suffering when they are not in any type of group or when they have poor relationships within their groups. All these studies indicate that participation in groups and subjects feeling integrated, accepted and valued in groups of the different life domains contribute unequivocally to the well-being. Ryff and Keyes (1995) presented in their well-being multidimensional model six distinct components of positive psychological functioning: positive self-evaluation and of previous life (self-acceptance), a sense of continuous growth and development as an individual (personal growth), a belief that life has a purpose (meaning) and meaning (meaning of life), quality relationships with others (positive relationships with others), adaptive capacity towards life and the surrounding world (environment control) and a sense of self-determination (autonomy).

Thus, by the Appreciative Inquiry method people may be involved in the planning of their collective future (Lopes, Galinha & Loureiro, 2010). Talks about the organization's positive core give meaning and enable those involved to share the best practices, enabling energy and the flexibility to change. The role of the leader in the MA process, that is, when people acknowledge the best in others, share their dreams and main apprehensions in an affirmative way, which shows the power of encouraging discovery, dreaming, planning , of destiny/creation, promoting and catalysing positive changes, and to participate equally on the opportunity to listen and understand creative ideas, hopes and dreams of all in the organization, acknowledging that their main work is to rise what is best, as states Rivero (2008).

An organizational culture based on courage, hope, optimism, resilience, cooperation, creativity, energy, positive emotions, trust, citizenship and wisdom is fundamental since the organizational environment is in some way a reflection of the organization's culture, that is, the reflection of the effects of such culture in the organization as a whole. The organizational environment is the indicator of the satisfaction level of its members regarding different aspects of the culture or the apparent reality of the organization, such as management model, mission, communication process, professional appreciation and identification with the organization (Álvaro & Garrido, 2007, Chicken, 2010, Chicken & Bridge, 2018 in press). The environment is the synthesis of the institutional variables of psycho-organizational type capable of reflecting the internal dynamics of the school. These variables are the school building, the distribution of classes, the school schedule, and the recreational activity, among many others. According to Sanchez-Vidal (2013), the analysis of mental processes and behaviours is valued, as well as the curiosity to test processes and environments (of socio-educational intervention with a view to personal and social promotion) that stimulate control in subjects, that is: the conscious and self-regulated use of

certain thought strategies according to the tasks or the formal or non-formal contexts with which they are confronted. The aim is to stimulate the adaptive capacity of the subjects, that is: to promote them from a cognitive and social point of view. The environment reflects values, system rules, history, communication means and how authority is implemented or whether it fosters empowerment. An open or closed environment depends on the leader's conduct and role regarding the control of situations and the promotion of cooperation (Ferreira, Neves & Caetano, 2001); leading to satisfied and proud collaborators, or unstable and not quite interested in the tasks (Vala & Monteiro, 2006; Cunha, Rego, Cunha & Cabral Cardoso, 2007). The environment concept applied to organizations suggests in its conceptual nature a multidimensional complexity of elements that influence how individuals behave. We share the importance of organizations as psychologically significant environments (Czikszentmihalyi, 2006; Sousa, 2006).

The etiologic view of the environment suggests that its perceptions are socially built by the following parameters: 1. Symbolic management (symbolic interactions can be directed and therefore are not always spontaneous); 2. Work group (interactions give rise to perceptions of the environment and normative social influence joins the informational influence); 3. Culture (where importance is given to the influence of the underlying hypotheses and the values of environment perception) (Vala & Monteiro, 2006). It is also characterized by a set of social practices. In a world marked by globalization, spaces of education acquire more and more significance so that individuals can discover the path for their completeness as human beings. Hence, it seems that the control and the development of a positive feeling or affection in institutions can determine the way in which each individual perceives and assesses events (Cunha, Rego, Cunha & Cabral Cardos, 2007; Marujo, Neto, Caetano & Rivero, 2007; Magalhães & Lobo, 2011).

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Fisica(Mente): from research to educational intervention

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Summary: This chapter comprises a brief description of the Fisica(Mente) project, which aims to study the relationship between physical exercise, quality of life and mental health variables. Afterwards, intervention proposals will be presented for promoting physical exercise, health and quality of life in higher education students.

Keywords: Education; Physical exercise; Quality of life; Mental health; Higher education

Introduction

The Fisica(Mente) project[1] was born in the academic year of 2013/2014 at the Education and Social Sciences School | Polytechnic of Leiria, joining interests of colleagues of the Department of Communication, Education and Psychology, members of the CIEQV - Life Quality Research Center (Polytechnic of Santarém and Polytechnic of Leiria). Considering the data from the World Health Organization (2011, 2014) on the importance of physical exercise in the perception of quality of life and mental health, this project aims at studying the relationship between these three variables in order to investigate, with the help of this knowledge, a proposal of intervention promoting the intrinsic motivation to practice physical exercise in higher education. Quality of life is defined by the World Health Organization (WHO) as a multidimensional concept that

1 Physical(ly) and Mind in Portuguese allow a wordplay that have no direct translation.

depends on both individual perception and contextual variables. Individual perception is influenced by physical and mental health, among others. Likewise, physical exercise has been presented as a variable that influences mental health and quality of life (ten Have, de Graaf & Monshouwer, 2011; Vasiliu, 2015, Stănescua & Vasileb, 2014). Given this conceptualization, it is key to understand the relationship between these three variables.

