



Bar Kohavi

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B.Ed. Physical Education and Sport Sciences

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Yearly Plans, Curriculums and LTAD's- From Theory > Practice

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Speakers

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Dr. James Malone – Liverpool Hope University
Ian Coll – Head of fitness Botev Plovdiv
Dr. Tomas Maly – AC Sparta Praha
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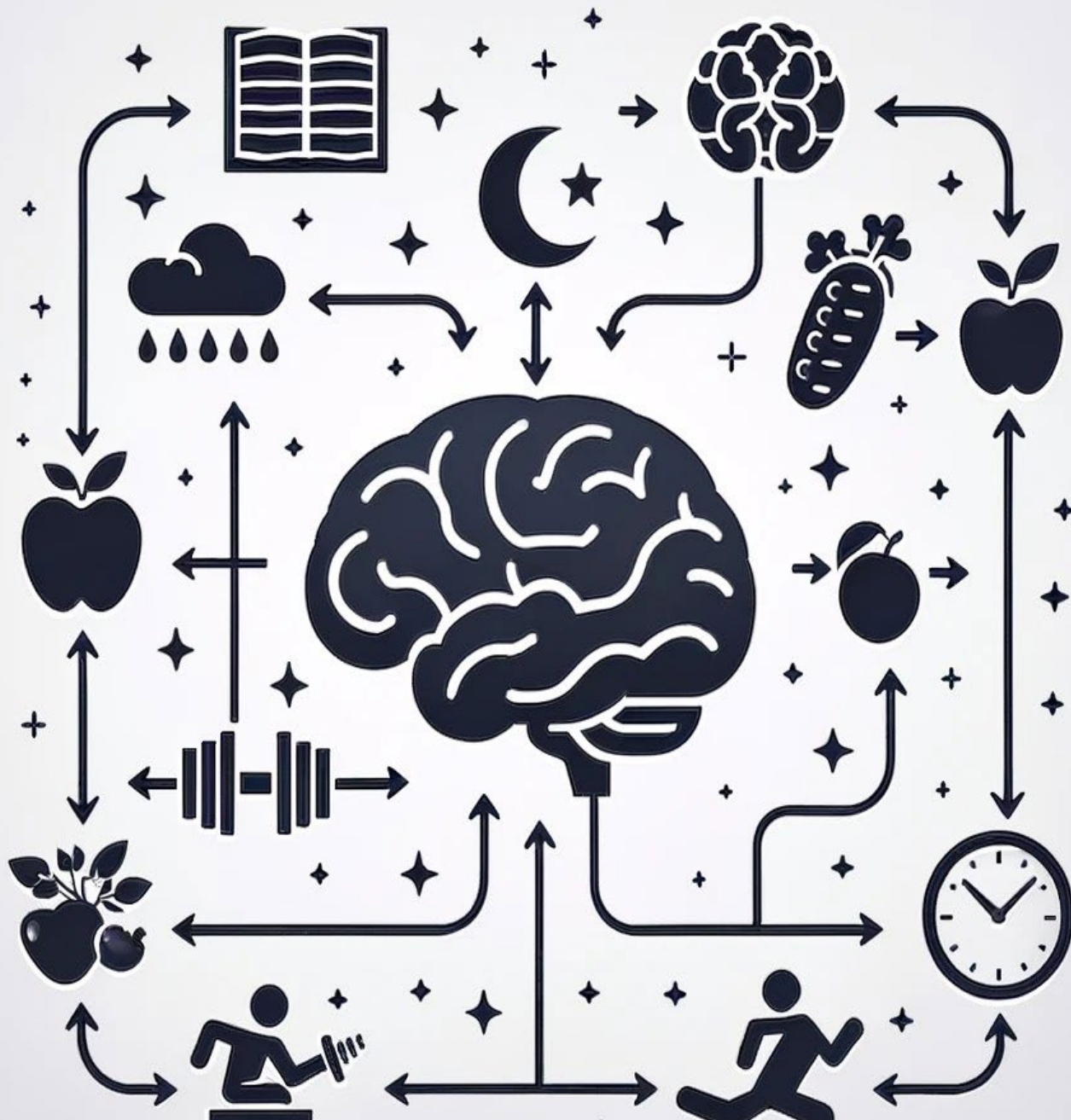
Better Athlete Results

The Academic
College
At Winga
the career of

Physical Education & Sport Sciences at the Wing



Table of Content



LTAD Models Theory;

