

HANDBALL TEACHING IN UNDER-14 TEAMS ACCORDING TO EXPERIENCED COACHES' DISCOURSES

*O ENSINO DO HANDEBOL NA CATEGORIA INFANTIL A PARTIR DOS
DISCURSOS DE TREINADORES EXPERIENTES*

*LA ENSEÑANZA DEL BALONMANO EN LA CATEGORÍA INFANTIL
A PARTIR DE LOS DISCURSOS DE ENTRENADORES EXPERTOS*

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Keywords:

Teaching.
Sports.
Handball.
Child.

Abstract: The aim of this study was to map teaching methods adopted by six experienced under-14 handball coaches. They were interviewed and the speeches were tabulated and analyzed according the method of Collective Subject Discourse. Results indicate that coaches prefer teaching through games. They also referred to teaching based on game situations, technical skills and combination of different methods (due to the diversity of stimuli and the development of different abilities and skills). The findings suggest that coaches' procedures are guided by generalist training and avoid the process of early sport specialization

Palavras chave:

Ensino.
Esportes.
Handebol.
Criança.

Resumo: O objetivo deste estudo foi mapear os métodos de ensino adotados por seis treinadores de handebol experientes da categoria infantil (sub-14). Os treinadores foram entrevistados e os depoimentos tabulados e analisados de acordo com o método do Discurso do Sujeito Coletivo. Os resultados apontam que os treinadores preferem o ensino por meio de jogos, também mencionam o ensino baseado nas situações do jogo, nas habilidades técnicas e na combinação de diferentes métodos (devido à diversidade de estímulos e desenvolvimento de capacidades diferentes). Conclui-se que os procedimentos pedagógicos estão pautados na formação generalista, e evitam o processo de especialização esportiva precoce.

Palabras clave:

Enseñanza.
Deportes.
Balonmano.
Niño.

Resumen: El objetivo de este trabajo fue identificar los métodos de enseñanza adoptados por seis entrenadores expertos de balonmano en equipos infantiles. Los entrenadores fueron entrevistados y las declaraciones tabuladas y analizadas de acuerdo con el método del Discurso del Sujeto Colectivo. Los resultados indican que los entrenadores prefieren la enseñanza a través de juegos y mencionan la enseñanza basada en situaciones de juego, habilidades técnicas y en la combinación de diferentes métodos (justificado por la diversidad de estímulos y el desarrollo de diferentes capacidades). Así, los procedimientos de enseñanza se orientan por el proceso de formación general, evitando la especialización deportiva temprana.

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Received on: 06-05-2014

Approved on: 02-12-2015



1 INTRODUCTION

Distinct and relevant aspects of the teaching-learning-training process¹ (TLT) and procedures used to address the specific elements of sports are important objects of study in the field of Sport Pedagogy (SCHMIDT-MILLARD, 2003). Sport Pedagogy also includes the study of educational aspects in different areas, based on the appropriation of body practices in and through sport (REVERDITO; SCAGLIA; PAES, 2009).

In addition, Sport Pedagogy is concerned with the education of professionals involved in the management and development of the TLT process, particularly with their understanding of the characteristics surrounding that process, such as the mastery of teaching methods (rather than just repeating procedures experienced as athletes) and the importance of students as core elements in that context (EGERLAND; NASCIMENTO; BOTH, 2009, NUNOMURA; CARBINATTO; CARRARA, 2013, MENEZES; MARQUES; NUNOMURA, 2014, REVERDITO; SCAGLIA; PAES, 2009). Nevertheless, discussions on more effective methods for teaching collective sports games (CSG), with emphasis on technical and tactical elements, have been object of concern among many authors in the field (GRÉHAIGNE; GODBOUT, 1995, GARCÍA HERRERO; RUIZ PÉREZ, 2003, PÉREZ MORALES; GRECO, 2007, MESQUITA; PEREIRA; GRAÇA, 2009, SILVA; GRECO, 2009).

Handball is an invasion CSG and has a complex environment in which players must use distinct technical and tactical elements to reach their respective objectives, such as scoring a goal or preventing the opponent from scoring. In this scenario, relations of opposition and cooperation emerge between players (GARGANTA, 1998) that are present from early stages to high performance training (EHRET *et al.*, 2002).