In general, the literature highlights the lack of a consensual definition of quality of life (Missbian, Etienne & Dupuis, 2007; Prebianchi & Barbarini, 2009). Most studies (Prebianchi & Barbarini, 2009) adopt the definition proposed by the WHO, which defines the quality of life as "*the individuals' perception of their position in life, in a cultural context and in a value system, regarding their goals, standards and life expectancies*" (WHOQOL Group, 1994, p. 28). This definition integrates physical health, psychological status, personal beliefs, interpersonal relationship, life context (Missotten & Fonseca, 2012) and a global psychological construction that reflects a conscious judgment on the actual satisfaction of the individual's own life (Joseph, Royse, Benitez & Pekmezi, 2014).

A key idea here is that individuals have unique perspectives on quality of life, based on their current lifestyle, past experiences, expectations and ambitions for the future. It is important to consider not only the multidimensionality of the concept but also its specificity, since it includes several factors related to well-being and functional capacity. However, although the notions of health, well-being, happiness and satisfaction may be related to the concept of quality of life, they should not be used as synonyms. In this context, Leventhal and Colman (1997) point out that "a perceived quality of life is not the same as functioning". As already acknowledged (e.g., O'Boyle McGee & Joyce, 1994), a measure of disease symptoms is a measure of symptoms, i.e., it is not a measure of quality of life. The same applies to measures of emotional distress (e.g., depression and anxiety), being quality of life a judgment regarding the different areas of life.

Being understood as a form of leisure, physical exercise can be defined as a type of physical activity that is planned, structured, repetitive and whose purpose is to improve or preserve the physical condition (Araújo & Araújo, 2000; American College of Sports Medicine, 2010). It is important to note that physical activity is linked to an increase in the amount of energy spent by the body. In this sense, physical activity and physical exercise are seen as privileged means of improving health (mental and physical).

As defined by the WHO, mental health is part of the concept of health. Thus, for this organization, mental health means a state of well-being that enables the individual accomplishing his/her own potential, cope with everyday situations, work and be able to contribute to the community (WHO, http://www.who.int/features/factfiles/mental_health/en/#). Schafetter (1997) also stresses the importance of the individual being able to cope with adversity "*despite the pressure exerted by the suffering caused by a somatic illness and/or by the pressure exerted by a society standard*" (p.12). Hence, the concept of mental health is, like health in general, defined not only by the absence of illness but also by the presence of well-being; the ability to cope with everyday life and contribute to the community.

In order to study the relationship between physical exercise, quality of life and mental health, a research protocol was established, integrating four assessment tools: *Contextualization of Physical Exercise Practice, created by the researchers for this study; Behavioral Regulation in Exercise Questionnaire 3* - BREQ-3 (Markland & Tobin, 2004); Brief Sympton Inventory - BSI[2] (Derogatis, 1983); and World Health Organization Quality of Life-BREF-WHOQOL-BREF (WHOQOL Group, 1994 administered to a sample of the Polytechnic Higher Education (Portugal). After the collection of data, the study assumed a quantitative methodology.

2 Since it was impossible to use a validated and measured mental health measurement tool for the Portuguese population, it was decided to use in this study a psychopathology measurement tool.

The fact that this study was carried out in a higher education context led the research team to hypothesize to create a set of active teaching and learning strategies that could provide students skills that would help them make decide to practice and maintain the practice of physical exercise. Using Deci and Ryan's self-determination theory (1985, 2008) as a conceptual basis, we considered moving forward with a set of active teaching and learning strategies that promote intrinsic motivation for the practice of physical exercise.

The intervention: strategies that promote intrinsic motivation

Deci and Ryan's self-determination theory (1985, 2008) claims that motivation to practice physical exercise is based on the satisfaction of three basic needs: autonomy (having freedom of choice, decision-making), competence (feeling capable of achieving goals) and interpersonal relationships (having cordial relationships with people). It claims that motivation can oscillate along a continuum that tilts between amotivation, extrinsic motivation, and intrinsic motivation. Amotivation corresponds to less self-determined behaviour, to the absence of value/meaning to practice physical exercise (without regulation). Extrinsic motivation integrates four types of regulation that vary according to the degree of value internalization and goals linked to the practice of physical exercise (external regulation, introjected regulation, identified regulation, integrated regulation). Intrinsic motivation corresponds to the highest degree of self-determination and considers that the subject has pleasure, interest, and satisfaction in the practice of physical exercise, feeling psychological well-being and joy in its action, persisting in it (Figure 1). According to Guedes and Sofiati (2015), subjects with motivational profiles closer to the intrinsic motivation tend to manifest more favourable attitudes towards practicing physical exercise (practice maintenance) when compared to subjects with profiles closer to amotivation and external motivation (practice drop out).

