



Fina

WATER IS OUR WORLD

**From Juniors to Seniors:
The International Level**

Training that is laying the skill, physiological and psychological foundations needed for an athlete to reach their full potential or maturity



Overview

Training
Factors

Season
Planning

Conclusion

- Aerobic endurance is the critical factor in all events
- Early skill development and the potentiation of that development is key to success
- The development of working capacity (energy systems) works best concurrently



Factors in Development Training: Skill

Skill

- Physical preparation for complex skill acquisition
- Simple technique leading to complex stroke movements
- Reinforcement of those efficient movements in order to perfect individual technique (myelination)



Factors in Development Training: Skill & Psych

Physical

- Concurrent development of working capacity (energy systems) that matches biological maturation

Psychological

- Instilling a desire for incremental improvement over the high self esteem derived from age group success



- The brain is a muscle that should be trained!



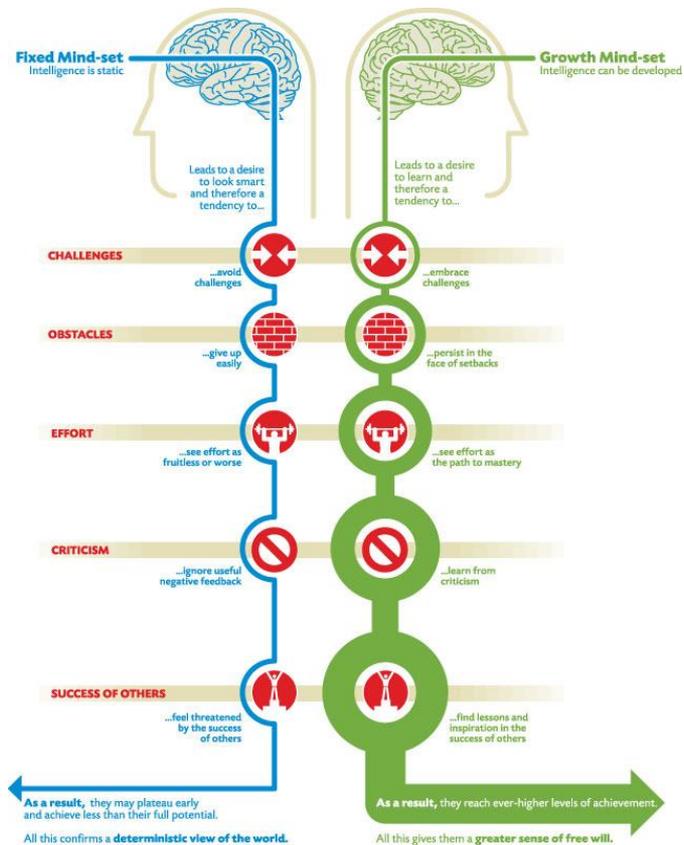
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1st Principle of Psychological Growth



Overview

Training Factors

Season Planning

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2nd Principle of Psychological Growth

- The coach must speak to the mind of the athlete
- Visual, auditory and kinaesthetic learning skills



Further Psychological Development

Martial Mindfulness Meditation: 15 minutes per day

1. Boost concentration
2. Increase working memory capacity
3. Paying attention to the everlasting but constant present

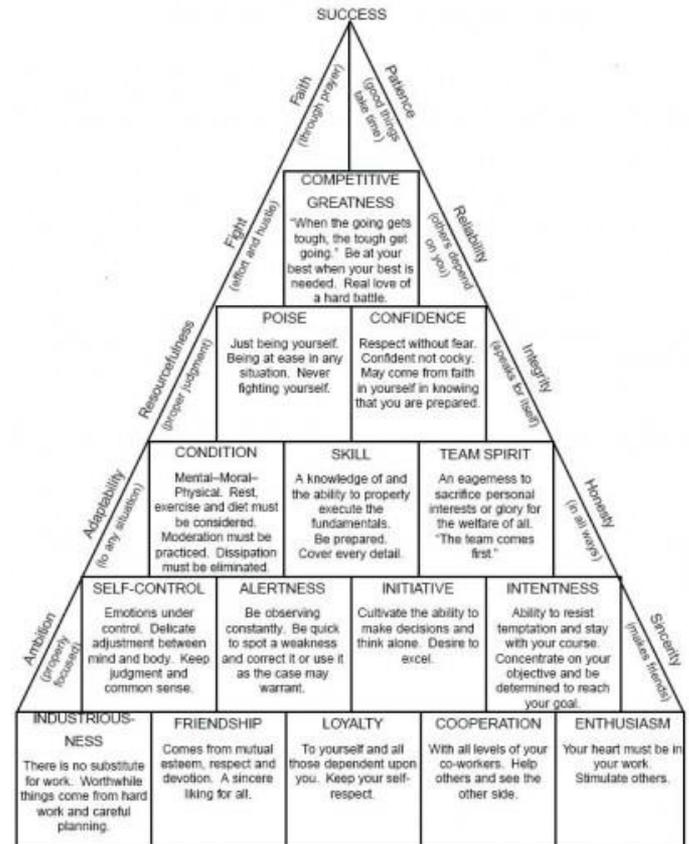
Example:

- Contact between body and chair, shifting attention between two focus points, sounds, finally contact between body and moving water



Group Psychological Dynamic

Pyramid of Success



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- Swimming training – 3 phases
 - Preparatory
 - Development
 - Competitive
- 1 season or 3 years the cycle of life and growth is the same



Sample 24 Week Season



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Matching Season Planning with LTAD

Factors to Consider

1. Stage of development
2. Gender
3. Physiological readiness
4. Competitive readiness
5. Psychological readiness
6. Social needs and acceptance factors



- Age groups are not little seniors and seniors are not bigger age groupers
- Why energy systems can help but the wrong training can hurt



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Russians – 12 or 7 or 4

Eastern Europe – 7

Aus/UK – 7 or 5 turned in 3 (performance)

USA Development – 7

USA Performance – 4

- Are you using systems to make your athlete faster now or to make a better athlete?

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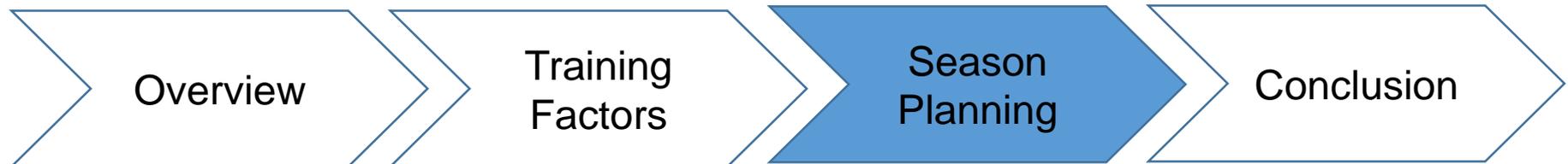
Conclusion

- 4 Questions in writing a plan
 - Who are you dealing with?
 - What do you want to achieve or get done?
 - What is your time scale?
 - What tools do you have?



Analyzing a Plan

- 4 Questions on my existing plan
 - How is it periodised?
 - Does it include psychological skills?
 - Does my plan include motor development?
 - How many competitive peaks?



- Is my plan
 - Relevant to LTAD?
 - Compatible with others on my team?
 - Consistent with my coaching style?



Preparation: Up to 6 weeks

- Up to 9 sessions per week in water
- Land movement within water sessions
- 3 gym sessions per week in addition
- Morning sessions focus on concentration, dry land and kicking
- Afternoon sessions focus on concentration and technique
- 60% aerobic fitness building, 40% technique



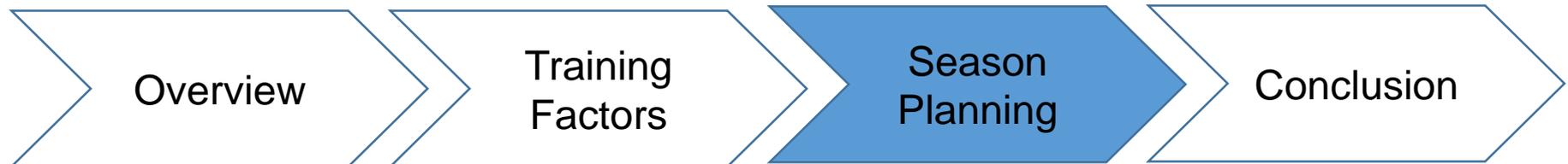
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- Development/Improvement: 14 – 16 weeks
 - Up to 11 sessions per week in water (go to max volume)
 - Begin specialisation for season (IM or distance)
 - Introduce cycling from endurance to aerobic (emphasis)
 - 4 x 3 endurance, 2 anaerobic, 4 endurance, 2 anaerobic, 3 endurance, 2 anaerobic
 - Introduce test sets
 - Ever increasing focus on technique under stress



