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Our interview of the month: an interview on methodology and planning.

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Questions on methodology

Question: When determining the methodology for football training, should we base it on the style of play or on the individual?

Answer: If we start by observing the game as a model, we are making a serious mistake, as all models of play are context-dependent, even if we take as a model an 'ideal' one devised by the coach themselves. Therefore, the methodology must be tailored to what the individual is capable of doing, the categories they can process, whether their decision-making is dependent on or independent of the pitch, their ability to anticipate or adapt to events, and other elements that shape their competitive personality.

Q. What does it mean to play well?

A. It means performing a variety of roles on the pitch, regardless of who has the ball, which enable the team to make the most of its current circumstances to achieve the objective—the goal—in the successive and immediate phases of the game that have arisen as a result of certain one of those roles. When this is done throughout the entire match, it can be said that the team played well.

Q. Is it possible to apply a training methodology that enables us to build a great team in the long term whilst achieving immediate results? Or, to put it another way: can we lay the foundations for the future whilst achieving results in the present?

A. – When the methodology focuses on the player, it is indeed possible. On the one hand, we will optimise their abilities, which has an impact on the player's immediate achievements in the present. If this player happens to have a higher level of optimisation than their opponents, they are on track to achieve immediate results. On the other hand, when this optimisation of abilities is carried out whilst respecting the player's personal processes of self-structuring, we are laying the foundations for the player's future development. To achieve all this, it is necessary to incorporate individual objectives into the planning and to develop long-term projects with immediate phases, tailored to the specific characteristics of our players.

Q. Given that football is a sport of open skills, shouldn't the methodology of tactical training be based on games and exercises in which the player has to be constantly seeking solutions?

A. That is correct, but this search must be guided by 'search criteria' so that the situations proposed by the coach are analysed against those criteria. In this way, the coach can propose situations where variables are established that can be addressed by the player according to their current abilities and which, unequivocally, enable them to optimise their performance in a specific area. This is the only way for the coach to plan training sessions and monitor the level of optimisation of their players.

Q.— Are the training sciences applied to individual sports methodology sufficient to achieve peak physical condition in team sports?

A. – They provide sufficient support on which to build the methodologies applied to this other category of sports. The strength training methodology for a weightlifter is of no use to us when training strength for football, as in this sport performance is not measured by the total weight lifted in two attempts or by the Olympic total. However, the principles of weightlifting are valid for all strength training across any sporting discipline; they therefore form the basis upon which we must build the specific methodology for team sports that require strength. The same applies to speed and other methods that enable the development of this category of abilities.

Q. Does the level of physical fitness play a decisive role in football performance?

A. – It certainly does, as physical fitness is the result and convergence of the state of optimisation in which a player's conditional abilities find themselves. These abilities must be in a continuous state of imbalance, arising from their interaction with the other abilities that make up the structure of a footballer at a given point in their sporting career, in order to achieve peak performance at that level. A player can develop their technical skills throughout a match because they are supported by their physical capabilities; if these come to a halt, or if they are not maintained in a state of constant imbalance, the player loses their potential for further development, severely limiting their progress in their game and substantially reducing their performance.

Q. What do you think are the real requirements for optimising performance in football?

A. Optimising performance in football from the player's perspective means optimising all their abilities across the dimensions required by the sport. We must identify these dimensions within the scope of the conditional, coordinative, cognitive, volitional and expressive abilities… which make up the player's structure. To make these determinations, we rely exclusively on observing the player whilst they are engaged in the specific training session alongside their teammates, the coach, the player themselves and their opponents. Therefore, needs are created and defined provided we are able to see what the specific practice offers us – which is everything. Or does the opposing defender, who allows a striker to 'take him on', letting him 'break through' on his left where he always takes the ball off him, not reveal the need to optimise certain abilities of that striker?

Q. In football training methodology, can the contributions of training science for individual sports be utilised in some cases, or should this never be applied?

A. This question has been partly answered above. If we wish to be effective in our training programmes, we must base them on the player's specific needs within the sport they are playing, as this is precisely what individual sports have done. If we want to improve the speed required to receive the ball from a teammate without being caught offside, we must train speed under the variable conditions in which these game situations arise, whilst adhering to the methodological principles of speed training, as this is what individual sports have done.

Q. In football, can improving a single aspect of performance alter overall performance? In other words, can enhancing one specific quality in isolation—without training the others—lead to a deterioration in the team's performance during a competitive match?

