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INTRODUCTION

Sport is continuously evolving with innovations, research and changes in the sport and its environment. New research and practical experience will constantly enrich our understanding and approach of basketball.

In modern Basketball the power forward becomes a much more important player. This position 4 player is a key factor in playing good basketball on both ends off the floor. In this game where the quickness of play is still increasing every year, the physical, technical, tactical and mental development of players needs to keep up with this development of the basketball game. The dynamic playing style of today does not only demand adaption from individual players, but also strategic team concepts have to change. This development has an impact on the characteristics of the different playing positions.

Especially the power forward plays a whole different game then 15 years ago. Nowadays the position 4 player can be seen as a “second Point-guard” on court. This perspective demands a different approach in selecting, program, practicing and teaching.

In my last year as a professional player we were national champions of Holland with the team in Groningen. It was the 13th national championship for our coach Ton Boot and the second of mine. I was 33 years old and the best of my game had gone. The quickness and physical health were much less sufficient for the desired performances than they were the years before. In that last season my role was being a back-up for multiple positions. I played on positions 1 to 4, but had the most playing minutes on the 2 and 3 position.

Because I was a late maturing and still gaining height when I was 19 years old, I was the smallest of my teams until I was 15 years old. I always played the 1-position until I was 17 and smaller players were used as playmaker. Coaches moved me more to the 2 position.

In the national senior team I played the 2 and 3 position.

Based on my experiences, my knowledge of teaching and view on the game of basketball, I find the point-guard a very important position for talented players to practice and play at.

The necessary technical, tactical, mental and social skills can be used as a good challenge and foundation for this development program. Even the development of some Physical abilities can be stimulated. A good power forward must be able to play on the 1 position in youth teams. I saw Dirk Nowitski play as a floor leader in the German National junior team. For me he stood a good example.

In this paper I will show how a good individual concept for a power forward through the different age categories can be realized. This program is designed for the Dutch situation and will be used in the talent development program in Groningen.
Actual situation

The internationally best known power forwards from the Netherlands are Francisco Elson, Daniel Gadzuric, Geert Hammink and Henk Norel. All were drafted for the NBA, and only Henk did not play in the NBA (yet). What these players have in common is that none of them played in the first division in Holland and they transferred either to college or Spain to join a better basketball program. The level of coaching and basketball programs in Holland has increased a lot during the last 5 years, but still a lot has to be done to be able to compete with the better basketball countries in Europe.

Dutch people are the tallest of the world, we have good health, are creative and like to show our confidence. These common characteristics can be very convenient for the game of basketball, some of the basic ingredients of talent seem to be present.

The biggest challenge we are facing is to make basketball is a bigger sport in Holland. Other sports like soccer, gymnastics, tennis and field hockey are much more popular and better organized, what shows in media attention, sponsoring, level of coaches and amount of participants.

Most children start on an early age around 5 or 6 years old doing an organized sport of their choice. It is common to do competition games right away when joining organized sports instead of practicing first one or two years. Basketball is on that young age difficult to play and not so many qualified coaches are available. So not too many kids start with basketball as their number one sport and move on to join other sports.

When the boys and girls with potential of height start with basketball on a young age, it often happens because their parents are involved in basketball or sports teachers in school advise them to choose for basketball or volleyball. When they choose basketball when they get older, it is harder to learn the basic motoric and technical skills. The level of sports educated in the schools is in a way of physical literacy not sufficient enough to be a good preparation for a talent development program. Hopefully doing other organized sports they develop this athletic basis.

Because there are a relatively limited amount of players available, we need to be very effective in our development. The program, the level of coaching and an expert view on potential talent are very important. We cannot afford to miss any talents who are late maturing, like it happens for instance in soccer where most of the national team players have their birthday in the first 3 months of the year. The key is trying to forecast the success in the future coming from the potential we see today.
MAIN CONTENT

In this main content I will describe the development program for basketball players from 6 to 20 years old in the Netherlands and specific in Groningen. The model of Long Term Athlete Development (LTAD) will be an important foundation of this program. LTAD can help us to do the right things on the right age and staying aware of the physical, cognitive and psychological development of young people.

Physically we look especially at height, speed, flexibility, and motorical skills. It is hard to see for coaches if characteristics and qualities are born or grown, because we don’t know exactly what kind of activities in the early ages from 0 to 7 years old have been occupied, and how they have learned and practiced their fundamental motorical skills. All athletes, regardless of their sport, are more likely to succeed and reach their fullest potential if early in life they develop a wide range of movement, balance and object control skills. This can be done by running, balancing, rolling, skating, jumping, swimming, cycling, skipping, throwing, kicking, striking, catching and trapping (Bressan E.S., and Rathbone, I. 2007).

For children to have success in sport either as in recreation or competitive environment, it is important that they master the fundamental movement skills before learning the fundamental sport skills. And it is important that they master the fundamental sport skills before being introduced to specific techniques, or we coaches have to spend precious practice time or special training opportunities for the development of these skills.

