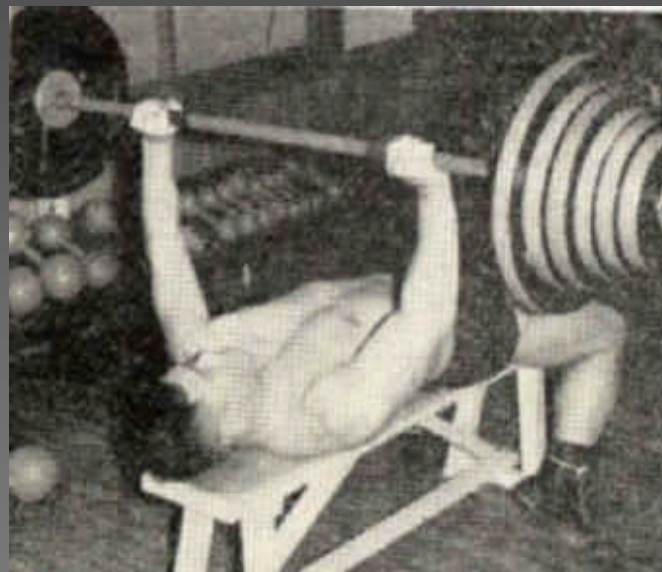




Strength and conditioning for British Judo team players



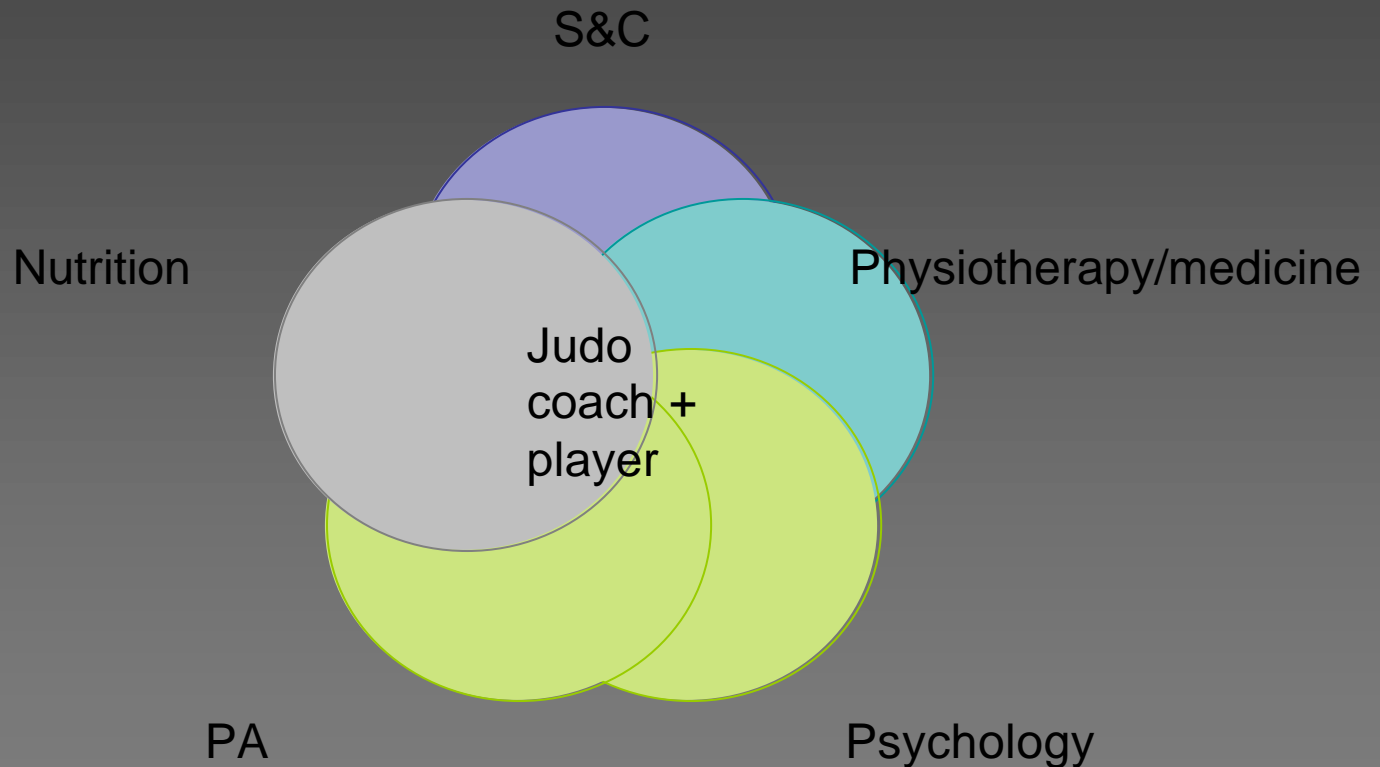


Overview

- Introduction
- S&C
- The training process
- Exercises
- Questions/ discussion

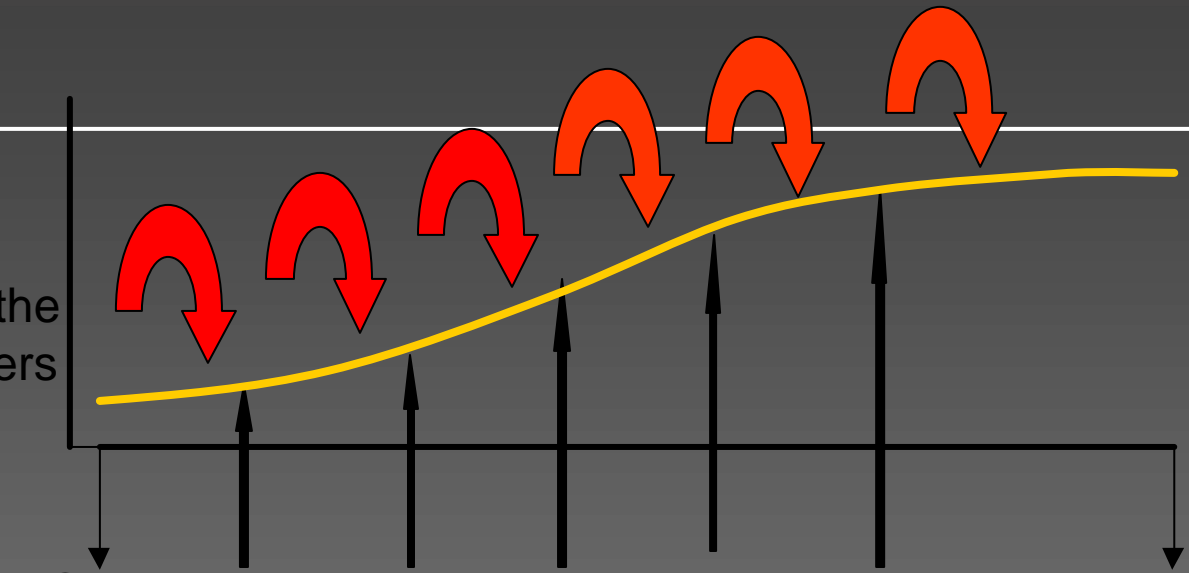


INTRODUCTION - *Support Team*



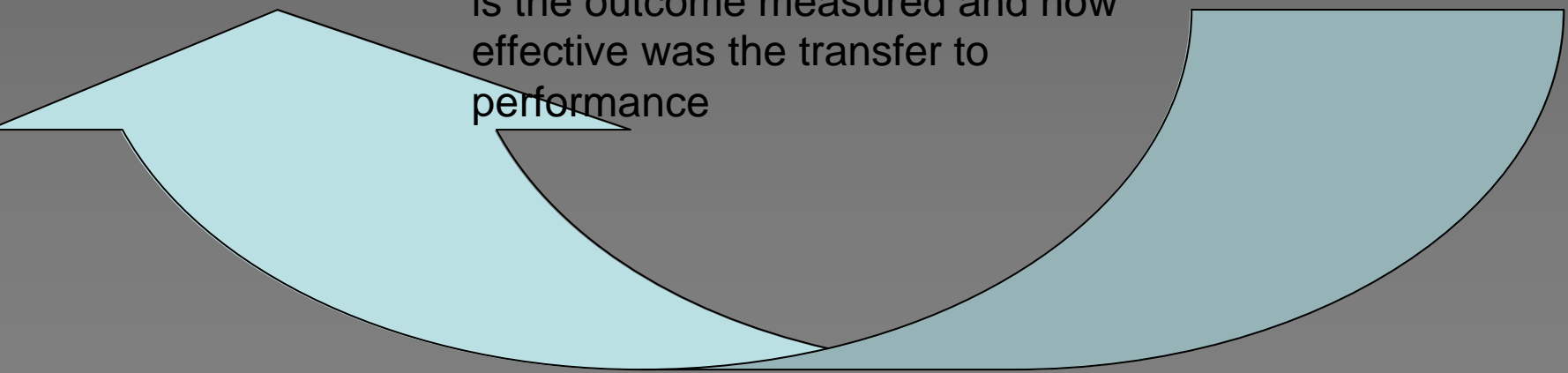


Where are the British players now?



What are the 'model features of an Olympic champion?

What needs to be delivered, which service providers are involved, how is the outcome measured and how effective was the transfer to performance





Strength and Conditioning

DEFINITIONS

The systematic and strategic process of implementation, sequencing and manipulation of training variables to elicit physical adaptations that are specific to the needs of the judo player and the demands of judo.

Strength

The ability of the neuromuscular system to produce force (Stone, M)

- Maximal
- Explosive
- Isometric
- Reactive

Conditioning

The ability to of the neuromuscular and metabolic processes to support and endure the functional manifestations of training and competition