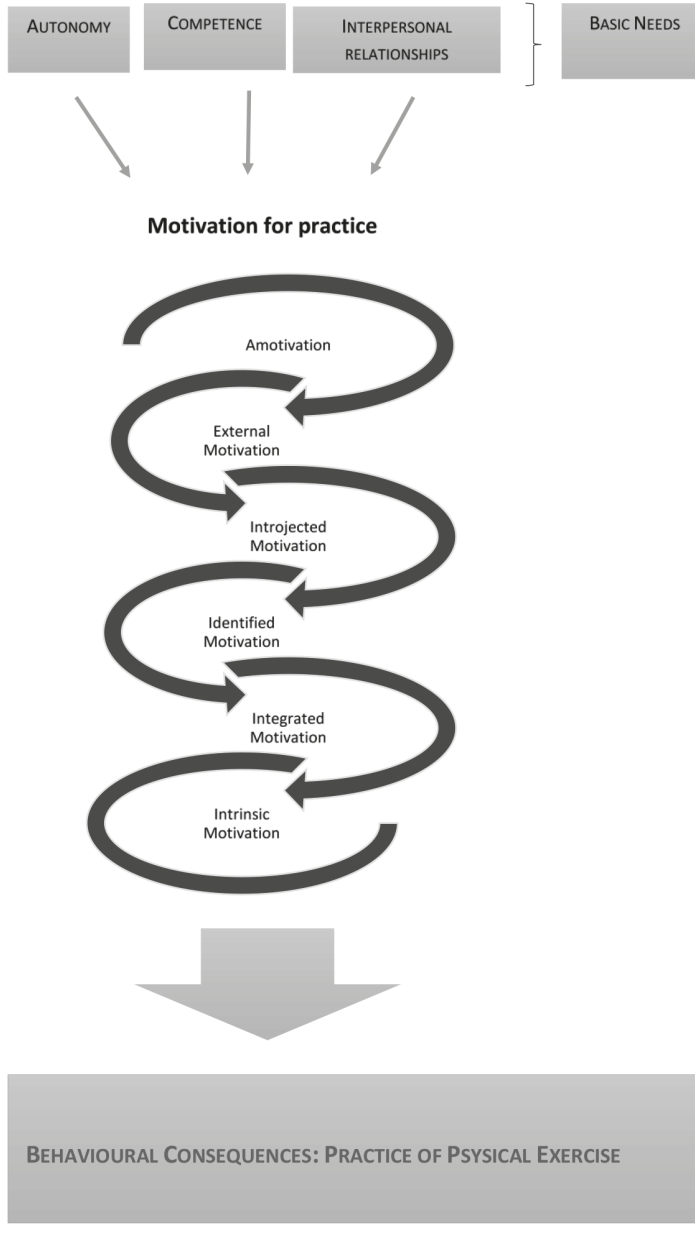

Figure 1. Self-determination theory (Deci & Ryan, 1985)
(adapted from Pires, Cid, Borrego, Alves & Silva, 2010, p. 34)

In this sense, and with the purpose of promoting the intrinsic motivation to practice physical exercise, we propose a set of active teaching and learning strategies.

The presented strategies are organized around two vectors:

(1) work with students in the classroom; and

(2) work in coordination with higher education professors from various subject areas, that is, comprising the scope of the School, various curricular units and several teachers (Table 1).

Table 1- Strategies to promote intrinsic motivation for the practice of physical exercise in higher education

Vectors	Strategies	Application proposals
(1) Work with students in classroom	Active listening groups	Debate of a movie
	Quizzes	Use at the beginning and/ or end of a session
	Case studies	Presentation of actual stories on the benefits of exercise
	Focus group	Interpretation of the results of the research project Fisica(Mente)
(2) Work in coordination with higher education professors of various subject areas	Experiential learning	Practice of a physical exercise program and assessment of motivation before and after practice
	Involvement of students in research tasks	Bibliographic research; data collection; database creation; statistical analysis; discussion of results
	Peer tutoring	Program for promoting intrinsic motivation for practicing physical exercise

According to Meyers and Jones (1993, quoted by Office of Distance Learning, 2011, p.75), "*Active learning involves providing opportunities for students to meaningfully talk and listen, write, read,*

and reflect on the content, ideas, issues, and concerns of an academic subject". In this perspective, it is important to get students involved and actively participate in their learning.

At the level of the work with students in the classroom in curricular and extracurricular context, we suggest the following strategies: active listening groups, quizzes, case studies and focus groups.

Using discussions can be a way for the student to feel committed to learning content and to stimulate critical thinking. The learning strategy based on small groups of active listening, followed by debate in a large group (Fonseca, 2017), can be applied to the viewing and analysis of a movie about physical exercise. Active listening implies that the student assumes a constructive role in a situation of transmission of information, assuming that he/she is not a mere passive receiver. Using collaborative work, this strategy aims to:

(i) direct students' attention to issues related with the programmatic content of the movie;

(ii) structure student participation in the large group debating the movie;

(iii) promote the construction of learning through image, writing and oral production.