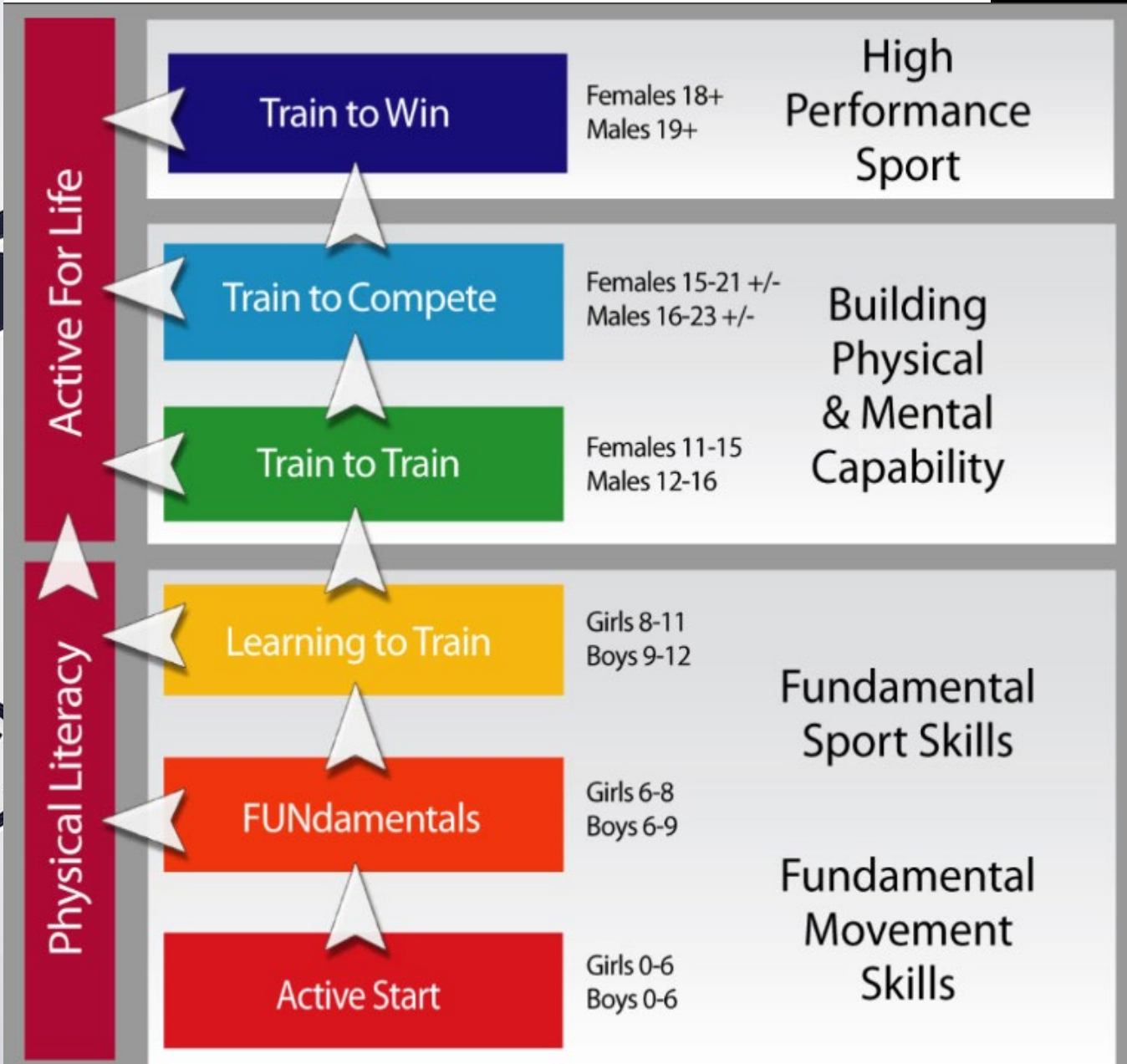
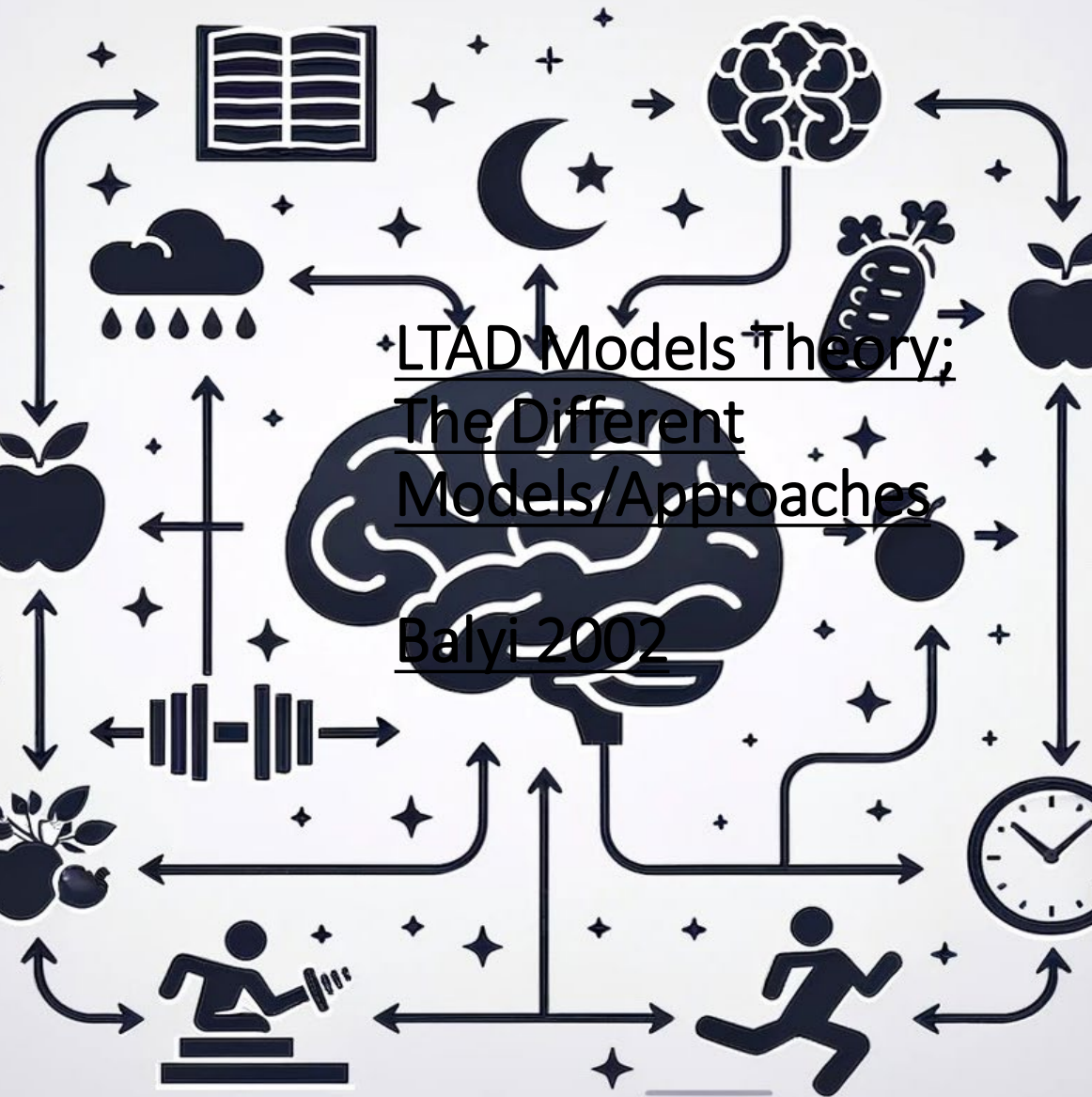
- The Different Models/ Approaches

Adjustment of Physical Dev. Programs;

- Prerequisite
- Individualistic approach
- Syllabus
- Belt method

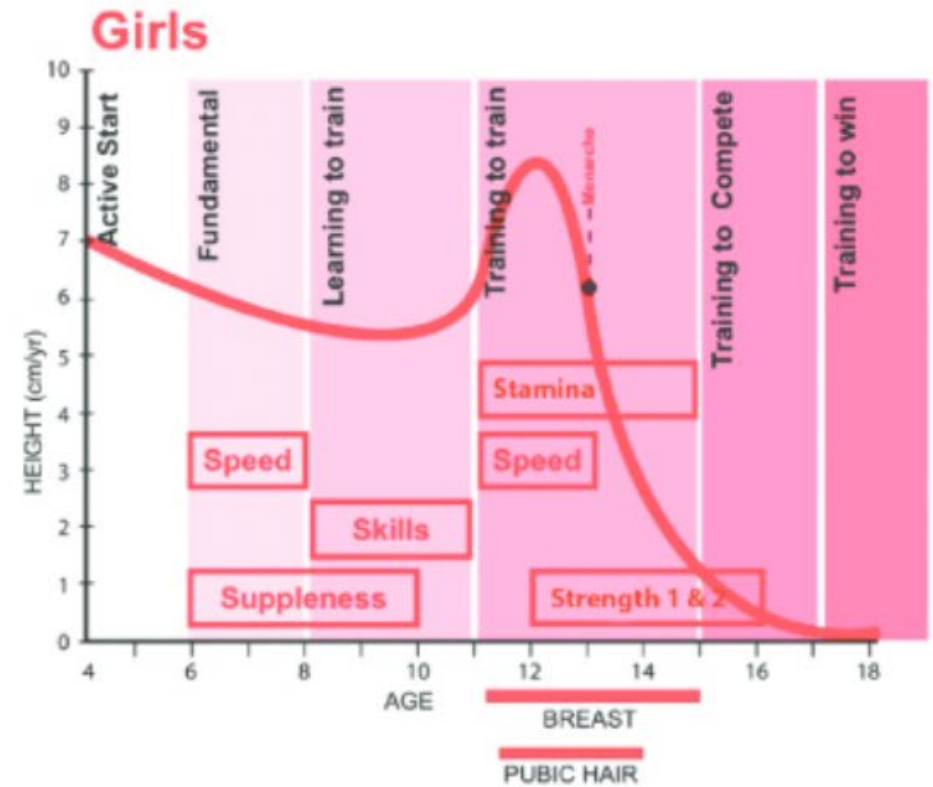
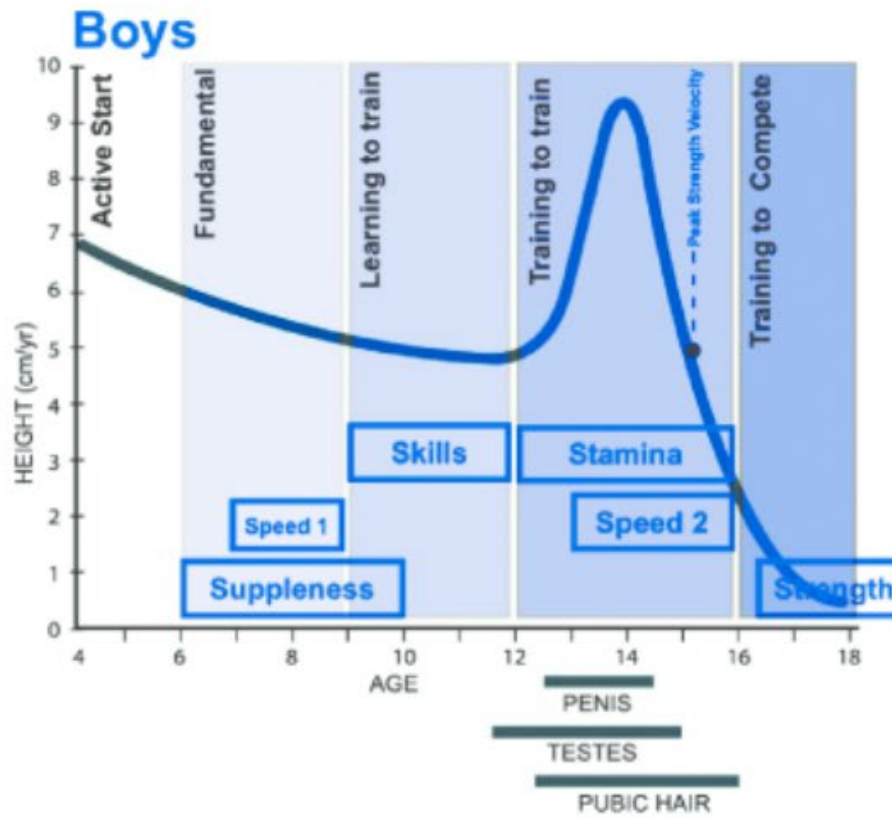
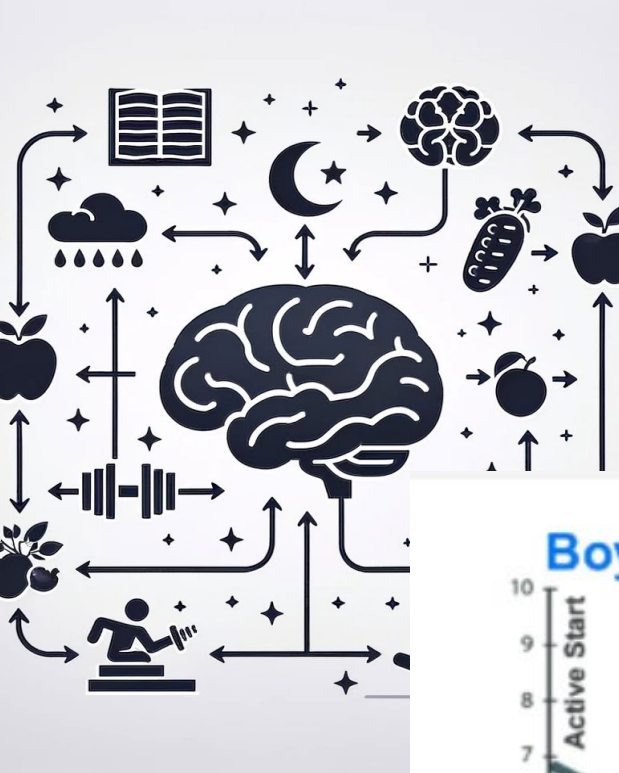
Developmental Game Framework;