Player profile

Survival of the fittest is an essential part of sports. Competition and competitiveness can decide who will be the best at the end. In a practical situation with a large group participants where everyone has the same opportunities it can be effective. If we look at the different development stages we see that birth month-effect, growth spurts and late or early maturation have huge effects in selection. Statistics from many sports show this bias in their participation numbers.

Currently, most athletic training and competition programs are based on chronological age. However, athletes of the same age between ages 10 and 16 can be 4 to 5 years apart developmentally. Thus, chronological age is a poor guide to segregate adolescents for competitions. There is a better way to select potential talent for the future that fits the developmental and training age. Based on the Physical, Technical, Tactical and mental elements of training and performance we can choose the most important factors for an
ideal power forward. With this profile we have a better chance to forecast what characteristics, qualities and skills a player needs, to have a chance to become excellent. We choose which factors we find most important for a player to possess and to develop. Basically we talk about physical abilities and four kinds of skills.

Mental Skills | Life Skills | Technical Skills | Tactical skills | Physical abilities
---|---|---|---|---
Enjoyment | Leadership | Footwork | Transition | Length
Confidence | Responsibility | Ball handling | Creativity | Wingspan
Concentration | Self-reliance | Dribbling | 1-1 defense | Reaction
Goals setting | Trust | Passing | Positioning | Good hands
Social support | Communication | Shooting | Posting up | Explosivity
Competitiveness | Authenticity | Shot blocking | Finding open man | Stamina
Coachable | Self-motivation | Moves | Drawing fouls | Strength
Reducing complexity | Self-discipline | Penetration | Court sense | Speed
Goal setting | Handle pressure | Defense | Reading game | Suppleness
Handling setbacks | Courage | Rebound | Reading opponent |
Pro-activity

Some of the skills and abilities are determined on a certain age. As we focus in this paper specifically on the technical and tactical skills, we have to keep in mind that development of the skills and abilities will always be in interaction and influencing each other during the process. In most training programs the domains stamina, strength, speed, skill and suppleness will be the basic of the workload. A holistic approach to athlete development considering all of these factors is required for the best results. In addition to this physical development, Structure/stature (body type and growth), Psychology, Sustenance (adequate nutrition and rest), Schooling (and stress), and Social-cultural factors must be considered. According to the founder of LTAD, Istvan Bali, developing the whole athlete, including character, ethics, and so on, must be the objective of every program.

**Long Term Athlete Development**

There is a tendency to apply adult models of sport on children. Too often it is the early maturing athlete who gets to make the elite teams during puberty. Research has shown that very often the late maturing children become the superior athletes since they have more time to develop the fundamental movement skills and fundamental sport skills.
LTAD provides a framework for athlete development that pays specific attention to growth, maturation, development and trainability. The LTAD framework aims to define optimal training, competition and recovery throughout an athlete´s career to enable him to reach his full potential in basketball and as an athlete (figure 1).

At any stage, over-emphasis on physical training and winning may not equip the athlete for all the challenges of high performance or for life outside sport.

More specifically, LTAD:

- Incorporates the mental, emotional, and cognitive development characteristics of an athlete in every stage and the implications for their coaches.
- Explains concepts upon which excellence can be built and the importance of late specialization of basketball and position specific training.
- Highlights specific windows of opportunity to optimally train an athlete’s skill, strength, stamina, speed, and suppleness (flexibility).
- Highlights the importance of proper planning and periodization given the developmental age, and level of competitiveness of the athlete.
- Shows that early specialization sports differ from late specialization sports in that very complex skills are learned before maturation since they cannot be fully mastered if taught after maturation.

What LTAD teaches us about basketball:

- If physical literacy is acquired before maturation, athletes can select a late specialization sport when they are between the ages of 12 and 15 and have the potential to rise to international stardom in that sport.
- Early specialization in a late-specialized sport, like basketball, has been shown to lead to: One-sided sport-specific preparation; Lack of the basic fundamental movement skills; overuse injuries; early burnout; early retirement from training and competition and often withdraw from physical activity.
- Specialization is not only the concept of specialization in one sport; it is also specialization within the sport. Basketball has continually forced the tall player to
The knowledge of LTAD teaches us that basketball is a late specialization sport. For the development of potential talent it is better to start later but with proper technique, than to start early with poorly coaching and program. Important necessities are to learn the most important basketball skills before the peak height velocity and to do other sports for the physical literacy. Speed is an important part of the basketball game. The two sensitive windows of time are identified in the scientific literature as potential periods for accelerated adaptation to speed training (Viru et al, 1998/1999) are:

° Females 6 to 8 years and 11 to 13 years
° Males 7 to 9 years and 13 to 16 years

The development stages are critical for young athletes. The time of Peak High Velocity (PHV), the maximum rate of growth during the adolescent growth spurt, represents an optimal “window” for training some of the physical “S’s” of stamina, strength, speed, skill and suppleness. It is essential that the introduction of this training is based on developmental age, not chronological age. Development occurs at different times for different young athletes. If the window is missed, the athlete may not develop to full potential. This underlines the importance of youth recruitment, age-appropriate programs, and optimal coaching and competition calendars in Basketball. Coaches, especially, must have the expertise to identify these windows for every player.