A. – In absolute terms, yes, as there is no sport in which one can perform well by improving just one trained quality, however that is done. But the first part of the question requires a brief comment. Firstly, focusing on a single aspect of performance – for example, speed – involves training a group of the player's abilities and systems that converge to improve that quality. From the player's perspective, this involves prioritising the optimisation of certain systems that enable them to interact with their environment in a specific dimension within the game situations being assessed as speed. This internal adjustment, which training continually brings about, is their teleonomy – their specific internal organisation of all their structures, with a view to achieving a certain internal objective. This adjustment and interaction between systems or structures must be maintained in a state of constant imbalance in order to remain primed for optimisation. To this end, training situations cannot be analytical, nor can they be closed or homogeneous; this compels coaches to devise alternative types of training situations that are also specific to sports such as football.

Q. – Does designing the form and quantification of the training load in football based on competition mean that the best training is an eleven-a-side match seeking to replicate the conditions found in official matches?

A. Firstly, we should note that matches in training that 'almost' replicate real competitive conditions should be used solely as a synthesis of the optimisation processes designed during the training cycle leading up to that match-session, as this is a highly valid means of assessing the development and integration of those processes into the simulation of competition. We must also point out that, by using only time as a measure of the workload in such matches, we are failing to make use of countless other elements that can provide us with qualitative insights into the players' progress. Therefore, it is not the best form of training, because if its supposed objective was to replicate competition conditions, it fails to do so; the best training is that which faithfully replicates a situation so that the player taking part can optimise certain systems that are unequivocally recognised as necessary for resolving that proposed situation. It is a training method based on competition which, because it is highly specific, must be weighed up just like any other training method, and this should be indicated in the planned training programmes.

Q. Is the warm-up in football, as it is currently carried out in a standardised manner, correct?

A. – The warm-up is the introduction to a physical training session or competition. Standardised warm-ups may only be used prior to competition, when it has been established that this is the best approach for the individual – 'This is my warm-up!' Warm-ups for training sessions must maintain a small element of the 'physiological alertness' specific to the individual player, and then another element suited to the demands of the session's content; therefore, they should not be standardised.

Q. What factors need to be taken into account to achieve true athletic fitness in football?

A. Defining fitness in a team sport presents a certain degree of difficulty, as the assessment of fitness must be carried out from an ecological perspective, rather than simply following the traditional, simplistic approach based on quantitative methods focused on results. We start from our understanding of our players' level of teleonomy and use the hypothetical-deductive method, aligning as closely as possible with what reality tells us and what we are able to process. We must therefore formulate hypotheses regarding our opponents' fitness levels and deduce the implications this has for the training planning of our own players involved. We must compare the hypotheses from our initial project—regarding the objectives in the various competitions in which we participate—with the current state of the competition in question, in order to deduce the most appropriate training strategies, so as not to adversely affect the rest of the subsequent competitions. We must also form hypotheses about how the media assessed our most recent participation in this competition and how our own club does so, in order to determine the extent to which we should take risks when planning training content – or avoid doing so. All these premises, and a few more, must be taken into account to understand and be able to determine the player's true fitness level, which must take into account their own level, how they compare to their teammates, that of their opponents, the demands of the competition, and the expectations of the socio-cultural context at that time. The simplistic, quantitative definition based on the result achieved is that of the fan who attends the ground; the coach and his team must use the ecological paradigm to monitor fitness levels and quantify them across each of these areas, devising specific methods to achieve them.

Q. What kind of methodology should be used to achieve a consistent level of fitness across all the team's players, or is it not necessary to aim for such a consistent level of fitness?

A. A uniform level of fitness for all players is not necessary – indeed, it is impossible. In line with the premises of the previous question, we must achieve an adequate and sufficient level of fitness, not one that is optimal or uniform for everyone, as each player must deal with different situations during the match; and even if the situations are the same, they will not have to perform them within the same spatial and temporal parameters as any other player in that same match, which substantially alters their fitness requirements.

Q. Can a footballer with a very low level of fitness, or who is out of form, effectively carry out specific tasks in a particular position, and do so in a way that benefits the team?

A. If we understand fitness levels in terms of results-based assessment, players whose role, due to their position on the pitch, is to score goals may, on occasion, be decisive in securing the winning goal and ensuring the team performs well, even whilst in poor physical condition – a condition that must at least allow them to carry out a certain number of effective tasks. From an Ecologist's perspective, this is an undesirable approach, which in the long run undermines the team's performance, unless this option is envisaged in the initial plan and accepted by the team and the sports organisation.

Q. How can the development of biomotor capacities and general motor skills be integrated so that they can be transferred into specific elements for competition in football?

