

**203 - THE COLLECTIVE INTELLIGENCE IN THE COLLECTIVE SPORT**

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**INTRODUCTION**

The research presented and discussed in this article intends, from investigations carried out in various situations, emphasizing the relationship: collective intelligence and sport. However, it is perceived that this research presents itself as a process of construction, because, as any process of building science has its limits and possibilities in the continuing search for knowledge.

Echo (2009) reports that the search for new knowledge, the generation of scientific knowledge in order to corroborate or refute any hypothesis or theory in existence, enables learning to the individual who carries out research, and for the society in which it develops and, aware of the limits and possibilities of this work, we have the intention to present it and submit it to critical appraisal.

Science, today, holds discoveries almost every minute, change the information in a very rapid process, and must be attentive to changes and processes of scientific, human and social development. It is understood that the reason led us to arrive at this stage, this level was on the core techniques in practice, its empirical facts and laws developed and forming the element of continuity, which was being improved and expanded to throughout the history of mankind.

To investigate the collective intelligence and its relationship and contributions to collective sports, especially basketball is the focus of this article because in the basketball game knows the importance of individual decision-making from the collective and the time allowed to a basketball player to raise his actions both defensive and offensive, is in the context of game situations and therefore directly related to their participation in the collective, which form a basketball team.

It is clear that the player within a basketball game is pressed and forced to solve a practical and immediate problems arising from the situations that happen during the game, using it to perform a task, a fact which implies a conscious decision.

Regarding the task, Magill (1994), states that motor skill is an act or task that requires movement and should be learned with the intention to run properly, and that sport is a job motor skills. It is understandable then, that the tasks to be performed mostly depend on the collective intelligence of the subject with the situation, causing the player, in the case of basketball, catch the right moment to perform a certain task. However, to be conducted, states that it is necessary that the player has intelligence individual sports, in addition, the individual skills, because it will depend on the collective success

It is understood that the basketball, the sport as a collective, has over the years become a track mode. During the offensive and defensive actions played in the game occur succession of efforts at different levels of intensity, and are held in different movements and rhythms that requires players decision-making in minimum time, it means, seconds, which are due of tasks performed in the collective team and should be understood adequately with the objective to develop both the scientific method, and those who practice it.

Daiuto (1984), states that the game of basketball is formed by a set of races, jumps and throws, is the ultimate sport of coordination of movements and rhythm. Given the author's assertion, it is understood that this can occur when a player, for example, jumps to obtain a defensive rebound and fall in the soil, even for the owner of your team to deliver him the ball through a pass, so that it organize a move, it is, fighting back and organizing it, and also stay in hopes that the players in attack without the ball and try to move a completion offensive to encourage his team.

Note that in order to coordinate all these movements the player needs to perfect the education of their movements, techniques and perceptions, which in turn is obtained by repeating the essential gestures, performed under safe guidance and pedagogically driven during the teaching process since the initiation of the technical, that is, when is the inclusion of children and adolescents in sport, to the improvement. it ensures that it is named as individual skills, to then use it collectively for the benefit of all.

But if the player has commitments in his motor intelligence, and the acquisition of technical skills related to the fundamentals of basketball, he can not interfere collectively, that is, the group will not be able to interfere with the individuality of that person.

It is known that the game of basketball, most of the actions of players, both offense and defense, involve time, and this is measured mostly in the countdown, (cbb, 2008). A period of an offensive team in the game, after getting the ball within the "space" of the game (block) is at most 24 seconds, and if the team fails to make the conclusion of the attack this time, throwing the ball in the basket that is attacked, commits a violation. Therefore, to deliver possession to the opponent, and some authors, among them (Guariz, Shigunov & Silva, 2000), argue that the number of ball possessions in a game influences considerably the final result. That is, the game of basketball decision-making as a result of individual features of the game, to be precise, consciously adopted and in favor of the collective success of the team.

**DEVELOPMENT**

Contemporaneously it is noted that the world is changing and are accelerations in different sectors. But one sector that is evolving is the realm of telecommunications and to have sufficient proof of the speed in which they build new electronic equipment and cameras, among them computers and mobile phones.

