



# TECHNICAL-TACTICAL OPTIMIZATION IN YOUNG BASKETBALL PLAYERS

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# Challenge:

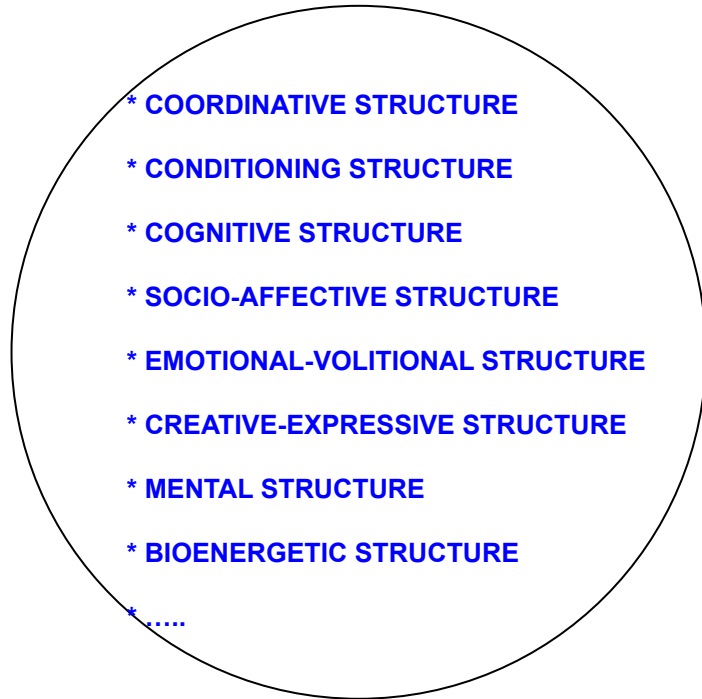


Teaching the fundamentals of the game to young players so that they have a quality athletic experience affecting their integral development.

# Intra-Inter Systemic Optimization



## PLAYER



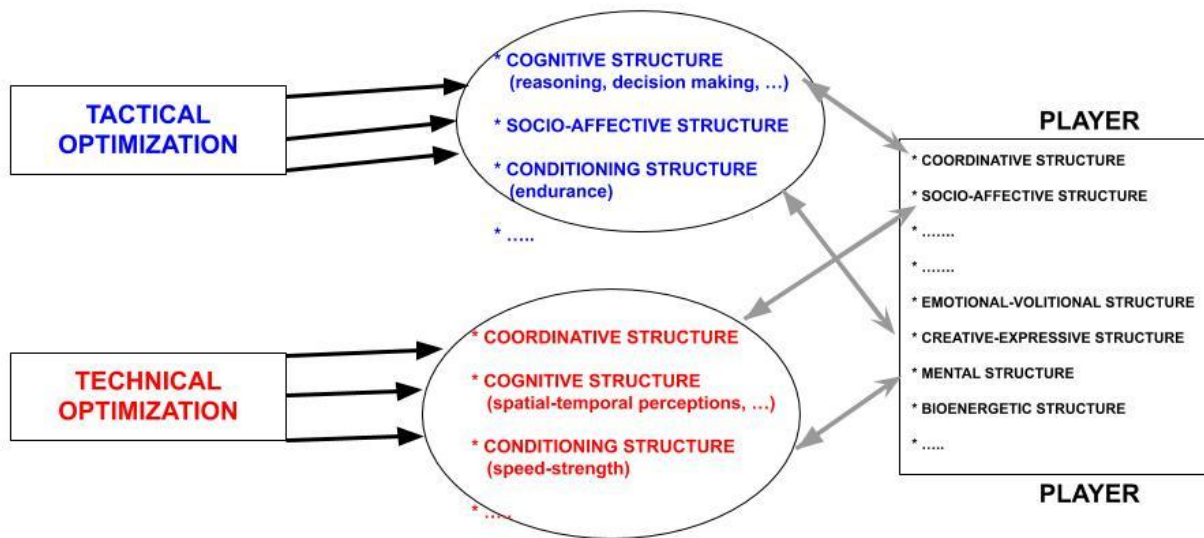
- Player as a hyper-complex system
- Interactions among structures
- Preferential simulator situations
- Intra-systemic optimization
- Inter-systemic optimization

Professor Seirul-lo Vargas



[www.entrenamientodeportivo.org](http://www.entrenamientodeportivo.org)

# TECHNICAL-TACTICAL OPTIMIZATION MAIN PRIORITIES · TEAM SPORTS



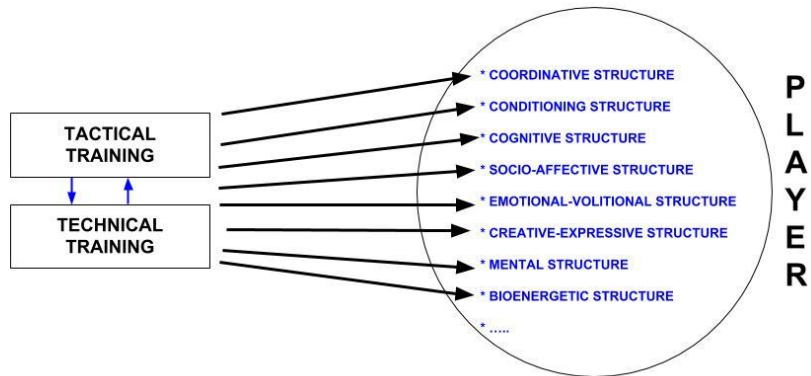
**Complex dynamic systems conception of technical-tactical optimization based on Seirul-lo, since 1987**

DRN, 2015, copying and interpreting Professor Seirul-lo Vargas since 1985



# Personalization

## TECHNICAL-TACTICAL OPTIMIZATION



Complex dynamic systems conception of technical-tactical optimization by Seirul-lo, since 1987

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A detailed-rich identification in each player of:

- TALENTS (performance- confidence)
- NEEDS (expand talent)



In order to achieve a rich technical-tactical optimization in young basketball players, the following training criteria are selected:



(a) Create **training situations** combining a wide variety of offensive and defensive tactical intentions of 1-2-3-4-5 player plays in multiple game organizations and continually emphasizing the basketball basics.