- Speed
- Agility
- Power
- Plyometrics
- Athletics



LTAD Models Theory; The Different Models/Approaches

Balyi 2002



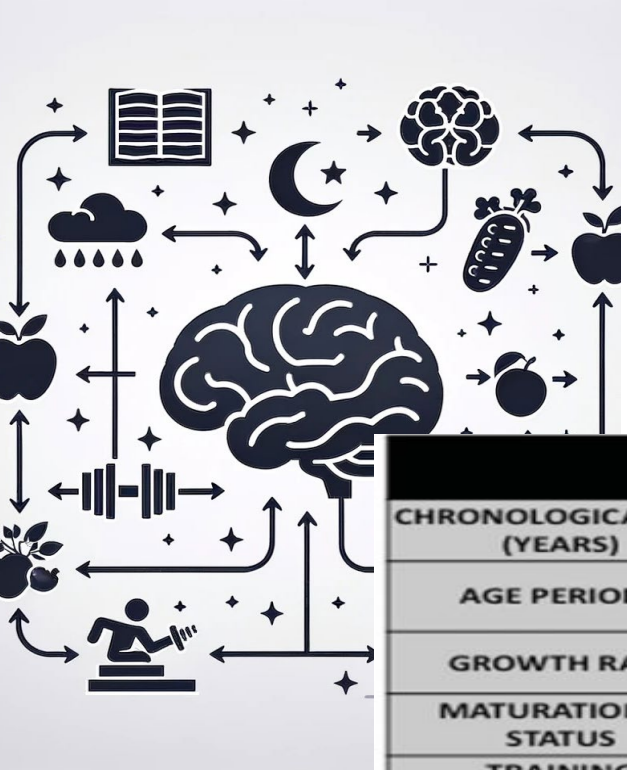
LTAD Models Theory; The Different Models/Approaches

Balyi 2002



paper called "A new approach to long-term athletic development" claiming that there was no scientific evidence for windows of opportunity and that all components of physical development can be trained all the times. However, the authors gave reference that certain modes of training would be more effective at certain times of the child's developing years. For example, hypertrophy training would be more effective at post puberty versus pre-puberty, taking advantage of natural hormonal changes. Noticeably, the model integrated the importance of PHV, from Bayli and Hamilton's work. It added to their breakdown of physical qualities, which were 5 and now 9. The stages of training emphasis evolved into a more training structure format. Finally, authors referred to the importance of having appropriately trained coaches at this specialised time in a child's development.

LTAD Models Theory;
The Different
Models/Approaches
2012, Lloyd and Oliver



YOUTH PHYSICAL DEVELOPMENT (YPD) MODEL FOR FEMALES																				
CHRONOLOGICAL AGE (YEARS)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21+
AGE PERIODS	EARLY CHILDHOOD			MIDDLE CHILDHOOD					ADOLESCENCE								ADULTHOOD			
GROWTH RATE	RAPID GROWTH			↔ STEADY GROWTH					↔ ADOLESCENT SPURT				↔ DECLINE IN GROWTH RATE							
MATURATIONAL STATUS	← YEARS PRE-PHV					← PHV				→ YEARS POST-PHV										
TRAINING ADAPTATION	PREDOMINANTLY NEURAL (AGE-RELATED)								↔ COMBINATION OF NEURAL AND HORMONAL (MATURITY-RELATED)											
PHYSICAL QUALITIES	FMS			FMS			FMS		FMS											
	SSS			SSS			SSS		SSS											
	Mobility			Mobility					Mobility											
	Agility			Agility				Agility				Agility								
	Speed			Speed				Speed				Speed								
	Power			Power				Power				Power								
	Strength			Strength				Strength				Strength								
	Hypertrophy					Hypertrophy		Hypertrophy								Hypertrophy				
	Endurance & MC			Endurance & MC					Endurance & MC						Endurance & MC					
TRAINING STRUCTURE	UNSTRUCTURED			LOW STRUCTURE					MODERATE STRUCTURE				HIGH STRUCTURE				VERY HIGH STRUCTURE			

LTAD Models Theory;