It is known that the computers daily, in the past, in mid-1990, particularly those used in the banking sector: they were too large, with little capacity for memory, today are increasingly sophisticated and can store an endless amount of data, it seems that the smaller the equipment, the greater the speed and information processing. They will also have many different functions designed to make life easier for people who use them.

For Lévy (2007), the rate of technology change on an almost daily basis are causing transformation in the world and humans, and therefore the technique is one of the most important issues to work on philosophical grounds. To my mind, it is undeniable that the world is the era of telecommunications, we simply look around you, because change is beating the economy and politics. Thus, instigates human wisdom. Points out further that the power of communication is such that mobilizes political

and ideological schemes causing the economy to dictate standards for society, and to this ideology as a whole, which is part science, which applies the technique, modifying the state of things productive.

Given the opinion of that author, you can realize that people are thinking more, they are communicating more, and as a result, they are practicing to live together with each other and therefore with the world.

But, warns that in Brazil, currently, there are initiatives for the organization and creation of virtual communities that can not go much further. Perhaps this is justified because of the lack of commitment to the community, or agents that facilitate and organize work, and the function of providing management tools and organization of available technologies.

Given some statements of Lévy (2007) is understood to be moving, now is no longer move from one point to another planet, but through universes of problems in different ways to explore our little space. With that presents the current technological revolution in which we stand.

Another issue that draws attention is the experiences of the anthropological revolution (LÉVY, 2007), using a technique that achieves all sizes. Drawing a parallel technique, which Lévy says that you can achieve all the dimensions, it is said also that it is achieved through levels of development quite different if it is applied with the people in a basketball game, for example. In a game on applying the best technique is to define the winning team and to this end, we must create working conditions in which individuals can take charge of this technique as a means of action in a game and in parallel in the word.

It is argued in this text that the game of basketball, properly oriented to develop the best technique of movement, actions and behaviors, will see players, social subjects, unique development opportunities, which will be essential to their social life.

### THE ANTHROPOLOGICAL SPACE IN BASKETBALL

Anthropological space is recognized by Pierre Lévy (1999, p. 22) as a "system of proximity of the human world itself". It verifies that in this space there is the dependence of the technique, language, culture, meanings, conventions, and representations of human emotions. All of this is that it allows the birth of an anthropological space. This anthropological space is born of the "interaction between people" (LÉVY, 1999, p. 125) because, as stated by Lévy (1999, p. 126), "human beings live not only in physical space, or geometry", that means not only interact in a space. people live, and for a long time in various other places, affective, aesthetic, social and historical. Areas of meanings in general.

And why not say: anthropological space of the game where there are areas of defense and attack to be exploited by actors who are the players, and that use of individual skills to effectively achieve success in the collective and, in parallel to extend this development to their lives as subjects of society: technology and information.

And why not also say that there is a dependence on technique (technical basis), language (an arm move); of culture (body culture movements); of meaning (sense and meaning of human languages); convention (pact with the previous training); representations (abstraction and ideation of a move) and human emotions (pleasure and satisfaction for his performance in the game).

Regarding the technique, states that to meet the minimum requirements of a basketball game, the athlete must have adequate mastery of the technical foundations of this sport. Such domains can occur both in the offensive system as the defensive and involve both the control of body and ball control. Still, the commitment to the team with the collective to which it belongs.

It is said that the control of body refers to all the movements that the athlete does without the ball; and ball control: every movement that causes the ball, both of them, control of body and ball control occur exclusively within the territory of the game, which needs to happen to teams that make a commitment, each according to his group and according to their goals, allowing an unquestionable commitment to the collective work.

It is understood that both the body and the ball control, in turn, when executed properly, that is, with proper technique, work together for the organization in a tactical move to flow normally, and thereby acquire the technical individuality, and commitment to the group, the collective efficiency.

The space within a territory, specifically named in this article of the playing is equally distributed between attackers and defenders, constituting local confrontation for its appropriation, interpretation and use by players, which face each other, embedded in rules established for the game and at that time.

