

DECISION-MAKING OF SPANISH FEMALE BASKETBALL TEAM PLAYERS WHILE THEY ARE COMPETING

**Ana Concepción Jiménez Sánchez*, Alberto Lorenzo Calvo*,
Pedro Sáenz-López Buñuel** & Sergio José Ibáñez Godoy****

KEY WORDS: Basketball, decision-making, competition, experts

ABSTRACT: Decision-making play a very important role in basketball. While the game is taking place, players are constantly choosing what to do. In order to carry out this research work, two questions have been formulated: 1) how do high level female basketball players make a decision while they are competing? 2) which key components do they use to make the best decisions?

The twelve players who make up the Spanish female basketball team have taken part in this project. They all participated in the 2008 FIBA World Olympic Qualifying Tournament, which took place in Madrid. This tournament allowed them to qualify and take part in the 2008 Olympic Games, where they finished in fifth place.

A questionnaire and an interview have been used to make this research possible. The matches of the 2008 FIBA World Olympic Qualifying Tournament have also been analyzed. Those aspects in terms of the team's performance in 1x1 and 2x2 attack situations, and more specifically in pick actions, have been recorded and analyzed. In order to include these data, a system of specific categories and variables has been established.

The results show that players are expert on making decisions during the competition. In order to come to this conclusion, their opinions, style of decision-making, as well as the way they move in 1x1 and 2x2 situations, were very useful. This research has also confirmed that decisions made by playmakers, forwards and centers are different.

Ana Concepción Jiménez Sánchez. Facultad de Ciencias de la Actividad Física y el Deporte-INEF. Universidad Politécnica de Madrid. C/. Martín Fierro s/n. 28040 Madrid.

e-mail: anaconcepcion.jimenez@upm.es

** Facultad Ciencias de la Educación de la Universidad de Huelva.

*** Facultad de Ciencias del Deporte de la Universidad de Extremadura

(This study has been financed by the Spanish National Sports Council, 2008)

Introduction

Those sports requiring cooperation and opposition clearly reflect the constant decision-making by each and every player who takes part in each phase of the game. The whole development of the sports competition gives rise to situations where the responses, the motor actions that are performed, are generated after a mental process involving a perceptive and decisive capacity (Águila & Casimiro, 2001; Tavares, 2002; Ruiz & Arruza, 2005). "Decision" means to choose, consciously, from different possible actions.

A large number of basketball studies have investigated how sportspeople make decisions. These researches concerning players' consciousness have tried to show the connection between declarative and procedural consciousnesses (French, Nevett, Spurgeon, Graham, Rink & McPherson, 1996; French & Thomas, 1987; Temprado, 1989; Tenenbaum, 2003). Decision-making of professional players and their style when they must decide have been investigated as well (Castejón, 2002; García, Ruiz & Graupera, 2009; Jiménez, 2007; Moreno, Fuentes, Del Villar, Iglesias & Julián, 2003; Ripoll, 1988; Ruiz, Graupera & Navarro, 2000; Sáenz-López, Giménez, Ibáñez & Jiménez, 2008; Sáenz-López, Jiménez, Giménez & Ibáñez, 2007; Tavares, 2009).

The aim of this research has been the following: i) to analyze the perception of Spanish female basketball team players when they make decisions in the course of the competition. ii) to get to their style of decision-making in basketball iii) to

evaluate 1x1 and 2x2 tactical situations when attacking during the competition.

Method

In this study, a qualitative methodology based on the opinion of Spanish female basketball team players has been used.

We have analyzed the 12 players who make up the Spanish female basketball team and who participated in the 2008 FIBA World Olympic Qualifying Tournament and the 2008 Olympic Games.

The following tools were used: A) a semi-structured interview. Interviews have been recorded and transcribed on a word processor. Once the researchers identified the codes that had turned up during the interviews (background, training, 1x1 and 2x2 decision-making), they introduced them into the Aquad program so that these codes could be organized. B) The decision making style questionnaire – CED (Ruiz, Sánchez & Graupera, 1997), which allowed to analyze the decisional profile of players in three scales: perceived decisional competence – CDP, anxiety and strain to decide – AAD and commitment for training and learning tactics about how to decide – CETD. C) 1x1 situations, when a player has the ball, and 2x2 situations –picks, particularly- have been analyzed.

