

Application of Games Model Training in Football Based On Multimedia

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Abstract—Complexity of Soccer Must be given in training sessions with use special tasks with the aim of increasing interaction and increasing the ratio of player participation in decision making. The ability to choose an appropriate response in a game situation is a type of decision making that requires several types of knowledge, including knowledge of the game and goals and knowledge of action in the context of the game situation. The purpose of this paper is to provide an overview of game training models in Soccer training patterns that can help players to play efficiently and effectively with the right decisions in soccer. The results of this paper will be a guide to migrant training programs based on multimedia, to train players to play Soccer with the right level of decision.

Keywords—games model training; soccer; multimedia

I. INTRODUCTION

Soccer is one of the most popular sports in the world because it can be done by men and women, children and adults with various levels of expertise. Despite its universal nature and soccer history over a hundred years, there is still a lot of uncertainty about its multidimensional requirements (physiological, psychological, biomechanical, etc.) and therefore uncertainty when planning an exercise is less than optimal. Soccer performance depends on several factors such as technical / biomechanical, tactical, mental, physical and physiological to achieve maximum goals and achieve the best performance during the match [1-4]. Individual technique, tactics and physical resources are all important when evaluating performance differences in soccer [5].

Soccer performance is not only affected by technical skills, a player's major influence on his match performance [6]. Soccer games are very complex because the field is very large (about 100 x 60 m), the ball is played with feet and head and there is interaction between teammates and among the eleven opponents, almost all have different roles during the game [1]. Because various movements are involved in this sport, a number of factors such as technical ability and endurance capacity are thought to affect the performance on the pitch [3].

The complexity of soccer games must be given in training sessions using special tasks with the aim of increasing interaction and increasing the ratio of player participation in

decision making [1]. Therefore, need the ability players to quickly suppress their motor responses and make a new decision ('inhibitory control'). In short, a player should be able to adapt his in such away planned actions, that he makes a good, quick and effective decision based on the changes on the field [7]. Although good physiological abilities are important in team sports, the players are also required to have technical skills and well-developed decision-making abilities [8]. In addition, players are often asked to show quality in situations under high levels of pressure and fatigue. In high performance sports it has been well documented that the maximum benefits are achieved when the training stimuli are similar to competitive demands [9]. This is in order to reproduce the physical, technical and tactical requirements of the real game [1,5,10].

Soccer is played by two teams consisting of 11 players who play in an area of about 110 mx 80m. As soccer is a team game, priority in preparing players for match-play must be their own individual capabilities so that the group becomes an effective competitive unit [10]. Often tried to present skills first and then put them in game situations, hoping that the application of those skills will surface. Unfortunately, the majority of teachers and coaches find that only a few of their students can effectively make the transition [11]. Sometimes a training implements skills first and then puts them in a game situation, hoping that the application of these skills will appear in a game. Unfortunately, most teachers and trainers find that only a few of their students can effectively make these changes. One of the main reasons for this problem is that most people believe that players who have a good pregnancy already have the prerequisites necessary to carry out tasks in game situations. While the demands of soccer games require players to have more than just technical skills or physical abilities to be successful. However, effective games are intertwined with the right opportunities for decision making. Therefore, good players in soccer are players who have the knowledge to make decisions in a timely and effective manner.

A. Small Sided games

Soccer are played on a fairly large field and 11 versus 11 players. However, in a training it usually reduces the number of players and the size of the field called Small Sided Games

(SSG). SSG is one of the most common exercises used by coaches for soccer training. Whereas in the past SSG was used to develop technical and tactical capabilities, but is now applied by many amateur and professional teams as an effective tool for aerobic exercise [12]. SSG is widely used during soccer training. This game allows players to experience the situations they face while playing in actual matches [13]. There are many uses rather than the application of exercises SSG including On the other hand, different SSG designs can be used, such as games without space orientation where the main objective is to keep ball possession, or games with specific space orientation in terms of invasion where the goal is to score in small goals without goals or regular goals with goalkeepers (invasion play) [14].

A format SSG different can be used, such as an area-free game where the main goal is ball possession, or a game by scoring in small goals without a goalkeeper or goal with the goalkeeper. In this context, few studies have analysed the effects of the format SSG and the types of goals / objectives on the physiological demands of football. Effective performance is required of a player in football, because soccer games require a variety of movements, such as: jumping, moving direction, dribbling, sprinting, controlling the ball under the opponent's pressure, running at different speeds, and changing positions, that's all depend on aerobic and anaerobic metabolism. Furthermore, studies have found that soccer players cover a distance of 8.6-14.2 km and perform between 1,000 and 1,400 four-to-six-second activities during a match [3]. Judging from these opinions, soccer games are aerobic and anaerobic activities. Competing within the elite level of the sport, professional soccer players are expected to have the best physical skills and complementary demands of contemporary soccer. In particular, superior aerobic capacity, muscular strength, power, and repeated sprint abilities (RSA) could be critical components to combat the limited ball contacts encountered during match play [15].

Soccer players are expected to have well-developed physical abilities that complement Football technical and tactical demands needed during the game / match. In particular, good aerobic capacity, muscle endurance, strength, and repeated sprint abilities can be an important component during a match. High-intensity, intermittent team such as water polo, Soccer and hockey require athletes to have well developed speed, muscular strength and power, agility, and maximum aerobic power [8]. The incorporation of sport specific speed training in the early phase of conditioning should contribute to the improvement of specific anaerobic performance components: acceleration, maximal speed, and agility [16].

