



"Conditioning aspects in developing a style of play"

Peter van Dort

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I am proud to start my presentation with a picture off the **Dutch U21 team** who won the **European Championship in 2006 and 2007**.

The last tournament was also the Qualification Tournament for the **Olympic Games in 2008 in Beijing**. Number 1 to 5 did qualify for the Olympics.

This will be the first time in **55 years** that the soccer team of the Netherlands will participate.

Introduction



Peter van Dort

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- **Instructor UEFA A-Level Youth / Adults**
- **Member Technical Staff**
- **In charge of the development of educational programs**
- **Head coach national U15 boys (B-team)**

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Before talking about "conditioning aspect in developing a style of play" I want shortly to introduce myself.

For 6 years I was a **regional coach** in one of the 6 regions of the Netherlands.

The last 1,5 year I am one of the **instructors of the UEFA A courses** the KNVB is hosting.

We organize one course for coaches who work with **adults** and one for coaches who are working with **talented youth players** or want to become **director of Coaching**.

Besides that I'm **member of the technical staff** which consist of all national coaches and I'm involved with Research & Development in charge of the development of (learning) soccer by men & women / boys & girls.

The last 8 years I have been **assistant-coach of the U16 and U18 boys and U17 girls** national teams.

This season I'm also the **headcoach of national U15 boys B-team**.

So my specialization is coaching and teaching soccer based on the Dutch philosophy.



When talking about conditioning in sport it is common to use the **knowledge of the science of conditioning**. We talk about the **basic motor properties**, the **conditioning laws** and the **conditioning principles**.

For a long period it was (and still is) common to use **training methods, forms and programs which are developed for athletes** as part off the programs for soccer players.

You will all recognize the numbers 1, 2 and 3 (**Crawford, Williams and Gatlin**) of the Olympic 200 meters final in Athens.

The results of the Olympics shows that the athletic programs of the US are among the best of the World and that the Dutch Athletic coaches can learn from the US coaches.

But, today we are not talking about developing better athletes but as **soccer coaches we want to develop better (and fitter) soccer players**.

For improving the soccer fitness the KNVB (Bert van Lingen and Raymond Verheijen) has developed a unique philosophy which can be summarized by:

"soccer training is conditioning - conditioning is soccer training"

Raymond Verheijen has developed a **periodization model** which is based on the science of conditioning, the laws and principles, but which is also based on the philosophy of "soccer training is conditioning". His model consist of all kind of forms from 1 v1 to 11 v 11.

Before I can highlight the model of Verheijen I must first make clear:

1. What is soccer?

2. Which aspects are important in developing players, **developing a system of play?**

3. What is **soccer fitness?**



What is Soccer?

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Before we can talk about soccer fitness it's important that we all have clear what are **characteristics of soccer**. If you know these characteristics as a soccer coach it will be easier to think about useful forms for training.

The most **important characteristics** are:

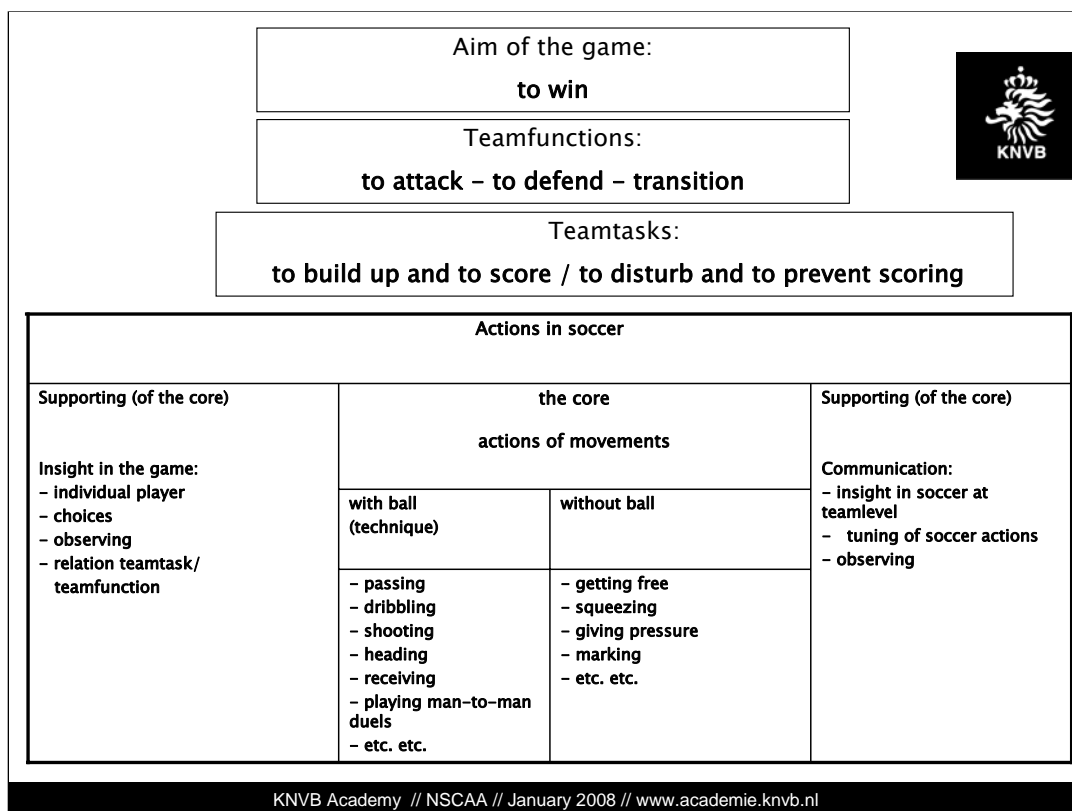
- * 2 teams consisting of 11 players.
- * when one team is defending the other team is attacking and the other around.
- * 2 goals and a defined size of the field.
- * specific rules.
- * the ball is free.

Based on the characteristics we can conclude that soccer is a **complex sport** in which players have to deal with a **infinite number of possibilities**.

Based on the situation the player has to learn to make **the right soccer actions at the right moment**.

This is one of the key arguments for the Dutch vision on coaching soccer. "**Learning soccer by playing soccer**".

Another consequence of the characteristics is that compared to other sports soccer is a **players sport** instead of a coaches sport (like baseball). We have to learn players to make their own decisions.



To learn, teach and coach soccer it is important that we all use the **same terminology**.

The KNVB use the structure which is shown on the screen as base for our courses.

Central in this structure is the fact that **all actions in soccer should have the intention to contribute to the aim of the game: to win**.

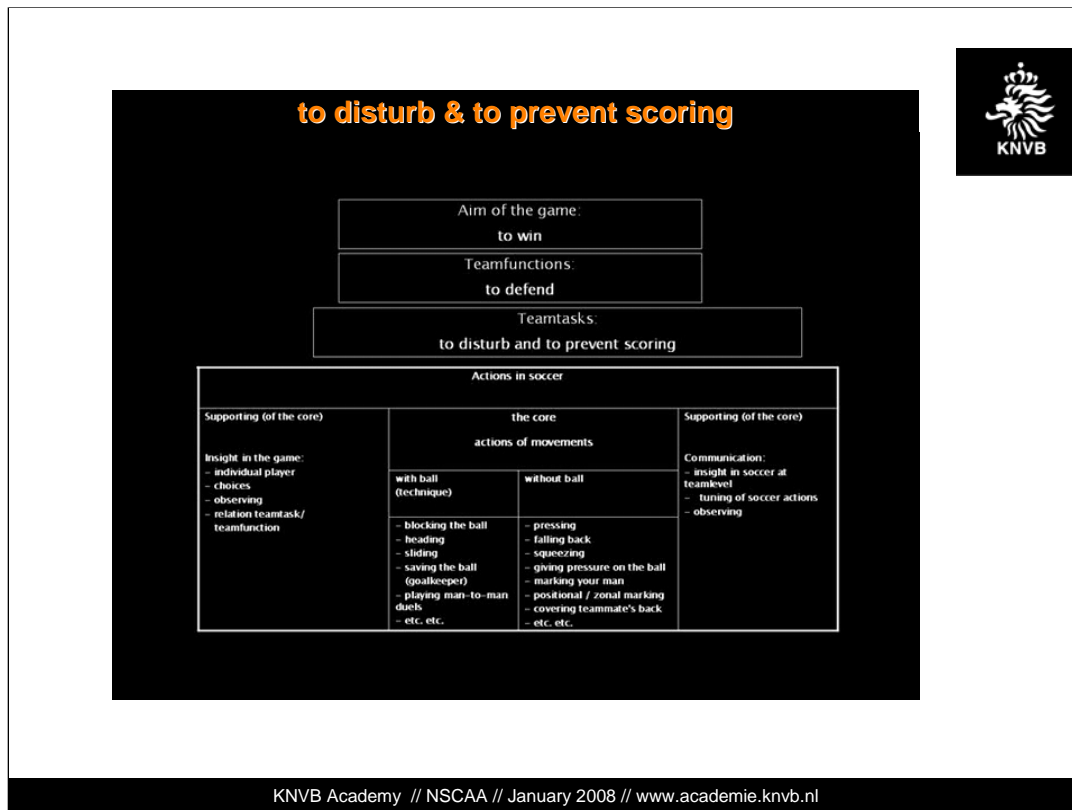
In soccer it means that you have to score **one goal more than your opponent**.