Before the movie is viewed, an active listening process can be promoted by launching guiding questions and assigning tasks, requesting a written record, namely through short sentences and/or keywords. For example, prior to viewing the movie, the large group may be divided into several groups, to which different roles will be assigned, precise instructions given and scripts distributed with guiding questions to be filled in with keywords. The various groups will have the task to note different areas of information addressed in the movie for debate: one group will have to write down all the issues raised by the movie, playing the role of debate moderator, and another group will have the role of observer/rapporteur, sum-

marizing and returning in the end the main ideas discussed. Possible instructions for the two groups are presented:

- moderator group: *Your role is to ask questions. You should (i) write down all the questions that come to you when you see this movie; (ii) remain grouped and physically facing the large group, in a prominent position; (iii) moderate the debate*;

- observer/rapporteur group: *Your role is to write down the ideas that seem most important to you so that, after discussing and analysing the movie, you can summarize them in an organized way and without making critical evaluations or value judgments. (i) You should not intervene in the debate; (ii) you should remain physically outside the large group; (iii) when reporting the main ideas, you should not mention names, but say, for example, "a colleague mentioned" or "it was mentioned that"*.

The quizzes can be used at the beginning of a session to assess how familiar students are on the core aspects of the content to be addressed and/or used at the end of the work session to consolidate learning and assess the understanding of the worked topics. Quiz questions can be projected or written on the board and adequate time for students to respond shall be given.

Another strategy that may lead to greater participation by students, stimulating their participation and the involvement of all parties (Barkley, 2010) will be studying cases by presenting, for example, real stories of individuals in whom physical exercise had benefits in terms of their quality of life and mental health. The case studies allow the in-depth understanding of a situation in its real context and broaden the knowledge about a specific phenomenon.

Another proposal may be creating a focus group to interpret the quantitative results of the team results of Fisica(Mente) project (Abreu & Dias, 2015, 2016a, 2016b, 2017). This group may consist of study participants (higher education students) and/or other students and a debate facilitator discussion and a rapporteur (re-

searchers/trainers). Topics launched by the facilitator can be discussed by interaction of the group. It is therefore a focused discussion, useful to stimulate reflection, the sharing of different points of view, the presentation and confrontation of perspectives, sensitivities and perceptions on what may be involved in the motivation to practice physical exercise. Several advantages of this methodology have been pointed. Morgan and Krueger (1993), quoted by Silva, Veloso and Keating (2014), mention that the focus group provides insights on the origins of complex behaviours and motivations, with a change in cognitive structures and consequent self-discovery. Thus, we define as guiding steps to the dynamics and achievement of the focus group:

(i) contextualization of the theme through the study of the art (researcher);

(ii) presentation of the goals and results obtained in the study (researcher);

(iii) interpretation of the results in light of the experiences of each one and the results of other studies, presented at the beginning of the session (students and researcher);

(iv) analysis of the practical implications of research (students and researcher);

(v) organized return of the main results and ideas discussed (rapporteur).

In the stages of result interpretation and analysis of the study's practical implications, the dynamism of the researcher/trainer that is raising questions (partly predefined) to structure the discussion is essential. The role of the enabler is to question, listen, keep the conversation and make sure that all group members participate without running off the trail; he/she should not make any judgments (Silva et al., 2014).

Regarding the articulation work with higher education professors of

several subject areas, that is, of different curricular units, we propose the following strategies: experiential learning; the involvement of 1st cycle students (undergraduates) in research activities and peer tutoring.

Experiential learning includes regular practice of physical exercise over a semester, the assessment of the students' motivation before and after the experience/practice of exercise, and the return and discussion of the participants' results. This activity implies involving all the teachers so that they lead students of all school courses to practice physical exercise. Here, learning will take place through the action that will provide the transformation, emphasizing the role of reflection on the experience and the discussion of the results with students who practiced physical exercise.

Given the prominent role that research should play in higher education, which is an element to build knowledge and learning in perspective, encouraging questioning and the search for possible answers (Cabral, 2017), we consider important the involvement of students from the 1st cycle of studies in research tasks. In this sense, we propose their participation in the project Fisica(Mente). This will involve students doing a semester work in which they will collect data from themselves and three other colleagues (students) by using the research protocol above-mentioned. Participation of students in the research project will provide them the opportunity to collect data - while contributing to a developing database -, to analyse it statistically and to record and discuss the results. This activity may also involve searching databases of current publications on the subject; the creation of posters/leaflets/placards with motivational phrases for the practice of physical exercise; and participation as speakers in scientific meetings. It is an activity to be carried out in articulation with other curricular units and teachers, which should be divided into several tasks so that it can be part of the program designed for each curricular unit and its continuous assessment.

Peer mentoring, which is based on a cooperative learning approach, may be an interesting pedagogical strategy for peer support to promote motivation for physical exercise. In the scope of our work, we propose the creation of a program to train tutors (more experienced students), who will boost actions to get colleagues to practice exercise, creating a tutors' scholarship. Volunteer training should be based on communication and active listening skills and goal oriented (Pereira, 2013). Therefore, in this process there is a transfer of knowledge and practices between specialists, tutors and students. In this chain one also learns by teaching, being a process of personal development for those who help. Tutoring by students is a voluntary action, carried out in solidarity, motivated by the desire to support colleagues and to participate in the academic community. As such, this contribution should be valued, recognized and accompanied by the teacher(s).