2012, Lloyd and Oliver vs Balyi 2002

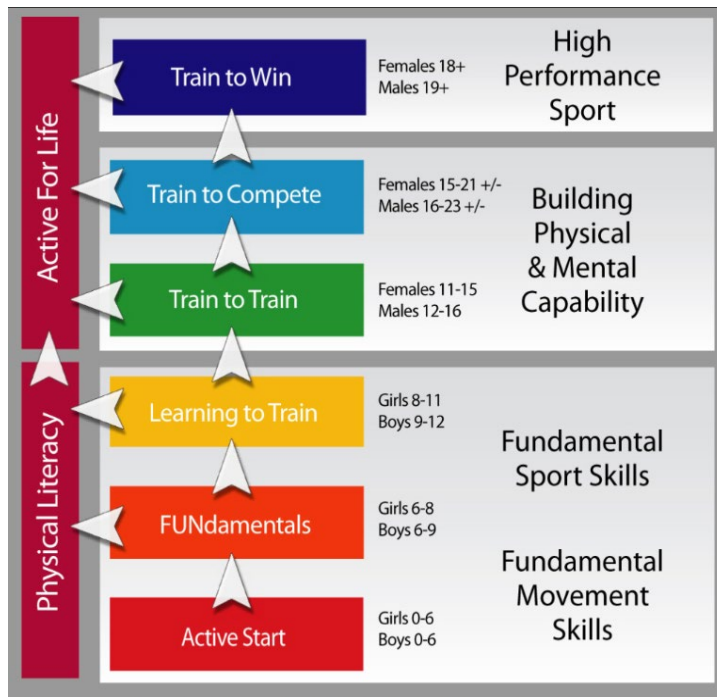
YOUTH PHYSICAL DEVELOPMENT (YPD) MODEL FOR FEMALES																					
CHRONOLOGICAL AGE (YEARS)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21+	
AGE PERIODS	EARLY CHILDHOOD			MIDDLE CHILDHOOD					ADOLESCENCE							ADULTHOOD					
GROWTH RATE	RAPID GROWTH			STeady Growth					Adolescent Spurt			Decline in Growth Rate									
MATURATIONAL STATUS	Years Pre-PHV					PHV			Years Post-PHV												
TRAINING ADAPTATION	Predominantly Neural (Age-Related)								Combination of Neural and Hormonal (Maturity-Related)												
PHYSICAL QUALITIES	FMS	FMS			FMS		FMS														
	SSS	SSS			SSS		SSS														
	Mobility	Mobility								Mobility											
	Agility	Agility								Agility				Agility							
	Speed	Speed								Speed				Speed							
	Power	Power								Power				Power							
	Strength	Strength								Strength				Strength							
		Hypertrophy								Hypertrophy				Hypertrophy							
	Endurance & MC	Endurance & MC								Endurance & MC				Endurance & MC							
	TRAINING STRUCTURE	UNSTRUCTURED			LOW STRUCTURE					MODERATE STRUCTURE			HIGH STRUCTURE				VERY HIGH STRUCTURE				

Whether windows of opportunity are rigid or loose term is less relevant in the context of an academy and/or an organization the paramount detail is that a **plan has to be established based on the constructs and constraints of the organization.**

Plans are **NOT** laws they are mere guidelines

Without a plan assessment of execution, adapting to accruing changes and improvements are **near impossible** in a team construct.

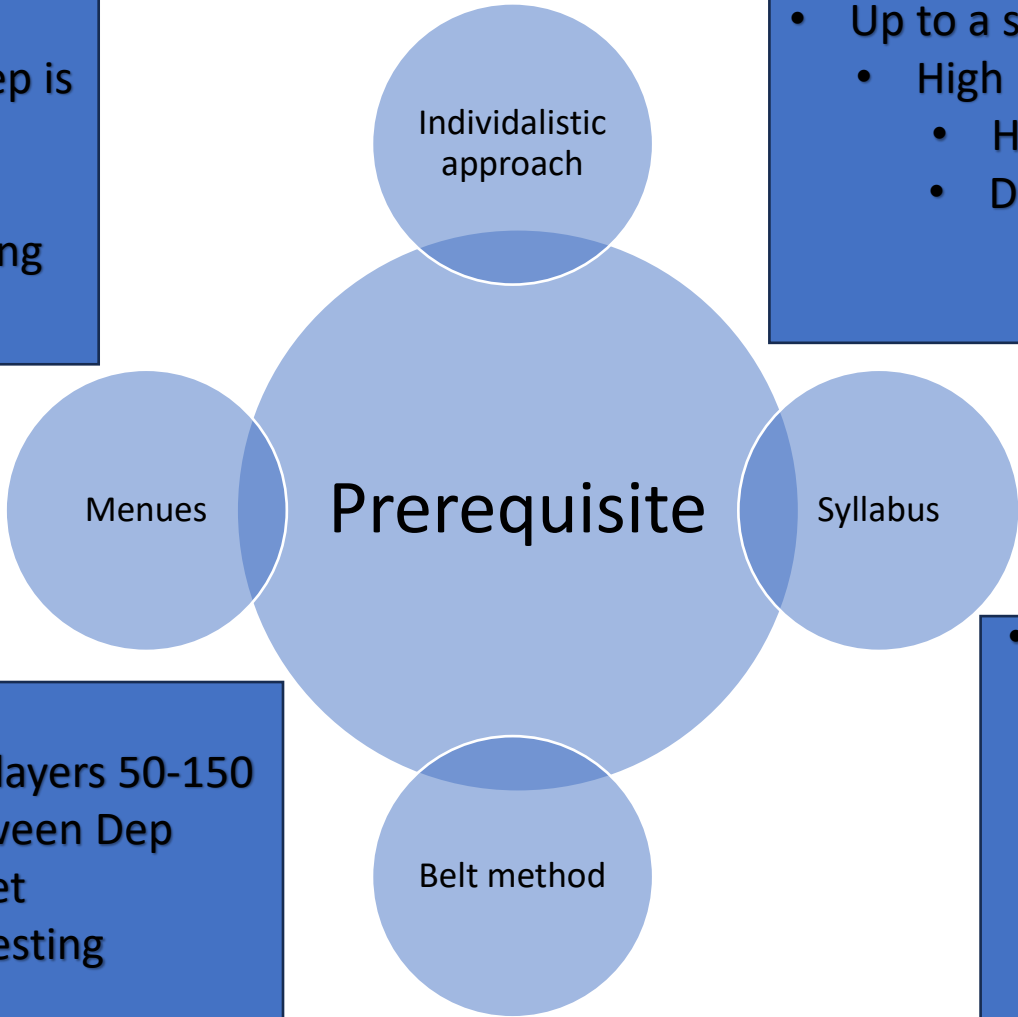
The best athlete is the one that is not limited by his body to take the necessary physical action where they deem fit.



Adjustment of Physical Dev. Programs;

- Up to an unlimited number of players $\sim\infty$
- No specific coop between Dep is necessary
 - Low budget
- Meeting based/Yearly Testing

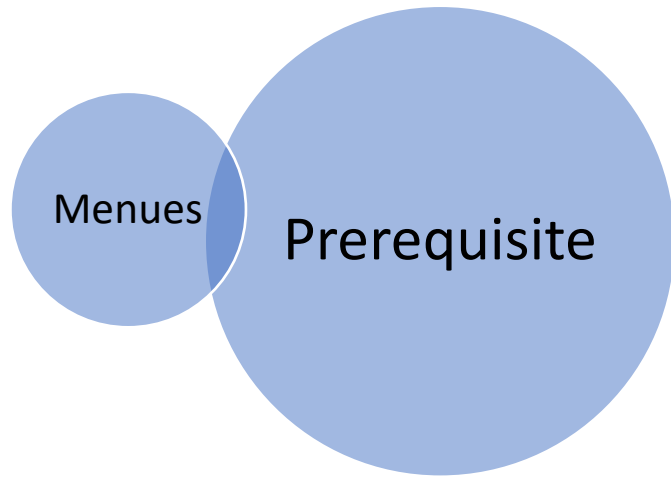
- Up to a small number of players 10-50
 - High level of coop between Dep
 - High To modrate budget
 - Daily – Weekly- Monthly Tracking/+Testing