A. In scientific theory, transfer processes are highly problematic; furthermore, all so-called general biomotor abilities and skills have, at best, a longer path to transfer—if any—than specific ones. This lengthy transformation period does not exist in sports with a long competitive season; therefore, such skills and capacities must be excluded from training practice in these sports, as they do not allow athletes to maintain a certain level of general fitness – something that is not beneficial in the continuous competitions that characterise their long competitive season.

Planning questions

Q. Can training planning in football follow a predetermined model, or must it be planned according to the player's adaptation to training tasks and their learning of the tactical actions set out?

A. Planning involves a sequence of training sessions for an athlete or group of players, devised by the coach with the aim of optimising the qualities of their players. If the planning is sound, the coach's arrangements are organised according to various criteria; some of these are predetermined and very rigid, as they ensure that the training content aligns with the main, shared objectives to be achieved. Others, which are also proposed, must be carried out individually but under conditions adapted to different criteria, such as results, adaptation or validity… given that they address specific objectives and must not hinder the collective achievement of the aforementioned criteria; rather, due to their flexibility, they are shaped to contribute, from their specific nature, to the achievement of the priority objectives.

Q. In football, there are a large number of competitions (matches) each year, spread over almost eleven months; to what extent does this influence the planning for each season?

A. It completely dictates the planning, and we believe it is necessary to develop a specific approach for sports in this category, as traditional approaches do not take into account this deluge of matches within a single training cycle.

Q. Training theory suggests that peak fitness does not last very long; however, in football, players must perform at their best for almost the whole year. Is it possible to draw up a specific training plan for football that ensures the maintenance of peak fitness for almost the entire season?

A. – As we have explained in previous questions, it is necessary to develop a specific training programme for football and sports with similar circumstances. The solution is to keep the player in a high level of fitness – just below the optimum – throughout the season and, in specific situations, to reach the optimum level before returning to the previous level. Micro-structured planning, which we have been developing and testing across various sports for over 15 years, aims to achieve these results and provides a sound response to the needs of this group of sports.

Q. What do you mean when you say that training planning in football must be approached from the player's perspective rather than from the perspective of performance in the sport itself?

A. This is partly answered in the first question: in planning for individual sports – and by extension for team sports – very rigid proposals are made; the aim is for 'this player' to adapt to 'the player' who has theoretically been constructed based on the experience of a group of coaches, who, under the guise of science, propose this as the ideal model of a player for that sport. The player who fits that model is, according to them, the one who performs best in that sport. In other words, the player model is constructed from within the sport itself, based on how certain coaches interpret the sport, assuming that their interpretation is the only one, the best one, without realising that, in most cases, this model is built upon the accumulated experience of a single successful player or, at best, a group of players who succeeded by following the model devised by that coach or their group; Without realising – or perhaps they do – that only a certain profile of players succeed with this model: those who, by chance, have a biostructure very similar to that of the successful players. The rest, in their view, are not suited to that sport. This is how many athletes – who were highly disciplined and followed such training plans to the letter, even though they were unsuitable for their abilities – have been wasted. Consequently, many players with 'other talents' do not fit in with certain training models proposed by certain coaches, whilst they do fit in with others. We believe that coaches should therefore base their proposals on the player's individual needs, rather than on a preconceived notion of the sport, however elaborate and well-justified that notion may be.

Q. Is the weekly period the only training cycle that can be taken into account during the competitive phase in football?

A. According to the microstructuring approach, the week is the fundamental unit of this planning structure, as the player needs to adapt their optimisation processes in order to perform at a sufficient level on one or two days within that weekly micro-cycle.

Q.— To design the training plan, is it necessary to know the competition schedule in advance, in relation to the teams we are due to face on each match day; or is this information irrelevant?

A.— The competition calendar is already known before the Training Plan is drawn up. The Training Plan must adapt its strategies and objectives to that calendar, which requires making estimates and assumptions, not only regarding the calendar but also concerning how to assemble and utilise the squad itself, the choice of playing systems to be used, the available technology, the functionality of the training equipment… With all of this organised into phases, planning can begin; this will, of course, be influenced by the competition, but the primary focus must be on meeting the players' needs for optimisation, rather than solely on the demands of competitive performance throughout the long competitive season.

Assessment test questions

Q. In football, can objective training assessment tests be carried out?

A. – In football, as in any sport, objective tests can be carried out, as objectivity is necessary to meet quality criteria and ensure the test can be validated. To monitor training, objective observations must be made regarding certain conditions of the training tasks carried out by this group of players, which are considered very useful for identifying the level of optimisation achieved in those systems that enable each player to perform them. No other tests are required.