In the next few sheets I use clips of the **Olympic team** to explain more in detail the team functions and team tasks.

During a match players have to make the **right actions with and without ball**, at the **right moment, direction** and **speed** given a specific soccer situation.

Insight in the game means that based on observation the player makes the right choice.

Communication in the game means that players have to tune their actions with and without ball (and in relation to the role of the opponent).




When your team is defending the objective is **to prevent scoring by the opponent**.

Within the defending teamfunction there are two teamtasks: **to disturb** and **to prevent scoring**.

The next few clips shows the actions in soccer of the dutch Olympic team when there are defending.

Team Function: Defending



Team tasks: to disturb	→ defending Soccer actions focused on disturbing the build up of the opponent (giving pressure, squeezing, marking, sliding, playing man-to-man duels, covering teammates' back etc.)
to prevent scoring	→ defending Soccer actions focused on preventing the opponent to score (blocking the ball, saving the ball (goalkeeper), sliding, heading etc.)

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To summarize:

When your team is defending we recognize 2 team tasks:

1. to disturb

defending soccer actions focused on disturbing the build up of the opponent

2. to prevent scoring

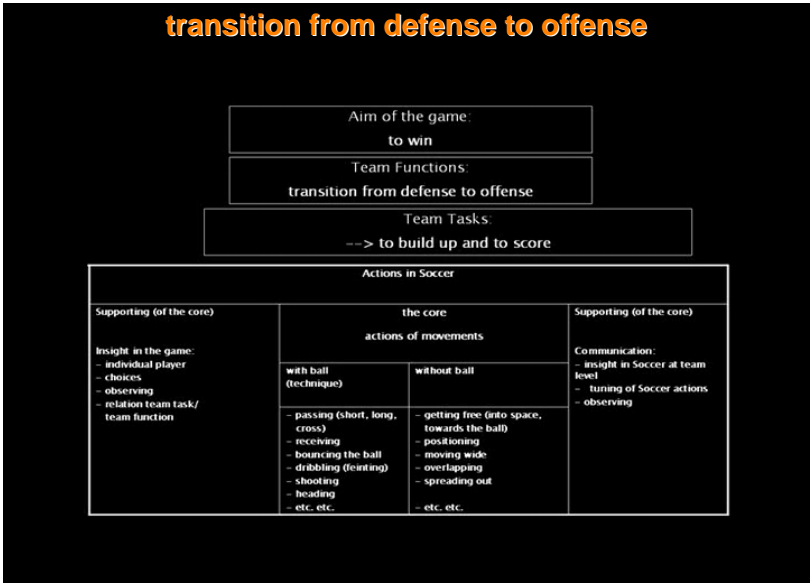
defending soccer actions focused on preventing the opponent to score

If possible you want **to attack the ball to win the ball back** (at the right moment and in the right situation).

If you win the ball we talk about the **transition from defense to offense**.

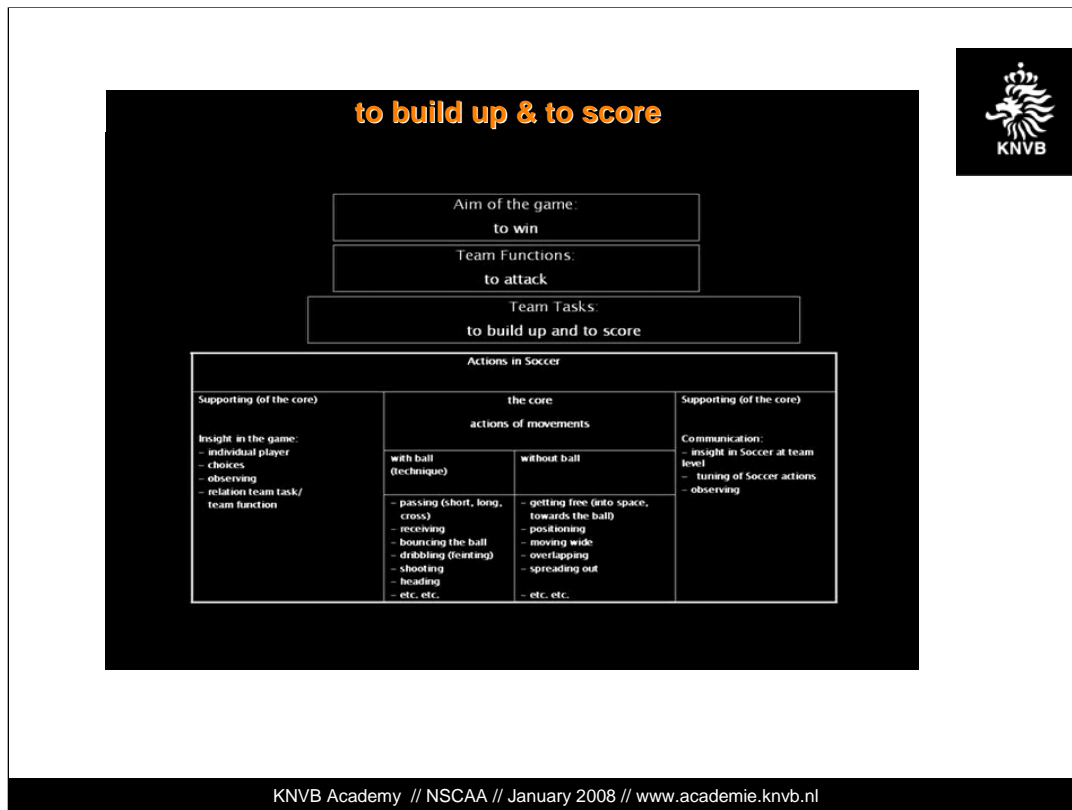
If your team wins the ball there are two options:

1. **play the counter and surprise the opponent** (preferable);
2. **or when not possible keep the ball.**



The next clips shows the actions in soccer of the dutch Olympic team when there is a transition from defence to offense.

Important is that you **switch the game plan from defending to attacking as quickly as possible**.



When your team is attacking the **objective is to score**.

Within the attacking teamfunction there are to teamtasks: **to build up and to score**.

The next few clips shows the actions in soccer of the dutch Olympic team when there are attacking.