Program
A holistic athlete development depends on a balanced approach to training which lays a solid foundation for each successive stage. In this basketball program we focus on the technical and tactical skills. In teaching the progression we want, we have to realize what is necessary on what moment. There is a logical following order of learning shown in figure 2. This teaching progressions pyramid starts with the fundamentals, where the “how” and “why” of basic
basketball is taught. The technical part is more about “when” to execute a skill of the
game. Repetition in different situations is required. Strategy and tactics look similar, but
are about the long-term plan and the short term adjustments. “What to do” in general and
specific situations takes place in game-like situations and as preparing for next stages and
competition.

If we add the LTAD model as a final element to this pyramid (figure 3), we get a good
picture of what is important in the
different learning stages. These triangles
help show the coach what percentages of
time should be spend on each element.
This example deals only with the
basketball skills. Work still needs to be
done on the physical, mental and social
skills.

If we use the basic knowledge of LTAD and project this on the development of a power
forward with NBA potential, we will have to make the following developmental choices:

6-12 all players same practices and methods
12-16 best players developed as point-guard
16-18 best potential power forwards play mostly on point-guard position
18-20 best potential power forwards play on 3 and 4 position
20+ specific position 4

We will use the following technical and tactical skills out of our “player profile” for our
program and work out the details:

**Technical Skills:** Footwork, Ball handling, Dribbling, Passing, Shooting, Posting up, Shot
blocking, Moves, Defense, Rebound, Screening

**Tactical skills:** Transition, Creativity, 1-1 defense, Positioning, Finding open man,
Drawing fouls, Penetration, Court sense, Reading game, Reading opponent

It is hardly possible to only focus on technical and tactical skills, because they are deeply
connected with the mental, social and life skills and physical abilities. In this program I will
address the development of technical and tactical skills in a way, where the team concept
plays and important role. The role of the coach may already be called crucial. Not only
does the coach need to recognize chronological, maturing and developmental age. Also
basic knowledge of education and psychology is very important for optimal guidance.
Basketball LTAD Stage: Fundamental

(Ages 6-8 females, 6-9 males)

The goal at this level is to learn very basic fundamental basketball skills. *It is not to win, but rather to have fun while playing* sports and ensuring success. It is the coach’s duty to guarantee success for every participant. The intended emphasis should be focused on giving children the basic fundamental movement skills. Players should learn good practice technique. All players get the same practices, methods and there are no positions.

**WHAT TO TEACH**

**Fundamental movement skills**
- Proper running technique
- Jumping and landing
- Start and stopping (jumpstop, stridestop)
- Pivoting-front and reverse

**Fundamental Basketball Skills**
- With and without ball
- Ready Position
- Offence - triple threat stance
- Vision - play with eyes up

**Ball Handling**
- Ball control
- Stationary dribbling (low, high, wide)
- Movement while dribbling (running, sliding, walking, change of direction, starts, stops, low, high)

**Passing Skills**
- Stationary passing
- Moving passing
- Passing to a team mate
- Receiving the ball – absorbing
- Catching on the move
- Catch ball with 2 hands, 2 eyes, 2 feet

**Shooting Skills**
- Squaring feet and shoulders to target
- Push with both legs
- Follow through (release) - first without ball/then with ball
- Close range shots
- Lay-up progression

**Basic Offensive Concepts**
- Advancing ball towards offensive basket.
- Spacing of players (ideal 3 to 4 m).
- Cutting of players (away or towards ball).
- Every player may lead Fast-break

**Basic Defensive Concepts**
- Recognition when player is on defense
- Recognition of who he/she is defending
- Staying between offender and the basket

**HOW TO TEACH**
- Reduce the number of players when scrimmaging (2-2, 3-on-3 or 4-on-4)
- Play player-to-player defense
- Let many of the rule violations go, but explain as learning opportunity
- Use creative scoring principles
- Provide a correct demonstration and correction of skills, follow-me approach
- Keep things simple with simple rules
- Emphasize effort verses outcome
- Make everything into a game.
- Tactical based on technical abilities
- For young players to improve, they must be active 4 times per week (ideally, 2 are basketball, 2 are other sports or activities and should be physically active for the other 3 days of the week)

**A sample practice plan for players aged 6-9 years:**
- 60 minutes in length.
- Warm-up including speed work and agility 5-10 min.
- Technical skills and drills 35-40 min.
- Scrimmage and simple tactics 10 min.
- Cool down 5 min.

