





The Long Journey to Peaking The Norwegian Way

Trond Nystad





A little about myself

- · Coached 22 years, 13 years Worldcup
- Coached at 3 Olympic Games and 6 World Championships
- Currently work with the Austrian National Team
- Coached national teams from USA/Germany/Switzerland/Norway
- Education: Bachelor and MBA from USA in Business.
- · Live in Austria

EiendomsMegler 1







Val di Fiemme – 7 Gold – 4 Silver – 5 Bronze

Oslo 8 Gold - 4 Silver - 4 Bronze

Vancouver - 5 Gold - 2 Silver - 2 Bronze

Liberec - 5 Gold - 2 Silver - 0 Bronze

Sapporo - 5 Gold - 2 Silver - 5 Bronze

Direct Performance Factors

- Ski Properties
- •Manual Structure
- Structure
- Products
- •Team Chemistry
- Test Ability

Indirect Performance Factors:

- Aerobic Base
- Anaerobic Base
- •Technique
- Speed/Explosiveness
- Power
- •Mental Strength

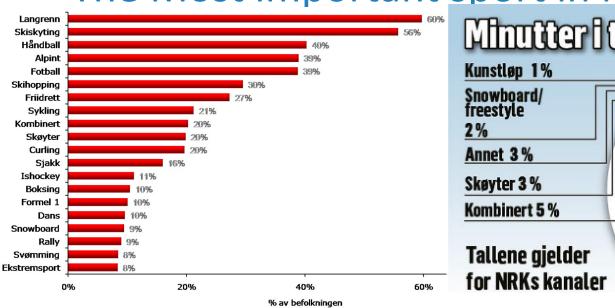
Torino Evaluation - NO GOLD

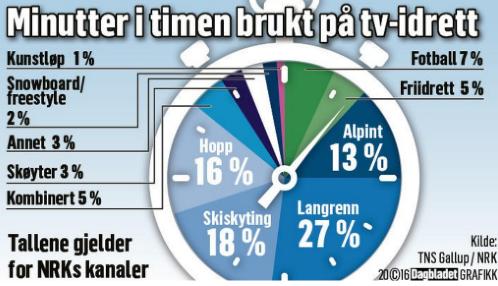






The Most important sport in Norway



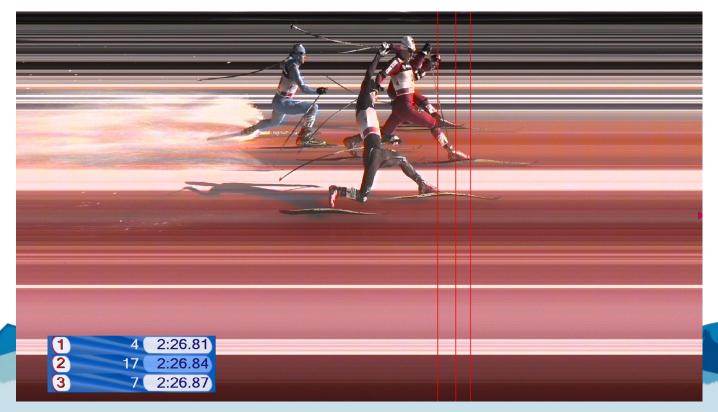








A Game of Small Margins











How to ensure long term success.

- · Patience
- Development System
- Best Athletes (who works as a team)
- Best training
- Best Preparation
- · Best Staff (who works as a team)
- Best Processes
- Best Equipment
- · Have Fun
- Longevity



Where are we, and where are we going?

"To get better you need to change, to be perfect you have to constantly change"

Winston Churchill





"Best in the World"

<u>Direct performance</u> factors:

- Aerobic base
- Anaerobic base
- Technical skills
- Speed
- Physical strength
- •Mental strength

Indirect performance factors:

- Restitution time
- Quality of equipment
- •Economic and social safety
- •Technical and medical support

<u>Evaluation</u> – present situation



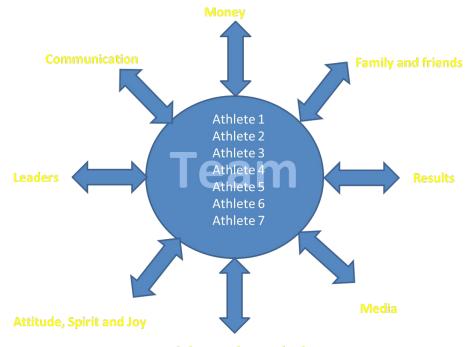
Team and the athlete

A good player invest in himself to get better, a great player invest in the team to be awsome.