The training process

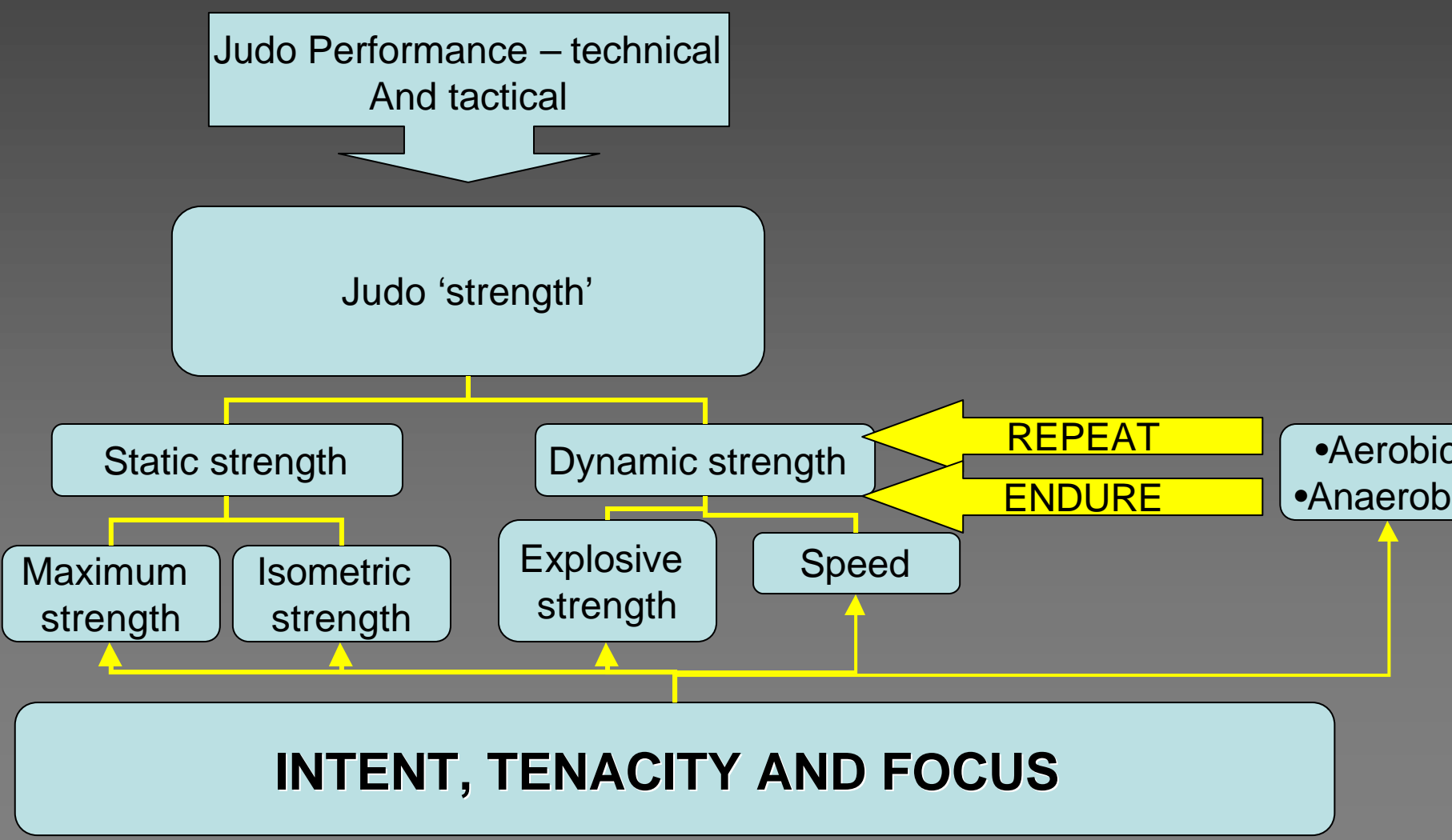
TRAINING PROCESS – Long and short term training methodology
Long term (10 years) – implementation LTAD
Short term (1 year macrocycles)- periodization – linear, conjugate

APPLICATION OF KEY TRAINING PRINCIPLES

DEVELOPMENT OF POTENTIAL -----REALISATION OF POTENTIAL



The training process - methodology





Training process

TRAINING PRINCIPLES

- **Individuality** – individuals respond differently to the same stimulus
- **Specificity** – Closely mimic judo characteristics in terms of movement, forces and bioenergetics
- **Overload** – The training stimulus is progressively increased and components of the stimuli overload the sporting demand- intensity, volume,
- **Variation** – The body will adapt to a training stimuli, therefore necessary to change when fully adapted to ensure further adaptation can occur. Variation can affect overload
- **Recovery/ Rest** – ‘unload to reload’ – periods where adaptation process occurs
- **Sequencing** – training and rest must be ordered correctly to ensure optimal adaptation



The Training process - Periodisation

Where does the players physical development come from?