Q.....And what about objective tests for monitoring matches?

A. – All that is required is to establish observation criteria and train the observers to carry out the observation and recording in accordance with those criteria. The recorded data must then be statistically analysed to draw the appropriate conclusions. What is really important is what to observe and the usefulness of the conclusions drawn from those observations, rather than whether the objectivity coefficient is 0.65 or 0.90 for this or that test.

Q. – Don't you think that players lack motivation during the exercise tests carried out in the laboratory; that they do not push themselves to reach their maximum work threshold and, as a result, we find that these tests are of no use to us, because they do not provide any valid reference points?

A. – It's difficult, as they see it as being too far removed from their practical work in the field. But this is not the only reason why this type of test may or may not be valid for designing training loads. If we use general methods, these tests are very useful, but if our approach is to use specialised methods, these tests are of no use to us, as they measure generic qualities. The same applies to various field tests. We must be consistent in knowing what we want the tests to provide us with and not ask for what they cannot give us, or worse still, allow our practice to be influenced simply because a test gives us a piece of data whose interpretation confuses our decisions regarding the training we should carry out. Surely we cannot predict an engine's performance in the 24 Hours of Daytona simply by analysing the noise it makes at idle using the best sound level meter?

Q. What monitoring mechanisms could be put in place in football to objectively quantify a team's progress and performance?

A. The first step is to determine what we want to monitor; once the objective has been defined, we can formulate the procedures, design them and utilise or establish the necessary technological resources. Next comes the analysis of the data obtained through these procedures. If you wish to monitor performance, you must define what that concept entails and design the procedures for that monitoring. Whether, in your philosophy, the team's development is synonymous with performance is different from whether such developments are regarded as situational variables, communicative variables, or unstable stages leading to more stable ones… In other words, each way of understanding and defining the game will determine the most effective monitoring mechanisms.

Q. – Can a player's rating be determined solely by their level of performance during specific moments in each match, or are there other ways to objectively assess a footballer?

A. A strict assessment of a player's performance during a match must be based on their actual performance on the pitch—that is, on their specific actions in each match. Clear criteria must be established so that this assessment covers qualitative and quantitative aspects, including technical, tactical and emotional factors, as well as the specific role assigned to them, and only after the player has fully understood these requirements. Often, a player's assessment reflects the training process itself; for if this process lacks clear, well-defined concepts practised through variability and variation, the player on the pitch may be unable to execute them and will consequently be assessed negatively.

Q. – To quantify the team's performance in each match and assess it appropriately, are records of the number of actions carried out useful? In other words, are statistics on the number of short passes, long passes, runs with the ball, dribbles, shots, headers, clearances, interceptions, deflections, ball recoveries, etc., relevant? Does recording these actions and compiling statistics on them help us in any way when planning training or correcting potential shortcomings in the team?

Q. Quantifying reality in this way takes it out of context, and data taken out of context is of no use to us when evaluating or making decisions about an individual or a process. We must study the phenomenon within the situation in which it occurs, clearly defining the reality of that situation. We must investigate the components of that situation in order to identify the elements we should observe – those we consider most significant, and most directly responsible for the situation having unfolded in those particular terms rather than others. The first approach is that of the traditional paradigm, which uses only quantitative methods; the approach to football, however, should be the naturalistic paradigm, which utilises qualitative methods, including tacit knowledge that is not easily communicated and which, in many cases, governs competitive play, particularly when there is direct contact with the opponent and with one's own teammates. Or does anyone who has played football really regard a 1-on-1 loss of possession by a striker in the same light as one by a defender who leaves the opposing striker in a scoring position?

Q. In the process of monitoring training, can the players' own subjective assessments, carried out before, during and after training, be useful to us?

A. All monitoring and assessment processes must be rehearsed in advance by those who will be carrying them out. We believe that during training sessions, players should practise self-observation and self-assessment, as well as the timing and manner of communicating the observations made. These subjective assessments must be practised and compared with those made by the coach and by each player regarding their teammates. It would be excellent if the opposing players' assessments were also included, but this is even less feasible. If the coach and the players are clear about the observation criteria, all that remains is to decide when and what technology we will use to collate this invaluable information, which is undoubtedly as valuable for a player's development as their own training, because it is only through a rational understanding of our actions that we are on the path to being able to modify them in future performances, and that is what it is all about… which is why we consider this type of assessment to be highly valid provided it meets the criteria set out above.