Carlo Ancelotti, Manager Real Madrid







Culture, values and cohernece

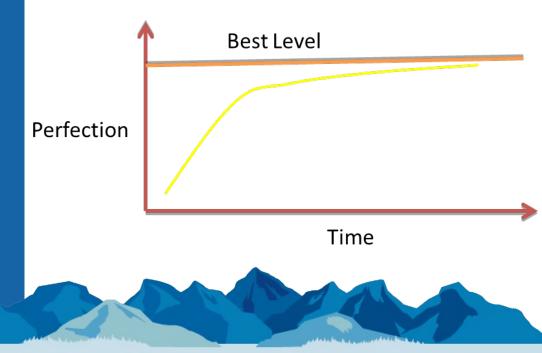




Goals and a higher purpose.

We have to work hard at perfection, although we know we will never be perfect.

Every day is a chance to work on our legacy and reputation!







Why Team?

«If I invest in the team and give my advice to the team, then I get 7-fold back» (Martin Johnsrud Sundby)

- It leads to positive development for the individual
- If the individual develops the team will develop.
- Listen to and learn from experienced team mates (Do not reinvent the wheel.)
- Develop social dynamics within the team
- Focus on the issues we actually can do something about.



Team Benefits:



- Matching during practice and training
- Facilitate social involvement outside of training
- Constructive feedback
- Support the athletes individual choices
- · Encourage the athletes to share knowledge
- Share and learn from individual strengths
- Get better individually
- And, do so while taking advantage of the team



The Coach

To Treat People Equally, We Must Treat Them Differently!

Evelyn Hu-DeHart







The Athlete

"Ask not what your country can do for you — ask what you can do for your country"

John F Kennedy

- Must take responsibility for training and equipment.
- Learn from others, but must be curious
- «24 hour athlete»
- Set goals and make plans
- Evaluate training/progress and plan again.





The Training

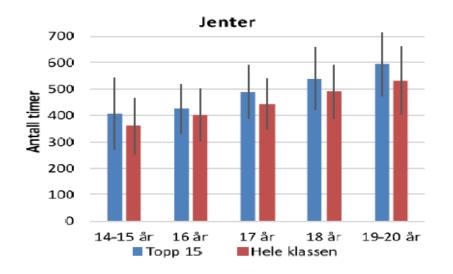
The only difficult thing about training, is doing it!

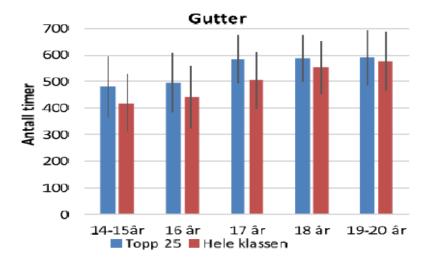
- Training is done all year long
- · Progression
- Specificity
- · Variation
- Individualized
- Testing (Running and some rollerski)
- Training load is analyzed and adjusted to fit every athlete.



Reported training hours in one year Survey 2015, 1.100 young skiers answered

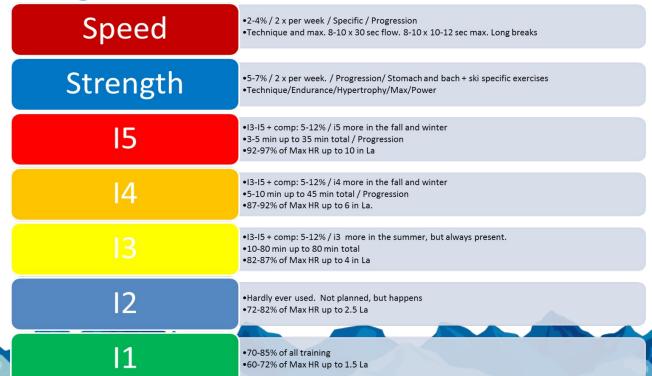
- Column indicates hours training per year, Average, maximum and minmum
- Jenter = girls, Gutter = boys
- Blue column: the 15 best in each age group
- Red column: whole age group in Youth Championship/Junior championship







Training







Training

Patience is a virtue in endurance sports!

Worldcup (10 Months)

- F: 800 Average hours (640-945)
- M: 760 Average hours (567-920)
- * 80-85% i1/6-8% Intensity/5-8% Strength/Speed

The training highlights

The secret to success is hard work, it therefore remains a secret for most!