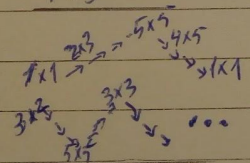
## PLAY-TRAINING SITUATIONS

1x1 1x0  
 2x2 1x2  
 3x3 2x3  
 4x4 3x4  
 5x5 4x5

++ technical priorities

++ Tactical priorities

3x1  
 2x4  
 5x3



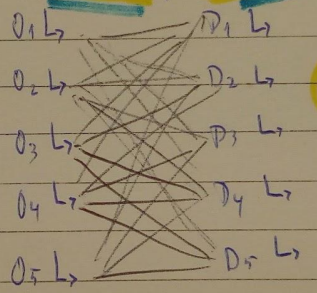
→ 1/4  
 → 1/2 COURT  
 → Full

## Types of MOTIONS;

- ↳ 5 players out
- ↳ 4 out 1 in
- ↳ 3 out 2 in
- ↳ 2 out 3 in
- ↳ ...

## TACTICAL INTENTION

### OFFENSIVE ↔ DEFENSIVE



++ Offensive priority

++ Defensive priority

L, L,  
 . .  
 . .  
 . .

Ball handler  
 Screener  
 Cutter  
 ↓  
 ↓

## CONDITION of ADVANTAGE

- Technical
- Tactical
- Conditional
- Socio-affective
- Emotive
- Creative

+ technical  
 - tactical  
 priority





Muños-Espona S (2010). Proposal of Classification of the Field Goal in High Level Basketball.

Sergi Muñoz-Espona con la colaboración de David Ribera-Nebot D (2010)

**Propuesta de Clasificación del Tiro de Campo en Baloncesto de Alto Rendimiento**

*Clinic Revista Técnica de Baloncesto AEEB. Año XXIII, núm. 85, 2010*

<http://www.basketballshooting.eu/>

we focus our analysis on observing the **conditions of advantage** and define it as **"the different game actions (technical - tactical - conditional - socio-affective - emotive-volitive - creative), which apply individually or collectively to create the possibility of making a shot with effectiveness "**, in this way two premises or initial conditions are established:

- Interpret the shooting action globally. In it, the technical, tactical, conditional and mental preparation capacities interact; .....
- It is considered the creation of the advantage situation to pull as the most relevant factor, with the possibility of participation of one or more players.



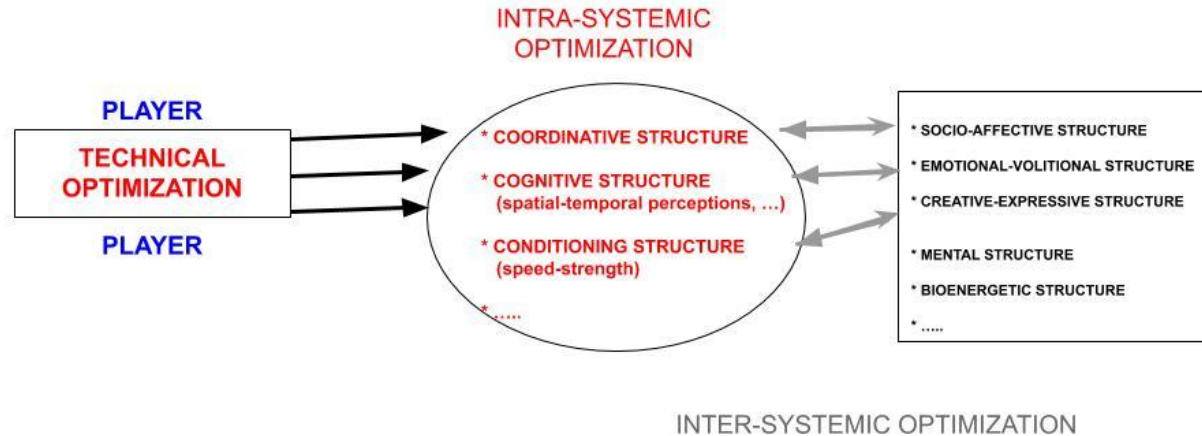
CONTROL-EVALUATION      MONITORING

		Micro								
		1	2	3	4	5	6	7	8	...
EX. PLAY 3-2 ↳ 3x3 ↳ 4x4 ↳ 5x5	$D_2 \leftrightarrow D_3$	✓	✓	✓ (OK)						
	$D_1 \leftrightarrow D_5$		✓		✓	✓ (TOP)				
	$D_4 \leftrightarrow D_7$				✓	✓	✓			...
	⋮									

(OFFENSIVE / DEFENSIVE) INTENTIONS

(b) Prioritize **technical optimization** with the basis of precision, variability and types of speed (start, execution, intervention, rhythm change, intermittent), and the coordination capacities focused on motor control (kinesthetic discrimination, segmentary differentiation, variability, combination, guided control, fluidity-relaxation and amplitude), spatial implementation (orientation, directionality, localization, situation, static-dynamic balance) and temporal adequacy (reaction-anticipation, rhythmical differentiation, rhythmical variability, rhythmical adaptation, rhythmical sense).

