ST 5 / pt 1 / Plannig for the Spanish Basketball Team for the 6th European Basketball Championship for Young Men 2002

ORIGINAL ARTICLE

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SUMMARY

The Spanish Basketball Team for the 6th European Basketball Championship for Young Men 2002 had to face up to a special competitive situation: after a competitive season of approximately 10 months and a very short preparation period (3 to 4 weeks), the young players were asked to perform at a high level by playing 8 consecutive games in 10 days.

The aim of the structuring of the training loads was to accumulate a high volume of both physical conditioning and technical-tactical work during the firsts micro-cycles; and afterwards _by an abrupt decrease of volume in double-phase and a condensed structuring of practices and preparatory games_ to strongly increase the technical-tactical quality so as to reach the championship games in optimal conditions.

The main conclusions are: a) Based on the personal feelings of the players and the results obtained by the team (silver medal), it can be concluded that the players achieved an outstanding level of performance during the firsts 3 games of the championship (micro-cycle 5) and were able to reach optimal conditions of performance during the last 5 and more demanding games (micro-cycle 6). b) The 5 preparatory games played in international tournaments were effective to prepare an 8-game championship. c) The preparatory period of approximately 3 weeks is long enough for young basketball players. d) The double phase decrease of work volume and the concentrated and specific design of the training loads (specially the strength blocks), can be considered the most important factors that facilitated peaking, e) The proposals of improvement are: 1) To modify the structure and introduce more rest periods in the micro-cycle 2, in order to: a) include 2 extra-strength practices on days 4 and 5 for most players; and b) increase the technical-tactical quality of the last practices of this micro-cycle. 2) To perform the second strength test on day 4 of micro-cycle 4, so as to include a full special strength practice on day 5, that will allow the increase of strength specificity and volume of this micro-cycle. 3) To include the Strength Test of Running, Speed Tests and the repetition of the initial endurance tests, so as to complete the analysis of the most relevant physical conditioning components. 6) To play the 2 preparatory games of the second tournament (micro-cycle 4) in two consecutive days (days 6 and 7), so that the competitive load is more concentrated. 7) To increase the density and concentration of the technical-tactical practices during the micro-cycles 4 and 5. f) The self-motivation and mentality of the players became the most relevant factor for achieving an outstanding result.

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Planning for the Spanish Basketball Team

for the 6th European Basketball Championship for Young Men 2002

INTRODUCTION

The purpose of this article is to present a general view of the planning of the Spanish Basketball Team for the 6th European Basketball Championship for Young Men 2002. Although we all know that each training experience is different, we also believe that some details of this short planning of training can motivate a discussion and help to draw a few practical conclusions that could be applied to similar training experiences.

The Spanish Basketball Team for the 6th European Basketball Championship for Young Men 2002 had to face up to a special competitive situation: after a competitive season of approximately 10 months and a very short preparation period (3 to 4 weeks), the young players were asked to perform at a high level by playing 8 consecutive games in 10 days.

This preparation is based on the following Seirul-lo Vargas principles: concentrated training with young athletes (1973), and special structural planning and specific conditioning exercises for team sports (since 1980). Additionally, it is supported by his vast experience applying these principles with the Barcelona handball team that won many Spanish and European championships.

THE PLANNING

Training Contents

The following training contents were used for the periodization of the training loads:

- Technical-Tactical Training:
 - * Technical Improvement.
 - * Technical Stability and Peaking.
 - * Tactical Building.
 - * Tactical Stability and Peaking.
 - * Technical-Tactical Building Situations.
 - * Technical-Tactical Stability and Peaking Situations.
 - * Preparatory Game.
 - * Championship Game.
- Physical Conditioning Training:
 - * Level 1-General Strength (General Strength 1-2): consisted of multi-jumps, multi-runs, multi-throws, multi-"fights" and multi-short movements exercises for all players with movement control emphasis.
 - * Level 2-Directed Strength (Special Strength 1-2): consisted of exercises for running, fight, short movements and long pass; distinguishing between interior and exterior players (point guard-small forward and power forward-center); and with the emphasis on spacial-temporal factors. The strength tests are considered Level 2-Directed Strength.
 - * Level 3-Special Strength (Special Strength 3-4): consisted of a combination of 3-6 actions selected among running, fighting and short movement; distinguishing between interior and exterior players (point guard-small forward and power forward-center); and emphasizing on the decision making strategies and programming processes.