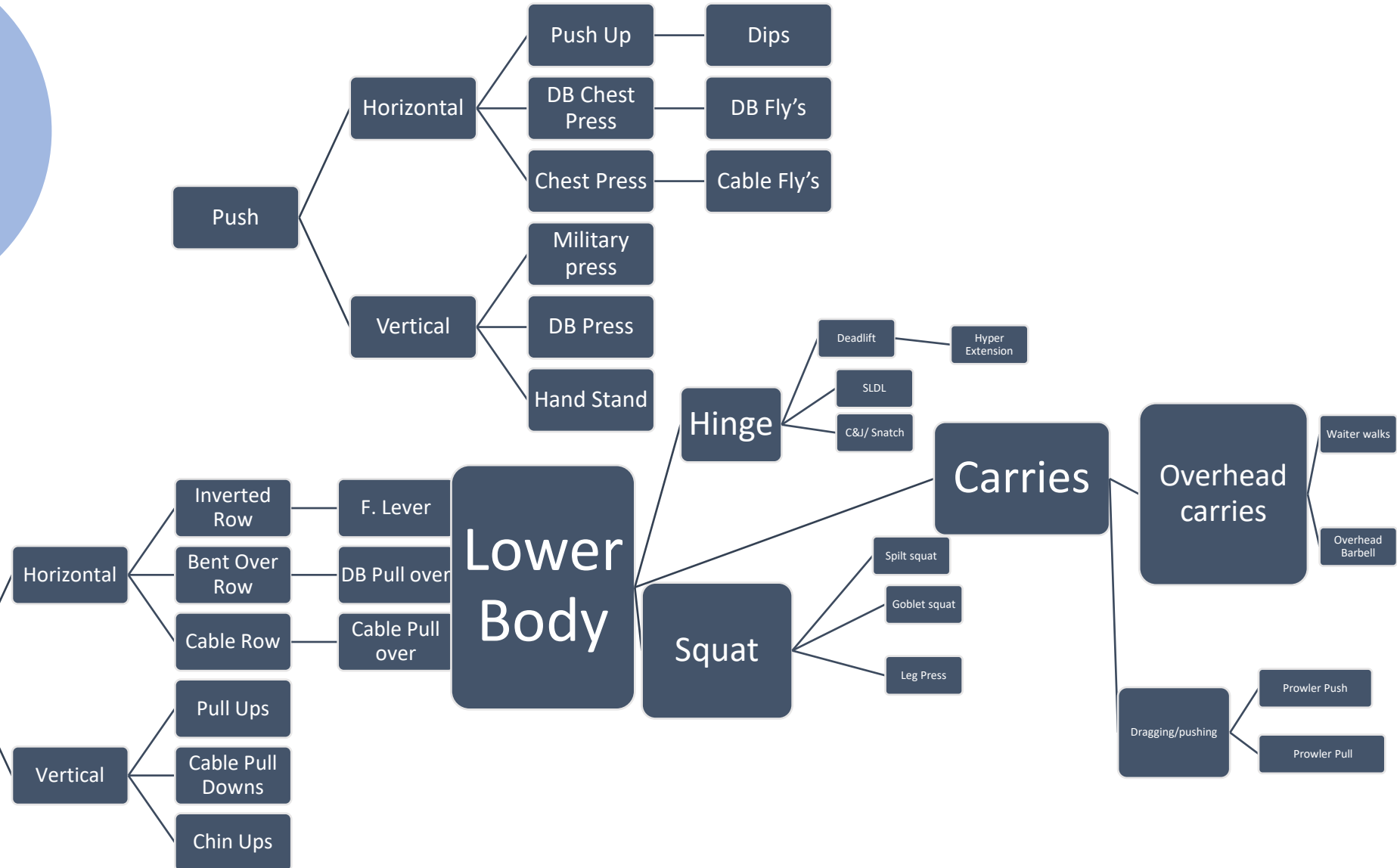
- Up to a large number of players 50-150
 - Low level of coop between Dep
 - Modrate budget
 - Quarterly- Yearly Testing

- Up to a very large number of players 50-250
 - Moderate-High level of coop between Dep
 - Modrate budget
 - Monthly – Quarterly- Yearly Tracking/+Testing

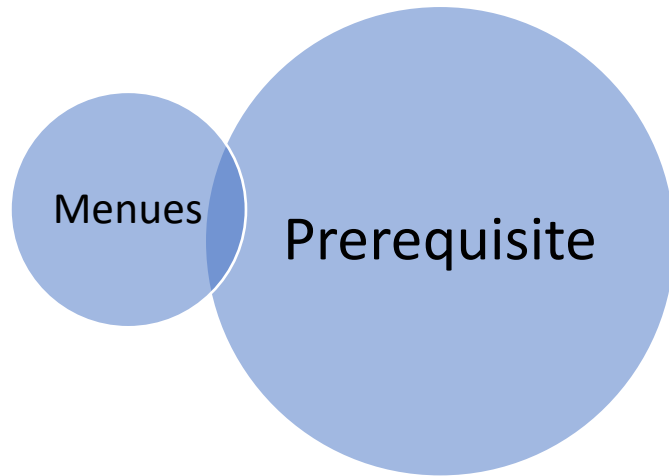
Adjustment of Physical Dev. Programs;



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Adjustment of Physical Dev. Programs;



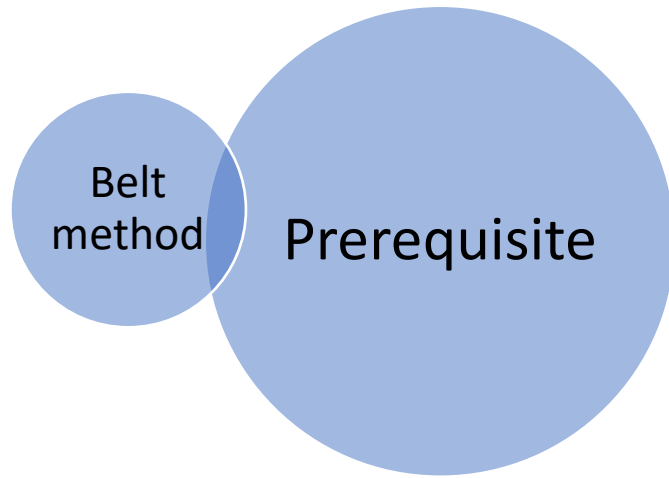
- Up to an unlimited number of players $\sim \infty$
- No specific coop between Dep is necessary
 - Low budget
- Meeting based/Yearly Testing

Tips til succes:

- Træn 2-4 gange om ugen
- Sæt dig ned inden træning og vælg de øvelser du vil køre
- Hold en log/dagbog over hvad du laver
- Lav den samme øvelse et par uger i træk, inden du skifter den ud
- Lav lidt mere end sidst – men, slow and steady wins the race
- Pres dig selv i hvert sæt, stop sættet så snart teknikken bryder sammen
- Hvis du ikke kender en af øvelserne så spørg/google den, det kan jo være den var fed
De fleste øvelser kan findes her: [LINK](#)
- LAD VÆRE MED AT LAVE MEGET MERE END DU ER VANT TIL, LIGE MED DET SAMME!