# TECHNICAL OPTIMIZATION MAIN PRIORITIES · TEAM SPORTS

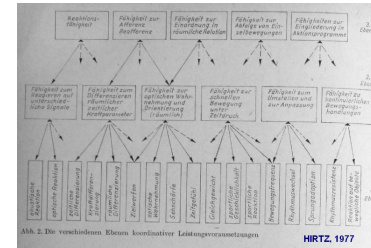
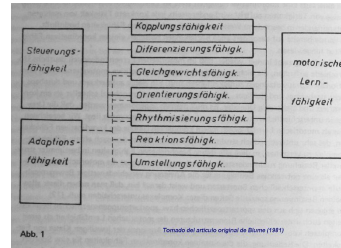
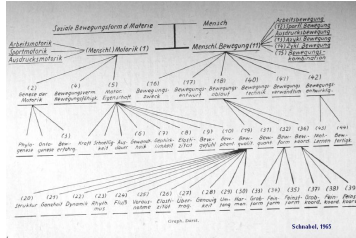


**Complex dynamic systems conception of technical optimization based on Seirul-lo, since 1987**

DRN, 2015, copying and interpreting Professor Seirul-lo Vargas since 1985

# COORDINATION CAPACITIES

## Selected Authors



### Schnabel (1965-76)

3 general coordinative capacities:

- motor control,
- adaptation of the movement,
- motor learning

5 special coordinative capacities:

- fine dexterity
- balance capacity,
- elasticity of movement,
- ability of motor combination
- movement fantasy

Joint mobility or amplitude as coordination-conditional capacity.

### Blume (1978-81)

3 general coordinative capacities:

- motor control,
- adaptation of the movement,
- motor learning

7 coordinative capacities:

- differentiation
- coupling,
- reaction,
- orientation,
- preservation of balance,
- change
- rhythm

### Hirtz (1977-81)

5 fundamental coordinative capacities:

- Spatial Orientation,
- kinesthetic differentiation,
- reaction,
- rhythm
- Balance.

2 power-conditional boundary capabilities:

- coordinative speed
- coordinative resistance

3 superior coordinative capacities:

- motor control,
- motor adaptation,
- motor learning

# COORDINATION CAPACITIES

Francisco Seirul-lo Vargas (1985)

## MOVEMENT CONTROL

Kinästhetik Discrimination

Segmentary Differentiation

Variability of Movement

Combination of Movements

Guided Control of Movement

Fluidity and Relaxation of Movement

Amplitude of Movement

## SPATIAL IMPLEMENTATION

Orientation

Directionality

Localization

Situation (placement)

Static-Dynamic Balance

## TEMPORAL ADEQUACY

Reaction-Anticipation

Rhythmical Differentiation

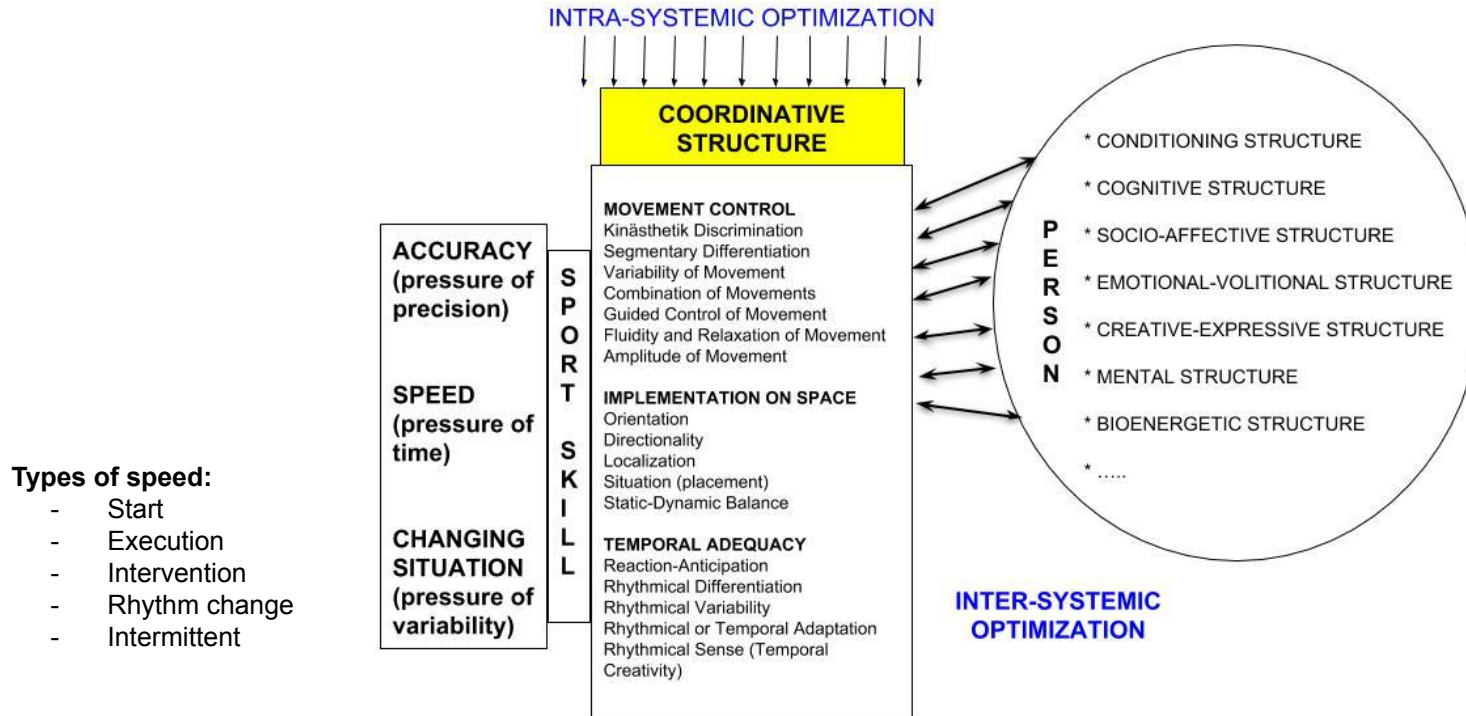
Rhythmical Variability

Rhythmical or Temporal Adaptation

Rhythmical Sense (Temporal Creativity)