Team Function: Attack



Team tasks: to build up → attacking Soccer actions focused on creating chances (passing, receiving, dribbling, feinting with the ball, playing the cross pass etc.)

to score → attacking Soccer actions focused on making goals (shooting, heading)

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To summarize:

When your team is attacking we talk about 2 team tasks:

1. to build up

attacking soccer actions focused on creating chances

2. to score

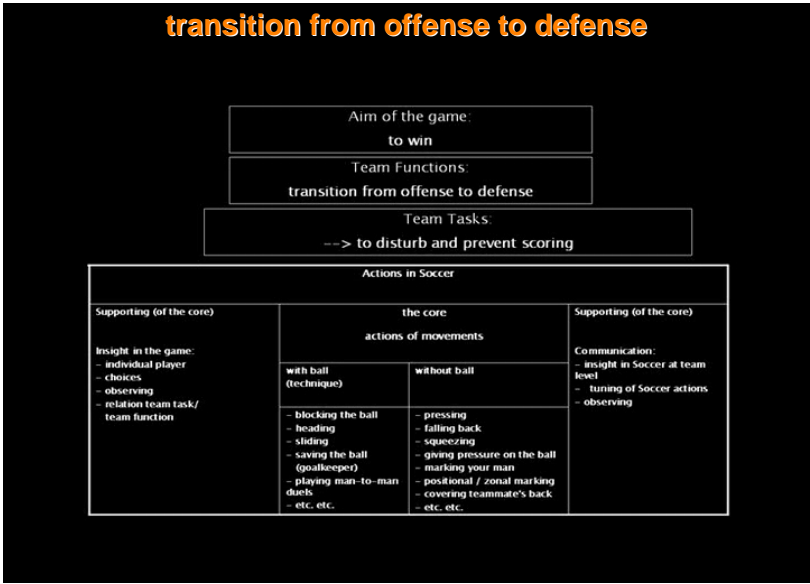
attacking soccer actions focused on making goals

If you **lose the ball we talk about the transition from attacking to defending.**

If your team loses the ball there are two important things:

1. **prevent the possibility of the opponent to play a counter** (pressure on the ball, make the field as small as possible)

2. **if possible try to attack on the ball to win the ball back**



The next clip shows the actions in soccer of the dutch Olympic team when there is a transition from attacking to defending.

Important is that you **switch the game plan from offense to defence as quickly as possible**

15 minutes

Developing Soccer Players



1. **Soccer learning process - from age 5 to adulthood**
2. **periodization during the season**
 - developing the system of play
 - **improving soccer fitness**
3. **methodology within a practice session**

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So: the **players** should have the intention to do everything (within the rules of the games and the rules of fair play) **to win the game**.

Coaches should help players to make the right choices in a given soccer situation and by doing so enlarge the chance of winning the game. The focus for the coach should be on **developing the players** (and by doing so develop the team).

So the coach helps the players to defend well, to attack well and to have a quick transition.

Soccer as a sport needs specialized training, aimed at improving performance **systematically** and **methodically**.

The Dutch vision of "learning soccer by playing soccer" means that the coach has to **simplify the game**.

One of the founders of the Dutch philosophy of coaching soccer "**Bert van Lingen**" has developed a model for learning soccer based on the Dutch vision, the age related characteristics and the ability of the group.

Given a certain team and age group we talk about **periodization during one season**. How can we **systematically improve players during practice sessions and matches**.

We talking about **methodology** during a practice session when the coach makes it more difficult or easier for the players.



Learning soccer means that the coach **creates the right situation for the players to learn soccer based on the age and ability of the players.**

The specialist when talking about coaching youth soccer players is **Bert van Lingen**, who did write the book "**Coaching soccer**" and is now finishing his **masterpiece**. This book will contain essential information for the youth soccer coach and will be finished end of this season.

U7 boys and girls:

* they play 4v4 matches and the objective for the coach is to learn the players to control the ball

U9 boys and girls:

* they play 7v7 matches and they have to learn to use the ball to create changes or to make goals.

U11 boys and girls:

* they also play 7v7 matches and this is the age group in which the coach can do an appeal on working together

U13 boys and girls:

* they play 11v11 and have to deal for the first time with the big field, the offside rule etc.etc. they have to learn a certain basic task in the team

U15 boys and girls:

* if you have a certain knowledge of your basic task the next step is the fine tuning of basic tasks within the team, the line and between lines.

U17 boys and girls:

* now the focus is on learning to win the game. The focus is on learning to do the actions in soccer effective and efficient . The coach makes players aware of the (possible) system of play of the opponent.

U19 boys and girls:

•In this age group the focus should be on learning to win the competition. The system of play of the opponent, the score in the game and the position in the competition should have consequences for the actions of the players.

<U17> → dia 14 (U16/U17)



In the practise session of tomorrow we are working with U16 / U17 boys

<Logo> → dia 13 (Coaching Soccer Players)



The coach for U16 / U17 boys and girls should formulate an **objective for his or her practise session** in terms of the 5 W's based upon match analysis.

What?

improving a team task

Who?

name the key players

Where?

part of the pitch

When?

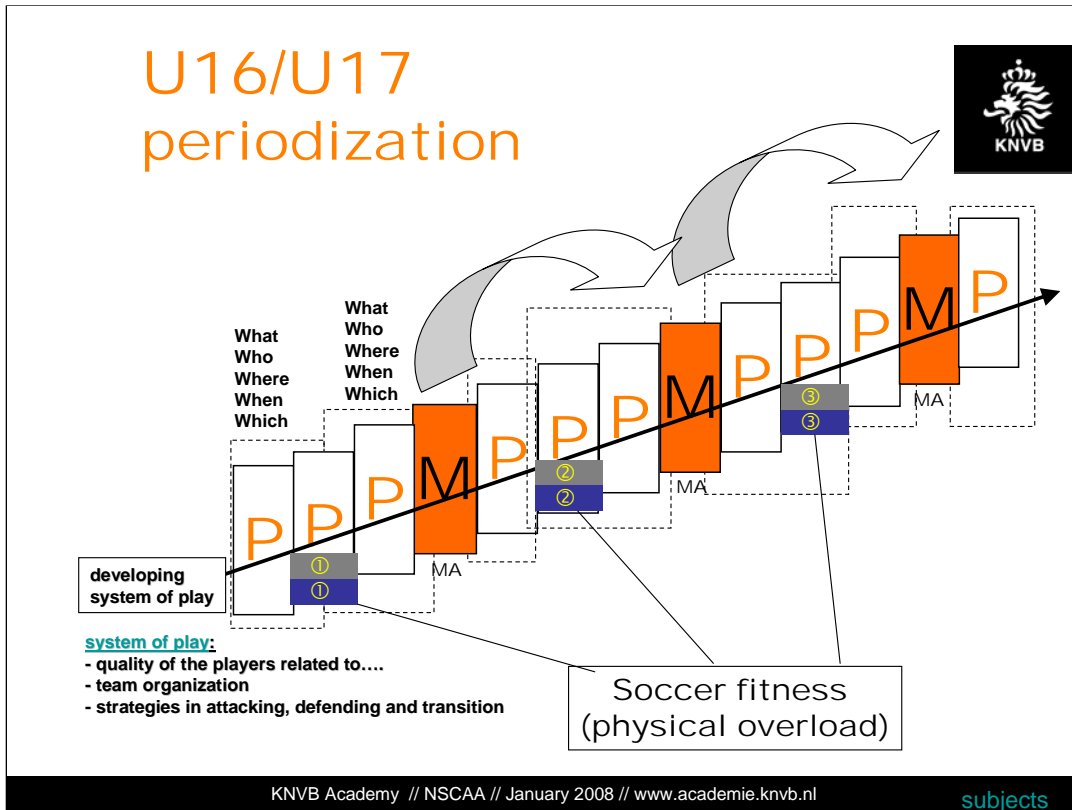
specify the moment

Which?

system of play of the opponent

score in the game

To **improve defending / attacking and transition** the players have to improve insight in the game, movements with and without ball and communication.



I mentioned earlier that the role of the coach is to help players to enlarge the chance of winning the match / game (= M). So as a coach you have to help the players to improve the soccer-actions in defense, attack and transition.

The coach formulates what went well and what can be improved in the team functions and team tasks as part of the **match analysis**. The **practise sessions (= P)** during the week should be **related to the last matches (and upcoming match)**.