Basketball, according to the classification of sports (GARGANTA 1998), can be characterized as a sport of opposition and cooperation, which involves actions in sync between two teams, as follows: attacker and defender, occupying the same time, which is the game time, a common territory. Thus, this direct contact provides interaction between adversaries participants, who, according to their needs, work consciously to his team, aiming to achieve what was planned, trained and takes shape in a game.

However, we know that basketball is composed of specific skills (individual techniques), making them mostly in a continuous and/or grades, and that are performed in an open environment in which teammates, opponents, limits time and space determine the unpredictability, making the basketball dynamic, not only for those who practice it, but also for those who attend.

Despite, this dynamic exists in the game between attackers and defenders, consequently space defense and attack, includes these areas a very human, social and cultural, which will create differences in terms of the concepts of space, place and the skills, both defensive and offensively.

Although both subject teams faced are intrinsically linked and the place only exists because of the space, which makes a space in place? What are the agents responsible for this metamorphosis?

You could say that the process of creation of posts is to transform a single and large reality into units acyclic by registering symbolic orders (construction of a move by the owners of the team), and representational: negotiated and established, often through conflict by attacking and defending players, each seeking his place and within the territory which is called a court.

Make sure that the common area for players, called the court, enclosed by boundary lines, is the game of basketball, and there are several technical fundamentals of offensive and defensive set, totally dependent on the individual skills of each player.

Ensures that the active player within the court does not have adequate technical skills necessary to assist in the collective, can significantly compromise the performance of his team.

One of the technical fundamentals of basketball that is considered individual is the pass, and without it does not make the collective. The pass is the rapid movement of the ball, a crucial factor to overcome the opposition defense, or enabling an effective attack. In this case, specifically, the group depends on the individual skills, as each player must keep the technical quality of their movements to contribute to the success of his team.

But not only individual skills, too, the individual intelligence helps each member of the group that will use the collective and beat your obstacles, overcome difficulties and make use of the technique, which will certainly allow the team success.

In a game, it is known, there is not only offensive action of a collective team, there are different offensive strategies, defensive, time, space, integration of players, set-pieces, etc. This must all be trained before, so at the appropriate time, adding individual actions within the game space, do promote the collective and win the long-awaited success of the team. Therefore, individual intelligence contributes to achieve the goal of the strategy, using the collective intelligence to achieve success.

Inserted in the intelligence, they are multiple, and in the case of sports games stands out, especially the bodily-kinesthetic intelligence and spatial, there are also emotional intelligence, which is the feature that allows players to control their emotions and which is achieved with a stability and maturity necessary for the proper development of the practice of basketball.

Regarding the body-kinesthetic intelligence knows that the guy who owns it has great potential to use his body to express himself in artistic and sporting activities, for example, an olympic gymnastics champion or a famous dancer, of course, have this well-developed intelligence. In spatial intelligence have the individual ability in the interpretation and recognition phenomena involving movement and positioning of objects in the case: a basketball player at the time of the game, so easy to observe, analyze and act with respect to the movement of his teammates with the ball.

In addition, the emotional part, which greatly influences the performance of athletes and the final outcome of a game. It was agreed that it is not unusual encounter teams to feel overwhelmed by the opponent waver and surrender to the pressures exerted by both fans and many time for his coach, a fact that becomes a bad presentation into a real disaster, coming to the point that many athletes can not control his rage and anger, becoming uncontrollable. Compromising his rationality. Therefore, do not resist, become violent, even to the aggression of his opponents inside the playing court or outside it, an extremely unfortunate, and it occurs not only in basketball, but in various sports.

### CLOSING REMARKS

The existing spaces on the playing team sports, especially basketball, have been the subject of some studies to examine the different strategies that reside in the offensive space.

Many coaches, and players, has been concerned with issues relating to training methods and means capable of measuring the performance of players and teams, established through research, the causes that are part of the competitive environment.

With this research is to discover procedures for improvement, as well as for better performance of players and teams in general, that when they are in competition.