This structure of coordination capacities proposed by professor Seirul-lo is based on the person, thus it is applicable to movement education, sport initiation and high performance.

# COORDINATIVE OPTIMIZATION



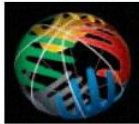




# Example of Motion Offense



COACHES - FUNDAMENTALS AND YOUTH BASKETBALL



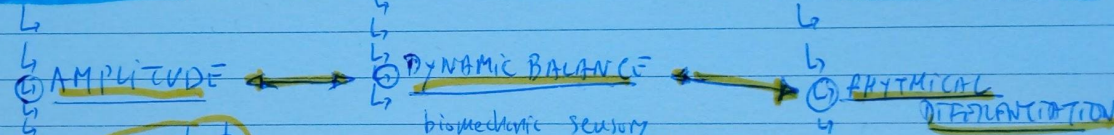
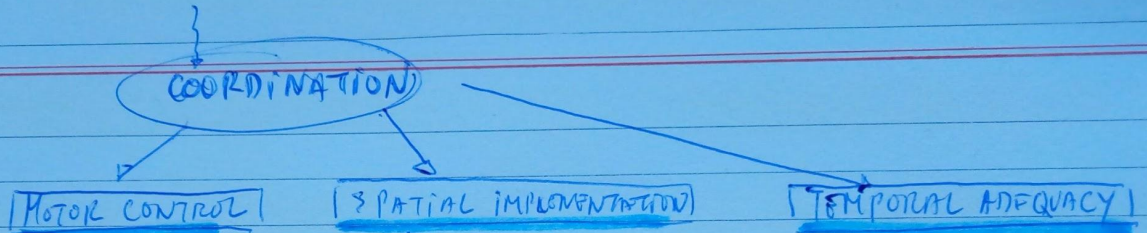
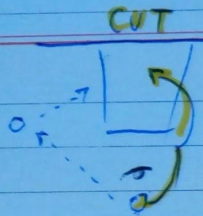
by Nikos Stavropoulos

## THE GREEK YOUTH PROGRAM: OFFENSIVE PHILOSOPHY

08 2004 FIBA ASSIST MAGAZINE

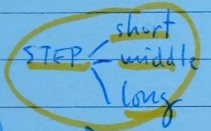


EX. PRIORITIZE TECHNICAL OPTIMIZATION



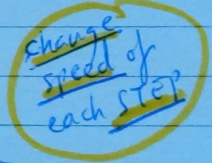
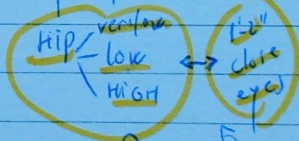
**SPEED**

- ↳
- ↳
- ↳
- ↳ **RHYTHM CHANGE**
- ↳

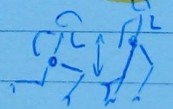


biomechanic sensory

- ↳ support
- ↳ proprioception
- ↳ gravity
- ↳ vestibular



S short M middle  
 L long S short  
 M middle  
 M middle  
 S short  
 S short

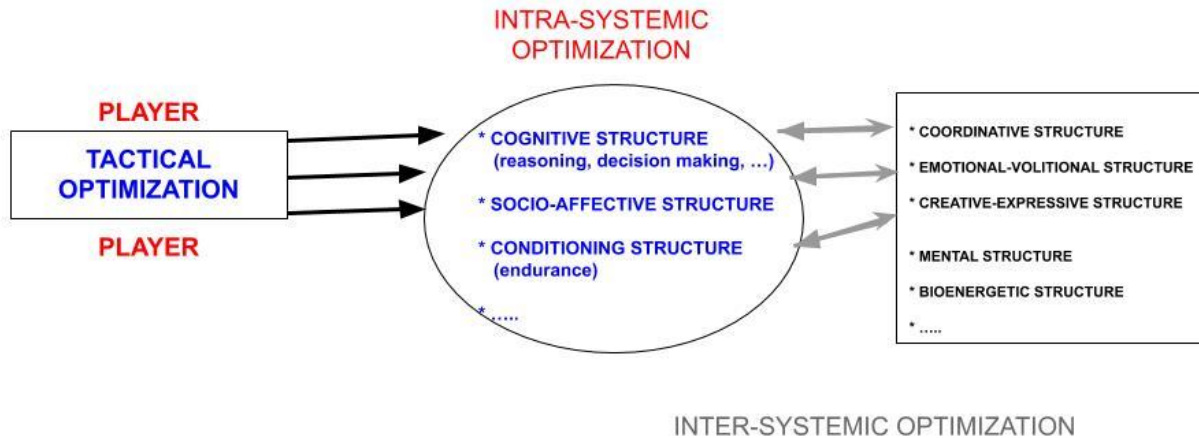


Short Middle Long	Quick	Quick
	slow	Middle
	Quick	slow

⊕

(c) Prioritize **tactical optimization** focused on cognitive factors (spatial perception – distances, paths, orientations, organizations / temporal perception – duration, global and segmentary speeds, differentiation of players-ball speeds, anticipation-reaction / decision making / understanding-reasoning / designing programs / self-control-evaluation) and socio-affective factors (mainly non-verbal – gesture, look, spatial, temporal - assertive and empathic communications in mutual help and cooperation situations).