Handball's children's category encompasses players aged 13-14 and is considered the transition between formation and decision stages (next to specialization) (GRECO; SILVA; GRECO, 2012). For Ehret *et al.* (2002), that stage is called basic training, which precedes formation training (started in the cadet category, with 15-16-year-old players) and succeeds basic training (finished in the 11-12-year-old category). Baratti and Casali (2008) point out that in the children's category, handball can be worked in a specific way, but without being oriented towards specialization.

In the children's category, we emphasize that the rules of some competitions² may have requirements addressed in the 11-12 year old category, such as mandatory individual guarding for a certain period of time, and include aspects of the subsequent category (cadet, 15-16), which allows zone-based defensive systems throughout the game. Thus, in some competitions, the game consists of two 20-minute halves, and using individual defense systems is required in the first ten minutes of each and it may or may not be maintained during the final ten minutes of each half.

1 This study will consider the teaching-learning-training (TLT) triad based on Greco's (1995) proposal, according to which teaching and learning are consolidated in training, and the latter does not necessarily refer to sports specialization, but to practice and experiences (as pointed out by Galatti, Paes and Darido [2010], who call that process "teaching, experiencing and learning").

2 Rules of distinct institutions linked to handball were consulted, such as: a) Confederação Brasileira de Handebol (CBHb), available at http://www.brasilhandebol.com.br/Admin/Anexos/000490_Regulamento%20Geral%20de%20Competi%C3%A7%C3%B5es%202013.pdf (including topics related to the use of defensive systems) and http://cbhb.com.br/Admin/Anexos/000598_REGULAMENTO_%20CB%20INFANTIL%20DE%20CLUBES%202013.pdf (including changes in defensive systems); b) Federação Paulista de Handebol (FPH), available at http://www.fphand.com.br/images/stories/regulamento_menores_2012.pdf (includes 2012 rules, where game length is set at two 25-minute halves); c) Liga de Handebol do Estado de São Paulo (LHESP), available at http://www.lhesp.com.br/anexos/Regulamento_2014.pdf (including changes in defensive systems according to time elapsed).

Because it is an intermediate stage between introduction to handball and specialized training (EHRET *et al.*, 2002), whose rules for competitions focus on the development of players' individual and collective characteristics, coaches' roles must be considered. Players' technical and tactical improvement a responsibility of coaches (MELLO; COZAC, 2013), as well as ascribing value and meaning to the competition and forming young players who are able to make intelligent decisions in the technical and tactical scenario (MATIAS; GRECO; 2010, RAMOS *et al.*, 2011). Therefore, studies that seek to map technical and tactical variables in training become relevant.

Canciglieri *et al.* (2008) interviewed seven basketball coaches to map the methods applied to train pivots and they found coaches' confused and ignorant about concepts such as sports technique. Milistetd *et al.* (2009) interviewed ten volleyball coaches to analyze functional specialization requirements in players' (long-term) sport education. The authors point out that respondent had plural ideas when the central theme is players' specialization of functions, and there is no consensus on the ideal age to begin the process of specialization by position in the game (specific position).

Ramos *et al.* (2011) interviewed four basketball coaches (with over ten years' experience) in order to understand the way they learned their profession. The authors revealed that there was great appreciation of practical (or problem solving) knowledge by coaches and that training purposes were often influenced by their personal experiences.

Considering the complex scenario of the game and coaches' duties, studies that seek to understand pedagogical procedures adopted by coaches to train players become important, as well as how to handle the TLT process. From the previously published studies with different CSG, specific themes emerge for each sport.

Distinct CSG teaching methods can be used to provide handball experiences for players, including: a) the analytic-synthetic method, focusing on technical elements unrelated to tactics; b) the global-functional method, related to teaching through games of various complexity levels; c) the situational method, based on functional units extracted from the game itself that culminate in reduced situations (GRECO, 2001; MENEZES, MARQUES, NUNOMURA, 2014).

Thus, the questions driving this study were: "What are the teaching methods used by experienced coaches in handball teaching in the children's category?" and "What are their reasons for using each teaching method for CSG?" We start from the initial hypothesis that the TLT process occurs in plural form from several incentives offered to players in order to enable them to understand handball in its entirety, i. e., technical, technical-tactical and game systems. Against this background, the aim of this study was to point out and discuss the teaching methods used in handball children's category from the discourses of experienced coaches.