In a soccer match, it is very important to improve the player's ability to maintain long-lasting activities during a match (90 minutes) and can limit fatigue at the same time, which means that players need aerobic and anaerobic resistance. Most trainers have used running without ball training to develop the exercise (physical, technical, tactic & mental) aspects of the player. Impellizzeri et al compared the effects of SSG with traditional aerobic exercise on physical abilities and objective measures of match performance in Soccer [10]. The results of this study indicate that SSG and

traditional aerobic running exercises contribute equally to aerobic resistance in young soccer players.

B. Game Training Model

Soccer games require decisions (tactical dimensions), actions or motor skills (technical dimensions), special movements (physiological dimensions), directed by decision making and emotional states (psychological dimensions). Each training method is directly related to the principle of the game and wins work in matches. With simple words, how the coach wants their team to play according to the desired concept of the game.

Bunker and Thorpe show that: the uniqueness of the game is a decision-making process that precedes the execution aspect of performance in the game itself [17]. Postulated that the ability to choose appropriate responses in game situations is a type of decision making that requires some type of knowledge, including knowledge of the game and goals and knowledge of the action in the context of the game situation [17].

To me, the most important aspect in my team is to have a defined game model, a set of principles that provides organization. Therefore, since the first day our attention is directed to achieve that [18]. The most important aspect of the team is having a defined game model, a set of principles that provide the organization. Therefore, from the first day our attention was directed to achieving that.



Fig. 1. Moments in soccer [18].

From the picture above it can be explained that in the game of football the moment has a momentum that is attack (Attack), Defend, Transition from defending to attack and Transition from attack to defensive. Each moment must be given to trainings so that players have a skill that is balanced by the right level of decision at the right moments. So that the performance becomes efficient. An ergonomics model allows training to be considered as interfacing with the demands of the game on the one hand and with the capabilities of players on the other. This principle is underlined in the case of young players whose talent is to be developed concomitantly with natural growth and development processes. In this instance, priority is given to deliberate practice and acquisition of game skills and awareness [10].

C. Multimedia

Multimedia-assisted teaching and learning multimedia has become a standard form of education or coaching. In sports, multimedia material has been used to teach practical aspects of courses, such as motor skills. The Multimedia Analysis of Sport Skills (MASS) program was developed by Mc Kethan and Everhart for the purpose of augmenting classroom instruction [19]. Who defines multimedia as the computer-based integration and independent manipulation of continuous and discontinuous presentation media. Multimedia offers new exciting chances for learning. Learn how to acquire knowledge by means of structured information being presented in several modalities, they can learn wherever and whenever they like. They can make use of interactive and interactive presentations like animations and simulations. Therefore learning with multimedia is expected to be more activating, more motivating, more flexible, more authentic and more efficient than traditional learning. Soccer is now able to place on a part that leads to the modernization of sports. This is because Soccer has implemented technology that requires basic understanding, technical understanding and understanding of the system to play it.

II. METHOD

Descriptive method is used to describe the game model in soccer training, it can help players efficiently and effectively when making decisions in playing football through applications in Android / iOS.

III. RESULT AND DISCUSSION

A. Game Model Training

Soccer players must be able to adjust their planned actions according to specific situations, so as to make good, fast and effective decisions based on changes in the situation on the ground. Trainers often use Small Sided Games (SSG) in soccer training programs, SSG is an efficient form of training to optimize training time due to fitness achievement without sacrificing skill performance and decision making. Therefore, they are used extensively to improve physical fitness levels and also technical and tactical performance in a variety of soccer needs [1]. The assumption that SSG can simulate workload and physiological intensity is equivalent to the actual game play, and can also develop technical and tactical efficiency [11]. The structure of the football game consists of four phases of the game (attack, defense, transition, Set Piece).

Regarding game ideas, practice must be applied to the game model. Planning that is tailored to the needs of teams and players is important to solve collective and individual problems, sectoral and cross-sectoral. Preparation for competition is optimized when technical, tactical and physiological requirements are integrated in the planning cycles. Such a holistic approach favours the use of exercises with the ball as far as it is possible.

IV. RECOMMENDATIONS FOR COMPETITION USING GAME MODEL WITH MULTIMEDIA APPLICATION

Learning with multimedia - concepts for developing and tools for building applications [20]. Therefore, the concept of game model training is made in an android application multimedia as a football training guide that can be used by soccer coaches. If attention and focus are the foundation for learning, then the use of multimedia is a powerful pedagogical tool because it captures the greatest number of senses and sparks imagination [17]. Today's football shows a football game with maximum work quality Soccer matches are characterized by high-intensity activities interspersed by brief recovery periods [22].

V. CONCLUSION

The game models in this paper are arranged in a weekly program. Each training material by applying 3 phases of football (attacking, defending, transition) is integrated into an application that can be used on Android / iOS. The use of this application aims to facilitate the coach / player in understanding the training material to improve the player's ability to make decisions at each phase of the soccer game situation. However, it is now thought that one can develop technical skills, decision-making skills and aerobic endurance in the same training session using SSG, both of which contribute to the level of physical activity and ensure the use of more efficient techniques.

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