**WHEN TO CONTINUE WITH NEW CONTENT**
- Player demonstrates the ability to perform the basic movement skills
- Player demonstrates fun, enthusiasm and desire to play and learn
- Player demonstrates the ability to deal with simple problem-solving tasks that arise out of activities
- Player demonstrates the ability to understand the concept of team, as well as the concept of cooperation, respect and fair play
- Player will be excited to try new activities

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**Basketball LTAD Stage: Learn to Train**

**(Ages 8-11 females, 9-12 males)**

This is the major motor learning stage. During this time the basic basketball skills should be mastered, but participation in other sports is still encouraged. Young athletes at this stage should be introduced to the basic technical/tactical basketball and need to learn how to train at its most basic level. This focus on training rather than on competing should be reflected in the focus on the process not the outcome. All players get the same practices, methods and there are no set positions.

**WHAT TO TEACH**

**Fundamental Basketball Skills**
- Ready Position without Ball – Movement, change of direction, pace and faking
- Ready Stance - With Ball
  - Holding the ball
  - Footwork - pivoting (front and reverse), using both feet to pivot
  - Movement with ball - jump stops, stride stops
- Starting - able to push off with both feet

**Dribbling**
- Stationary dribbling left and right hand
- Dribbling while moving with left and right hand in all directions
- Speed dribble, control dribble, change of direction dribble with left and right hand
- Vision - able to handle the ball while scanning the floor

**Passing and Catching**
- Introduction of the basic passes (chest, bounce, overhead, baseball)
- Passing and catching at increased speed
- Passing and catching against an opponent (3-1)

**Shooting**
- Introduce BEEF (Balance, Eyes, Elbow, Follow through), concepts of shooting should become more exact
- Introduce technique for lay-ups from both sides

**Developing One on One Skills**
- Triple threat stance, squaring up
- Reading the defence
- Ball fakes and foot fakes

**Getting Open**
- Moving to get open
- Coming to the pass
- Using space

**Defensive Stance on the Ball**
- Introduce stance
- Moving in your defensive stance while staying between player and basket
- Guarding the ball - maintain a gap between the defender and ball handler

**Defensive Stance Away from the Ball**
- Staying between offender and the basket
- Seeing own offender and the ball
- Helping your teammates.
- Recover to own offender

**Offensive Concepts**
- Playing 1-on-1
- Give and go
- Cut and replace/fill position
- Read the defence to attack and score
- Concept with 5 outside players

**Defensive Concepts**
- Off the ball strategies - staying near the player being defended but always seeing the ball
- Introduce triangle (ball-you-man)
- Sprinting back on defence
- Stop player with the ball

**HOW TO TEACH**
- Allow some violations to occur, but explain the rules
- Rules that encourage the use of the basic skills overelaborate tactics and strategies are recommended
- Who rebounds the ball must advance the ball up the floor
- Practice in game like situations with short scrimmages 3-3 and 4-4
- Match skill and drill levels
- Provide specific individual direction

**WHEN TO CONTINUE WITH NEW CONTENT**
- Athletes are excited to be participating
- Athletes are eager to perfect skills
- Players feel it is OK to make mistakes
- The player demonstrates the ability to absorb and apply coaching information to deal with a variety of situations
- Players can accept responsibility
Basketball LTAD Stage: Train to Train

(Ages 11-15 females, 12-16 males)

Train to Train, Phase 1:
Females 11-13 and males 12-14

The skills that need to be trained are in this stage partly dependent on the developmental age of the individual player. Coaches must be aware of the differences in maturation rates. Many skills will be introduced and emphasized. Although the more potential players will play more as a playmaker, we still want to develop basketball players as opposed to positional players. The temptation to compensate for the lack of skills with higher level tactics stays avoided.

WHAT TO TEACH

Dribbling/Ball Handling
- Ball handling - becoming comfortable with the ball, ball protection, vision, handling ball under defensive pressure
- Expand the dribbling and dribble-starts repertoire
- Making proper reads and reactions

Passing and Catching
- Expand the passing repertoire. Add variations to the basic passes (ex. chest, bounce, overhead, baseball, pushpass)
- Developing ball and pass faking
- Passing and catching in guided defensive situations
- Making proper reads and reactions

Shooting
- Execution of the “perfect” form shooting
- Develop shot-ready techniques - catch and shoot from a pass
- Develop catch and shoot off a dribble
- Develop free throw shooting routine
- Shooting/lay-ups with guided defense
- Expand shooting repertoire

Getting Open
- Using change of direction, change of pace, sealing and a teammate
- Read and react to guided defense
- Move to the pass
- Get open in a variety of positions

Developing 1-on-1 Skills
- Swipe through to defend ball
- Develop a one-on-one repertoire
- Read and react to guided defense
- Play from a variety of positions

Multi-Player Manoeuvres
- Penetration principles
- Pick (ball screen)
- Screen away from the ball
- Playing without the ball
- Read and react to guided defense
- Emphasize ball movement (reversals)
- Shot blocking

Transition Offence
- Develop the concept of lanes and outlets
- Recognize advantages
- Read and react to guided defence
- Play multiple positions
- Emphasize ball movement