It is said that the conduction of research and searching for information related to strategies for action within the space that is the playing area, various means are used. Among them the observation (Scout) of the actions of players in the game, and can thereby detect the performance of each of them within the space "court", and from there, using advances in technology, analyzing data, it is really possible to think in game strategies.

It is understood that collective intelligence is a distributed intelligence, enhanced and coordinated in real time and consistent with the real time clock game of basketball, resulting in effective mobilization of multiple skills. Collective intelligence in the actions of basketball whether offensive or defensive is basically sharing of cognitive functions such as memory, perception and what was learned individually in order to be shared for the benefit of the collective.

But for players to use them, necessarily, have to be augmented and transformed by technical systems and strategies because, according to Lévy (2007), "Collective Intelligence only progresses when there is cooperation and competition at the same time", that is, when the scientific community, businesses and individuals themselves are able to exchange ideas (cooperate), confront opposing thoughts (compete) and thus generate knowledge.

Thus, it will be possible only when there is a collective consciousness in the use of intelligence, which seek solutions to problems through actions and common interests within the game, is the main goal, besides making critical to achieving more effective results.

Therefore, the analysis of the game space with actions technically trained and run by players, can bring interesting findings, influencing significantly the use of certain instruments by professionals, always with a view to improve the tactical systems, so grounded in the data collection during observations of the games actually made with the team.

It is concluded that the place of the game must be completed with care and technical skills by the players, who are actors in this show, without losing sight of its commitment to the collective team, because only in this way a team will reach all dimensions in the play space, whether defensive or offensive, and can, through technique and improvement of technical training from systematically planned and organized to succeed and achieve the long-awaited victory.

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### THE COLLECTIVE INTELLIGENCE IN THE COLLECTIVE SPORT

Science, today, has discovered almost every minute, the information change in a very quick process, and must be attentive to changes and processes. It is understood that the reason led us to arrive at this stage, this current level was the core of practical techniques, empirical facts and its laws, which make up the element of continuity, which was being improved and expanded over the history of mankind. To investigate the collective intelligence and its contribution to collective sports, especially in the basketball which is the focus of this work, especially when the time allowed to basketball player in mobilizing his actions both defensive and offensive is in the context of situations, which are the real situations of the game. Basketball is a game of speed, and appear each time occurrences that lead players to think quickly, and there are also changes and frequent changes of attack and defense, forcing the athlete to change the situation quickly. For Lévy (2007), the rate of technology change on an almost daily basis are causing transformation in the world in humans and therefore the technique is now one of the most important to work in the epistemological field. Drawing a parallel technique, stated by Lévy, that can reach all dimensions, then it also believes that through it, you can achieve perfection in a game, therefore, come to win the basketball game, because the game has two spaces, the defenders and the attackers, while a common ground for players that move on it: the court.

**KEY WORDS:** Collective intelligence, basketball, technical.

### L'INTELLIGENCE COLLECTIVE DANS LE SPORT COLLECTIF

La science, aujourd'hui, a des découvertes presque de minute en minute, les informations changent dans un processus très rapide, et on doit être attentif aux changements et aux processus. On entend que la raison qui nous a conduit à en arriver à ce stade, est le niveau actuel des techniques pratiques, des faits empiriques et de leurs lois, qui constituent l'élément de continuité, qui est actuellement amélioré et élargi au cours l'histoire de l'humanité. Rechercher sur l'intelligence collective et sa contribution aux sports collectifs, en particulier le basket-ball, est le point central de ce travail, surtout quand le temps alloué au joueur de basket-ball dans la mobilisation de leurs actions à la fois défensive et offensive s'inscrit dans le contexte des situations, qui sont des situations réelles du match. Basket-ball est un jeu de rapidité, et apparaissent chaque fois des événements que conduisent les joueurs à penser rapidement, et il ya aussi des changements et des transformations fréquents d'attaque et de défense, ce qui oblige l'athlète à changer rapidement la situation. Pour Lévy (2007), le rythme du changement technologique sur une base presque quotidienne est à l'origine des transformations dans le monde des humains et par conséquent, la technique est maintenant l'un des thèmes plus importantes de travailler dans le domaine épistémologique. En faisant un parallèle aux techniques, a déclaré Lévy, on peut atteindre toutes les dimensions, alors il croit aussi que grâce à elles, on peut atteindre la perfection dans un jeu, donc, gagner le match de basket, parce que le jeu a deux espaces, celui des défenseurs et celui des assaillants, et un terrain d'entente pour les joueurs qui s'y déplacent : la court.