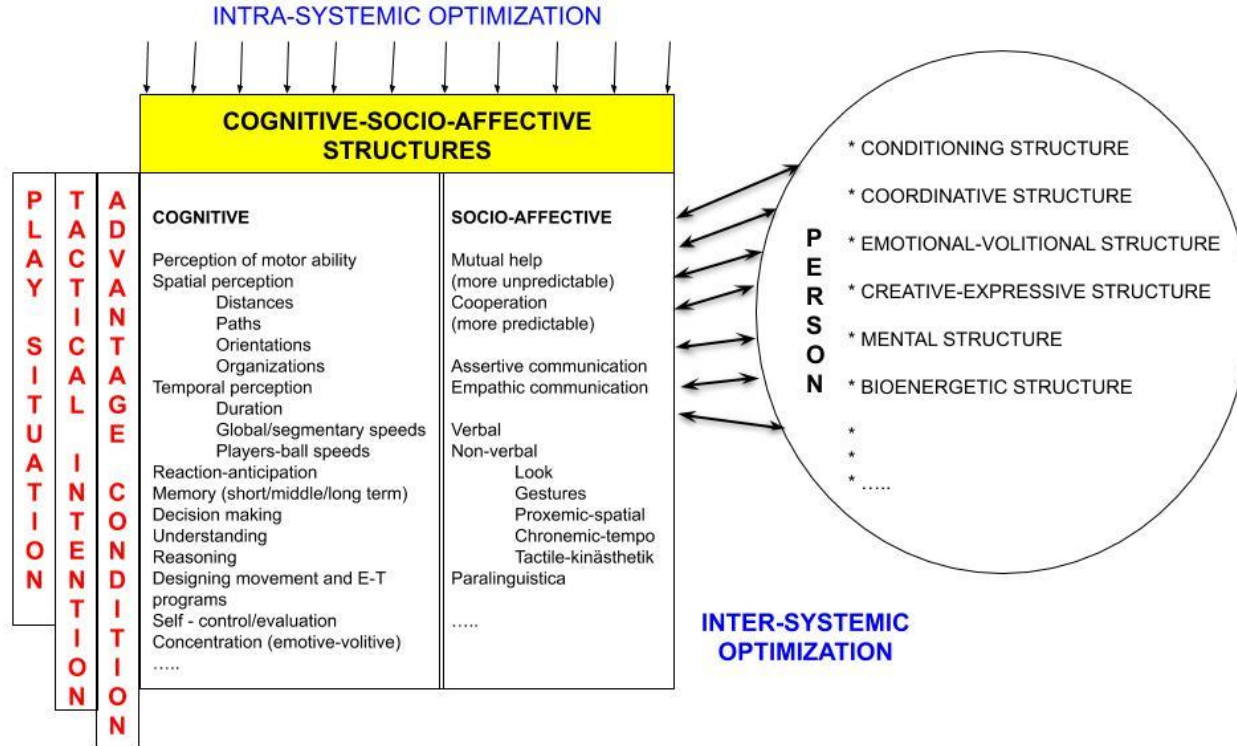
# TACTICAL OPTIMIZATION MAIN PRIORITIES · TEAM SPORTS



**Complex dynamic systems conception of Tactical optimization based on Seirul-lo, since 1987**

DRN, 2015, copying and interpreting Professor Seirul-lo Vargas since 1985

# COGNITIVE-SOCIO-AFFECTIVE OPTIMIZATION



DRN, 2015, copying and interpreting Professor Seirul-lo Vargas since 1986



EX. PRIORITYZE TACTICAL OPTIMISATION

3x3  
4x4  
5x5

COGNITIVE

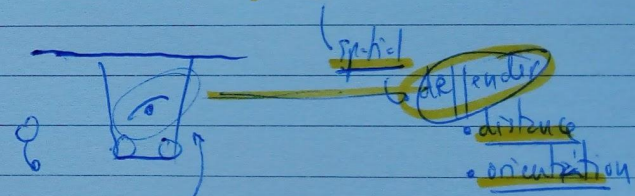
- ↳ SPATIAL
  - ↳ path
- ↳ TEMPORAL
  - ↳ global speeds
  - ↳ differentiation
- ↳ "intermittent"
- ↳ DECISION MAKING



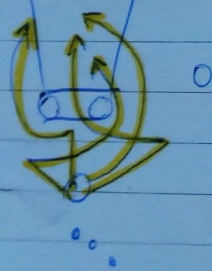
SOCIO-AFFECTIVE COMMUNICATION

- ↳ Cooperation
- ↳ MUTUAL HELP
  - ↳ EMPATHIC ex: type pass partner's like!
  - ↳ ASSERTIVE