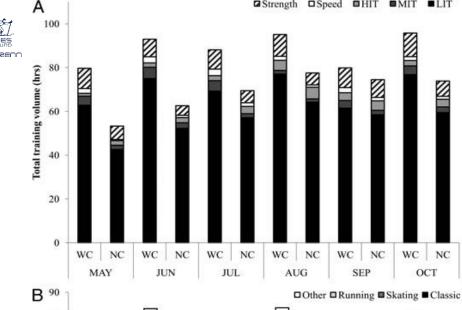


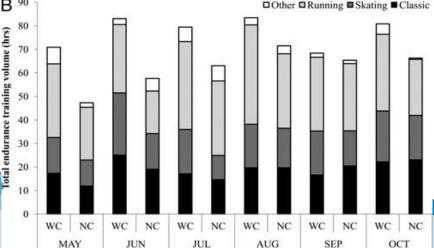
- 750-1000 hours per year
- * 80-85% easy (Level 1)
- 1-2 long runs per week 2-4 hours
- · 1-2 long RS per week 3-4 hours
- · 1-3 Intensity workouts per week
- 1-3 times speed per week
- 1-2 times strength per week
- · 30+ hours running per month
- · 40-50 hours RS per month
- 80-110 hours training per month (summer and fall)
- 50-90 hours training per month (winter)



World Cup Skiers vs. National Skiers

Source: The Physical capacity of the world's highest ranked female cross country skiers. Sandbakk



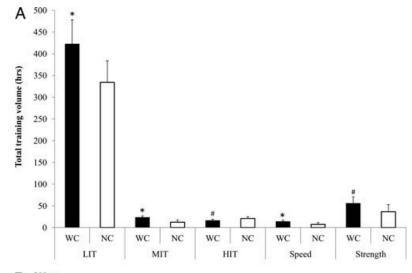


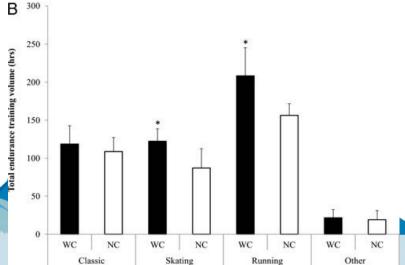




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Training Guidelines

- · Patience. Hard work over time pays off.
- · Continuous training all year long.
- Endurance training is very important.
- Focus on basic training. KISS principle. Simple is often best!
- Listen to your body. Avoid training when sick!
- You are what you eat. Pay attention to nutrition.
- Think technique all the time. "If it is worth doing, it is worth doing right". Skiing without poles is not just for kids.
- Rest and sleep is important. The total stress must always be considered (training, travel, familly, school, work etc)
- Learn and see what successful athletes have done, but do not copy them.
- Train with someone. Easier to get motivated.
- Take care of your equipment.
- Seek new challenges and see opportunities instead of challenges.
- Set Goals (Results/training/personal). (Measurable/Known).



Peaking Considerations

- Training base
- · Competition schedule
- · Altitude/Sea Level
- · Health issues

Travel/hotel/food/weather

· Qualification/Team selection

Trust = Good Performance

- · Aclimatization
- · Team Spirit



Peaking is individual

- · How close is the athlete to peak
- · How many races
- Family situation
- · Healthy?
- · Training base.
- · Altitude experience

Peaking Observations





- A solid base is a must
- A precamp is important
 - Inspiering environment
 - Familliar setting/food
- Easy training is important
- Should not reduce training too early
- · Number of sessions same but shorter
- Base training (running, treadmill, strength, technique)



Our strategy Altitude

Altitude if possible

- 80-120 days before Champ
- 3-4x21 days + 2-3x14 days
- 1x14 days 8-10 days before champ.
- Seiser Alm: Inspiering environment
- Focus on easy training
- Daily contact with coach/staff

Our peaking strategy





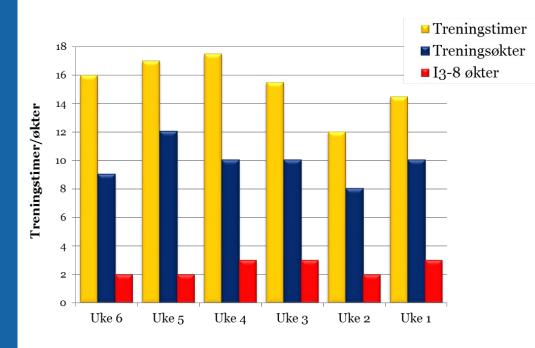
- Increased volume in week 4 and 3 (2 hard weeks)
- · Week 2 is the easiest week.
- week of race is medium
 - Rest day 4-5 days before
 - Int session day before
- · 2-3 int session per week
 - Longer rest, shorter, race pace







A Peaking Example



Other «peaking» issues





- Only use staff which is known to the team
- Everyone must be prepared
- · Tactic is clear
- Team selection early
- Aclimatization
- Travel
- · Who says what and when.
- Equipment/testing
- Keep the Team spirit the whole championship

Thank you very much for your attention!

Questions???

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