TACTICAL PERIODIZATION

Theory & Fundamentals
— Jose Guilherme Oliveira
The game of Football is...

A confrontation between “chaotic deterministic systems” with “fractal organization”.
Chaotic systems:

Complex systems that are characterized by a set of agents in interaction, which cooperate, with common coordinated objectives & behaviors, giving rise to a certain order & stability in a chaotic context, from disorder & permanent instability (Stacey, 1995).
A team is...

A set of players in interaction, who cooperate, with common coordinated objectives & behaviors, giving rise to a certain organization & stability, offensive & defensive, in a game context which is unpredictable & from permanent instability.
A fractal is...

The fact of fracturing & representing a chaotic model in sub-models, existing in various scales, which are representative of this model. i.e. a fractal is an invariant or regular part of a chaotic system which by its structure & functionality can represent the whole, independently from the scale where it can be found (Mandelbrot, 1991).
A player also is a Fractal of the Team, however, on a smaller scale.

The team is the WHOLE

Sector is a Fractal

Sector is a Fractal
What do we expect from a team?

That it represents an organization, as a function of certain game ideas that we have, with the objective of resolving problems, always unpredictable, that the game demonstrates.
As a function of this problem, the need arises to...
Several concepts of training exist...

Tendency originally from Eastern Europe

Tendency originally from northern Europe & North America

Tendency from Latin America

Tactical Periodization
Tactical Periodization! What is it?

A Concept of Training that seeks, through respect for a Conceptual Matrix & its own different Methodological Principles, to construct a Specific game.

A construction which is a non-linear dynamic process (& without end)
A concept that conceives training as a process of teaching/learning (not only as moments of drilling)

**Teaching:** because teaching presupposes contextualizing & guiding for the acquisition of certain learning, knowledge, competencies, experiences, i.e. pointing the way.

However, one can only teach if the other is willing to learn
A concept that conceives of training as a process of teaching/learning (not just as moments of drilling)

Learning: because to learn is the acquisition of knowledge, competencies, experiences, i.e. “to live & experience the way”.
A concept that conceives of training as a process of teaching/learning (not just as moments of drilling)

As such, it is a process which has as an objective that the team & the players acquire knowledge & collective & individual competencies, through experiences, so that they form their own style of play.
It is a **Concept of Training** which supports the knowledge of a set of scientific areas, some of which are not very conventional in the area of training

- Neuroscience
- System Modeling
- Theory of Complexity
- Theory of Dynamic Systems
- Fractal Geometry
- Chaos Theory
Tactical Periodization! What presuppositions?

Know & recognize the game as a complex reality:

- recognize the organizational, structural & functional essence of the game
- Have a complex conception of the game
Tactical Periodization! What presuppositions?

- Recognize the process of training as a complex reality, with a non-linear dynamic.
Tactical Periodization! What presuppositions?

- Know the person that plays - the individual - i.e. the child, the adolescent, the adult
  - How (s)he grows
  - How (s)he learns
  - How (s)he decides
  - How (s)he expresses himself/herself
Objectives of Tactical Periodization

To bring out a Specific style of game by collective & individual intentions.
It is intended to create a weekly logic of experiences with the objective of there being acquisition & development of Specific knowledge (collective & individual), of Specific technical skills, & simultaneously, its own relationship between work & recovery, which pushes the creation of patterns of action, in other words, of collective & individual intentions, by way of creating a Specific way of playing.
Tactical Periodization! Why the name?

Periodization because there has to be a temporal space for the creation of a way of playing. In general terms the sports season. In structural, operational & functional terms the Weekly Pattern - the Morphocycle.
Tactical Periodization! Why the name?

Tactical by virtue of this dimension being the coordinator and molding of the whole training process
Understanding of Tactics

The game of Football is unanimously considered to be constituted of 4 DIMENSIONS, which interact, but which can be recognized separately:

- Physical
- Psychological
- Technical
- Tactica;
Understanding of Tactics

However, in Tactical Periodization, the understanding of Tactics is different:

- It is a (more) Complex dimension which is manifested by interaction of an organization (Macro…Micro) “intentionalized” from the other dimensions (which are also complex).
Complexity

- The understanding of complexity is decisive in the comprehension of Tactical Periodization.