Speed. Speed training could be considered Level 4-Competitive Strength and
consisted of selected basketball actions (runs, short movements, starting
movements, "fights", "fight" plus another action, dribbling, jump plus tip and longshort pass) performed under cognitive and coordination variations. Speed practices
were independent or a part of a strength practice.

PHOTO 1. Example of Strength for Fighting (level 1)



PHOTO 2. Example of Strength for Fighting (level 2)



PHOTO 3. Example of Strength for Fighting (level 3)



* Directed Endurance 1-2: consisted of alternated and long efforts for basketball, distinguishing sequences of actions for point guard-small forward players and power forward-center players, and defining different effort-rest periods for 3-4 groups of players depending on test results and individual characteristics.

- Adjuvant Training:

- * Basic Coordination for corporal areas involved on specific techniques.
- * Dynamic Relaxation under fatigue conditions (Coordination).
- * Stability of Muscular Balance of the most used techniques.
- * Tendinous-articular Unloading.
- * Articular Flexibility maintenance.
- * Muscular Elasticity.
- * Mechanical Comprehension of the basic techniques.
- * Recovery Training after a Game (metabolic-cardiorespiratory emphasis, "mixed" emphasis and neuromuscular emphasis).
- * Specific Medical Treatment.

- Mental Training

The players had a special level of self-motivation. Therefore, the psychological preparation was only based on a progressive and clear definition of the training and competitive goals.

Periodization of the Training Loads

The aim of the structuring of the training loads was to accumulate a high volume of both physical conditioning and technical-tactical work during the firsts micro-cycles; and afterwards _by an abrupt decrease of volume in double-phase and a condensed structuring of practices and preparatory games_ to strongly increase the technical-tactical quality so as to reach the championship games in optimal conditions.

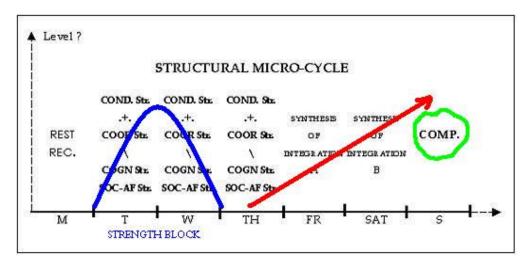


FIGURE 1. Structural Micro-Cycle (Seirul·lo Vargas).

- Macro-Cycles:

- * Cycle 1 (micro-cycles 1-2-3-4): of tactical building and technical-conditioning concentration.
- * Cycle 2 (micro-cycles 5-6): of -team cohesion-tactical peaking and competitive-optimal performance.
- Micro-Cycles (made up of regular weeks):
 - * Micro-Cycle 1 (introductory): of rest-recovery the first 5 days and of starting the preparation-tests the last 2 days, which link with the second micro-cycle.
 - * Micro-Cycle 2 (maximum training load): of tactical introduction and general-special conditioning concentration. Maximal conditioning and technical-tactical volume (24 hours, approximately).