2 METHODOLOGY

The sample included six São Paulo-based coaches linked to representative municipal teams (all Physical Education graduates, here called S1, S2, S3, S4, S5, S6), considered experienced (mean age: $42.7 \pm 6, 4$; time working as coaches: 18 ± 5.9 years), with impressive results in the main competition of the state (first three places in the first and second leagues). The coaches signed a free and informed consent form, previously approved by the Ethics

Committee on Institutional Research, ensuring confidentiality of their personal information and the exclusive use of the information for academic purposes.

Access to human thinking is an important aspect of qualitative research, and its exteriorization from human consciousness can be retrieved (LEFÈVRE; LEFÈVRE, 2003). Due to the discursive nature of the data, the statements were transcribed, tabulated and analyzed according to the Collective Subject Discourse method (LEFÈVRE; LEFÈVRE, 2003; 2012), which starts from discursive open questions with subjects, from which their thoughts and opinions on a given subject are identified (LEFÈVRE; LEFÈVRE, 2003). Those thoughts may not be made explicit by quantitative or observational research (MARCONI; LAKATOS, 2011). There is concern with the level of reality that cannot be quantified and is full of meanings, significances, beliefs and values (MARCONI; Lakatos, 2011).

CSD preserves the discursive nature of opinions, besides sharing similar views that can be assembled as a single synthesis-discourse. It is assumed that individuals who are part of a certain social group do not necessarily share similar ideas, and that could generate disagreements over certain assumptions and procedures.

Thus, CSD reveals different categories of thought in the sample studied, even if we consider the same subject and configure different discourses (CSD) with their own labels. Similar ideas can be identified and reconstructed from an inductive base on a set of individual discourses, in which each CSD gathers and coordinates the different arguments of a certain opinion. That fact preserves the discourse of collective thought from formulation of questions until it culminates in the presentation of results.

The goal is to express the thought of a community/collectivity by aggregating isolated parts of individual discourses, in which the consistency and constitution of each of the component parts are preserved (LEFÈVRE; LEFÈVRE, 2003; SANTANA, 2008). For this, three methodological figures are important in the CSD method: a) key expressions (KE): verbatim transcripts of discourse excerpts that reveal the essence of the statement from the segments in which it is divided; b) core ideas (CI): brief, reliable and objective descriptions of the meanings of certain discourses on the topic, so as to reduce the polysemy of discourses; c) the Collective Subject Discourse (CSD) itself: preparing a first person discourse from the set of KE having the same CI (LEFÈVRE; LEFÈVRE, 2003).

Thus, from their possible groupings and reconstructions it is possible to express the collective discourse rather than reducing all discourse to a single category, which would amount to simplistic quantification of discourses (LEFÈVRE; LEFÈVRE, 2012). In presenting results, CIs captured from discourses will be expressed (with the coaches who mentioned each of them) and the DSC corresponding to each CI. Authors such as Santana (2008), Menezes (2011), Marques *et al.* (2013) used the same method in studies about sports to analyze discourses of coaches, officials and athletes.

Coaches' statements were individually collected in pre-scheduled places and dates (out of the training schedules of their teams), with a semi-structured interview instrument (MARCONI; LAKATOS, 2011) whose guiding question was: "*How do you think the activities/exercises in the children's category should be?*" The choice of qualitative research is justified by an attempt to access descriptive information, and the researcher's attention is directed to the meanings attributed to facts and processes (not to products) (TRIVIÑOS, 1987; SANTANA, 2008).

To validate statements and evidence in participants' discourses, after the transcription of interviews, the content was sent by email to subjects, so they could check and make any changes necessary, but no such request was made.

3 RESULTS

Table 1 shows three CIs captured in discourses (CI-1, CI-2 and CI-3), the coaches who mentioned them and the corresponding CSD (CSD1, CSD2 and CSD3).