Conclusion

The term quality of life has a growing interest in the qualitative aspects of life, raising the question "what is a quality life?" The adoption of an approach linked to the quality of life and health contributes to their understanding and, consequently, to the implementation of policies and application of educational strategies that favour the health of higher education students.

Assuming that individuals with motivational profiles closer to intrinsic motivation tend to manifest more favourable behaviours towards practicing physical exercise and maintaining this practice over time, when compared to individuals with profiles closer to amotivation and external motivation, who tend to drop out the practice (e.g., Guedes & Sofiati, 2015), we propose a set of active teaching and learning strategies that involve students in varied actions and that are sought to promote intrinsic motivation in higher education students for practicing physical exercise. We believe that the implementation of these strategies will have a double benefit on

the teaching and learning opportunities for students, also contributing to learning and training skills on different fields of science and activities, namely to communicate, critical thinking, debating and moderating a discussion, being a tutor and tutoring, leading and being led, among others.

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Day Care Project Group (Grupo Projeto Creche): training forum for promoting well-being

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Summary: This chapter presents the Day Care Project Group, its dynamics and operating logic throughout its nine years of existence. Designed as a training space with its own characteristics, it assumes its role in promoting the well-being of participants and their perception of quality of life.

Keywords: Education; Training; Well-being.

Day Care Project Group presentation

The Day Care Project Group started in the 2008/2009 school year at the School of Education and Social Science (ESECS) - Polytechnic of Leiria (IPL) driven by the need to reflect and research on the pedagogical work developed in kindergarten context with children up to three years old. It began working with a team of six kindergarten teachers (cooperators of the School of Education and Social Science//Polytechnic Institute of Leiria) and three teachers of the Initial Training of the Early Childhood Education course. Currently, in the academic year 2017/2018, the Day Care Project Group comprises a team of 15 members (3 Higher Education Teachers, 1 Education technician and 11 Childhood educators)[3]. All participants are of the feminine gender, with basic training in Early Childhood Education, Education Sciences or Psychology.

3 In institutional terms, the Day Care Project Group is part of the Strategic Axis 2 of the Polytechnic of Leiria: Research, Development and Innovation, specifically in section 2.1 - Research and Development.

Four of these 15 elements take over the coordination team (two Higher Education teachers, one Kindergarten teacher and one Education technician) and, in addition to participating in all moments of the group, they meet periodically to reflect on the work developed and to develop in the future, to support the ongoing work of each participant and to address administrative issues. The Kindergarten colleagues are working in institutions of the private, public network and/or private social solidarity institutions in the central region (Leiria, Batalha, Alcobaça). Aged between 27 and 56, the service time of each one is very different, ranging from 1 year to 32 years of work.

Existing for nine years, the Day Care Project Group has sought to articulate with the training at the School of Education and Social Sciences (ESECS), both at the level of the Basic Education degree and the Master's Degree in Pre-School Education and Master's Degree in Pre-School Education and Teaching of the 1st Cycle of Basic Education. In this sense, the Day Care Project Group aims at the continuous training of professionals in Early Childhood Education and, concurrently, the training update of Higher Education teachers. In addition to this partnership, the Day Care Project Group was invited in 2011 to establish a collaboration protocol with the Leiria-Pombal Hospital in order to assess the quality of its educational service.

Focusing on reflection and research of educational practices in the context of Early Childhood Education, the Day Care Project Group is also interested in studying its existence as a training and collaboration group. In order to make this training aspect operational, the Day Care Project Group meets periodically to share challenges, pedagogical experiences and ways of thinking, in a collaborative logic. In order to respond to the needs of participants, the group relies on two lines of work mediated by face-to-face sharing (Figure 1):

a) reflection (focused on educational experience) and

b) research (focused on pedagogical practice).

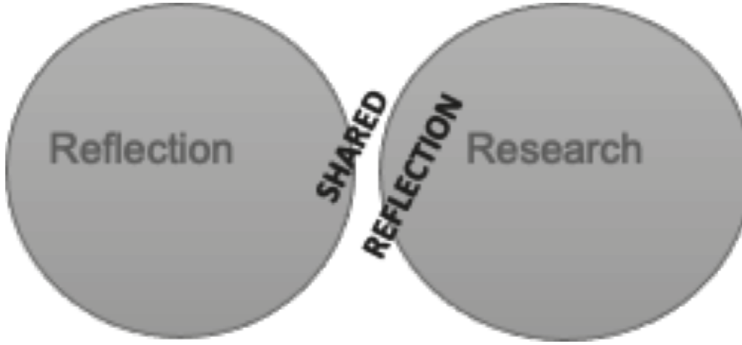

Figure 1. Reflection and research aspects of the Day Care Project Group

Reflection (*focused on educational experience*)

To operationalize the reflection aspect, the group meets once a month, on Mondays. The reflection meetings came from the group's need to think on situations emerging in the daily life of a Kindergarten teacher, which need a more in-depth look. These meetings are spaces to exchange ideas and professional experiences that, in confrontation and conjugation, allow us achieving new ideas, new and deep reflections on the education of early childhood, particularly with regard to Education in day care school.