Første ret – Hoftedominant – Vælg én øvelse fra gruppe A eller gruppe B (dit valg har indflydelse på øvelserne i anden ret) – kør 3-6 sæt X 4-12 gentagelser

Adjustment of Physical Dev. Programs;

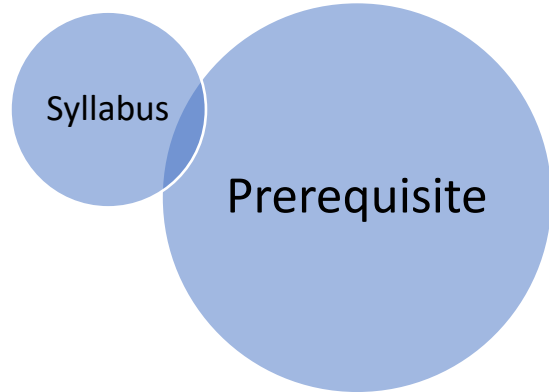


Level	Sitting Patterns	Hinge
Niveau 1	DB/KB Goblet Squat 30% BW (6-12-15)	DB/KB Deadlift 30% BW (6-12-15)
Niveau 2	Zombie Squat Barbell (6-12-15)	Barbell RDL 50% BW (6-12-15)
Niveau 3	Overhead Squat 20% BW (6-12-15)	Barbell Deadlift 100% BW (6-12-15)/ S.L. Barbell RDL 50% BW (6-12-15)
Niveau 4	Front Squat 50% BW (6-12-15)	Barbell Deadlift 150% BW (6-12-15)/ S.L. Barbell RDL 80% BW (6-12-15)
Niveau 5	Back Squat 75% BW (6-12-15)	
Niveau 6	Back Squat 110% BW (6-12-15)	
Niveau 7	Jumping Barbell Back Squat 50% BW (6-12-15)	
Niveau 8		
Niveau 9		
Niveau 10		
Niveau 11		
Niveau 12		
Niveau 13		
Niveau 14		
Niveau 15		

- Up to a large number of players 50-150
- Low level of coop between Dep
 - Modrate budget
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Vertical Push	Horizontal Push	Vertical Pull	Horizontal Pull
Barbell Press (Barbell) (6-12-15)	3030 Knee Push-ups (6-12-15)	Parallel chin-ups +EL (6-12-15)	45* Inverted Pull Ups (C2B) (6-12-15)
DB Press 30% BW (6-12-15)	3030 Push-ups (6-12-15)	Underhand Chin-ups +EL (6-12-15)	Parallel Inverted row Bent Knees (C2B) (6-12-15)
Dips BW (6-12-15)	3030 30% BW Push-ups (6-12-15)	Pullups +EL (6-12-15)	Parallel Inverted row (C2B) (6-12-15)
Dips 25% BW (6-12-15)	DB Bench 50% BW (6-12-15) (6-12-15)	Parallel chin-ups (6-12-15)	Parallel Inverted row legs elevated (C2B) (6-12-15)
Handstand leg supported push-ups (6-12-15)	Incline Bench press 70% BW (6-12-15)	Underhand Chin-ups (6-12-15)	Parallel Inverted row legs elevated (C2B) (6-12-15) 20%BW
HSPU (6-12-15)	Bench press 100% BW (6-12-15)	Pullups (6-12-15)	SA. 45* Inverted Pull Ups (6-12-15)
Barbell Press 50% BW (6-12-15)	Dips 50%BW (6-12-15)	Parallel chin-ups (6-12-15) 20%BW	SA. Parallel Inverted row Bent Knees (6-12-15)
Jerk 75% BW (6-9-12)		Underhand Chin-ups (6-12-15) 20%BW	SA. Parallel Inverted row (C2B) (6-12-15)
		Pullups (6-12-15) 20%BW	SA. Parallel Inverted row legs elevated (C2B) (6-12-15)
		SA. Hand Assisted Chin ups (6-12-15)	
		SA. Band Assisted Chin ups (6-12-15)	
		SA. H Chin ups (6-12-15)	

Adjustment of Physical Dev. Programs;



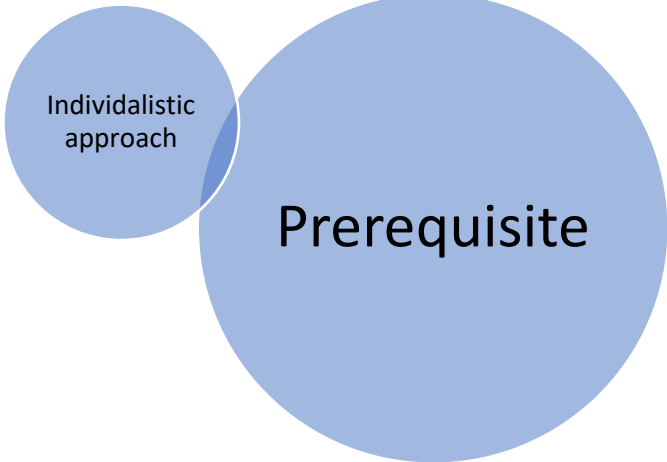
Læringsniveau	
I	Introducerer
Ø	Øver
M	Mestre
O	Optimerer

Hoved Element	Principper	Sub - Elementer	U10	U11	U12	U13	U14	U15	U17	U19
Motorik (generelt) + Koordination	Skab varieret kundskab til bevægelse	- Brug af andre sportsgren for læring	I	I	Ø	Ø	-	-	-	-
		- Bevægelse Mønstre	I	I	I	Ø	Ø	M	O	O
		- Spring, Hop	-	-	I	I	Ø	Ø	M	O
		- Højde skift (tunge punkt kontrol)	-	-	I	I	Ø	Ø	M	O
		- Rytme	-	I	I	I	Ø	Ø	M	O
		- Tempo skift	-	I	I	I	Ø	Ø	M	O
	Skab Sport Specifik	- Løbe Skoling	-	I	I	I	Ø	Ø	M	O
		- Retningsskift, Drej , Twist	-	-	I	I	Ø	Ø	M	O
		- Træk og Skub	-	-	-	I	Ø	Ø	M	O
		- Modstå	-	-	-	I	Ø	Ø	M	O

- Up to a very large number of players 50-250
- Moderate-High level of coop between Dep
 - Modrate budget
 - Monthly – Quarterly- Yearly Tracking/+Testing

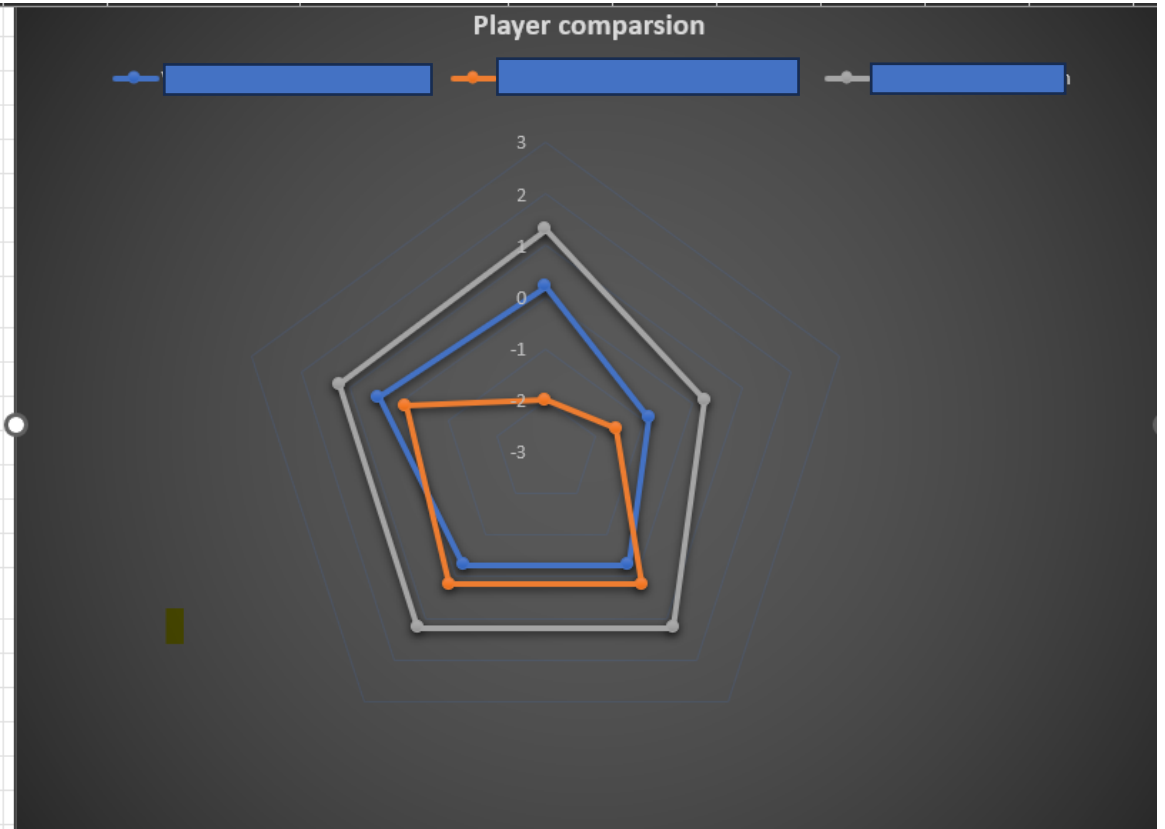
Hoved	Principper	Sub - Elementer	U10	U11	U12	U13	U14	U15	U17	U19
Hurtighed 1.2	Sprint udholdenhed	- Max Acceleration (U)	I	I	I	Ø	Ø	M	M	O
		- Straight Line (U)				I	I	Ø	Ø	M
		- COD (U)				I	I	Ø	Ø	M
		- Omstilling Spil (U)						I	Ø	Ø
	Retning skift	- <u>Arched</u>	I	I	I	Ø	Ø	M	M	O
		- <u>Angular</u>	I	I	I	Ø	Ø	M	M	O
		- <u>Game Specific</u>						I	Ø	Ø
		- <u>Position specific</u>						I	Ø	Ø
	Reaktion	- <u>Audiotary</u>	I	I	I	Ø	Ø	M	M	O
		- <u>Visuelt</u>	I	I	I	Ø	Ø	M	M	O
		- <u>Somatosensory</u> -/ "touch"/	I	I	I	Ø	Ø	M	M	O