Table 1 – IC and DSC corresponding to coaches' discourses

CI	CSD
CI-1: Priority to offer games as a teaching strategy (S1, S2, S4, S5, S6)	CSD1: In the children's category, I think that the idea of games remains, ^{S1, S2, S4, S5, S6} with lots of playing situations, ^{S1, S6} but you can work within your planning, it would not be all game sessions, you can put a game preceding a content. ^{S2} If you have to work on passes in this category there has to be always defense; there is always incentive to pass, with a question to ask, ^{S1} but the priority is still games, ^{S2, S6} although to a lesser extent than in the pre-children's category. ^{S1, S4, S6} They will play, they will enjoy it, but there is punctuality to pass the ball to who's got the ball and the way to pass it. ^{S1} I'd put a little more specific game in that sport, short games, where you can have an experience of the game, of the great game. ^{S4} You should try to do more directed games, ^{S5, S6} like, let's play a game where you have to score at the end, to take down the cone there, and you place the pitch as a priority in activities, ^{S5} where you use pass and pitch from time to time, you focus on pitch, all activities defined have to have shots on goal, or throwing something on a target. ^{S5}
CI-2: Preference for the balanced use of different teaching methods (S1, S2)	CSD2: I can't see the work only with the game, because the game will not create an expert; by working only on analytical aspects you emphasize the technical part, but you don't work on a view, a concept of the game; and you have the game situations you need to work on, so there's no way I'll stick to one. ^{S2} More directed exercises will appear, attack and defense; more targeted exercises to shoot, to pass; row of 3, row of 2, pass in columns, to fix some things. ^{S1} So, you will work on a game based on what you will work in that training session, but it's not a closed exercise, you will work with several combined exercises; if I'm going to work pass, I can do combined exercises of pass and dribble, or a game related to that in a playful way, or a combined exercise of that content. ^{S2}
CI-3: Preference for using methods linked to technical development (S3, S4)	CSD3: I think the classic exercise of one facing the other begins to be more like the game, it starts to demand some things that will happen at the game, to catch the ball moving, to catch the ball with the right foot in front, I think that's it. ^{S4} In the children's category I already begin with 2-2, using displacement, and making lateral passes, I start with some displacements in triangle, I do 2-2 doing displacement forward and recovering; with cones: raisin, touch that cone and return, go to the bottom and return. ^{S3} Then we only moved forward, now even the eight will come in (or trio, or braid) that is so hard to do, it will not be used in the game, just.... ^{S3} I already come in with all passes, if we can't do it, we will improve it gradually, because it will have improved by age, the child is growing up, so it becomes easier to see it. ^{S3}

Source: Authors

4 DISCUSSION

Teaching through games occupies a prominent place in the children's category, as pointed out in CSD1 (consisting of discourses of most coaches – S1, S2, S4, S5 and S6), whose account stresses the importance and relevance of active learning methods (HOPPER, 2002 PÉREZ MORALES; GRECO, 2007) in which learners are considered the core of the TLT process. From this perspective, games are used as a means to teach handball contents

based or not on formal game structure and elements, but which keep the complexity of the game environment (DIETRICH; DURRWÄCHTER; SCHALLER, 1984, LEONARDO; SCAGLIA; REVERDITO, 2009, MENEZES; MARQUES; NUNOMURA, 2014) and their invariants, namely rules, ball, game space, teammates, opponents and target (BAYER, 1994).

In CSD1, coaches show the importance of games as a central element in the teaching of handball, which, being an active form of learning, strongly appeal to the tactical development and allow the construction of that knowledge based on the diversity of stimuli (PÉREZ MORALES; GRECO, 2007, LEONARDO; SCAGLIA; REVERDITO, 2009, SILVA; GRECO, 2009, MENEZES; MARQUES; NUNOMURA, 2014). This assumption contradicts the analytic-synthetic method discussed in CSD3, whose purpose is the development and improvement of specific technical gestures (pass, pitch and reception in handball) disconnected from tactical learning, based on reproduction of the high performance model.

According to Ehret *et al.* (2002) players in the children's category should play more than exercise in an analytical and fragmented way (based only on technical learning), mainly to cover the individual technical and tactical education that encompasses the understanding of the game's dynamic scenario. The game environment, with uncertainties and unpredictable aspects, is subject to sudden changes triggered by players' technical and tactical behaviors within apparent disorder, in which the parties cannot be understood and do not even have any meaning if they are fragmented (GRECO, 2001, LEONARDO; SCAGLIA; REVERDITO, 2009, MENEZES, 2012). The complexity of this dynamic scenario requires flexible tactical behaviors from players, which allow them to adapt quickly to the impositions of problem situations and make intelligent decisions (GRECO, 2001).