Consequently, a series of variables regarding directly the aforementioned situations have been chosen. In order to analyze the matches, we have used contingency tables providing values which represent the frequency and percentage of situations.

The Spanish Basketball Federation was asked for the matches in order to analyze

them. Three matches (Fiji, Cuba and Brazil) were analyzed in the 2008 FIBA World Olympic Qualifying Tournament.

Results

As far as the interview is concerned, we can see that every female basketball player has a high level of experience and success. Most of them think that they have taken good training in terms of decision-making and that their coaches have helped them, although some declare this is an innate ability. Players say they feel quite confident when they must resolve 1x1 situations, as well as they state it is necessary to 'read' the defense and, consequently, decide what to do. Outside players, who also make other moves to throw, are important in these situations. Centers prefer beginning a 1x1 attack with their back to the basket. As for picks, they think their decisive capacity must be improved. All of them state it is essential to 'drag' the defender of the player with the ball.

As regards the decision making style questionnaire, players point out they don't feel under pressure when they make decisions. They show a high commitment for training tactics. The results related to their perceived decisional competence vary depending on the players and their specific position. In this case, centers stood out because of their high perceived decisional competence and commitment for training and learning tactics about how to decide; however, they got a low score concerning anxiety and strain to decide.

As for the analysis of the 2008 FIBA World Olympic Qualifying Tournament matches, the total of 1x1 and 2x2 situations has been 105 and 109. In the former, the position of the defender was remarkable as one of the most determining variables regarding the action of the player with the

ball. These actions have mainly started from the three-second area.

In 2x2 situations -picks, particularly-, we see that centers are the players who execute picks most, followed by the power-forwards. Playmakers and forwards are those who have received the largest number of picks from a teammate.

Most of the picks have been faced to the midfield. As regards the players who have received a pick from a teammate, outside players are clearly better than inside ones. As far as picks and roll are concerned, the players who set a pick for a teammate have almost always rolled from a pick towards the basket. When a pick takes place, the most frequent defense is the change of players, followed by the horizontal flash.

Discussion

International female players show they have a high perception with regard to their decision-making in the field, as well as they declare that their training process has been useful in order to acquire this decisive capacity. In this sense, it bears resemblance to the researches by Sáenz-López, Giménez, Ibáñez and Jiménez (2008), and Sáenz-López, Jiménez, Giménez and Ibáñez (2007). As for styles of decision-making in sport situations, basketball players are similar to other professional sportswomen (García, Ruiz & Graupera, 2009; Jiménez, 2007). They have perfect profiles to be successful when they are competing. It is worth pointing out that we have found differences between the players on different specific positions -playmakers, forwards and centers-, and there are so far no references from similar researches to contrast results. Centers have got the best score in this study. Taking into account that playmakers decide

what to do and take the initiative, their perceived decisional competence has been lower than the centers' one.

At the moment of setting a pick for someone during a match, the fact that playmakers and forwards have played for a longer time than centers and that they have shown a wider variety of actions coincides with researches by Gómez, Lorenzo, Ortega, Sampaio and Ibáñez (2007). As regards the

way players face the picks and their subsequent moves, these also match up with conclusions by Domínguez and Refoyo (2008) and Zamora, Hidalgo, Cárdenas and Ocaña (2007). As for the kind of defense in a pick situation, the defensive change stands out: it shows a higher frequency than other researches, such as those by Domínguez and Refoyo (2008) and Remmert (2003).