**Defence on the Ball**
- Contesting a shot, pass and dead ball
- Picks (on the ball screens)

**Defence off the Ball**
- Denial - open and closed
- Help, rotate and recovery
- Off the ball screens
- Footwork: shuffle to run (help)
- Moving from one defensive stance to another with slide and jump to the ball

**Rebounding**
- Footwork
- Boxing out
- Fight for position

**Transition Defence**
- Defensive balance
- Defending the basket, ball and lanes
- Sprinting to recovery

**Offensive Concepts**
- Reading and reacting to the defence
- Reading gaps
- 1-on-1 attack to finish/set up teammate
- Penetration principles - using the dribble and pass wisely, movement without ball
- Shot selection and time
- 5-out offensive frame
- Offensive spacing: 3-point line - balance
- Cutting - basket cuts, ball cuts and spacing cuts (replacement)
- Passing angles/lanes and create lanes
- Passing-entry versus pressure

- Ball screens and screens away
- Ball movement (reversals) and player movement without the ball
- Rebound – follow shot

**In Transition**
- Attacking from the middle
- Outlet passes
- Pass up the lane
- Running fast and wide
- Communicate with teammates

**Defensive Concepts**
- Staying in stance; staying between opponent and the basket (maintaining the gap), maintaining ball pressure, defending picks
- Deny cutter, jump to the ball
- Individual “D” to team “D”
- Defending off the ball screens
- Communicate actions (cue words - ex. ball, shot, help, etc.)
- Protect basket - take a charge
- Attack penetration with help
- Challenge shooter: close-out, contest
- Rebounding

**Transition Defence**
- Full court 1-on-1 pressure
- Floor recognition
- Stop advancing of ball
- Protect basket
- Communicate

**HOW TO TEACH**
- Practice to game ratio of 4:1
- Train by playing 1-on-1, 2-on-2, 3-on-3 so players can touch the ball more
Train to Train, Phase 2:

(13-15 females, 14-16 males)

**WHAT TO TEACH**

**Dribbling - Stationary and Moving**
- Push-Pull
- Behind back
- 2 ball dribbling
- Maravich drills
- Inside out to cross over
- Between legs
- Stutter
- Hop back - to go and to shot
- Spin
- Combination moves
- Off hand
- Dribbling versus pressure

**Passing and Catching**
- Outlet passes
- Full court passes
- Pushpass out of dribble

**Shooting**
- Wall shooting
- Ready to shoot stances
- Shot preparation
- After a cut into 1, 2 footwork
- Jump shot
- 3-point shot
- Under pressure
- After the step-back move

**1-on-1 - Shooting**
- Gather step

- Decision when meeting second line of defence (ex. pull up, floater, step-back, fade, etc.)
- Shooting off screen

**Lay-Up Skills**
- From pro hop/power layup -Reverse
- Decision on type of finish
- Eurostep
- With pump-fake

**Perimeter Movement with Ball (1-on-1)**
- Shot fake and go
- Shot fake and cross-over
- Shot fake and pull-up
- Jab step and shoot
- Jab step and go
- Jab step and cross-over
- Combinations of the above

**Perimeter Movement without the Ball**
- Different cuts
- Back door

**Post Movement without the Ball**
- Sealing
- Spinning

**Post Movement with Ball**
- Drop step, gather step, Rockermove
- Turnaround Jumper
- Jack Sikma move

**Introduce Screening Situations**
- Cross, down, ball, back

**Defensive Stance on the Ball**
- Run-glide-run
- Hip turns
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Individual concept position 4

- Ball influence
- Guarding screens with fight-over and slide-through

**Rebounding**
- 2 hands on the ball
- Outlet the ball/break out dribble

**Offensive Transition**
- Secure possession
- Rebounder, outlet, 2nd outlet
- Decision making
- Space the floor wide and deep
- Bounce or interchange
- Advantages: time and score
- Set up offence

**Defensive Transition**
- Box-in
- Deny outlet
- Keep ball out of middle of floor
- Safety - 1st man back defends basket
- Quick Match up with communicating

**Offensive Concepts**
- Read teammates
- Be quick but patient
- 5-out in combination with 4-out and 1 in (only with potential centers of becoming +2.10m)
- Penetration and Kick Principles
- Use of Dribble to advance the ball, attack the hoop, improve passing angles or get the ball out of trouble
- Communication: verbal/non-verbal cues
- Reading overplays on passing to post
- Pick and roll or pick and cut
- Options and sequencing
- Screen options – curl, step-out, flare

**Defence in the Half Court (man to man)**
- Stop penetration
- Force (funnel) the ball
- Turn the dribbler
- Help the helper (help, fill and rotate)
- Challenge all shots
- Cues and team awareness

**Post “D” specific**
- Screens - on and off the ball
- Hedge and recover, stab and retreat
- Guarding ball in post
- Gap as related to quickness and skill
- Trapping, double team, run & jump
- Rebounding off rotation
- Reading offensive threat

“The reason why so many athletes plateau during the later stage of their careers is primarily because of an overemphasis on competition instead of on training during these important periods (L2T and T2T) in athletic development.” -- Istvan Balyi