These work meetings have an average duration of 3 hours and are usually held in the ESECS. However, once per academic year, the group moves to one of the working institutions of one of the group members to hold one of the reflection meetings, inviting the fellow educators of that institution to participate in this sharing of ideas. The group concluded that this possibility of gathering in other institutional contexts is an added value for all involved, elements of the Day Care Project Group and educators of the respective institutions. It not only facilitates dissemination of the work developed

to other colleagues, but also promotes the diversity of perspectives on Early Childhood Eucation. The last meeting of the academic year of the last two years was held in an open space, a space that combines sensitivity and rationality, affections and learnings.

Throughout its nine years of existence of the Day Care Project Group, these reflection meetings have already taken different formats, however, since the academic year 2012/2013 the group undertook a dynamic that unfolds around stories lived with children in different contexts (family, professional and others). These stories, which emerge at the beginning of the academic year, are written by each participant of the group and stored in a box waiting to be selected and shared by all the group members.

At each reflection meeting, one of the stories in the box is randomly selected to be read by its author and discussed among all group members after listening in silence. This dynamic has allowed us to confirm that the same plot/story inspires a diversity of ideas based on the personal and professional experience of each one of the group elements. This sharing is the essence of the group, being the core of the learnings and well-being of the different participants - sharing leads to evidencing the common pedagogical dimensions and to the discovery of new pedagogical dimensions that, when shared, are deepened and broadened. The extended debate allows individual ideas to assimilate and accommodate (Piaget, 1977b), and for new ideas to be included into each individual's unique view of the reality under study. Given the added value of the ideas built, it was agreed that an oral synthesis of the main ideas reflected by that story would be carried out at the end of each meeting (this work dynamics is documented in Couto, Fonseca, Kowalski & Correia, 2017).

In the academic year 2016/2017, the group agreed to extend the discussion to a randomly drawn educational action. Thus, the story discussed is rethought regarding *observation, planning, assessment, interaction with the family, interaction with the community...*

At the end of this fruitful discussion, the author of the story carries out the written synthesis of the co-constructed learnings and shares this document with all the group members. Considering that the reflection meetings are held monthly, every month the group has a new story to inspire deep reflections on early childhood education. It should also be noted that after each reflection session a minute is drawn up (under the responsibility of the group member who proposed to carry out this task), and all the elements of the Day Care Project Group write an individual reflection. Hence, each reflection session originates a minute, 14 individual reflections, a story that promotes multiple discussions and the results of these reflections reflected in learning.

Research *(focused on pedagogical practice*)

To discuss research-related issues, the group meets once every two months, on Mondays. These research meetings are spaces for sharing research interests and allow small work groups to be set up in order to start or continue research projects for one or two academic years. Each meeting is organized in three key moments: a moment in large group to share information and present one of the research works in progress; a moment of autonomous work for the small groups of educators/researchers to develop their study, and a final moment in which each group records what they did, what they learned, what questions/doubts were raised, and the next tasks (scheduling them). This research work developed over the years has allowed a deepening of important themes for the educational action in Day Care School. The group has been interested in studying, for example, early childhood development and learning (Dias, Correia & Marcelino, 2013, Dias & Correia, 2012), the educational relationship in hospital context (Leal, Carreira & Dias, 2014), Day Care School planning (Fonseca, Rodrigues & Dias, 2015), space organization in Day Care School (Lemos, Quaresma, Fonseca & Dias, 2015), the partnership Day Care School /family

(Oliveira, Rodrigues, Fonseca, Pinto, Carreira & Dias, 2016) or the construction of mathematical ideas (Lemos, Correia, Dias, 2016, Dias, 2017). These evidences of the group process are important pillars in the communication with the community, creating new scientific curiosities (Couto, Rodrigues, Dias & Correia, 2017).

In addition to participation in scientific events and the publication of articles, the group has shared with the community the scientific knowledge produced through newsletters (e.g., Newsletter 5: "Mathematics in Day Care Center". Day Care Project Group. Newsletter released for electronic mail. January 8, 2018. ESECS/IPL - Leiria).

Day Care Project Group: space for training and promotion of well-being

Building knowledge

The work developed over the years has created the possibility of fostering the creation of knowledge on early childhood education, especially regarding the education of children up to 3 years old. Through reflection and research it was possible to compile a diverse set of documentation that supports knowledge about Day Care, the Childhood educator in Day Care and the child at this stage of life.