- Complexity comes from the set of interactions which a system can promote among its elements & among its environment.
Complexity

Hence it results that:

• The complexity is not able to be simplified, it can show different levels of complexity

• The whole is different from the sum of the parts

• The parts do not represent the whole & are only really understood when within the whole. However, the different levels of complexity represent the whole - notion of “Fractal”.
The COMPLEXITY in football comes from the quality of the set of interactions which emerges from the game & the context:

- the quality & complexity of ideas
- the quality of players
- the interaction of the players & the ideas
- the problems raised by the confrontation between the teams
- the surrounding context
- ...
Understanding of Tactics

However, in Tactical Periodization, the understanding of Tactics is different

• It is not an abstract dimension, it is manifested always in a singular form - Specific (& the others too). It is assumed as the Culture of the team.
Understanding of Tactics

However, in Tactical Periodization, the understanding of Tactics is different

• & also it does not make sense if some of them are not contemplated
Understanding of Tactics

As a consequence of this logic we understand that the Tactical Dimension must assume the Coordination & Modeling of everything or Operational Process of the Training.
Tactical Periodization! What are the objectives?

Bring out a Specific way of playing

• Create a dynamic “collective identity” - collective “intentions”

• Create individual “intentions” related to the “collective identity”, without loss (& with gain) of individuality

• Reconcile the “Previous Intentions” with the “intentions in action”

i.e. construct the “Incorporation of a Specific Game Model. At collective & individual level.”
What is a Game Model?

Interaction between:

• Ideas of coach
• Players
• Training
• Context
• Club
• Game principles
What is a Game Model?

The creation of an “identity”
The Game Model

Is a dynamic process, non-linear, between

• Macro Plan (team) which is partially predictable
• Micro Plan (player) which is intended to be unpredictable within the predictability
• Chaotic Deterministic Phenomenon
Tactical Periodization exhibits...

**Principle of Specificity**

- Conceptual Matrix ("controllable")
- Methodological Matrix ("controllable")
- Collective Plan ("Controllable vs. Unpredictable")
- Individual Plan ("Unpredictable vs. Controllable")
Evolution of the Principle of Specificity

The greatest functional & morphological changes happen only in the organs, cells & intracellular structures which are sufficiently activated by functional load, bringing forth the respective adaptations.
Evolution of the Principle of Specificity

Also it is the specific characterization of the functional energetic work, in other words, the work in physiological terms that the modality of football requires (on average) - specific football exertion.
Evolution of the Principle of Specificity

The specificity also is determinant in the methodology of training, Integrated Training, in that the exercises created are the most situational possible, in other words, it takes from the game that which is most important & transports it for training, which is constructed by actions of the game itself.
However, Gibson defines specificity as a qualifying concept of a relationship between variables. These variables represent the specific information of a determined context.
Evolution of the Principle of Specificity

Therefore, an exercise is only Specific if there is a relationship with the Game Model which is building it
Conceptual Matrix

Gives direction to the Modeling of the training process

- Moments of the Game
- Scales of the Team
- Organization of the Principles of the game
Moments of the Game

- Offensive Organization
- Transition Attack - Defense
- Defensive Organization
- Transition Defense - Attack
Scales of the Team

- Collective
Scales of the Team

- Collective
- Inter-Sectorial
Scales of the Team

- Collective
- Inter-Sectorial
- Sectorial
Scales of the Team

- Collective
- Inter-Sectorial
- Sectorial
- Group
Scales of the Team

- Collective
- Inter-Sectorial
- Sectorial
- Group
- Individual
Organization of the Game Principles

Game Principles are tactical patterns of action, patterns of intentions & regularities, which the team & its respective players must manifest in different scales of expression, during the different Moments of the Game
Organization of the Game Principles

Main Principles of the Game

• the general patterns which characterize the team - which give it its identity - macro plan
Organization of the Game Principles

Sub-Principles of the Game

• the intermediate patterns of the game which give life to the general patterns - identity of the team = meso plan.
Organization of the Game Principles

Sub-Principles of the Game

- these are the micro patterns, related to the details & which give “unpredictability to predictability” but which emerge as a function of the dynamics of the Principles & the Sub-Principles.
Example of our Game Plan Interaction
Example of our Game Plan
Interaction
Offensive Organization

Possession & movement of the ball

- **Objective**: look for, create & get into spaces, i.e. disorganize & unbalance the opponent’s defensive structure, in order to take advantage of the disorganization to score a goal
Example of our Game Plan
Interaction
Transition Attack - Defense