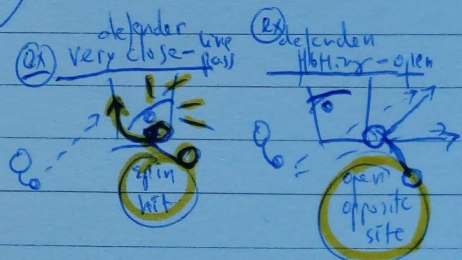
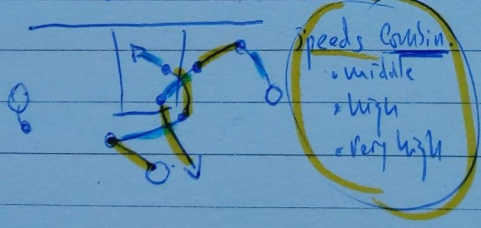
to pass the ball



ex def. PATHS



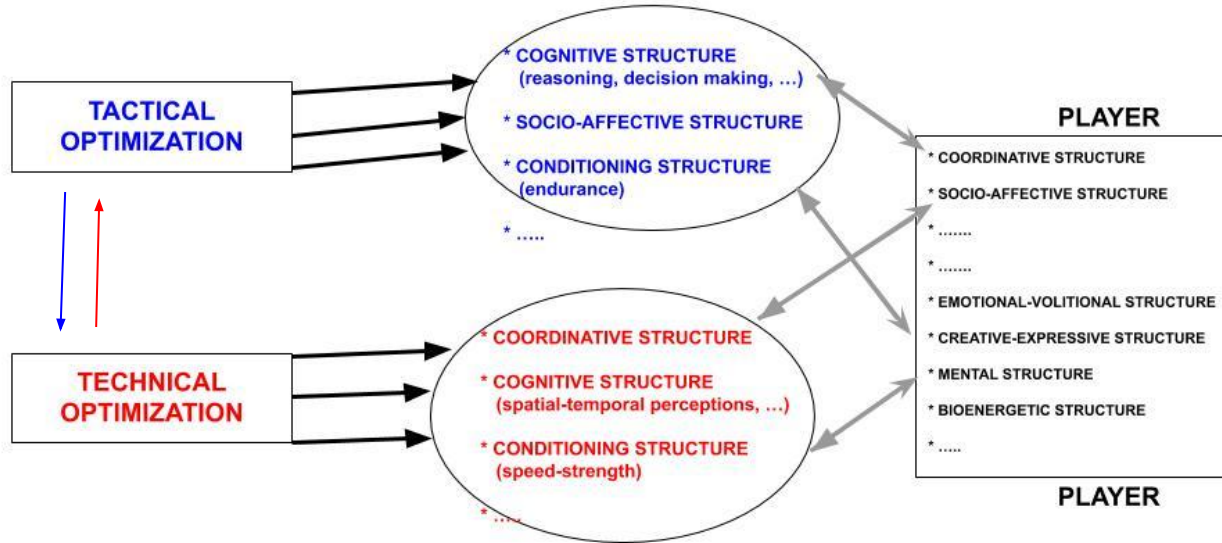
ex def. GLOBAL SPEEDS



(d) Interact technical and tactical optimizations.



# TECHNICAL-TACTICAL OPTIMIZATION MAIN PRIORITIES · TEAM SPORTS

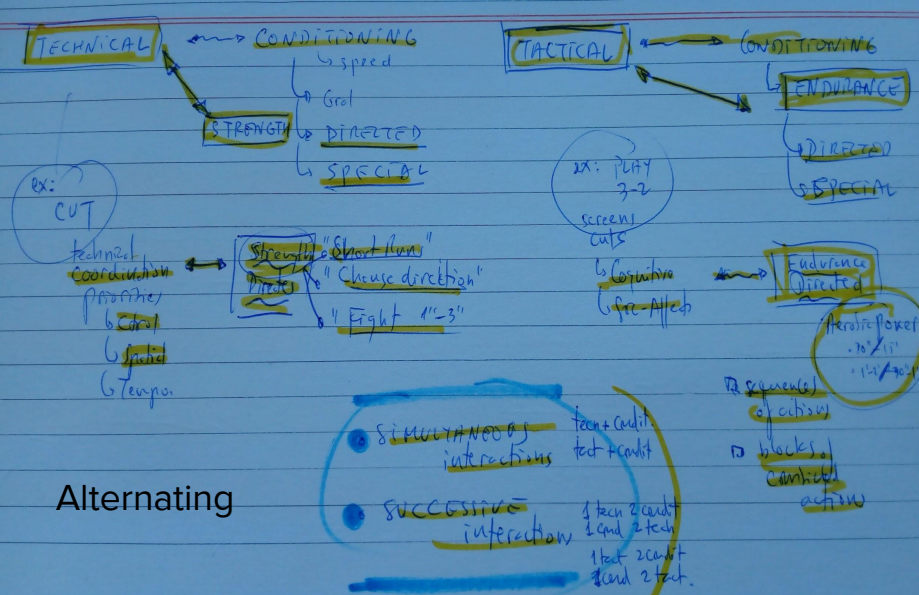
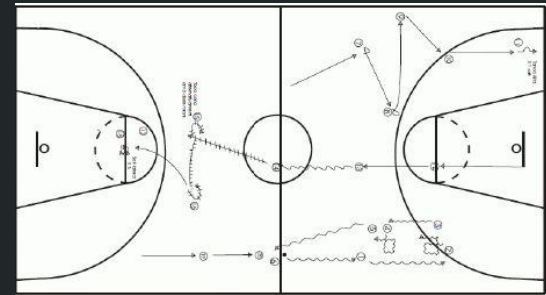


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(e) Enriching technical-tactical optimizations with a great variety of **conditioning** (levels of specificity of strength and endurance), **emotional-volitional** (main emphasis on being in love with the game) and **creativity** prioritized situations.