In Newsletter 2 of 2016 - “The child in a Day Care context". (Day Care Project Group, Newsletter released for electronic mail on April 22, 2016, ESECS/IPL - Leiria) - we tried to mirror our knowledge on the following items:

Day Care Project Group: training space and for the promotion of well-being

i) about the Day Care Context

- a safe place, for family support/continuity
- a unique time in the lives of all parties that deserves being experienced without haste and without running over
- a place for interaction with the family
- a context that cares for the human being (children and adults)
- a context with differentiated but unique pedagogies
- a context that brings novelties every day, challenging professionals to study, research, question, seek to adjust their response
- a context that (still) does not validate the time of service of the kindergarten teachers.

ii) about the Day Care Childhood educator

- someone who seeks to involve the family in the educational process of the child
- someone who wishes to feel supported in the work carried out with children
- someone who values routines and who offers a space rich in differentiated possibilities for children
- someone establishing an individual and affective relationship with each child
- someone who gives the necessary time to each child
- someone who knows how to say yes and no to children and adults

- someone who wants to be heard in the decisions that relate to his/her work
- someone who intends to be a teacher in the first stage of human life.

iii) on the child

- someone who lives in various educational contexts, trying to fit to each one
- someone who uses multiple languages to communicate with others and to place within the context
- someone who is curious, observant, planning actions according to what he/she wants to discover
- someone who needs time for himself/herself and his/her discoveries; someone who plays, and while playing, knows and knows himself/herself and the world
- someone who builds autonomy in this first stage of development as a human being.

In Newsletter 3 - "Organization of space in Day Care context" (Day Care Project Group, Newsletter released for electronic mail on January 23, 2017. ESECS/IPL - Leiria) - we have disclosed the following knowledge:

... The educator has a determining role in his/her organization [of space] and in the documentation produced with the children. It was agreed that:

... materials should appeal to the child's comfort, encouraging his/her well-being

... there should be a dedicated space to the nappy change room and another for meals, in addition to the activities room and other

institution spaces (e.g. outdoor space)

... it is important that the activities room (1-2 years old and 2-3 years old) is organized according to the developmental/learning characteristics and interests of each group/age group

... space must be susceptible to possible changes, recalling its flexible and open nature

... it is important to have a space in the institution reserved for mothers to breastfeed their children

... it may be necessary to create a specific space for sleeping, which must be separated from the space where the activities take place, creating a quiet and comfortable environment

... it is important that the space has ventilation and that it provides good conditions of hygiene and safety (...).

In Newsletter 4: "Partnerships between the family and the Day Care professionals" (Day Care Project Group, Newsletter released for electronic mail on June 5, 2017, ESECS/IPL - Leiria), based on the knowledge produced. The following reflective challenges were raised:

... Thinking about the child, the organization of the Day Care space and the role of the Day Care Childhood educator in this context, there are some reflective challenges that we herein share:

What is the concept of family/childcare partnership that I have?

Is "the exhibition of children's work" evidence of this partnership?

To what extent does this partnership change my work with children?

To what extent does this partnership change the lives of families?

As an educator, do I feel good in this partnership? Do I undertake it pedagogically as a pillar of my educational action?

What strategies do I use to involve families in this partnership? (...)

In addition to these evidences, the Day Care Project Group has allowed the development of other important teaching knowledge in the field of Education. These learnings are at the level of:

- the assessment register of the children's learning and development
- the communication with the education auxiliaries
- the activities carried out with children
- the reflection carried out with children and
- the relationship with the various educational players (Quaresma, Dias & Correia, 2011)
- the assessment in crèche
- the role of symbolic play in the early years of the child development (Dias, Anastácio, Pinto & Correia, 2010)

According to Correia, Quaresma and Dias (2012, p. 412), the Day Care Project Group "(…) has been a possible path to transform educational practices and promote the development of reflective educators". This data is corroborated by Correia and Miguéis (2016, p.373) when they quote the words of one of the Day Care Project Group participants:

"It remains to be said that what I like best about this project is being able to learn more ... to be able to learn more about people, education, about myself, in short, to be able to learn always more... (p.9, November 2011)" and claiming that "this understanding of participants about the Day Care Project Group reveals that experiences in it allow to (re)build opinions (Sá-Chaves, 2000) on Early Childhood Education and the development of some competences the participants recognize as important ".

The development of well-being

Accepting the quality of life as the individuals' perception on their position in life within their cultural and values context, the relationship with their goals, expectations, standards and concerns (Gordia, Quadros, Oliveira & Campos, 2011; WHOQOL, 1994), the subjects' perception that their needs are being met, that they are being offered the opportunity to achieve happiness and self-accomplishment (Pereira, Teixeira, Santos, 2012), we consider the Day Care Project Group a space for training that fosters well-being[4] and the satisfaction of needs (needs created by personal and social development level) of the parties.

As factors promoting the well-being of the Day Care Project Group elements, we highlight the relationship between its participants and the sharing.

Relationship between Day Care Project Group participants

The development of well-being is fostered by the relationships created among the elements of the Day Care Project Group. According to Correia and Miguéis (2016; 2012), in the Day Care Project Group people feel good with each other, having a climate of trust and mutual respect that allows sharing feelings, ideas and sentiments (both at professional and personal level). It is recognized that listening and acting with the Other is important and necessary for each individual's growth and it is accepted that the responsibility is of everyone and towards everyone. This value of listening the

4 Subjective Well-Being: a positive dimension of Health, which assumes cognitive and affective aspects (Galinha & Pais-Ribeiro, 2005, 2011, Novo, 2005) and merges with other concepts such as quality of life or satisfaction and happiness. It integrates in itself the affection and satisfaction with life.