It is understood that the interactions among players (expressed in cooperation and opposition relations) require great flexibility of their tactical behavior, notably capabilities for perception, attention, anticipation and decision-making (MATIAS; GRECO, 2010). Ehret *et al.* (2002) point out that players should not be tactically limited; creative play should be favored freely through different allocations of gaming space, different targets and numerical relationships between attack and defense players. These assumptions are covered by teaching through games in which changes in invariant parameters can benefit the learning of certain contents.

CSD1 explains the importance of games to maintain the oppositional relationship while it reproduces dynamics similar to those found in formal game, notably from the different phases of the game (attack, defense and transitions). In this context, Garganta (1998) points out that a cooperative relationship allows players to express their individual capacities so as to favor the team's interests. Moreover, maintaining the game structure between attackers and defenders becomes essential because of the importance of CSG offensive and defensive, especially: keeping ball possession, progressing towards the opponent's target, maintaining the complexity of the game, and scoring (offensive ingredients); recovering possession of the ball, preventing the opponent's progression, and protecting the target (defensive principles) (BAYER, 1994; GRÉHAIGNE; GODBOUT, 1995).

Although the coaches interviewed point to the importance of using games in the TLT process in the children's category, they sustain that it occurs in a lower proportion to the pre-children's category as pointed out by Antón García (1990). Education through games turns to the development of players' ability to solve problem situations imposed by the technical-tactical scenario, so coaches reveal their biggest concern with the effectiveness of technical gestures

(whose execution includes strategic-tactical requirements) regarding their efficiency (regarding the execution of a movement with greater accuracy and minimal energy expenditure). Still, it is possible to present the advantages of the situational method that. Since activities are developed in simpler situations that allow tactical work with more specificity, it also enables greater attention to technical gestures required in the game context (with no defined stereotype).

In CSD2, coaches (S1, S2) point to the need to diversify the teaching methods applied, using those that provide players with varied training and covering both tactical and technical aspects. The arguments raised by those coaches explain their concern at the continuing practice by the players involved, since presenting different stimuli in addressing a particular content and promoted by different teaching methods transform the learning environment in a motivating and challenging space (SANTANA, 2005).

Concern with long-term engagement of young people with sports practice is an important point in respondents' discourses. Traditional sports training processes are based primarily on two perspectives: early specialization and the "initiation, specialization, high performance" triad. However, in both perspectives, individuals who fail to stand out in some of the stages risk to be excluded from the sports development process. Therefore, coaches' concern with diversifying practices and training practitioners who understand the meaning of the game – being autonomous regarding the problems presented – are ways to develop a sporting culture that keeps people engaged in adulthood, even if they do not reach high-performance levels (MENEZES; MARQUES; NUNOMURA, 2014).

This perspective resonates in literature, for example, in the Development Model for Sport Participation (DMSP), which proposes three different formation trajectories for sporting culture in the long term (CÔTÊ; BAKER; ABERNETHY, 2007): a) varied practices during the initiation and continuity in recreational interests throughout life result in participation in sport as a leisure content; b) the same initial practices of the previous one, but with a process of sport specialization after puberty, result in participation in high performance and leisure; c) early sport specialization.

Coaches point to some difficulty to choose just one method of teaching through the process of training players (CSD2). The first point refers to the fact that teaching through games would not be sufficient to form a player specialized in a given position. By contrast, coaches also say that the analytic-synthetic method is insufficient for understanding the game, since its exercises treat contents apart from the game context, with an emphasis on improving technique (GRECO, 2001; MENEZES; MARQUES; NUNOMURA, 2014).

The situational method was mentioned (still in CSD2), as well as the other methods, based on the assumption of working specifically on certain contents. Coaches (S1, S2) say that certain contents could be worked through different stimuli provided by the principles of the different teaching methods, so that the emphasis can be on the quality (efficiency) of the movement, its effectiveness in the game environment or the solution of problem situations. Thus, the complex environment promoted by the different games would allow the concurrent development of an effective technique for the problem situation imposed (HOPPER, 2002).

García Herrero and Ruiz Pérez (2003) indicate that effective player development in sport implies good mastery of specific technical skills and their tactical knowledge, and suggest that greater knowledge of sport could be promoted if both (technical and tactical mastery) were guided

by tactical intention. Based on their findings, the authors point out that players who trained based on tactical guidance developed more declarative knowledge when compared with those who had only technical guidance.