To develop the players and to win the game the coach decides on a **system of play**. - <system of play>

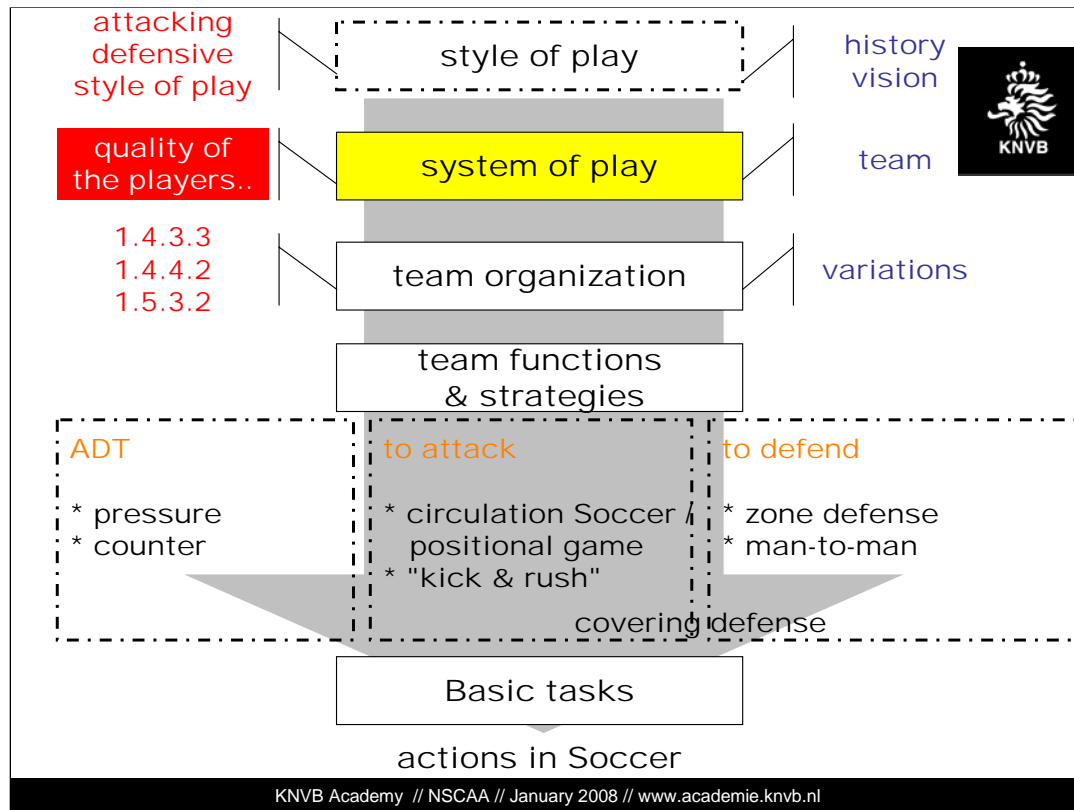
Based on the systems of play, the age and ability of the player and the objectives for the practise sessions (5'w's) the coach prepares and realizes the practise sessions. Given a certain objective the coach will have to train one, but mostly more times in a row to achieve some improvement. He than can make the next step in developing the system of play.

Soccer fitness is part of one the practise sessions during the week. In these session the coach is working on improving the system of play and he is realizing a physical overload for the players. (soccer training = conditioning)

Important to notice is that systematically improving the soccer fitness of players is only useful after the **growth spurt**. Before the growth spurt it's no use improving the fitness (no effect) and during the growth spurt players are vulnerable.

route <subjects> - dia 18

30 minutes



Rinus Michels has written a book about teambuilding in which he explains in detail the ingredients of the system of play of a coach.

The **style of play** can have influence on the way most teams in a certain country are playing and is mostly based on good results in the past (The **Dutch team** of 1974).

But the style of play can also be part of the vision of the club. In general there are two dominant styles of play:

- * the attacking style of play (the **Netherlands , England and Brazil**) . Make more goals as your opponent.
- * the defensive style of play (**Italy (60's en 70's)**). Receive less goals as your opponent.

The system of play is related to a specific team and the role of the coach is to define and develop the system of play. The system of play should have a relation to the qualities of the players / the quality of the team.

Part of the **system of play is the team organization**. There are 3 dominant team organizations: 1-4-3-3; 1-4-4-2 and 1-5-3-2. Most other team organizations are a variation of one of the 3 dominant ones.

The coach makes choices in the **strategies** he will use to attack, to defend and the moments of transition. Pressure and counter are strategies which have consequences for all team functions and teams task. Besides that there are specific strategies to attack (positional game or kick & rush for example) and to defend (zone defense or man-to-man marking).

Based on the system of play every player in the team will have a basic tasks. To execute this task well the player has to develop specific soccer actions.

<logo> → periodization

Subjects



1. **Why better Soccer fitness?**
 - ☐ Soccer fitness match analysis
2. **What is better Soccer fitness?**
 - ☐ Soccer fitness characteristics
3. **Soccer physiological processes**
4. **Soccer conditional training methods & forms**
5. **planning Soccer fitness**
 - ☐ periodization (6 week model)

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I now want to present the **theory and periodization model Raymond Verheijen** has developed for training soccer fitness.

I first want to make clear **why developing soccer fitness is necessary**. What are the physical demands for players on a advanced level. What are the differences with players that are playing on a lower level.

After I have made clear in theory and (based on scientific research) the differences in the number and the intensity of the soccer actions with and without ball of the players I explain the soccer fitness characteristics (**What is better soccer fitness?**).

In my presentation I do not talk in detail about the **soccer physiological processes**. When I present the different training forms I will tell which energy system will be trained.

The last half hour of my presentation I will use to present the **6 week periodization model** and the training forms which you can use as coach to both improve the system of play and realize a physical overload.

Tomorrow on the pitch Paul Driesen and I will show you some of the forms.

Why better Soccer fitness?



**"PLAYERS HAVE A BETTER FOOTBALL FITNESS AT A
HIGHER LEVEL OF PLAY!!"**

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I hope that everybody agrees with the fact that at a higher level of play players need a better football fitness.

So the questions are:

What are the differences between a higher and lower level of play when talking about football fitness?

Are there **differences between players in the team** based on the **system of play** and the basic task of the player (forward, midfield, defender or goalkeeper)?

and if so,

What are the differences?

advanced / higher level of play

better attack, defense and transition


Why an improved football fitness?

Less space / time:

<p>attack:</p> <p>being unmarked more</p> <p>defence:</p> <p>more pressure</p>	<p>attack:</p> <p>being unmarked more</p> <p>defence:</p> <p>more pressure</p>
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<p>MORE ACTION</p> <p>X-----X X-----X</p>	<p>MAINTAINING MORE ACTION</p> <p>X---X-----X X---X-----X</p>	<p>BETTER ACTION</p> <p>x x</p>	<p>MAINTAINING GOOD ACTION</p> <p>X---X-----X X---X-----X</p>
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The soccer fitness match analysis starts by formulating the **differences in attack, defend and transition on a higher level of play**

To illustrate the soccer fitness match analysis I want to show you some clips of the match Arsenal - Manchester United <advanced / higher level of play>

I hope everybody agrees with the fact that Arsenal - Manchester United is a **match at the highest level**.

On a higher level of play there will be less space / less time

less space

To be able to deal with smaller spaces at a higher playing level, more is demanded from players. This goes for attack as well as for defence.

During **attack**, the **opposition makes the pitch smaller**. In order to be able to create sufficient space on a small pitch, e.g. by being unmarked:

- players will be **unmarked more often**.
- players will be **playing closer to each other**.
- There will be **more duels with and without ball**.

During **defence** in fact, it is actually important that players **can keep / make spaces smaller**, e.g. by pressure:

- This is why they will **exert pressure**.

On a smaller pitch, players will be playing closer to each other.

- There will be **more duels with and without ball**.

so less space means more action

<klik naar volgende dia>

advanced / higher level of play

better attack, defense and transition

Why an improved football fitness?