- * Micro-Cycle 3 (transformation): of tactical assimilation appearing the firsts preparatory games, and of a more special conditioning transformation. Total volume of work is high, but there is a first abrupt reduction of about 25%. Conditioning volume, which changes into more special, is reduced about 30% and is concentrated at the beginning of the micro-cycle. Technical-tactical volume is reduced about 30% and 3 games are added with balanced playing time for all players.
- * Micro-Cycle 4 ("polisher"): of high tactical and team-cohesion stability, and maximal concentration of the training load. Second reduction of total volume by about 20%, with a configuration of a 3-day rest at the beginning of the micro-cycle and accumulated concentration of load during the last 4 days. Conditioning volume converted to more special is reduced about 50%. Technical-tactical volume changes quality, is reduced about 20% and 2 preparatory games are added with selective playing time for selected players.
- * Micro-Cycle 5 (competitive 1): of peaking the technical-tactical quality with the beginning of the first competitive phase. Total volume is maintained, but is structured with a first mini-block of high density followed by a compensatory rest to initiate the 3 competitive games at the end of the micro-cycle. By this structure we also simulate the final micro-cycle of the championship. Conditioning volume (maintained) completely special and of high density- is concentrated in the first mini-block. Technical-tactical volume (reduced by about 10%) consist of the peaking quality practices of the first mini-block and the preparatory practices for the 3 games of the second block.
- * Micro-Cycle 6 (maximal competitive): total volume (maintained) is structured with a first mini-block of 2 games and a second mini-block of 3 games of progressive difficulty (final phase of the championship). Conditional volume is based on recovery and activation training. Technical-tactical volume is of tactical predominance for the preparation of the games.

MICRO-4 MICRO-1 MICRO-2 MICRO-3 MICRO-5/Championship MICRO-6/Championship t-T t-T at T/E at at at eT t-T t-T t-T t-T t-T REST t-T t-T t-T t-T t-T t-T t-T t-T ध्य ध्य ध्य t-T t-T t-T t-T t-T s at at at t-T t-T t-T t-T t-T t-T PG PG t-T t-T PG t-T ET CG CG CG CG CG ce ce ce t-T t-T t-T t-T TH F ST S M TV M T V м S T TH F ST S TH F ST s T ₩ TH F ST S M T W TH F ST S 65% GENERAL 100% DIRECTED 60% DIRECTED 100% SPECIAL 35% DIRECTED 40% SPECIAL 25% VOLUME DECREASE 20% VOLUME DECREASE IMPROVEMENT ! MICRO-2 MICRO-1 T G1 G2 G2 G1 eT t-T t-T t-T t-T t-T REST eT t-T t-T t-T t-T s at t-T t-T TH F ST S ST S M T V TH F ST S In Yellow: 5 Preparatory Games and 8 Championship Games T strength Test 1 Gigeneral strength-level 1 t-T technical-Tactical practice T/E strength Test 2 - Special strength D directed strength-level 2 PG preparatory Games eT endurance Test E special strength-level 3 CG Championship Games (interior/exterior players)

at AdjuvantTraining

FIGURE 2. Structuring of Training Contents and Proposals for Improvement.

Control and Evaluation of Training

sT speed Test

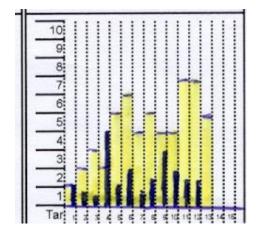
- Initial and Micro-Cycle-4 Strength Tests for "Fighting" Situations (adaptation of Seirul-lo's Test for Handball players).

END directed endurance

- Initial and Micro-Cycle-4 Strength Tests for Short Movements (adaptation of Seirul-lo's Test for Handball players).
- A basketball-specific strength test for running (adaptation of Seirul-lo's Test for Handball players) was also planned, but we did not use it because of equipment problems.
- Initial Endurance Test for Point Guard and Small Forward Players ("DRN Volta Màgica Bàsquet +Exteriors").
- Initial Endurance Test for Power Forward and Center Players ("DRN Volta Màgica Bàsquet +Interiors").

- In each physical conditioning practice the following components were evaluated: number of sets and repetitions, level of specific orientation of the exercises (from general to special) and total duration.
- The percentage of the different levels of strength in relation to the percentage of "technical" executions during the technical-tactical training (extremely relevant control).
- In each technical-tactical practice the following components were evaluated: total duration of every exercise; total rest time in between exercises; approximate number of executions-participations and its duration for a reference player in each exercise; the biological-conditioning load, technical-coordination load and tactical-cognitive load of every exercise; the volume of each group of exercises classified depending on the type of content and quality level; and the biological-conditioning structure, technical-coordination structure and tactical-cognitive structure of the whole practice.

FIGURE 2. Example of the Biological-Conditioning Structure of a Technical-Tactical Practice.