# Conditioning



Alternating

- SIMULTANEOUS interactions  
 tech + condit  
 tech + condit
- SUCCESSIVE interaction  
 1 tech 2 condit  
 2 cond 2 tech  
 1 tech 2 condit  
 2 cond 2 tech

# Emotional-Volitive

Extraordinarily important to live many varied competitive experiences, especially in games, ... also in training.

Examples:

- Play the last min. sec. in a tight game.
- Overcome or maintain an advantage.
- Repeat actions with success in critical moments.
- Plays with limit of time.
- Make the shot from a concrete distance-zone / defended by x player / with a x play / with a type of shot / getting fault / ball of the game
- Fights with players taller-shorter / quicker / stronger / with more endurance / more intelligent / more coordinated / more creative / very unpredictable / highly socio-affective / with more emotional control / ...
- Under different types of fatigue.
- .....



Nikos Stavropoulos

## Always play:

- being in love with the game, concentrated in playing well !!
  - Not being angry, not afraid, .....
- (this makes you weaker)



# Creativity

Challenge the players to find new options of personal optimization.

Coach open to new possibilities.



Šarūnas Jasikevičius

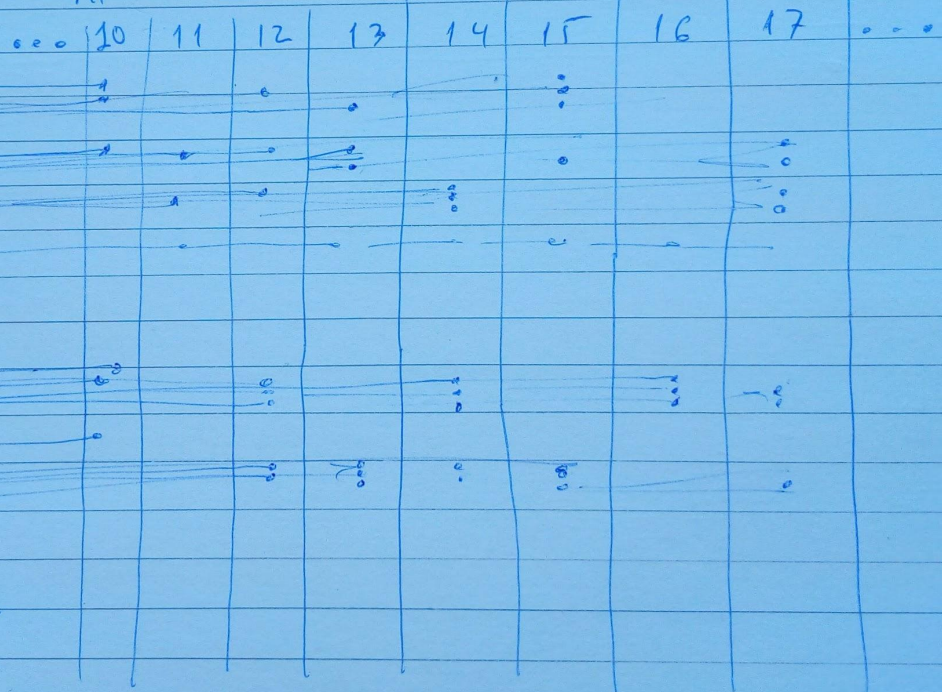


CONTROL - EVALUATION

MONITORING

Keep track of PERSONALIZED OPTIMIZATION

MICROCICLO



TECHNICAL ABILITY  
 10/11  
 2x1 3x2  
 3x2  
 5: CUTS

TACTICAL SITUATION  
 3x3  
 4x3 4x4  
 5x4  
 57  
 3-2  
 def. trans

- CONDITIONAL → ≡
- EMOTIONAL-VOLITIVE → ≡
- CREATIVITY → ≡



# PROJECT OF SPORTS INITIATION by Prof. F. Seirul-lo Vargas, 2004

The project is divided into three stages:

- A. Introduction to practice
- B. Obtaining high performance
- C. Decreasing functionality

Each of the 3 major stages happens over the course of 10-12 year periods, and is further subdivided in phases:

- A1. Non-specific Movement Practice Phase (ages 5-7)
- A2. Generic Polyvalent Development Phase (ages 8-10)
- A3. Multilateral Oriented Preparation Phase (ages 11-13)
- A4. Specific Initiation Phase (ages 14-16)

→ First planning !!

- B1. Specialization Phase (ages 17-19)
- B2. Perfecting Phase (ages 20-23)
- B3. Stability and High Performance Phase (ages 24-28)

- C1. Maintaining High Performance Phase (ages 29-34)
- C2. Compensatory Adaptation to Reduced Performance Phase (ages 33-38)
- C3. Functional rehabilitation for non-competitive performance (ages 30-41)

It is imperative that every athlete is oriented over the course of an athletic life for a project that prevents very common mistakes when competition is rushed and the temporality of the main criteria – the optimization of the individual – is not respected.

## Fundamental Movement Skills and their Application to Sports Initiation

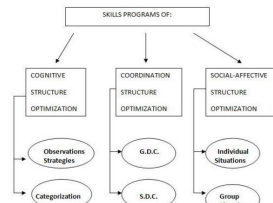
[http://entrenamientodeportivo.org/articulos/Fundamental\\_Motor\\_Skills\\_and\\_Their\\_Application\\_to\\_Sports\\_Initiation\\_seirul\\_lo.pdf](http://entrenamientodeportivo.org/articulos/Fundamental_Motor_Skills_and_Their_Application_to_Sports_Initiation_seirul_lo.pdf)

**YOUNG BASKETBALL PLAYERS**  
approx. from 9-10 to 18 years old

### A1 REGULAR AND NONSPECIFIC PRACTICE: 5 TO 7 YEARS OLD

This is a regular practice added to the physical education activities the child performs in school. It includes at least two sessions more per week in addition to the school's physical education.