Less space / time:

<p>attack:</p> <p>being unmarked more</p> <p>defence:</p> <p>more pressure</p>	<p>attack:</p> <p>being unmarked more</p> <p>defence:</p> <p>more pressure</p>
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<p>MORE ACTION</p> <p>X-----X X-----X</p>	<p>MAINTAINING MORE ACTION</p> <p>X---X-----X-----X X---X-----X-----X</p>	<p>BETTER ACTION</p> <p>x x</p>	<p>MAINTAINING GOOD ACTION</p> <p>X---X-----X-----X X---X-----X-----X</p>
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scientific

less space = less time

Because the game is played on less space at a higher level, players get **less and less time to act**. This goes for attack as well as defense.

During **attack** the opponent makes the pitch smaller in order to still create sufficient space on a smaller pitch, e.g. by being unmarked:

- players have to choose **better positions**,
- sooner recognize the **moment of being unmarked** and at the end,
- execute being unmarked quicker**.

Because players on a smaller pitch also get to play closer together:

- they will have to position themselves better during **duels with and without ball**,
- and make better **use of their bodies**.

During **defense** it is actually important that players can make / keep spaces small e.g. by pressure:

- They will have to choose **better positions**,
- recognize the **moment of pressure** more quickly
- and act on **exerting pressure more quickly** in the end.



Because players will be playing closer together on a smaller pitch:

- they will have to **position themselves better during duels** with and without ball,
- and make **better use of their bodies**.


less time = better action

Players have to be able to keep up **for 90 minutes** with both better actions as well as more action. = maintaining more action & maintaining good action

Arsenal - Manchester United



3 November 2007
Arsenal - Manchester United



interval

HighX-X-X--X--X---X

LowX—X—X.—x—x—x—x

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Why an improved Soccer fitness?



scientific
support
Soccer fitness
match analysis

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Raymond Verheijen has **researched the amount and the kind of movements** of players with and without ball on:

- different **level of play** (first division, second division and three levels of non-professional leagues)
- different **age groups** (youth players and adults)
- related to the task / position in the team (**defenders, midfielders and strikers**)


the focus was on:

- total **running distance**
- the **number and distances of the sprints**
- number of duels with & without ball**
- number of **slide tackles**
- jumping** and
- shooting**

He also specified the number of actions in the **first 15 minutes, the second, until the last 15 minutes.**

the results of his research will be added to the handout of my presentation

The results shows that the disposition "players at a higher level need better football fitness" appears to be right



WHY IMPROVED FOOTBALL FITNESS?

Less space / time:

ACT MORE OFTEN	MAINTAIN MORE ACTION	BETTER ACTING	MAINTAIN GOOD ACTION
X-----X	X---X-----X-----X	x	X---X---X---X---X
X---X	X---X---X---X---X	X	X---X---X---X---X

WHAT IS IMPROVED FOOTBALL FITNESS?

QUICKER RECOVERY BETWEEN ACTIONS	MAINTAINING QUICK RECOVERY BETWEEN ACTIONS	ACT MORE EXPLOSIVELY	MAINTAIN EXPLOSIVE ACTIONS
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More action:


When players have to create space more often (attack) or in fact often have to make spaces smaller (defence), soccer actions follow each other over a short period of time.

- more quickly consecutive soccer actions at a higher level of play,
- More soccer actions in less time, means less time between actions,
- less time between soccer actions means **quicker recovery** between actions!

Maintaining many actions:

If players have to be able to create spaces over and over in the 2nd half as well (attack) or in fact make spaces smaller (defend), more soccer actions are required from them over a 90 minute period.

- more soccer actions in the 2nd half at a higher level of play,
- more soccer actions in the 2nd half, means less time between actions during the final part of the match,
- less time between soccer actions means that players have to be able to **maintain quick recovery** between soccer actions!



WHY IMPROVED FOOTBALL FITNESS?

Less space / time:

ACT MORE OFTEN	MAINTAIN MORE ACTION	BETTER ACTING	MAINTAIN GOOD ACTION
X-----X	X---X-----X-----X	x	X---X---X---X---X
X-----X	X---X---X---X---X	X	X---X---X---X---X

WHAT IS IMPROVED FOOTBALL FITNESS?

QUICKER RECOVERY BETWEEN ACTIONS	MAINTAINING QUICK RECOVERY BETWEEN ACTIONS	ACT MORE EXPLOSIVELY	MAINTAIN EXPLOSIVE ACTIONS
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better acting/play:

If players have to make more of an effort to create spaces (attack) or in fact make spaces smaller (defence), an improved execution of football actions is required from them.

Besides improved position taking and recognising the moment of action sooner, quicker execution of an action itself also contributes to a an improved execution in the end.

When a player has to **execute an action quicker**, it means little else than that he has to **deliver the required strength for a football action in a short period of time**.

A different term for the combination of power and speed is explosiveness.

From football fitness' point of view, improved action means **more explosive action**.

- quicker execution of football actions at a higher playing level,
- quicker execution of football actions means that the **power** for the action has to be delivered **quicker**,
- the combination of power and speed is also called **explosiveness**,
- soccer players have to **act more explosively** at a higher playing level.

Maintaining good action:

If players must be able to keep up in the 2nd half to create space (attack) or in fact make spaces smaller (defence), they are required maintain the proper execution of soccer actions.

From football fitness' point of view, maintaining proper action hence means **maintaining explosive action**.

- quick (and so explosive) execution of football actions in the 2nd half as well at a higher level of play,
- football players at a higher level of play therefore need to **maintain explosive actions**.



Higher level of play

WHY BETTER FOOTBALL FITNESS?

Less space / time:

MORE ACTION	MAINTAINING MORE ACTION	BETTER ACTION	MAINTAINING GOOD ACTION
X-----X X----X	X---X-----X X---X---X---X	x x	X---X---X---X X---X---X---X

WHAT IS BETTER FOOTBALL FITNESS?

QUICKER RECOVERY BETWEEN ACTIONS	MAINTAINING QUICK RECOVERY BETWEEN ACTIONS	MORE EXPLOSIVE ACTION	MAINTAINING EXPLOSIVE ACTION
POWER TO RECOVER	RECOVERY CAPACITY	EXPLOSIVE POWER	EXPLOSIVE CAPACITY
1. extensive interval training (4v4/3v3)	1. extensive endurance training (11v11/10v10/9v9/8v8) 2. intensive endurance training (7v7/6v6/5v5)	1. power to accelerate (15-40 m/1 min rest) 2. starting speed (5-10 m/30 sec rest)	1. repeated short sprinting power (10-15 m/10 sec rest)
super compensation: 72 hours	super compensation: 24 hours	super compensation: 48 hours	super compensation: 72 hours

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When using terms such as more often and better, it usually is about *maximum* performance. The term power is sometimes used in this context.

For the term perseverance the term capacity is sometimes used.

1. Acting more often

- maximum quick recovery between actions
- = Power to recover
- training method is **extensive interval training**
- **form 4v4 / 3v3 including goalkeepers**

2. Maintaining acting often

- maintaining quick recovery between actions
- Recovery Capacity
- training method is extensive and **intensive endurance training**

3. More explosive action

- maximum explosive action
- Explosive Power

4. Maintaining good action

- maintaining explosive action
- Explosive Power

So better football fitness has to do with:

1. power to recover
2. recovery capacity
3. explosive power
4. explosive capacity



Raymond Verheijen has developed a **6 weeks periodization model** to plan the practise sessions with physical overload

He has **developed training methods (and defined soccer forms)**, which damages **the body just a little bit** in a responsible manner, after which the body recovers stronger.

Every one of the 4 football conditional qualities has its own specific training methods, with which a 'overload' stimulus can be given to the corresponding physiological process.

When, subsequently, the indicated recovery time is taken, football conditional qualities will improve systematically.

This in the end results in more and more explosive football actions during a match.