Note that each method can make a different contribution to player's formation, both by improving technical elements and by questioning the technical and tactical context of handball as games or reduced situations. From this perspective, we should consider intentionally increasing players' repertoire of decisions based on methods that use games and reduced formal game situations (MENEZES; MARQUES; NUNOMURA, 2014).

In CSD3, coaches (S3, S4) point out the need to improve technical elements (foundations), especially pass and reception, based on analytical exercises which originate from the fragmentation of each technique. Coaches justify the choice of analytical method due to age group, and they believe that there is a technical improvement trend only related to this factor. Malina, Bouchard and Bar-Or (2009) show that in that period there is an increase in boys' and girls' growth due to the intensification of the maturation process. Rapid growth of body extremities of individuals in pubertal period may result in less coordinated movements, which contradicts the justification pointed in CSD3 that age group alone would be responsible for improving technical quality. We also understand the need to diversify the stimulus at that age, especially in terms of game experiences for players to develop their repertoire of solutions and movements.

Greco, Silva and Greco (2012) report that in that age group, the choice should be not to specialize players in certain playing positions (specific positions), and that by suggesting plural training, technical training should be conducted in general and focus on development of coordinative skills based on problem situations. This perspective corroborates DMSP (CÔTÈ; BAKER; ABERNETHY, 2007), especially regarding the challenge of early sport specialization as a successful model to form high-performance athletes or leisure practitioners.

Regarding plural training and the concern of our respondents about maintaining players' engagement in practice, there are two important categories. Even though they are not mentioned in discourses, they are a key component for sports initiation processes linked to diversification of experiences: a) deliberate plays or games, defined as intrinsically motivating physical activities "with immediate reward, specifically designed for maximum fun" (CÔTÈ, 2013, p. 64); b) deliberate practices, which are structured activities that require effort "usually without immediate reward and motivated by improving performance and enjoyment through practice" (FRASER-THOMAS; CÔTÈ; DEAKIN, 2008, p. 319). Other characteristics of deliberate practice are explicit rules, generally required adult involvement, and proper physical facilities (CÔTÈ; BAKER; ABERNETHY, 2007).

Côtè (2013) points out that diversified sports initiation consists of a large load of deliberate games and a small load of deliberate practice. In the course of the sports training process, with the start of the specialization or investment stage, for example, the reversal of that offer begins with the increase in deliberate practice until reaching high performance with the gradual reduction of deliberate games.

Therefore, the situational approach involves the technique of teaching without unlinking it from tactics. Both aspects could be learned concurrently (GRECO, 2001), as well as the use of the global-functional method encompassing skills from other CSG – assumptions that challenge the priority on analytical and synthetic method. Ehret *et al.* (2002) point out that at this stage in

player development, a wide range of sports should be offered so that training can be as varied as possible and allow the development of coordinative skills.

Although that is a stage in which the approach to specialized training begins, varied experiences should be advocated as approached by Ehret *et al.* (2002) when they point out that all attackers must go through all positions. Corroborating the authors, Greco, Silva and Greco (2012) indicate that this stage marks the beginning of the offensive positional game that should be developed primarily on different defensive systems. However, employing the analytical method in this stage as a guide (based on a model designed in high performance) may be wrong, since many players begin practicing handball at that next stage or the next one (cadet category) (MENEZES, 2010).

Greco, Silva and Greco (2012) add the importance of developing tactical and technical capabilities and consequently tactical intelligence, based on the situational method. For that stage, Antón García (1990) suggests as strategies the development of the joint game, increasing demand for effectiveness and varied teaching situations, which shows the importance of teaching through games that include offensive and defensive operational principles (BAYER, 1994, GRÉHAIGNE; GODBOUT, 1995) and the idea of offensive (when the ball is recovered) and defensive (when possession is lost) transitions.

General education enables the development of distinct abilities by players, of offensive and defensive technical and tactical elements, of concepts of pair and odd (GRECO; SILVA; GRECO, 2012), of the understanding of those concepts in the technical-tactical scenario of the game, and the continuity of the offensive action chain (ANTÓN GARCÍA, 1990). The concept of pair, odd and attack on the interval is consolidated with attackers' understanding of the use of court spaces on individual guarding, culminating in the adjustment of their movements on different defensive systems that present specific problem situations to attackers. The importance of using individual defensive system in that category is also worth noting because it allows the development of players' perceptual, motor and cognitive skills, such as turns, un-guarding, searching for the pass line, guarding and continuing offensive and defensive games.