The intention is to be entirely focused in the integral education of the subject's motor skills. It is not yet known what the student athlete will or wants to be, and that should mean a practice of development sufficient to get a thoroughly developed optimization of all motor skills.



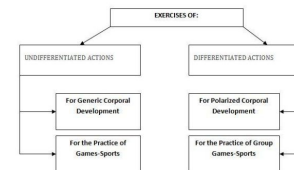
"THE CHILD WANTS TO PLAY SPORTS / BE AN ATHLETE"

G.D.C. General Dynamic Coordination (improvement with your own body)  
S.D.C. Special Dynamic Coordination (movement interacting with inanimate objects)

### A2 VERSATILE AND GENERIC TRAINING: 8 TO 10 YEARS OLD

Continue the process of generic development to achieve the largest possible foundation of motor skills. A foundation capable of solving the prerequisite motor skill demands of any sport.

We must reaffirm the habituation and integration of the athlete's generic motor skills.



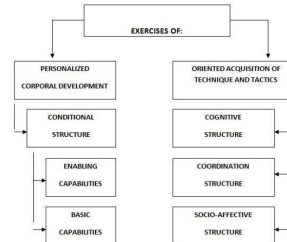
The child can be an athlete

"THE CHILD CAN BE AN ATHLETE ..."

### A3 PREPARATION OF MULTILATERAL ORIENTATION: 11 TO 13 YEARS OLD

... In a progressive manner create a practice oriented toward the sports, and then to the sport, in which the greatest efficacy is shown.

EXPERIMENTATION AIMED TO ACHIEVE THE SKILLS AVAILABLE WITHIN

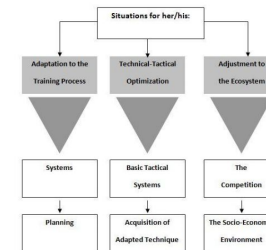


"THE CHILD IS ALREADY PLAYER OF ..."

### A4 INITIATION OF THE SPECIALIZATION: 14 TO 16 YEARS OLD

... It leads the athlete within their chosen sport to the acquisition of global tactics and techniques, and then further toward specialization in a specific position which can be claimed for their own based on their personal capabilities.

... Arrival and adaptation to the specific sport suited best to the athlete's personal ability.



"NOW PLAYING ON THE CERTAIN POSITION"

Seirul-lo Vargas F. - Fundamental Motor Skills and Their Application to Sports Initiation

Seirul-lo Vargas F. - Fundamental Motor Skills and Their Application to Sports Initiation



# Challenge



About 9 years of training and competition to enrich the optimization of:

## 1. All relevant tactical situations.

Young teams in a club playing the same tactical concepts as senior players **vs.** young teams playing year by year a wide variety of tactical concepts to be prepared to compete in any competition.

## 2. All relevant technical abilities.

Young players developing technical abilities to solve selected tactical situations **vs.** young players optimizing a wide variety of technical abilities to solve with different options any tactical situation.





# Final Remarks

If young basketball players train and compete in conditions that allow a rich technical-tactical optimization they will be able to play intelligent, unpredictable, instinctively, unselfish, creatively and concentrated on loving the game; thus, when they are senior players they will easily perfect any game situation required by their coach.

# PERSONALIZED OPTIMIZATION

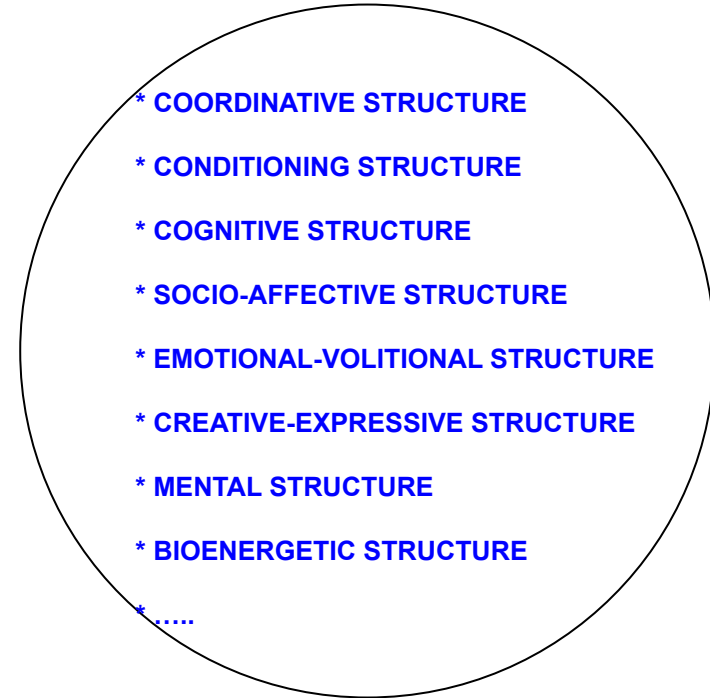


The practical methodologies of personalized optimization provide insight into:

- (1) the identification of talents and needs of a player in a structural criterion,
- (2) the optimization of all aspects of each structure of the player in depth and in detail,
- (3) the creation of training methodologies that includes the complexity of the player, by intra-systemic and inter-systemic optimizations, and
- (4) the design of self-control and self-evaluation methods for a personalized proposal of an optimal training process.

... Also useful for elite players.

## PLAYER





# Thank you for your attention !!

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*Stavropoulos N.; Stavropoulos D.; Muñoz-Espona S.; Ribera-Nebot D.*  
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