The model is **based on the laws and principles of conditioning**.

etc		etc		etc		etc		etc		etc	
19		20		21		22		23		24	
13		14		15		16		17		18	
7		8		9		10		11		12	
week 1	week 2	week 3	week 4	week 5	week 6						
<u>velocity-preparatory forms</u>		duel 1 v 1 (+ scoring)		1 v 1		1 v 1					
		maintaining good actions		better actions		better actions					
		<u>repetitive short sprinting power</u>		<u>power to accelerate</u>		<u>starting speed</u>					
		supercompensation: 72		48		48					
<u>11v11 / 10v10 / 9v9 / 8v8</u>		<u>7v7 / 6v6 / 5v5</u>		<u>4v4 / 3v3</u>							
maintaining many actions		maintaining many actions		more actions							
extensive endurance training		intensive endurance training		extensive interval training							
supercompensation: 24		supercompensation: 24		supercompensation: 72							

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slot

Periodization of physical overload continues **during the whole season** - so you build it up and make steps. week 7 is the same form as week 1 + 1 step idem for week 13, 19 etc.

<velocity-preparatory forms> <repetitive short sprinting power (will be shown tomorrow)> <power to accelerate> <startin speed>

PERIODIZATION BETWEEN TRAININGMETHODS FOR EXPLOSIVENESS

First, train on capacity – then train on intensity.

First increase the phosphate system, before large bites of ATP can be 'borrowed' during actions.

So: first *Maintaining* explosive action (Explosive Capacity) and only then *more* explosive action (Explosive power).

But: In the beginning of the preparation start with velocity-preparatory forms.

<hyperlinks naar de trainingsvormen>

<extensive endurance (8v8 / 9v9 / 10v10 / 11v11)> <intensive endurance (5v5 / 6v6 / 7v7) (will be shown tomorrow)><extensive interval (4v4 / 3v3) (will be shown tomorrow)>

PERIODIZATION BETWEEN TRAININGMETHODS FOR RECOVERY

First, train on capacity – then train on intensity.

First ensure sufficient oxygen supply to the muscles for 90 minutes and then 90 minutes of ATP, before the velocity with which ATP is returned into the phosphate system can be trained.

It is necessary to first be able to make ATP for 90 minutes, before it's possible to quickly refuel the phosphate system during the whole match.

So: first *Maintaining quick recovery* (Capacity to recover) and then *Quicker recovery* (Capacity to recover).

velocity-preparatory forms




week 1 + week 2


- session 1 & 2
6 x 60 yards accelerate to 60% with 60 seconds rest
- session 3 & 4
7 x 50 yards accelerate to 70% with 50 seconds rest
- session 5 & 6 + [week 1](#)
8 x 40 yards accelerate to 80% with 40 seconds rest
- session 7 & 8 + [week 2](#)
9 x 30 yards accelerate to 90% with 30 seconds rest
- session 9 & 10
10 x 20 yards accelerate to 100% with 20 seconds rest



velocity-preparatory forms



9 x 30 meter → 90% - 30 sec.



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Training methods to maintain many actions



11v11 / 10v10 / 9v9 / 8v8

week 1 + week 2

Extensive Endurance training
(capacity to recover)

Duration: 10 – 15 min (20-90 min.)

Intensity: 50-60% (140-160 bpm)

repetitions: 2-6

Series: 1

rest RR: 2 minutes

Rest SS: not applicable

better oxygen supply to the muscles

super compensation time: 24 hours

TRAINING EFFECT FOR

MAINTAINING MANY ACTIONS

(Maintaining quick recovery, capacity to recover)

90 minutes maintenance of quick recovery

=

90 minutes of **proper oxygen supply to muscles**, so that ATP can be made for 90 minutes.

- Better use of lung capacity (ventilation),
- More red blood cells and stronger heart (circulation),
- More / larger veins (capillarisation),
- Provide a better oxygen supply to the muscles.

Extra oxygen in the final minute and so extra ATP means quick recovery up to the final minute.

Maintaining many actions (11v11 / 10v10 / 9v9 / 8v8):

- Non lactic acid,
 - low intensity,
 - little (muscle) damage,
 - little recovery time required,
- short Super compensation time (24 hours).

9v9

The diagram illustrates a 9v9 football drill on a rectangular field. At the top, it is labeled 'variant 1'. The field is divided into three horizontal sections. In the top section, there is a goal and a goalkeeper (1). In the middle section, there are 10 numbered players (2-11) and a central circle. In the bottom section, there is a goal and a goalkeeper (1). Arrows indicate the movement of the ball and players. The KNVB logo is visible on the right side of the diagram.

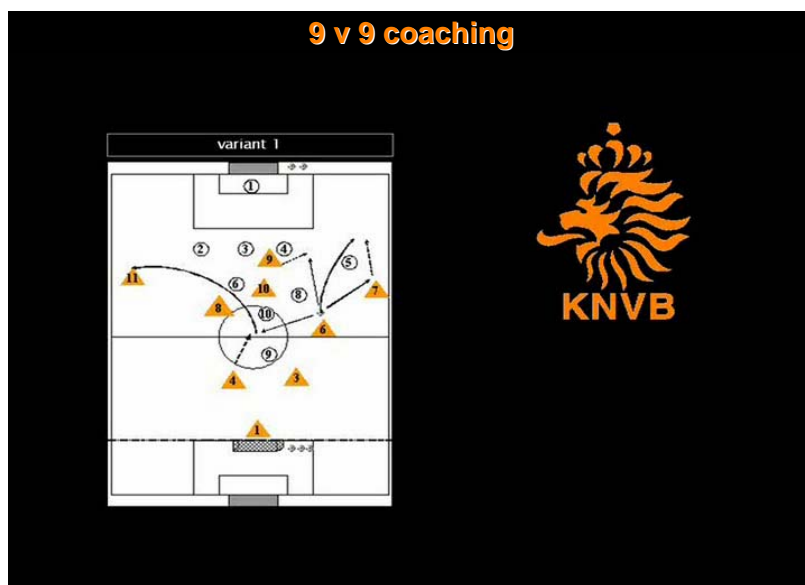
[orientation](#)

[coaching](#)

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9v9 orientation

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Training method to maintain good action



duel 1v1 + scoring

week 3 + week 4

repetitive short sprinting power (explosive capacity)

Duration: 15-25 yards (2-4 seconds)
Intensity: 100% (>180 bpm)
repetitions: 6-10
Series: 2-4
Rust RR: 10 seconds
Rust SS: 4 minutes

increasing phosphate system
super compensation time: 72 hours





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TRAINING EFFECT FOR

MAINTAINING GOOD ACTION

(Maintaining explosive action, explosive capacity)

To be able to maintain maximum explosiveness for 90 minutes

=

increase the size of the phosphate system.

Because:

A **larger phosphate system** means more large 'bites' of ATP can be 'borrowed' from the phosphate system without the system getting exhausted.

So the chance of the phosphate system getting exhausted is considerably smaller. Players will suffer less from acidification. This is positive to making explosive football actions in the final part of the match.


In short:

With the use of a larger phosphate system, making explosive football actions can be maintained longer.


Maintaining good action (10 m sprint / 10 sec rest):


- both lactic acid,
 - lots of (muscle) damage,
 - much recovery time required,
- long Super compensation time (72 hours).