- General physical preparation

S&C

- Special physical preparation

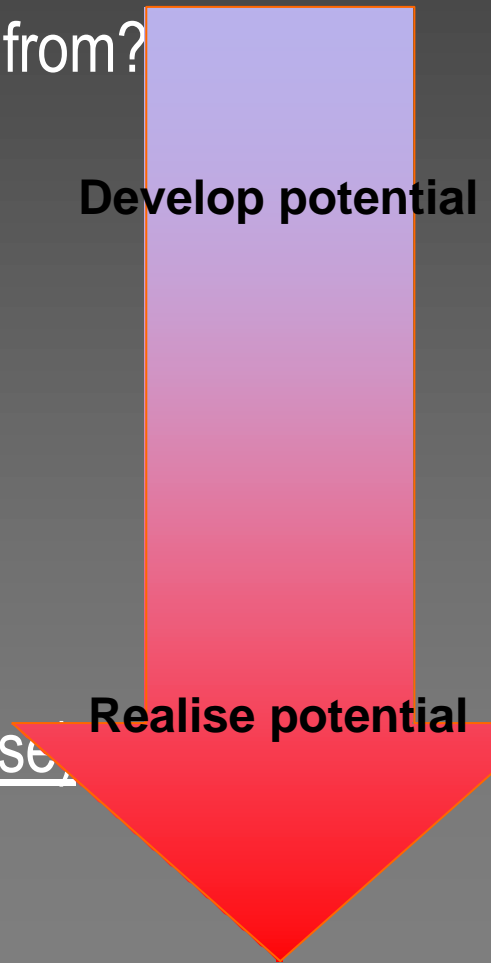
S&C and Judo

- Special judo preparation (specific competition phase)

Judo

Develop potential

Realise potential





The Training process – strength training sequencing

1. **Strength preparation –**

- Whole body and isolating exercises
- Hypertrophy
- Low to moderate intensity

2 **Max and explosive strength**

- Conjugate
- Moderate to high intensity
- High force, high power
- Large acceleration ranges
- Strength imbalance preparation through ‘strongman’ implements

3. **strength repeat efforts** – Strength- speed and speed -strength endurance,

- Aim to increase volume at given strength intensity for prescribed time

4. **Explosive strength potentiation**

- Explosive strength sessions to potentiate judo sessions and Low CNS fatiguing strength maintenance



Key strength exercise options *

Preparation exercises

Press ups, dips handstand press ups

Lower body maximal strength development

Deadlift, squat

Upper body maximal strength development

Weighted pull ups, bent over row, upright row, military press, bench press, bicep and grip variations

Explosive strength and power

Olympic lifts, Jump squats

Bench throws, Medball throws (overhead, slams)

Box jumps, Drop jumps

All listed exercises will be modified and varied to ensure optimal strength/power stimulus is achieved

Rotation and trunk

Plate twist options:

Gunthers, yandz's, roundheads, plate spins

Barbell rotations:

2 – hand b/b rotations

1 – hand b/b rotations

Lateral flexions

D/B's

Single hand D/B Dead lifts

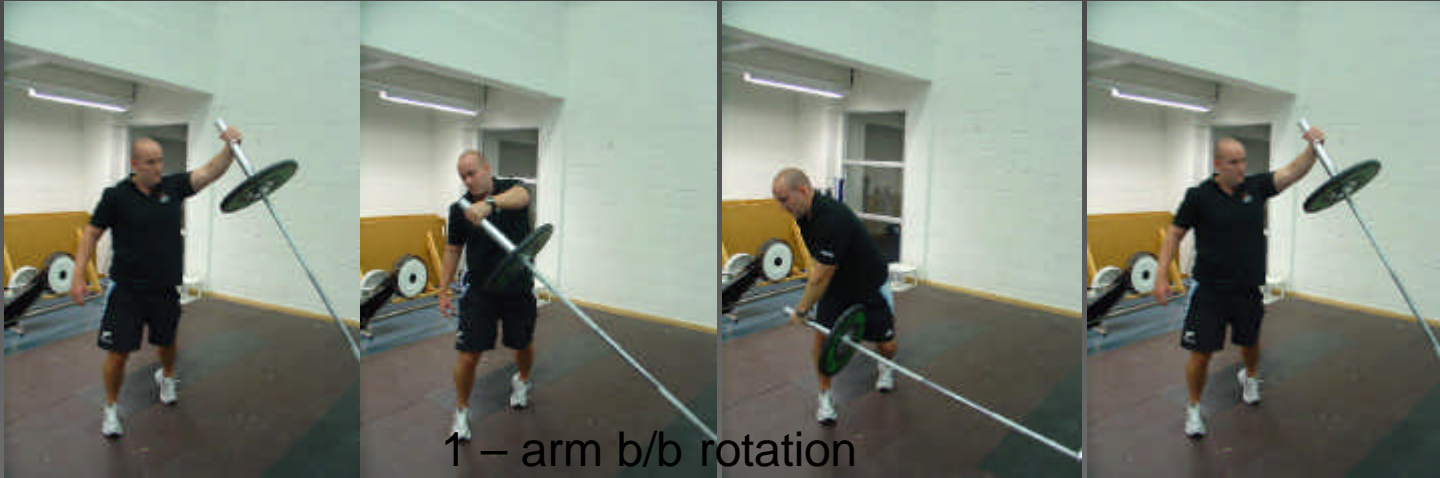
Single arm farmers walk

Single arm D/B bench

Get ups – single arm



Examples





Strength repeat efforts exercise options

- Weighted sled pulls
 - Rope climbs
 - Keg carries
 - Chain drags
 - Tyre flips
 - Sandbag carries/lifts
 - Farmers walk
- + multiple repeat of strength exercises



Finally...

- Goal setting and Training productivity
- ‘if you try to chase 2 rabbits you won’t catch either one’
- Continual improvement at all stages of development
- Nutrition and recovery
- INTENT!! ...don’t just survive training, conquer it!



The human body is nothing more than an interdependent matrix system that communicates with and amongst itself all day long through electronically charged molecules-you are an ever evolving and fluctuating organism that is self-regulating and super compensating-you are nothing more than a bio-electrical field that is hell bent on one function---SURVIVAL!' - Buddy Morris



Useful resources

Stuart.yule@eis2win.co.uk

Books

Essentials of Strength and Conditioning - Baechle

Science and Practice of Strength training – Zatsiorsky and Kraemer

Websites:

www.ukzca.org.uk

www.verkoshansky.com



QUESTIONS/ DISCUSSION



S&C Training sequencing example*

Strength dominated phase

M – max strength

T – upper body max strength, anaerobic intervals

W – recovery

T – Explosive Strength

F – injury prevention + assistance , aerobic – anaerobic intervals

S – upper body max strength

S - recover

Strength endurance dominant phase

M – ‘strongman’ strength (max and explosive) repeats

T – aerobic – anaerobic intervals

W – Recovery

T – Max + explosive strength

F – Aerobic – anaerobic intervals

S – ‘Strongman’ strength repeats

S – Recovery

Special judo phase (peaking)** - assuming key judo sessions are Tuesday and Friday

M – Maintenance strength

T- explosive strength

W- recovery

T -

F – explosive strength

S - recovery

*Will vary depending on judo loadings and key objective for player

**days will change depending on whether at start or end of phase and days of key judo sessions



it is important when programming the training process to establish the so-called

"model features" of the final objective (see "Main features of a modern scientific

sports training theory",

I formulate the general methodological concept of an athlete's preparation;

II define the general training strategy;

III elaborate the basic model of the training

system;

IV establish the work loads of all the training

means objectively required;

V establish the quantitative programme of

the preparation.

- The preparation stage with the task to improve the motor potential of
- the organism for the following development of the competition exercise
- speed. This task is solved mainly by using specific physical preparation
- means.
- ?The pre-competition stage with the task to acquire the capacity to
- perform the competition exercise at close to maximal speed (effort).
- This is mainly achieved by the use of loads that correspond closely to
- the conditions of competitions.
- ?The competition stage with the task to lift the performance speed
- (effort) of the competition exercise to its potential limit.
- SEE ORGANIZATION OF TRAINING PROCESS



The training process - Key area's of development

Strength

- Pulling and grip
- Leg and hip explosive strength
- Injury prevention – shoulders, knees, hips, neck
- Aerobic – anaerobic
- Anaerobic