Adjustment of Physical Dev. Programs;

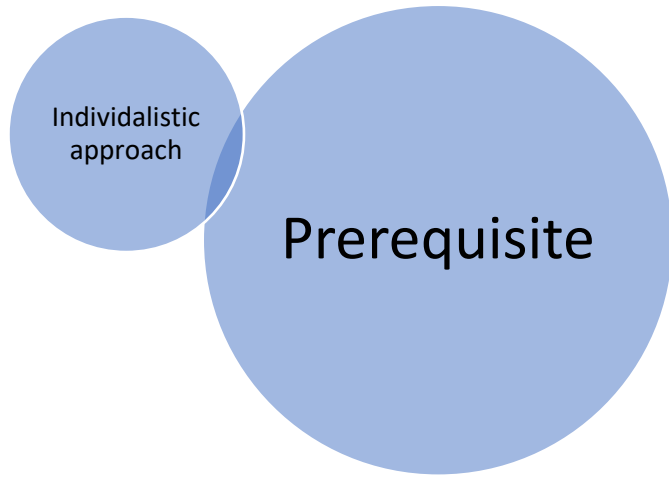


- Up to a small number of players 10-50
 - High level of coop between Dep
 - High To modrate budget
 - Daily – Weekly- Monthly Tracking/+Testing

Player_A	
SJ	46,2
CMJ FA	43,7
Left Lateral Bound	200
Right Lateral Bound	211
5-0-5	2,27
30-15	19,5
Player_B	
SJ	33
CMJ FA	39
Left Lateral Bound	200
Right Lateral Bound	207
5-0-5	2,27
30-15	19,5
Player_C	
SJ	46,2
CMJ FA	43,7
Left Lateral Bound	200
Right Lateral Bound	211
5-0-5	2,27



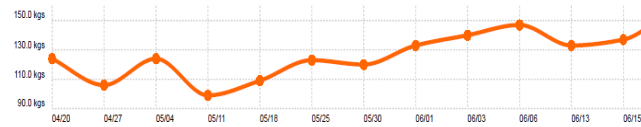
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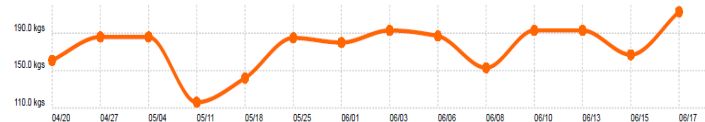
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Trap Bar Deadlift

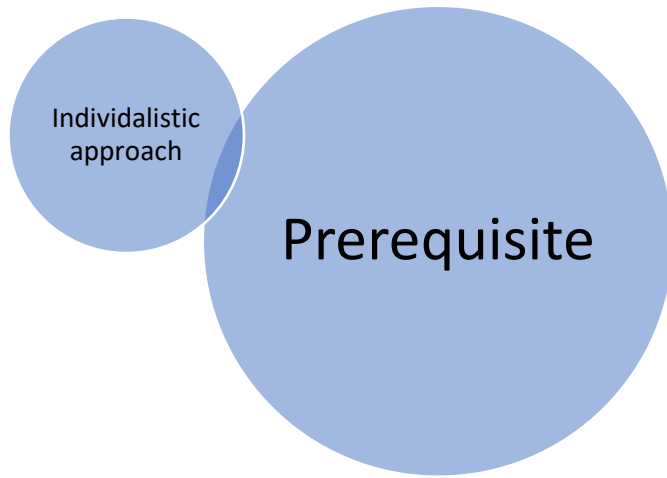


Trap Bar Deadlift



Reporting TeamBuildr			
	Assigned	Completed	Percent
	60	48	80%
	60	31	51.67%
	60	40	66.67%
	60	56	93.33%
	60	30	50%
	61	40	65.57%
	60	46	76.67%
	60	47	78.33%
	60	57	95%
	60	55	91.67%
	60	28	46.67%
	60	56	93.33%
	83	12	14.46%
	60	50	83.33%
	60	44	73.33%
	60	35	58.33%
	60	40	66.67%
	61.41	42.06	68.49%

Adjustment of Physical Dev. Programs;

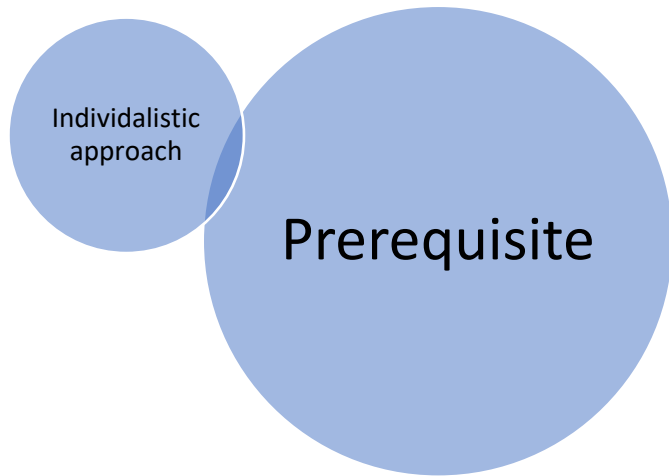


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📅 AKS
📅 Ankle
📅 Groin
📅 Knee rehab
📅 Shoulder Work
📅 Size
📅 B.A.R!
📅 Building Base Strength
📅 Get Started
📅 Skills

📅 SønderjyskE
📅 Goal-Keepers
📅 Physio
📅 Transition
📅 U14
📅 U15
📅 U17
📅 U19
📅 Undesignated

Adjustment of Physical Dev. Programs;