Repetitive short sprinting power


KNVB


variant 1

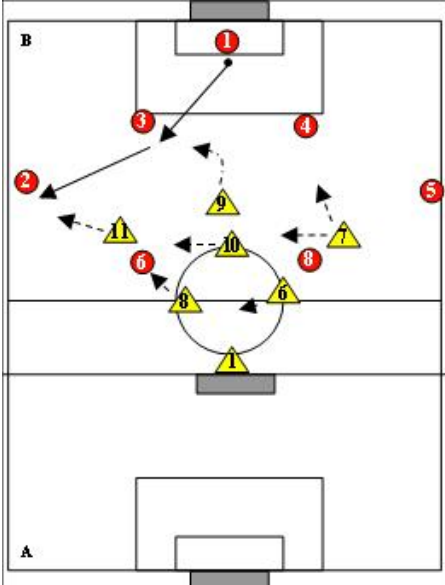



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Training methods to maintain many actions





7v7 / 6v6 / 5v5


week 3 + week 4

intensive endurance training
(capacity to recover)

Duration: 4-8 min. (16-48 min.)
Intensity: 70% (160-170 bpm)
repetitions: 4-6
Series: 1
rest RR: 2 minutes
Rest SS: not applicable

better oxygen supply to the muscles

super compensation time: 24 hours



TRAINING EFFECT FOR

MAINTAINING MANY ACTIONS

(Maintaining quick recovery, capacity to recover)

90 minutes maintenance of quick recovery

=

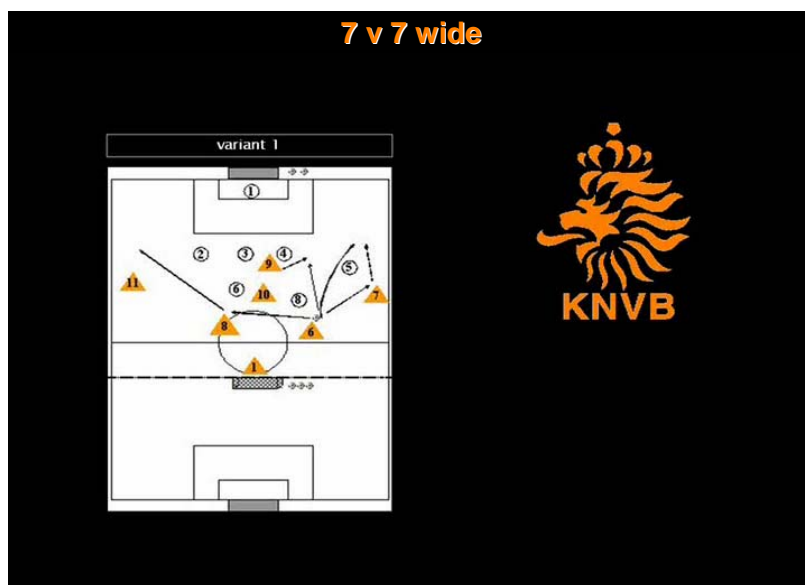
90 minutes of **proper oxygen supply to muscles**, so that ATP can be made for 90 minutes.

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- More / larger veins (capillarisation),
- Provide a better oxygen supply to the muscles.

Extra oxygen in the final minute and so extra ATP means quick recovery up to the final minute.

Maintaining many actions (11v11 / 10v10 / 9v9 / 8v8):


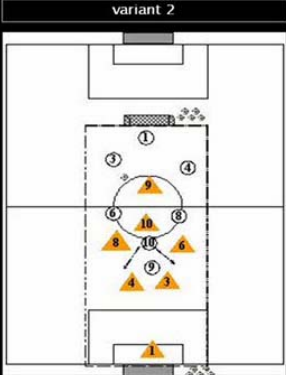
- Non lactic acid,
 - low intensity,
 - little (muscle) damage,
 - little recovery time required,
- short Super compensation time (24 hours).




[7 v 7 small](#)

7v7 small

variant 2





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Training methods for better action



duel 1v1 + scoring / center

week 5

power to accelerate
(explosive power)

Duration: 15-40 yards(2-6 sec.)
Intensity: 100% (>180 bpm)
repetitions: 4-6
Series: 1-2
Rust RR: 1 minutes
Rust SS: 4 minutes

take a larger bite of ATP from
the phosphate system

super compensation time: 48 hours





TRAINING EFFECT FOR

BETTER ACTION

(More explosive actions, explosive power)

Maximum explosiveness of a football action

=

to take a large bite of ATP from the phosphate system.

Because:

A larger bite of ATP means more fuel.

More fuel means being able to deliver more power.

Being able to deliver more power means more explosive actions.

Better action (5-40 m sprint / 30-60 sec rest):

- explosive training indeed,
 - but non-lactic acid,
 - so less (muscle) damage,
 - so less recovery time required,
- short Super compensation time (48 hours).

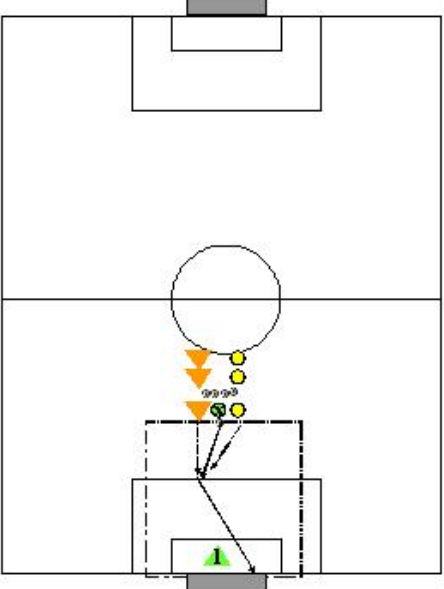
Power to accelerate






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Training methods for better action





duel 1v1 + scoring


week 6

starting speed
(explosive power)

Duration: 5-10 yards (1-2 sec.)
Intensity: 100% (>180 bpm)
repetitions: 8-10
Series: 2-4
Rest RR: 30 seconds
Rust SS: 4 minutes

take a larger bite of ATP from
the phosphate system

super compensation time: 48 uur



TRAINING EFFECT FOR

BETTER ACTION

(More explosive actions, explosive power)

Maximum explosiveness of a football action

=

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Because:

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More fuel means being able to deliver more power.

Being able to deliver more power means more explosive actions.


Better action (5-40 m sprint / 30-60 sec rest):

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 - so less recovery time required,
- short Super compensation time (48 hours).

starting speed




variant 1



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Training method for more action




4v4 / 3v3
week 5 + week 6

Extensive interval training
(power to recover)

Duration: 1-3 minutes
Intensity: 80% (170-180 bpm)
repetitions: 6-10
Series: 2
Rust RR: 3-1 minutes
Rust SS: 4 minutes

refuel phosphate system as quickly
as possible
super compensation time: 72 hours



TRAINING EFFECT FOR

MORE ACTION

(Quicker recovery, capacity to recover)

Maximum quick recovery

=

speed with which ATP can be returned into the phosphate system between explosive actions (breath under control).

Because:

The quicker ATP can be returned into the phosphate system, the sooner this phosphate system is fully refuelled.

The fuller the phosphate system, the more explosive the next action will be.

More action (4v4 / 3v3):

- both lactic acid,
 - lots of (muscle) damage,
 - much recovery time required,
- long Super compensation time (72 hours).



Conclusions

"Soccer training = conditioning"



advantages

1. Based on the science of conditioning and the Dutch vision "learning soccer by playing soccer"
2. Soccer fitness (conditioning) is part of developing the system of play (periodization).
3. Soccer fitness is related to the basic tasks of the players (specific). You train what is needed in the match.
4. Players like Soccer = players like Soccer fitness!

disadvantages

1. Less control for the coach.
2. Harder to organize. A good preparation of the practice sessions is necessary.
3. It's demands a high quality of coaching (coaching on better defending, attacking and transition). What the coach sees - what the coach does / says.
4. It's not common to train this way in the US.