Pressure the ball carrier & surrounding space, in width & depth

- **Objective**: pressure the ball carrier & the surrounding space in order to win possession or get into defensive organization with a close & balanced team, without open spaces between the lines
Example of our Game Plan
Interaction
Defensive Organization

Pressuring zone defense

- **Objective:** to limit, direct & pressure the opponent in order to close & take away the wide & deep spaces, to provoke the mistake & win possession of the ball
Example of our Game Plan
Interaction
Transition Defense - Attack

To pass the ball away from pressure zone

- **Objective**: pass the ball away from pressure zone (critical space) to take advantage of eventual defensive disorganization of opponent in order to:
  
  - (i) get into open spaces - depth
  
  - (ii) keep possession of the ball & get into offensive organization
Example of our Game Plan
Interaction
Offensive Organization

Positional organization:

- opening up of the team
- positional play - formation of many lines in depth & width - diagonals (collective, inter sectorial & sectorial)
Passing angles
Offensive Organization

Disorganize & unbalance opponent - create & get into spaces:

- Possession & permanent circulation of the ball to disorganize & unbalance opponent in order to take advantage of or create/open up spaces in the respective defensive structure - **Creation of an Offensive Dynamic**
Offensive Organization

Patterns of Offensive Dynamic (find/create spaces)

- Distribution in the build up
- Opening up of team & good positional play
- Circulation instead of dribbling the ball
- Permanent variation of ball movement in width & depth = ball mobility
- Mobility of the players - take advantage of & create spaces in order to play
- Imposition of varied rhythms of ball movement - variation of intensity of circulation
  - variation between short & long passes
  - variation of speed of ball - of ball movement
Methodological Matrix

- Principle of Complex Progression
- Principle of Horizontal Alternation in Specificity
- Principle of Propensities
Methodological Matrix

Principle of Complex Progression

• Related to distribution of Main Principles, of Sub-Principles (&…) during the Morphocycle & along the Morphocycles, according to the problems and the evolution of the tea,

• Periodization & Planning of the “Tactical Dimension”

• Non-Linear Progression
Methodological Matrix

Principle of Complex Progression

• 2 levels of Periodization & Planning, distinct yet which interact
  • Game to Game - short term
  • Medium & Long term
Methodological Matrix

Principle of Complex Progression

• From less to more, but always in complexity
• Hierarchy of the Principles
• Demands of the Opponent
• Sub-Dynamics of the Morphocycle
Methodological Matrix

Principle of Complex Progression
Methodological Matrix

Principle of Complex Progression

• Must consider the relationship between the complexity & the respective wear & tear (physiological & emotional) provoked by:
  
  • Complexity of the Main Principles & Sub-Principles of the different days of the Morphocycle
  
  • Type of Effort of the different days of the Morphocycle
Methodological Matrix

Principle of Horizontal Alternation in Specificity

• This methodological principle has as its objective to induce adaptations in the different “scales” & respective interactions, through a procedural logic so as Specific patterns of the game emerge.
Methodological Matrix

Principle of Horizontal Alternation in Specificity

• As such it is necessary

• Create a habituation to a “methodological invariance”, Standard Morphocycle:

• To provide the “horizontal alternation” (days of the Morphocycle)
Methodological Matrix

Principle of Horizontal Alternation in Specificity

• As such it is necessary

• To create a habituation to a “methodological invariance”, Standard Morphocycle:

• Not to overload the structures most requested “in the playing”, similarly, in the different days of the Morphocycle - relation between the “type of effort/sub-dynamics vs. recuperation…”
Methodological Matrix

Principle of Horizontal Alternation in Specificity

- Morphocycle is the time between 2 games
Methodological Matrix

Principle of Horizontal Alternation in Specificity

Specific Morphology/Structure - adaptable

• Relationship & Interaction between Main Principles & Sub-principles
• Relationship between type of effort/sub-dynamics vs recuperation during the whole Morphocycle
Methodological Matrix

Principle of Horizontal Alternation in Specificity

Symbology of Colors
Methodological Matrix

Principle of Horizontal Alternation in Specificity

• The muscle contractions can be characterized…

• In football they interact creating a characteristic dynamic:

  Tension
  Duration
  Speed
Methodological Matrix

Principle of Horizontal Alternation in Specificity

- Still, a certain form of playing brings out a Specific Dynamic
- Certain Principles & respective interactions also bring out Specific sub-dynamics
Principle of Horizontal Alternation in Specificity

• Following this line of reasoning, any football exercise is bringing out the interaction of these 3 kinds of muscular contractions in a certain way.
Methodological Matrix