Given the above, two views were observed in the guiding question of this study: the first view advocates the games and the importance of using different methods (consisting of S1, S2, S4, S5 and S6) while the second view favors training players based only on the automation of their movements (mentioned by S3). These highly opposed views indicate the emphasis on different pedagogical procedures in the children's category that suggest general training (underscored by the first view) or specialist training, and they refer to the specialization of players in handball (underscored by the second view).

Therefore, most coaches interviewed support teaching through methods that focus on development of skills involved in intentional problem solving (while only S3 advocates teaching based only on the technical aspect), either through games or specific handball situations. Thus, in view of the findings in the literature that highlight the benefits of using global-functional and situational methods, most coaches proposed that the TLT process is guided by activities that favor the development of interlinked tactic and technical skills to the detriment of decontextualized technical education proposed by S3 on the analytic-synthetic method.

Greco, Silva and Greco (2012) describe in general terms that the TLT process should seek to develop capabilities like perception, anticipation and decision-making which, among

others, are values of an intelligent player (MATIAS; GRECO, 2010) and that provide general education. The coaches interviewed (except for S3) seem to support Greco, Silva and Greco's (2012) remarks, mainly from possible developments in DSC2, which point to formation mediated by several methods; in DSC1, whose emphasis is on teaching through games associated with the understanding of handball's technical and tactical scenario.

Different teaching methods can be employed to provide beginners with contact with handball contents, and which are not necessarily specialized in handball or in game positions with specific technical and tactical assumptions (MENEZES; MARQUES; NUNOMURA, 2014). Therefore, the variability of stimuli offered to players aims at the development of different skills through several experiments in environments that add to the complexity of game relations. Thus, teaching methods focus on developing different technical and technical-tactical skills, which are interrelated in the complex environment of the game. Note the importance of stimulation, game proposals and deliberate practices as a means of pedagogical support to a diversified sports education directed at understanding the complexity of the game.

Thus, the choice for teaching through games or reduced game situations seem to find important support both among coaches interviewed and in literature, while allowing the development of different skills related to problem solving.

4 CONCLUSION

As an invasion CSG, handball has specific characteristics and may be guided by pedagogical procedures other than those approaching individual sports. Among those, we highlight games that question the technical and tactical scenario of the game set by cooperation and opposition relations. The demands imposed by the logic of the game and the complexity of its environment point to methodological procedures that consider such aspects and allow training players who can make deliberate decisions on the problem situations presented.

The increasing use of active teaching methods pointed out by different authors, such as teaching through games and situations extracted from the game itself, was also the option of most coaches interviewed in this study. Using the game as a teaching tool is justified by several authors (ANTÓN GARCÍA, 1990, DAOLIO; MARQUES, 2003, GARGANTA, 1998, GRECO, 2001, LEONARDO; SCAGLIA; REVERDITO, 2009, PÉREZ MORALES; GRECO, 2007, SILVA; GRECO, 2009) who link aspects such as improving players' creativity and tactical thinking as well as maintaining a complex environment as it appears in handball. This view is supported in this study in relation to the analytic-synthetic method, whose criticism surround reduction of the game to their technical elements, the exhaustive repetition and application of de-contextualization of those elements (GRECO, 2001, MENEZES; MARQUES; NUNOMURA, 2014).

It is important that in the category studied (children's), pedagogical procedures allow players to enjoy several stimuli and are based on general education in which they can play in different positions and in challenging environments. Thus, the analytical method, which focuses on fragmented teaching of technical elements of the game, can be used in a general coordinated manner in order to avoid the early specialization process.

This study was intended to contribute with aspects related to the formation of handball players in the children's category, based on interviews with experienced coaches in the state

of São Paulo. One aspect that could be investigated from the perspective of Sport Pedagogy refers to the lack of uniformity between rules of distinct institutions that organize handball in Brazil, which imposes barriers to TLT process in the children's category.

A limit to the study was the analysis of the handball teaching scenario in the State of São Paulo, which does not reflect the entire national scene. A possibility of extension of this work would be to conduct these interviews with coaches from other regions of Brazil and/or of men's teams.

One possibility for future studies is the systematic observation of training sessions in order to complement the analysis of coaches' discourse and approximate their descriptions to what has been happening in practice sessions.

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