**Zone Offensive Concepts**
- Player-to-player concepts to attack zone
- Specific zone concepts (overload, flatten the zone, use of gaps and seams)

**Zone Defensive Concepts**
- Concept from help positions - extreme help – switching defense – help, bump, recover - zone...
- Introduce zone defensive concepts as opposite to zone defensive systems

**Press and Press Breaks**
- Pressing pick up points
- Trapping concepts (pressure defence)
Breaking traps and pressure releases

**HOW TO TEACH**
- Ensure that athletes are able to use the basic skills in a competitive environment.
- Awareness that during this stage there is a great variation in physical ability due to maturation rates.
- Ensure that late maturing children entering the sport late are given opportunities to play.
- Group players to biological age.
- Refine some of the previously learned skills, since the growth of limbs will impact techniques.
- Individualized training to meet the developmental needs of the athlete.
- Decision making through more complex technical training should be introduced.
- Individual and specific direction and structure in the learning process.
- Match skill and drill levels.

Demonstrate specific skills by coach or player
- Audio/visual material and video feedback.
- Give players opportunities to lead.

**WHEN TO CONTINUE WITH NEW CONTENT**
- Players are eager to perfect skills.
- Players understand that they must be motivated, self-disciplined and dedicated.
- Player begins to use goal setting and visualization imagery.
- Player demonstrates the ability to absorb and apply coaching information.
- Player demonstrates ability to analyze their own levels of performance and effort.
- The athlete is able to maintain a positive self-concept through all aspects of training and competition.
- The athlete understands that the coaching emphasis is on learning and performing well as opposed to “winning.”

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**Basketball LTAD Stage: Train to Compete**

**Ages 15-18+/− females, 16-18+/− males**

During the Train to Compete stage, the major objective is to learn to compete under any kind of circumstance. Athletes who are now proficient at performing both basic and sport-specific skills, learn to perform these skills under a variety of competitive conditions during training. At this stage of development the serious athlete will be focused and determined to be the best player he/she can become. Athletes need significant amounts of technical and tactical feedback if they are to properly develop skills. Athletes must train at a high level of intensity and must be challenged to improve by the coaching...
staff. The best potential power forward will practice and play most of the time as a playmaker. The best way to become the “second point guard” on the court is to practice as the first one. All players still are exercising all drills for all positions. Later on in this stage specialization takes place.

**WHAT TO TEACH**

**Dribbling** - Stationary and Moving
- Against disadvantage situations (1-on-2, 2-on-3, 3-on-4) and presses

**Passing and Catching**
- Post entry passes out of dribble
- Skip passes

**Shooting**
- After different cuts, screens and moves
- With endurance
- Specific shots for position and plays

**Lay-up Skills**
- Making shots with contact
- Creative finishes
- Mikan Lay-ups

**1-on-1**
- Combination moves

**Post Moves**
- Jump hook
- Up and under
- Double pivots
- Face up and go
- Crab dribble series

**Perimeter - Movement without the Ball**
- Pass into post and relocate
- Blast cut

**Movement without the Ball - Post**
- Make contact defender’s body
- Feet active, arms high

**Defensive**
- Post defence - foot work (fronting, staying ball side, movement around offensive player)

**Offensive Transition and press break**
- 1st post goes to front of the rim
- Trail post goes to the 3-point line
- Spacing
- 3 pass options (middle, back, sideline)
- Working against double teams
- Vertical attack - throwing over the top

**Conceptual Offence**
- Play off teammates penetration
- Look for cutting and screening opportunities
- 5-out, 4-1, 3-2
- Point of attack
  - Mismatches - attack
  - Attack weakness of defence
  - Use team’s strengths
  - Isolation - use player’s strength

**Role identification**

**Special plays**
- Quick hitters
- Sideline out of bounds (SLOB), baseline out of bounds (BLOB)
- Draw fouls

**Prepare for special defences**
- Box + 1, triangle + 2

- Emphasize value of ball possession
- Flow and awareness of the shot clock
Intelligent Movement is based on:
- Positioning, gaps and spacing
- Location of the ball
- Making decision before the catch
- Movement of defence

Penetration and Kick Principles
- Move and slide to open area
- Baseline drift, 45 degree angle, or fill in behind driver
- Middle drive-slide to optimum position
- Penetrate, pass, extra pass
- Post movement off penetration

Reading Screens
- Being patient and make correct reads (showing hands when ready for ball)
- Using of second cutter

Principles of Zone Offence
- Attacking gaps of the zone
- Taking defence away from their positions
- Use of the high post
- Posts must look for screening, sealing and exit cut opportunities

Defence in the Half Court
- Attack penetration (help principles)
- Keep the ball out of post (both low and high)
- Deny ball reversal
- Recovery strategies
- Rebounding emphasis in all areas and defensive breakdown situations
- Multiple defensive programs
- Combo “D”, zone presses