Principle of Horizontal Alternation in Specificity

• Thus, we can direct the exercises (& the principles & the sub-principles) in order to get the dominance of the type of contractions, more in one feature or more in another, creating sub-dynamics of different strengths.
Methodological Matrix

Principle of Horizontal Alternation in Specificity

- Morphocycle: Game Sunday to Sunday
Methodological Matrix

Principle of Horizontal Alternation in Specificity

- Morphocycle: Game Sunday to Saturday
Methodological Matrix

Principle of Horizontal Alternation in Specificity

• Morphocycle: 3 games in a week
Methodological Matrix

Principle of Horizontal Alternation in Specificity

- Sub-Dynamics: Tension
Tension

Sub-principles:
- Intersectorial
- Sectorial
- Group
- Individual
Methodological Matrix

Principle of Horizontal Alternation in Specificity

- The exercises must promote: high density of acceleration & braking, changes of direction & speed, jumps, shooting, …(high density of interaction between eccentric concentric contractions)
Methodological Matrix

Principle of Horizontal Alternation in Specificity

- The exercises must be performed in reduced spaces, with a limited number of players, the time of the drills must be short & the recuperations between the exercises must be “almost total”.
Methodological Matrix

- Example:
  - GK+4+1 vs GK+4+1
- Periods of 3’ to 5’
- Training of Sectorial or Inter-sectorial Sub-principles
- Def. & Off. organization with transition defense-attack…
Methodological Matrix

- Example:
- GK+6 vs GK+6
- Periods of 3’ to 5’
- Training of Inter-sectorial Sub-principles
- Def. & Off. organization inside play (with entry balls in depth) with transitions…
Methodological Matrix

- Example:
  - GK+6 vs GK+6 in 3 zones
  - Periods of 3’ to 5’
  - Training of Inter-sectorial Sub-principles: mobility, creation & getting into spaces
Methodological Matrix

Principle of Horizontal Alternation in Specificity

• Sub-Dynamics: Duration
Duration

Main Principles & Sub-principles:

Collective
Intersectorial
Methodological Matrix

Principle of Horizontal Alternation in Specificity

• The exercises must promote: an effort quite similar to that of a game - pattern of Specific principles -, but must have a certain discontinuity within the continuity
Methodological Matrix

Principle of Horizontal Alternation in Specificity

- The exercises must be performed in big spaces, with an elevated number of players & the time of the exercise should be “long…” (discontinuity within the continuity).
Methodological Matrix

- Example:
  - \{GK+10\} vs \{7+GK+3\}
- Periods of 10’
- Principles & Sub-Principles
- Collective & Inter-sectorial
- Def. Organization (inter-sectorial) & defense-attack transition
- Off. Organization (collective) with attack-defense transition (in high block)
Methodological Matrix

- Example:
  - MPB \{GK+10\} vs \{10+GK\}
- Periods of 6’ - 10’
- Training of Principles & Sub-Principles at collective level
- Def. & Off. organization with transitions
Methodological Matrix

- Example:

- Game \{GK+10\}vs\{8+GK\}

- Periods of 10’

- Training of Principles & Sub-Principles at collective & inter-sectorial levels

- Off. collective organization & transition attack-defense (in high block) & Def. inter-sectorial organization with defense-attack transition
Methodological Matrix

Principle of Horizontal Alternation in Specificity

- Sub-Dynamics: Speed
Speed

Sub-principles:
Intersectorial
Sectorial
Group
Individual
Methodological Matrix

Principle of Horizontal Alternation in Specificity

• The exercises must promote: an elevated speed of decisions, execution & action
Methodological Matrix

Principle of Horizontal Alternation in Specificity

• The exercises must be performed in spaces & with the number of players that one is able to achieve the intended objectives. There should be little obstruction (few opponents) in the performed actions. The time of duration of the exercises should be “reduced”, & must have a lot of intermittency.
Methodological Matrix

Principle of Horizontal Alternation in Specificity

• **Attention!** always consider the previous training session (& the proximity of the next competition)
Methodological Matrix

- Example:
  - \{GK+7\} vs \{6(+1)+GK\} in waves
  - Periods of 10’ (but max 1.5’)
  - Training of inter-sectorial Sub-principles
  - Off. & Def. organization with transitions…
Methodological Matrix

• Example:

• \{GK+4+6\} vs \{6+4+GK\} in waves

• Periods of 6-10’ (but max 1.5’)