- In each preparatory game the following components were evaluated: total duration of each part of the game; effort and rest times; number of offense and defense actions; shooting actions related to scoring effectiveness; global difficulty level; biological-conditioning, technical-coordination and tactical-cognitive level of load; team offense systems used at every attack; and minutes of participation of every player.

- For each micro-cycle the following components were evaluated: half and complete rest days; type and number of practices; physical conditioning volume; technical-tactical volume; preparatory and championship game volume; total training volume; conditioning level of specific orientation (from general to special) of the training load; and relative value of the training load.
- Standing and supine heart rate at rest (at wake up in the morning) during micro-cycles 1,2,3 and 4.
- Weight control before and after practices during micro-cycles 1,2 and 3.
- Medical Controls.

DISCUSSION

- Based on the personal feelings of the players and the results obtained by the team, it can be concluded that the players achieved an outstanding level of performance during the firsts 3 games of the championship (micro-cycle 5) and were able to reach optimal conditions of performance during the last 5 and more demanding games (micro-cycle 6).
- All players (except one that did not perform the second test and most of the strength practices) experienced a very significant increase of their specific strength capacity for fighting and short movements, and very probably for running, during the first 20 days of the preparation.
 - This should be understood as a consequence of both technical-tactical training and strength training.
 - Such increase is a key factor for technical performance and for peaking.
 - The improvement in number of meters was the most relevant strength factor, specially for taller players.
- The positive results of the final strength tests (micro-cycle 4) were a cogent argument for deciding the application of the next special strength practices and training structure. In this regard, a non-significant increase or a decrease in the results of the tests would have changed this decision towards the application of a more general strength training and a different training structure.

- In spite of some weight variations, all players maintained an stable weight during the preparatory period of this championship.
- Standing and supine heart rate at rest experienced a certain decrease in most players that indicated a good cardiovascular adaptation.

CONCLUSIONS

- A preparatory period of approximately 3 weeks is long enough for young basketball players (which are able to quickly adapt to concentrated training loads) in order to reach a 2-week-8-game championship in optimal conditions. Equally important, the 5 preparatory games played in international tournaments were enough to prepare an 8-game championship. Accordingly, the 3 games of the first phase were preparatory games for the more demanding games of the second phase of the championship.
- The double phase decrease of work volume (micro-cycle 3 and three days in a row at micro-cycle 4), in addition to the concentrated and specific design of the training loads (specially the special strength blocks), can be considered the most important factors that facilitated peaking during the micro-cycle 5.
- The proposals of improvement are basically the applications of the initial planning and are as follows (Figure 2):
 - To modify the structure and introduce more rest periods in the micro-cycle 2, in order to: a) include 2 extra-strength practices on days 4 and 5 for most players; and
 b) increase the technical-tactical quality of the last practices of this micro-cycle.
 - To perform the second strength test on day 4 of micro-cycle 4, so as to include a full special strength practice on day 5, that will allow the increase of strength specificity and volume of this micro-cycle.

- To include the Strength Test of Running for Basketball in the Strength controls, seeking for a more complete strength evaluation.
- To include, within a very similar training volume, Speed Tests (initial and at microcycle 4) of selected attack and defense basketball actions in order to obtain a more accurate information of the technical improvement.
- To repeat the initial endurance test for both groups of players at day 5 of microcycle 4, so as to complete the analysis of the most relevant physical conditioning components.
- To play the 2 preparatory games of the second tournament (micro-cycle 4) in two consecutive days (days 6 and 7), so that the competitive load is more concentrated.
- To increase the density and concentration of the technical-tactical practices during the micro-cycles 4 and 5.
- Finally, the players achieved the silver medal (heretofore, the best result ever obtained by an under-20-year-old Spanish Basketball Team in an European Basketball Championship for Young Men), although before the championship any Spanish institution was not expecting a lot. I strongly believe this factor made them develop a special motivation and mentality for such endeavour and became the most relevant factor for achieving such result.

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KEY WORDS

Young Athletes, European Basketball Championship, Short Planning of Training.

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PHOTOS

Santi Abad (former international basketball player).

Dani Pérez (national thrower).

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