References

- Águila, C. & Casimiro, A. J. (2001). *Iniciación a los deportes colectivos*. En F. Ruiz, A. García y A.J. Casimiro (Eds.), *La iniciación deportiva basada en los deportes colectivos* (pp. 31-56). Madrid: Gymnos.
- Castejón, F.J. (2002). Expertos y novatos en el proceso de enseñanza aprendizaje y su implicación en la iniciación deportiva. *Habilidad Motriz*, 20, 13-27.
- Domínguez, J. & Refoyo, I. (2008). Evaluación de la Decisión Táctica en el Bloqueo Directo. Una Comparación entre la ACB y la NCAA. *Congreso de Educación Física y Deporte de Oviedo*. Oviedo.
- French, K.E., Nevett, M.E., Spurgeon, J.H., Graham, K.C., Rink, J.E. & McPherson, S.L. (1996). Knowledge representation and problem solution in expert and novice youth baseball players. *Research Quarterly for Exercise and Sport*, 67(4), 386-395.
- French, K.E. & Thomas, J.R. (1987). The relation of knowledge development to children's basketball performance. *Journal of Sport Psychology*, 9, 15-32.
- García, V., Ruiz, L.M. & Graupera, J.L. (2009). Perfiles decisionales de jugadores y jugadoras de voleibol de diferente nivel de pericia. *Revista Internacional de Ciencias del Deporte*, 14, 123-137.
- Gómez, M., Lorenzo, A., Ortega, E., Sampaio, J., & Ibáñez, S. (2007). Diferencias en las estadísticas de juego entre bases, aleros y pívots en baloncesto femenino. *Cultura, Ciencia y Deporte*, 2 (6), 139-144.
- Jiménez A.C. (2007). *Análisis de las tomas de decisión en los deportes colectivos: Estrategias de las jugadoras aleros de baloncesto en posesión del balón*. Sevilla: Wanceulen.
- Moreno, P., Fuentes, J.P., Del Villar, F., Iglesias, D. & Julián, J.A. (2003). Estudio de los procesos cognitivos desarrollados por el deportista durante la toma de decisiones. *Apunts. Educación Física y Deportes*, 73, 24-29.
- Remmert, H. (2003). Analysis of Group-Tactical Offensive Behavior in Elite Basketball on the Basis of a Process Orientated Model. *European Journal of Sport Science*, 3 (3), 1-12.
- Ripoll, H. (1988). Analysis of visual scanning patterns of volley ball players in a problem solving task. *International Journal of Sport Psychology*, 19, 9-25.
- Ruiz, L.M. y Arruza, J. (2005). *El proceso de toma de decisiones en el deporte. Clave de la eficiencia y el rendimiento óptimo*. Barcelona: Paidós.

- Ruiz, L.M., Graupera, J.L. y Navarro, F. (2000). *Construcción, análisis psicométrico y tipificación de un cuestionario de toma de decisión en el deporte*. Madrid: Centro de Alto Rendimiento y de Investigación en el Deporte. Consejo Superior de Deportes. CARICD.
- Sáenz-López, P., Giménez, F.J., Ibáñez, S.J. y Jiménez, A.C. (2008). La visión de las jugadoras internacionales de baloncesto sobre su proceso de formación. *Habilidad Motriz*, 31, 33-42.
- Tavares, F. (2002). Processos cognitivos e a performance no basquetebol. Elementos para a análise do comportamento de decisao táctica, do conhecimento do jogo e da execução das acções defensivas no jovem jogador. En S.J. Ibáñez y M. Macías (Eds.). *Novos horizontes para o treino do basquetebol* (pp. 155-178). Cruz Quebrada: Facultad de Motricidade Humana.
- Tavares, F. (2009) Treinar a Tomada de Decisão para melhor pensar e agir na complexidade dos Jogos Desportivos. En II congreso Internacional de Deportes de equipo. Universidad de Coruña.
- Temprado, J.J. (1989). Prise de decision en sport: modalités d'études et données actuelles. *STAPS*, 10(19), 53-67.
- Tenenbaum, G. (2003). *Expert Athletes: an integrated approach to decision making*. En J.L. Starkes y K.A. Ericsson (Eds.), *Experts Performance in sport*. Champaign: Human Kinetics.
- Zamora, P., Hidalgo, G., Cárdenas, D., y Ocaña, F. (2007). Análisis de las variables de ataque del bloqueo directo en la liga ACB. *IV Congreso Ibérico de Baloncesto- Desde la base a la élite deportiva*. Cáceres.