• Training of inter-sectorial & sectorial Sub-principles

• Off. & Def. organization with transitions…

• (can have many variants with entry on the attack & on the defense with different players)
Methodological Matrix

- Example:
  - \{5+1\} vs \{3\}

- Periods of 6-10’ (but max 1.5’)

- Training of inter-sectorial & sectorial Sub-principles

- Off. & Def. organization with transitions…
Methodological Matrix

- Example:

- Offensive movements with finishing. Periods of 15’-20’…
Methodological Matrix

Principle of Horizontal Alternation in Specificity

- Sub-Dynamics: Active Recuperation
Active Recuperation

Sub-principles:
- Intersectorial
- Sectorial
- Group
- Individual

- without any emotional wear & tear
Methodological Matrix

Principle of Horizontal Alternation in Specificity

- The objective is to accelerate the recuperation of the players
- The exercises must promote: identical demands as appear in the game, however, they must be performed during quite reduced periods of time & with fairly long recuperation
Methodological Matrix

Principle of Horizontal Alternation in Specificity

• The objective is to accelerate the recuperation of the players

• The exercises must be performed in relatively short spaces & with intermediate number of players
Methodological Matrix

• Example:

• Futevolei (soccer tennis) exercises (can vary the number of players)
Methodological Matrix

- Example:

- MPB in very reduced space. Periods of 1’-2’ with the same intervals (atmosphere of “decompression”)

"Recuperação Ativa"
Methodological Matrix

Principle of Horizontal Alternation in Specificity

• Sub-Dynamics: Active Recuperation/Pre-Activation

“Recuperação Ativa”
Active Recuperation/Pre-Activation

Sub-principles:
- Intersectorial
- Sectorial
- Group
- Individual

- without any emotional wear & tear
Principle of Horizontal Alternation in Specificity

• The objective is to accelerate the recuperation of the players

• The exercises must promote: contexts that recreate parts of the game, however, they must be performed during little time & few times (reduced density & duration)…& with long recuperation intervals.
Methodological Matrix

Principle of Horizontal Alternation in Specificity

- The objective is to accelerate the recuperation of the players
- The exercises must be performed in spaces & with the number of players that is possible to achieve the intended objectives
Methodological Matrix

- Example:
  - various keep away games
Methodological Matrix

- Example:
- keep away with 3 teams
Methodological Matrix

- Example:
- simple finishing
Methodological Matrix

- Example:
  - Games \{GK+6\} vs \{6+GK\} + 6 supports
  
  - Periods of 2’-3’
  
  - Intervals must be 1-2 times the time of the game (complete recuperation)
Methodological Matrix

- Game {11 vs 11}

- or {11 vs GK} choreography

- Periods of 10’-15’ but of very short drilling (recall strategy)

- Training of Principles and/or Sub-principles, collective, inter-sectorial

- Off. & Def. organization with transitions…Recall strategic aspects…(can have many variants with different incidents…)
Methodological Matrix

Principle of Horizontal Alternation in Specificity on 3 levels

Principles & Sub-principles Relationship

Pattern of Effort Sub-Dynamics

Binomial Strength vs Recuperation
Methodological Matrix

Principle of Horizontal Alternation in Specificity

Maintenance of Weekly Patterns in Depth
Methodological Matrix

Principle of Propensities

The objective of this methodological principle is to create contexts in which the density of the training principle(s) appear with regularity, so that the game that is desired for the team, emerges.
Methodological Matrix

Principle of Propensities

• The density of the Main Principles, of the Sub-Principles…& of their interaction has to be in evidence in the proposed exercises

• Incidence of desired sub-dynamic
Methodological Matrix

Principle of Propensities

2 Plans

• Tactical & Technical Plans
  • quantity of times that certain behavior comes out of the exercise

• Physiological Plan
  • Sub-dynamic which each day requires
Principle of Propensities

There must be a strong relationship with the “Principle of Horizontal Alternation in Specificity”.
Principle of Propensities

This is the Methodological Principle that allows direct modeling of the training in such a way that the game stops being chaotic in order to become “deterministic chaotic”.
"The formal side of Tactical Periodization is likely to be captured by many people, but it is not therein that lies the key. The key lies in the putting into operation of the formal side, in making it more solid. This is where the role of the coach, the manager, is important every day. This individual must bring everything that is favorable to the qualitative growth of the process, with the sense of the future that aspires to be something that makes sense."

—Vitor Frade