Principles of Zone Defence
- Communicate on every pass
- Everyone jumps to ball on every pass
- Hands up, take up space
- Keep ball out of high post
- Bump through next player

Transition - Defence
- Timing
  - Knowing when to switch
  - Depends on situation
- Options within Transition
  - Trapping – recovery
  - Forcing
  - Turning
  - Run + jump
  - Playing out of a scramble

HOW TO TEACH
The training to competition and competition specific training ratio now changes to 3:1. 40% of training is for development of technical and tactical skills, and fitness improvements. 60% is competitions and competition-specific training. Athletes must have sport-specific training 6 times per week. The importance of and small group work (by position and with players from different positions) is crucial to the continual development of the athlete.
- Goal setting should be reviewed and goals should be recommitted to at certain points during the season
- Opportunities should be provided for athletes to develop and to apply effective mental management of imagery, focus control, attention control, and activation arousal control.

- Athletes should become very competitive and start to understand what this encompasses. Winning starts to become a goal but intensity and competitiveness is still the priority.

- Encourage to develop self-control in highly demanding and pressure situations.

- Leaders should begin to emerge and opportunities should be provided (i.e. team captain).

- Positive evaluation of performance and positive reinforcement are imperative.

- Provide team and individual oriented training.

- Position-specific training.

- Encourage players to work on skill development on their own time.

- Emphasize the off-season training.

WHEN TO CONTINUE WITH NEXT CONTENT

- Players can cope with multiple strategies and tactics.

- The capacity of self-analysis and self-correction are developing.

- Players begin to demonstrate the application of developing personal values and mental training to enhance basketball performance in training and competition.

- Players demonstrate the ability to apply the acquired mental management tools and skills to improve performance.

- Players demonstrate ability to understand the meanings of motivation, dedication and discipline.

- Players have the ability to set realistic short and long-term goals.

- Players demonstrate the ability to use independent thinking to problem solving.

- Players demonstrate the ability to compete hard, playing to win, but keep wins and losses in perspective.

- Players demonstrate the ability to apply mental toughness strategies to overcome pressure situations.

- Players demonstrate the ability to accept and apply constructive criticism to improve performance.

- Players demonstrate ability to accept roles.

- Independent decision-making and leadership skills are becoming more developed.

- Athletes begin to take ownership of their own training.

- Athletes understand that they can compete hard against other players while maintaining friendly relationships.
Basketball LTAD Stage: Learn to Win

(Ages 18-23+/−females, 18-25+/−males)
At this point the athlete should have a very good understanding of all the basketball specific and position specific skills that are needed to be successful. The athlete should understand that a great deal of time must be spent refining these skills in order to be competitive at the highest levels. The athletes must also understand that they must train at a high level of intensity under game/pressure situations in order to continue to improve. The potential power forward has played as a point guard and as a power forward in the previous stages. In this stage the focus will be on the positions small forward and power forward.

WHAT TO TEACH
Now that the entire athlete’s physical, technical, tactical, mental and ancillary capacities are fully established, the focus of training has shifted to the optimization of performance and reviewing and refining most important skills.

Offensive Concepts
- Half court offence (set plays) including playing without the ball
- Concept-based offence
- Penetration and kick passes
- Setting and reading screens
- Passing and relocating
- Effective use of dribble
- Attacking pressure defence
- Principles of zone offence
- Entering ball to the post
- Post movement
- Ball screen options

Defensive Concepts
- Organization of transition
- Half court concepts - man and zone
- Tactical considerations to defend opponent’s strengths
- Full court principles
- Forcing the ball

HOW TO TEACH
After 10-15 years of training, it is practically impossible to increase the volume of training for an athlete. Therefore the quality/intensity and sport/individual specificity of training should be increased.

- Design training programs with the use of state of the art sport science
- Appropriate and timely testing and monitoring
- Monitor training to ensure that over-training and over-stress are eliminated
- Well developed information processing skills help to improve the athlete’s ability to visualize verbal instructions
- Rules and structure must be perceived as clearly defined and fair
- Optimal performance is the objective, but not at the cost of player development
- Implement principles of adult learning
- Goal setting should be strongly emphasized to give definite direction and purpose to the athletes’ development
- High intensity, basketball-specific training sessions of shorter duration are recommended during this phase, careful planning these sessions with recovery and regeneration methods will provide the training necessary for major tournaments
- The concept of “more is better” is a recipe for disaster. Quality over quantity must be the goal
- The emphasis is on attaining the player’s optimal capacity and optimal performance
- Player must be able to compete under stressful and pressure situations that will occur during a game, therefore these situations must be duplicated in practice
- Player must be able to demonstrate self-control in demanding, pressure situations, therefore the use and practice of relaxation and visualization techniques are highly recommended