The Psychological Well-being [BEP] (Ryff, 1989), linked to eudemonia - happiness or well-being, in a sense of the fullness of the Being - it includes in its multidimensional definition self-acceptance, positive relations with others, autonomy, control over the environment, purpose in life and personal growth. Lawton (1983, quoted in Esgalhado, Reis, Pereira & Afonso, 2014) associates the concept with a general sense of satisfaction towards life and a positive mental health related to the person's internal state in his/her cognitive and affective aspects & Pais-Ribeiro, 2005; 2011; Machado & Bandeira, 2012; Novo, 2005).

Other is, in fact, a learning transferred to the pedagogical practice of the participants. According to Quaresma, Dias & Correia (2011), by participating in the Day Care Project Group, educators changed and learned to listen and respect different opinions, learning from these differences.

The sense of belonging and identity fostered through respect, empathy, openness towards the other, joy, satisfaction and trust (Amado, Freire, Carvalho & André, 2009) makes their elements feel part of a team with common goals and to which they want to belong. This sense of belonging leads to personal fulfilment and a sense of well-being. According to Correia and Miguéis (2012, pp. 72-77), the group "(...) is important for people both for its training character and [for] the sense of community".

The evidences regarding well-being are explained in the work of Leal and collaborators (2013, p.37) when they state that "(...) their feeling of pleasure and personal satisfaction emerges in the voice of the participants linked to positive experiences and feelings (...) Why do our meetings take hours and is there a generalized feeling of well-being? (R4)". As a positive experience encouraging positive emotions (Diener, Oishi & Lucas, 2003), participation in the Day Care Project Group confirms the emotional dimension of teaching, valuing it (Freire, Bahia, Estrela & Amaral, 2012).

Sharing is linked to the sense of well-being. The Day Care Project Group is a training space that provides the exchange of experiences among its participants, and this factor assists them in their pedagogical practice. As participants in the project, educators are looking for their role as professionals who share their experiences and opinions, support, collaborate and think together with other teammates (Quaresma, Dias, Correia, 2011). According to Gaspar, Seabra and Neves (2012), this process of peer sharing can be seen as an experience of personal emancipation and social transformation since it goes beyond individual logics and interests to take on board the change of each one and of the collective.

In our view, this reflective and sharing aspect provides participants a space/time of affection and personal satisfaction.

The past, the present and the future

By reading the path developed over the nine years of the Day Care Project Group 's existence, we feel that we have worked in a collaborative peer-to-peer logic and this has allowed developing personal and professional skills (e.g. teamwork, planning, reflecting,…), diverse learning (on educational contexts and educational action areas), creating pedagogical documentation that regulates reflection and educational action, participating in seminars and workshops aimed at the professional development of participants, publishing (our) findings in scientific events and national and international peer reviewed journals, rebuilding concepts and pedagogical actions, and co-building new skills in partnership (Figure 2).

Figure 2. Main results achieved by the Day Care Project Group

Currently, the group continues to make sense for us, both personally and professionally. In the group´s newsletter 1, "Day Care Project Group: Presentation" (Day Care Project Group, Newsletter released for e-mail on September 23, 2015, ESECS/IPL - Leiria), in which we were challenged to reveal the meaning of the group for each one of us, where we stated:

"Delightful group that reflects about children of Day Care age"
(Daniela Couto)

"Day Care Project Group - knowledge gained from the sharing of experiences and respective reflection"
(Edite Rodrigues)

"We are a stopping point where we feed to continue the journey"
(Isabel Simões Dias)

"A union for Early Childhood Education, a desire to be better at what we do"
(Sónia Correia)

"We are ... team, sharing, friendship, reflection, change, learning, being the children the focus of this project"
(Dora Fonseca)

"A group where the desire to learn is satiated by reflection and investigation"
(Cláudia Oliveira)

"A reflection group that respects us and challenges us to go further and allows to do research"
(Ana Pinto)

"A work group in which the team spirit allows the development of research in Day Care context"
(Verónica Fonseca)

"A group in which situations experienced are shared, discussed, studied with children in a pleasant, open and demanding way"
(Isabel Kowalski)

"A reflective space of shared knowledge where we (re) build knowledge"
(Ana Paula Carreira)

"The Day Care Project Group is a space to innovate and a space for learning, reflections and meetings on Early Childhood Education. It is a place to experience emotions and discover the best of us, the professionals"
(Ângela Quaresma)

"A collaborative learning group ... A space for sharing and reflection where the child is the common and main interest"
(Ana Lemos)

Even occupying a significant part of our time, the hypothesis of not continuing this work is not a possibility. We feel that this way of being in a group allows a true training space, with implications for the pedagogical action (whether in the crèche context, in a family context or in an initial or continuous training context). We consider that the interpersonal relations developed in the Day Care Project Group have gradually allowed us to find places of hope in our professional realities, in very difficult times. We hope that building the future will continue as it has so far - based on our needs and interests towards a personal and professional development. We would also like to see other groups emerge in the future, with similar or different logics, but as spaces to rethink the work carried out with children. We feel that this is an important way to generate solid transformation processes in our classrooms, institutions, educational community, in our country.

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GPC Grupo Projeto Creche

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