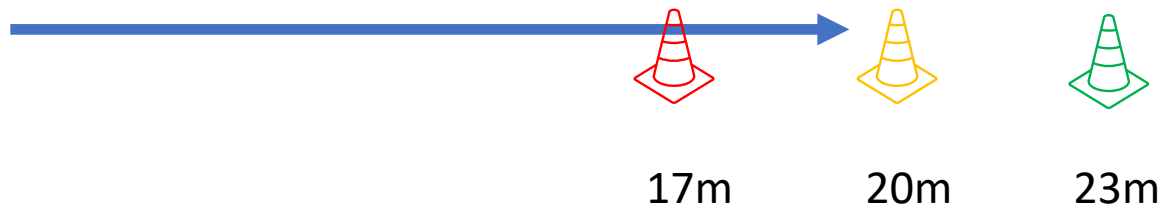
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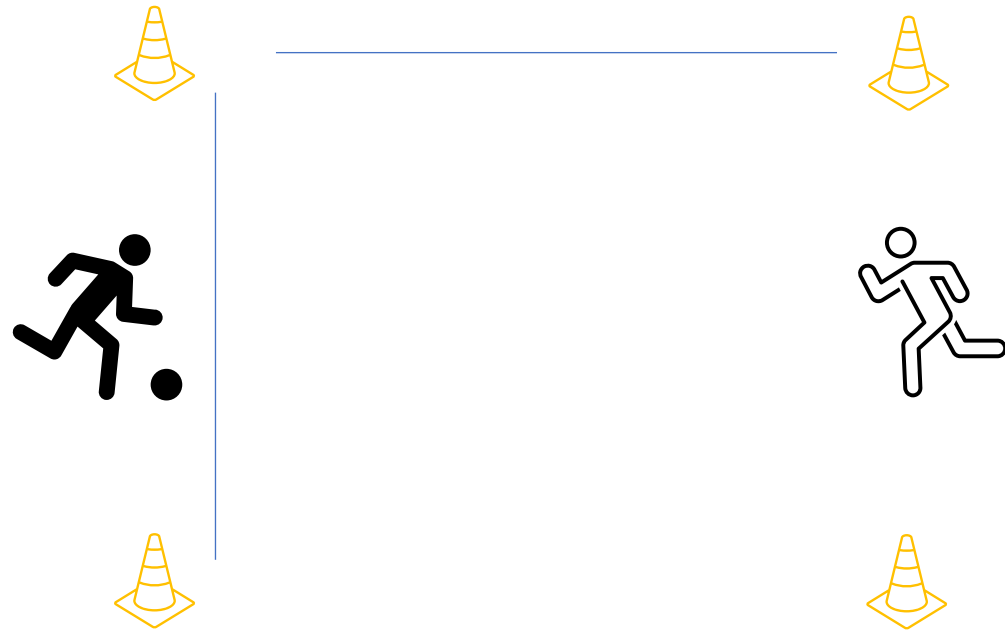
<ul style="list-style-type: none">  Single Arm Dumbbell Snatch 3 x 5 ea.  CMJ With Arm Swing 3 x 5-10  Hip Thrust w/ Barbell 2 x 6  Single leg RDL Jumps 2 x 5 ea.  Chin Up 3 x 5 ea.  Push Press 3 x 5  Deficit Sumo Squat 1 x 10  DB Forward Lunges 1 x 5 ea. - 3 direction 	<ul style="list-style-type: none">  Single Arm Dumbbell Sr 3 x 5 ea.  CMJ With Arm Swing 3 x 5-10  Hip Thrust w/ Barbell 2 x 6  Single leg RDL Jumps 2 x 5 ea.  Chin Up 3 x 5 ea.  Push Press 3 x 5  Forward DB Step Down 1 x 10 ea. - super slow  Banded Sissy Squats 1 x 10 - super slow 	<ul style="list-style-type: none">  Shoulder Thoracic control AMAP 1 round  Barbell Split-Squat 5 x 6  Sliding Hamstring Curls 3 x 8  Sissy Squats 3 x 6  Hip Thrust w/ Barbell 3 x 10  Barbell Bench Press 4 x 5  Chin Up 4 x 5
---	---	--

Distance (m)	10 km/h	15 km/h	20 km/h	25 km/h	30 km/h	35 km/h
5	1.8	1.2	0.9	0.72	0.6	0.51
10	3.6	2.4	1.8	1.44	1.2	1.03
20	7.2	4.8	3.6	2.88	2.4	2.06
30	10.8	7.2	5.4	4.32	3.6	3.09
40	14.4	9.6	7.2	5.76	4.8	4.11

Developmental Game Framework;

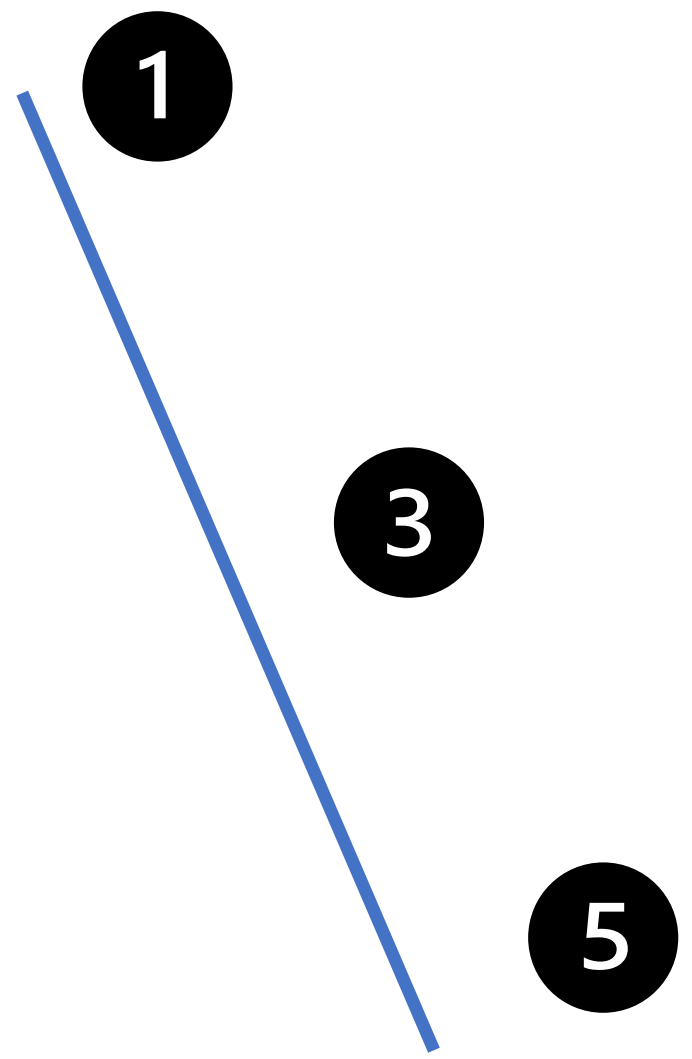
- Speed
- Agility
- Power
- Plyometrics





Developmental Game Framework;

- Speed
- **Agility**
- Power



Developmental Game Framework;

- Speed
- Agility
- Power

Last Thing!

- If I had to choose which messages YOU should come out with from this lecture, I would say.

- Have a clear plan and be ready to change it
- Use yearly quarterly and or monthly evaluations (part of the plan)
- A Window of opportunity might be the best point in time to develop an ability but not the last one.
- *The best athlete is the one that is not limited by his body to take the necessary physical action where they deem fit*

Use Outcome Based Decision Making

BAR

Better Athlete Results

Tel: 45 42 41 96 99

E-mail:
barakuda.bar@gmail.com

B.Ed. Physical Education and Sport Sciences

M.Sc. High-Performance Sports Strength and Conditioning
NSCA CSCS



A stylized logo consisting of the letters "BAR" in a bold, black, sans-serif font. The letters are thick and interconnected, with the "A" and "R" having a unique, blocky design.

Better Athlete Results