**WHEN TO CONTINUE WITH NEW CONTENT**

- The player demonstrates continuous progression in establishing a high level of conditioning and strength practical to the game of basketball and continues to maintain, if not optimize, this fitness, throughout a competitive career
- There is significant understanding and acceptance of the need for rules, regulations and structure
- Player is capable of self-analysis and can correct and refine skills themselves;
- Player can analyze and conceptualize virtually all facets of their sport
- Player has the appropriate levels of maturity and knowledge in order to effectively use and apply the mental skills of imagery, focus control and activation/arousal control
- Player begins to establish a balanced and stable self-concept
- Player is ready for a leadership role
- Player demonstrates the progressive understanding of the importance of establishing strong and positive personal values to enhance their personal development
- Player demonstrates the understanding and importance of role acceptance;
- Player demonstrates an understanding of the importance of team building to enhance individual and team performance

The player is now ready for the next stage of train to win. All stages in talent development have been passed successfully, and the player is ready for a basketball career on the power forward position. If the situations demand the player to play out position, it will be no problem.
Conclusion

In modern Basketball the power forward is a very important player. In this continues improving dynamic game this position 4 player is a key factor. This player can be seen as a "second point guard" on court. To develop these players we need a different approach in selecting, program, practicing and teaching. In the Netherlands we have many opportunities to develop excellent power forwards. We only have to learn to do it in the right way. This development program for basketball players from 6 to 20 years old in the Netherlands can be one of the steps to take.

The model of Long Term Athlete Development (LTAD) is an important foundation of this program. It helps us to do the right things on the right biological and developmental age. All athletes, regardless of their sport, are more likely to succeed and reach their fullest potential if they master the fundamental movement and the fundamental sport skills before being introduced to specific technical or tactical skills. We coaches have to spend precious practice time and special training opportunities for the development of these skills.

Survival of the fittest is an essential part of sports, but birth month-effect, growth spurts and late or early maturation have huge effects in selection. Currently, most athletic training and competition programs are based on chronological age, but this is a poor guide to segregate adolescents for competitions. There is a better way to select and develop potential talent for the future. Most important is the everlasting paradigm of sports where long-term development and short-term results clash. Winning at all costs is huge threat to talent development in sports and in life. With the help of this individual program for potential power forwards, we can develop to excellence. With the right choices of what to train and how to train, we can create the ideal stages for players to move slowly but surely to every next level. If the player is taken through all stages successfully and finally ready to win, a good basketball career will be waiting.

Off course there are, next to doses of luck, many factors influencing this success. Besides the technical and tactical skills we only talked briefly about the mental, physical and social parts. We know that coaches have a lot of impact on players. Research shows that also parents, family and friends can make huge differences. Only with the help of the direct environment of the player we come closer to the ideal formula of success.
Abbreviations list

Age
- **Chronological age** refers to the number of years and days elapsed since birth.
- **Relative age** refers to differences in age among children born in the same calendar year (Barnsley and Thompson, 1985).
- **Developmental age** refers to the degree of physical, mental, cognitive, and emotional maturity.
- **Sport-specific training age** refers to the number of years since an athlete decided to specialize in one particular sport.

**Agility** - The ability to move quickly in three dimensions while remaining in control of the movement.

**Balance** - Ability to remain upright while moving. Includes static balance and balancing while moving or gliding.

**Childhood** runs from the 1st birthday to adolescence.

**Coordination** - Moving several parts of the body serially or simultaneously to achieve movement.

**Development** includes social, emotional, intellectual and motor growth and maturation over time.

**FUNdamental** stage is when children learn a wide variety of fundamental movements and build motor skills as they participate in a number of different sports and activities.

**Goal Setting** - The ability to set targets for future behaviours or outcomes.

**Growth** refers to "observable, step-by-step, measurable changes in body size such as height, weight, and percentage of body fat."

**Learn to Train** stage is when pre teens learn fundamental sport and decision making skills as they participate in a variety of sports.
Long-Term Athlete Development (LTAD) Model is a framework that recognizes the distinct stages of physical, mental, cognitive and emotional development in participants in sport.

Maturation refers to “qualitative system changes, whether structural or functional, in the child’s progress toward maturity; for example, the change of cartilage to bone in the skeleton.”

Peak height velocity (PHV) is the maximum rate of growth in stature during growth spurt. The age of maximum velocity of growth is called the age at PHV.

Periodization is time management (scheduling) of the volume, intensity and frequency of training, competition and recovery.

Physical literacy is when fundamental movement skills and fundamental sport skills that permit a child to move confidently and with control, in a wide range of physical activity, rhythmic (dance) and sport situations are developed.

Readiness is the correct time when a child is ready to learn and perform tasks to meet the demands of training and competition.

Sensitive periods of trainability refer to the period when a child can most easily learn physical skills.

Energy systems, anaerobic alactic and lactic.

Trainability is how individuals respond to training at different stages of growth and maturation.

Train to Train stage when youth, during their growth spurt, develop the physical, technical, tactical and mental capacities to compete at higher levels of sports.

Train to Compete stage ranges from athletes representing their province at nationals to representing their country in international competitions.

Train to Win stage is when athletes are competing and winning in senior international competition.
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