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More Information



Books:

1. *Bert van Lingen* "Coaching Soccer"
2. *Raymond Verheijen* "Conditioning for Soccer"
3. *Rinus Michels* "Teambuilding - the road to success"

If you want a handout of the presentation, please leave your business card on the table next to me or give it to the people at stand 2004 (Euro-sporting)

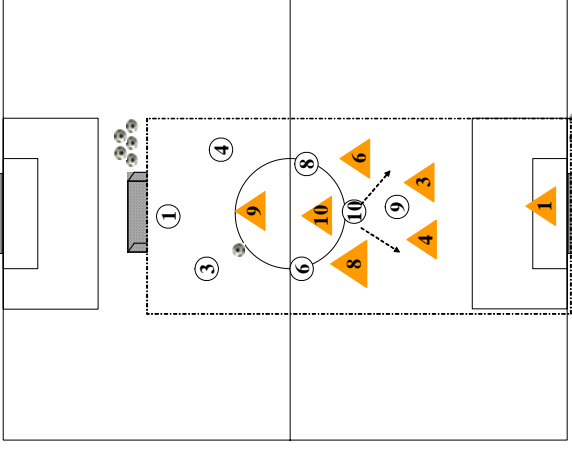
Courses:

1. NSCAA / KNVB course
2. International Coaching Course KNVB (stand 2004)

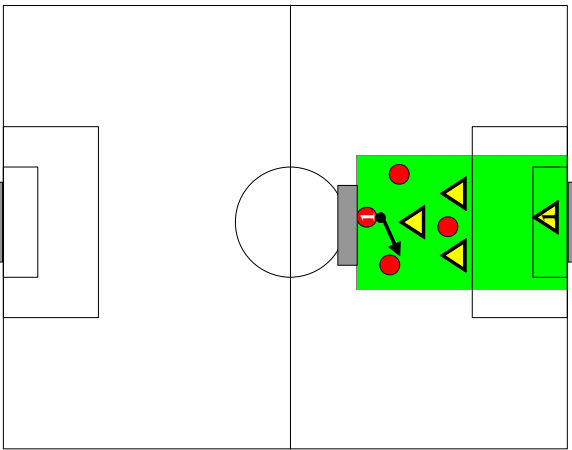


**Thank you for your attention
and see you in Beijing!**

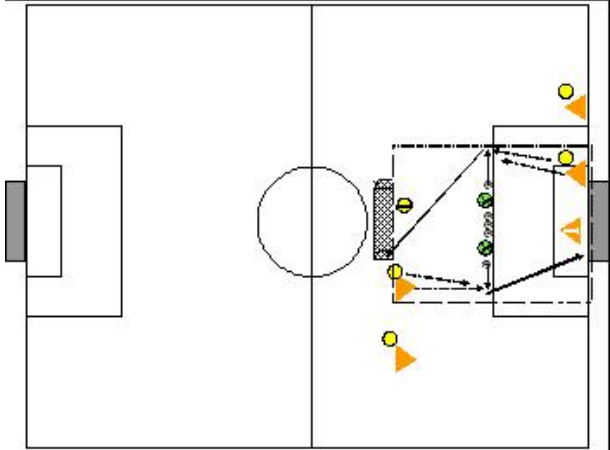
preparation of the training (NSCAA Convention 2008)

Organization / situation		coaching football actions		principles
	Z v Z: formation A: 1-2-3-1 formation B: 1-2-3-1	methodology <ul style="list-style-type: none"> rules space (length & width) 	technical (T): <ul style="list-style-type: none"> block forward pass place body between ball and opponent do not get beaten; challenge for the ball delay / exert pressure (remain useful for as long as possible) win the ball → exert pressure blocking → intercept sliding tackle heading (defensive) defend goal → diving tactical (I & C): <ul style="list-style-type: none"> correct positioning (forward, backwards, inwards - "squeeze" - outwards) play close to each other (compact) always screen the goal squeezing / move inside give cover / cover team-mate's back 	game plan: <ul style="list-style-type: none"> disrupt the build up of the opposition win the ball back the team should try to maintain a good formation general principles: <ul style="list-style-type: none"> make the field of play as small as possible, depending on the strength of the opposition: move toward the ball (pressing) move toward own goal (drop back) push towards the touchline (squeezing) pressure the player who has the ball mark closely in the vicinity of the ball positional / zone marking further away from the ball remain useful for as long as possible
	rules: <ul style="list-style-type: none"> Both teams can score on a big goal ball out, offside, corner, goalkick - start by the goalkeeper offside start situation <ul style="list-style-type: none"> start keepers start by a ball from the coach 	technical (T): <p>passing & kicking (short/long)</p> <ul style="list-style-type: none"> instep kick inside & outside kick curved kick center / cross pass lobbing / chipping <p>receiving and controlling the ball</p> <ul style="list-style-type: none"> receiving the ball → First touch into space laying the ball off / bounce take the ball along with you shield & hold the ball dribbling beating a man / feinting with the ball <p>scoring</p> <ul style="list-style-type: none"> shooting / strike at goal heading 	tactical (I & C): <ul style="list-style-type: none"> correct positioning (central, sideways to the left & right flanks, forwards and backwards) direction of play always be ready to play the ball forward avoid losing the ball - take no risks passing square is a means of creating an opportunity to play a forward pass make back pass possible reading the play & recognizing situations correct ball speed right moment to ask for ball / move into space (getting unmarked) instruct teammates on situation, opponents play encourage attack 	game plan: <ul style="list-style-type: none"> move the ball down field in order to create chances (build up) score goals general principles: <ul style="list-style-type: none"> create as much space as possible (width & depth) aim to get forward; play the ball deep when possible retain the ball playing the ball square paves the way for a forward pass the team should try to maintain a good formation

preparation of the training (NSCAA Convention 2008)

Organization / situation		coaching football actions		principles
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	methodology <ul style="list-style-type: none"> rules space (length & width) organization: <ul style="list-style-type: none"> length: 32 meters width: 30 meters players: 14 + 2 keepers training bibs: 8 yellow & 8 red balls: 20 training markers/ cones: 20 goals: 2 big goals start situation <ul style="list-style-type: none"> start keepers start by a ball from the coach 	technical (T): <u>passing & kicking (short/long)</u> <ul style="list-style-type: none"> instep kick inside & outside kick curved kick center / cross pass lobbing / chipping <u>receiving and controlling the ball</u> <ul style="list-style-type: none"> receiving the ball → First touch into space laying the ball off / bounce take the ball along with you shield & hold the ball dribbling beating a man / feinting with the ball <u>scoring</u> <ul style="list-style-type: none"> shooting / strike at goal heading 	tactical (I & C): <ul style="list-style-type: none"> correct positioning (central, sideways to the left & right flanks, forwards and backwards) direction of play always be ready to play the ball forward avoid losing the ball - take no risks passing square is a means of creating an opportunity to play a forward pass make back pass possible reading the play & recognizing situations correct ball speed right moment to ask for ball / move into space (getting unmarked) instruct teammates on situation, opponents play encourage attack 	game plan: <ul style="list-style-type: none"> move the ball down field in order to create chances (build up) score goals general principles: <ul style="list-style-type: none"> create as much space as possible (width & depth) aim to get forward; play the ball deep when possible retain the ball playing the ball square paves the way for a forward pass the team should try to maintain a good formation

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<p>1 v 1 + scoring:</p> <p>rules:</p> <ul style="list-style-type: none"> • Both teams can score on a big goal • defender can score by kicking ball out of field / into small goals on the side <p>start situation</p> <ul style="list-style-type: none"> • ball on 16 yard • ball on the backline <p>methodology</p> <ul style="list-style-type: none"> • space (length & width) • distance between the cones <p>organization:</p> <ul style="list-style-type: none"> • length: 32 meters • width: 30 meters • players: 14 + 2 keepers • training bibs: 8 yellow & 8 red & 2 green • balls: 20 • training markers/cones: 20 • goals: 2 big goals 	<p>technical (T):</p> <p><u>passing & kicking (short/long)</u></p> <ul style="list-style-type: none"> • instep kick • inside & outside kick • curved kick • center / cross pass • lobbing / chipping <p><u>receiving and controlling the ball</u></p> <ul style="list-style-type: none"> • receiving the ball → First touch into space • laying the ball off / bounce • take the ball along with you • shield & hold the ball • dribbling • beating a man / feinting with the ball <p><u>scoring</u></p> <ul style="list-style-type: none"> • shooting / strike at goal • heading 	<p>tactical (I & C):</p> <ul style="list-style-type: none"> • correct positioning (central, sideways to the left & right flanks, forwards and backwards) • direction of play • always be ready to play the ball forward • avoid losing the ball - take no risks • passing square is a means of creating an opportunity to play a forward pass • make back pass possible • reading the play & recognizing situations • correct ball speed • right moment to ask for ball / move into space (getting unmarked) • instruct teammates on situation, opponents play • encourage attack
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