Sample Test Sets

Endurance: 1500 2 min LA, 15 x 100 short rest
1min LA, 1 x 200 max peak LA

An 8 x 100 x 5 min, best average

Strength 5RM x squat, dead-lift, pull-ups with weight

Speed 5 pulls on swim bench measure pull 3 and 4

Special 8 – 12 x 100 kick best average

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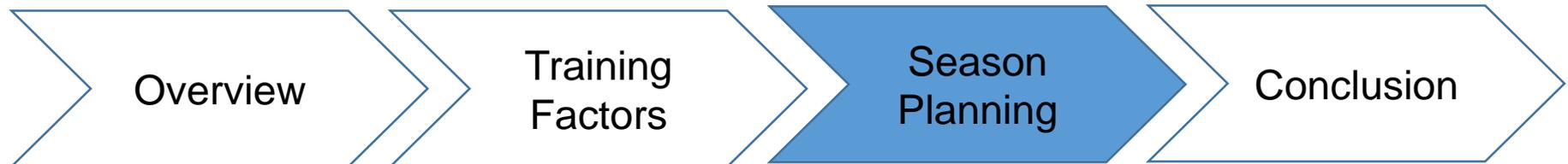
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Competitive Phase: 2-3 Weeks

- Maintain up to 9 sessions but reduce volume
- Reduce repetitions in test sets/increase intensity
- Phase out gym training
- Maximise focus on technique quality and awareness
- Aerobic becomes recovery quality becomes competition



- Posture is better than power!
- Reduce chance of injury and minimise loss of training time
- Reduce physical limitations in order to enhance progress – body is smart
- Will put on brakes if in danger of injury
- Correct pathologies caused by swim training
- Improve the natural way the body works and improve performance!



- A few simple exercises in gym/many physical interpretations in pool
- Measure progress, minimise injury
- Find weak muscles or connections and stability and strengthen them



Implementing a Plan

- Remember the goals (short term and long term)
- Process is the most important thing – not the plan
- Read your log book backwards as well as forwards
- See things through but be prepared to challenge your own thinking



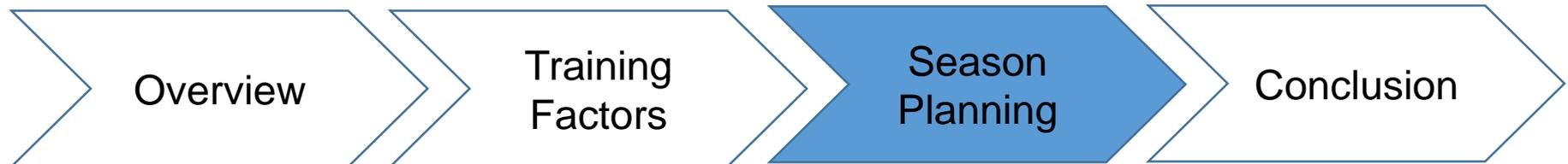


Skill Acquisition: The Most Exciting

- I teach the skill of swimming considering 5 modes of sensory movement. They are inter-related: improvement in one mode stimulates development in the other
 - Movements that deal with breathing and stability (primitive brain)
 - Movements that deal with the flow and surge of water (flows mode)
 - Movements that deal with the internal sense of the body (shape and shift mode)
 - Movements that deal with where the body is situated in the water
 - Movements that call attention to the external environment adjacent to the body and the overall environment



- This teaching method, devised by a colleague is unique
- 10 years of research and testing on my athletes by trial and error
- All exercises on land and water based on these modes



Apprentice: Teach assistant coaches everything

Division of Tasks: Female distance, male distance, individual medley

- Each responsible for an area of learning and other special tasks eg., breathing exercises, turns, kick-outs, starts
- Technique Sequence:
 - History of event
 - Previously successful training methods (science)
 - Understanding the athlete
 - Integration of psychology, culture and training
 - Construct a workout
 - Construct a season



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Questions?



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