**MOTS-CLÉS:** L'intelligence collective, basket-ball, Techniques

### INTELEGENCIA COLECTIVA EM EL DEPORTE COLECTIVO

La ciencia, a día de hoy, hace descubiertas casi por minuto, la información cambia en un proceso muy rápido, y se debe estar atento a los cambios y procesos. Se entiende que la razón que nos llevó a llegar a esta etapa, es el nivel actual de técnicas prácticas, los hechos empíricos y sus leyes, que constituyen el elemento de continuidad, que está siendo mejorado y ampliado a lo largo de la historia de la humanidad. Investigar la inteligencia colectiva y su contribución a los deportes colectivos, especialmente el baloncesto, es el foco de este trabajo, especialmente sobre el tiempo permitido para el jugador de baloncesto en la movilización de sus acciones defensivas y ofensivas en el contexto de situaciones, que son las situaciones juego real. El baloncesto es un juego de velocidad, y aparecen cada vez que los sucesos que los jugadores llevan a pensar con rapidez, y también hay cambios y transformaciones frecuentes de ataque y defensa, lo que obliga al atleta a cambiar la situación rápidamente. Para Lévy (2007), la tasa de cambio tecnológico en casi todos los días están causando la transformación en el mundo en los seres humanos y por lo tanto la técnica es uno de los más importantes para trabajar en el campo epistemológico. Haciendo un paralelo de La técnica, afirmó Lévy, se pueden alcanzar todas las dimensiones, y entonces, también se entiende que a través de ella, se puede alcanzar la perfección en un juego, por lo tanto, ganar el juego del baloncesto, ya que el juego tiene dos espacios, los defensores y los atacantes, mientras que un terreno común para los jugadores que se mueven en ella: La cancha.

**PALABRAS CLAVE:** La Inteligencia Colectiva, El Baloncesto, La Técnica.

### A INTELIGÊNCIA COLETIVA NO DESPORTO COLETIVO

A ciência, hoje, tem descobertas quase que a cada minuto, as informações mudam num processo muito rápido, e deve-se ficar atento às mudanças e aos processos. Entende-se que o motivo levado a nos permitir chegar a este estágio, a este nível atual foi o núcleo de técnicas de ordem prática, seus fatos empíricos e leis, que formam o elemento de continuidade, e que foi sendo aperfeiçoado e ampliado ao longo da história da humanidade. Investigar a inteligência coletiva e sua contribuição no desporto coletivo, especialmente no basquetebol é o tema central deste trabalho, principalmente quando o tempo permitido ao jogador de basquetebol em mobilizar suas ações tanto defensivas quanto ofensivamente encontra-se num contexto de situações, que são as situações reais de jogo. O Basquetebol é um jogo de velocidade, e a cada momento aparecem ocorrências que levam os jogadores a pensarem rapidamente, e existem, ainda, as mudanças e transformações frequentes de ataque e defesa, obrigando o atleta a mudar de situação rapidamente. Para Lévy (2007), essa velocidade na mudança das tecnologias quase que diariamente estão causando transformação no mundo, no ser humano e, por isso, a técnica é hoje um dos temas mais importantes para se trabalhar no campo epistemológico. Fazendo um paralelo da técnica, afirmado por Lévy, que se consegue atingir todas as dimensões, então se entende, também, que através dela, pode se atingir a perfeição dentro de uma partida, consequentemente, chegar a vitória do jogo de basquetebol, pois o jogo possui dois espaços, o dos defensores e dos atacantes, e ao mesmo tempo um território comum aos jogadores que se movimentam nele: a quadra de jogo.

**PALAVRAS CHAVE:** Inteligência coletiva, basquetebol, técnica.

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