Total Orienteering
A holistic overview

By Paul Murgatroyd & Mark Nixon, January 11th 2021

British Orienteering Coaching Conference

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Introduction

Key aims of the webinar

- To outline the main issues for coaching practitioners within the sport
- To share our joint experiences of the development of a junior elite performance system
- To examine the application of a 'total orienteering' approach to LTAD
- To give examples of how this may be applied for both aspirational athletes and club orienteers
- To consider the possible future directions of the sport, post-pandemic…

Key Issues

- Many clubs have an 'event' not a 'training' focus
- Few clubs dedicate time and energy to newcomer recruitment and training (not just juniors…)
- Where training happens –

Isolated skills sessions	**?**	Whole 'courses'
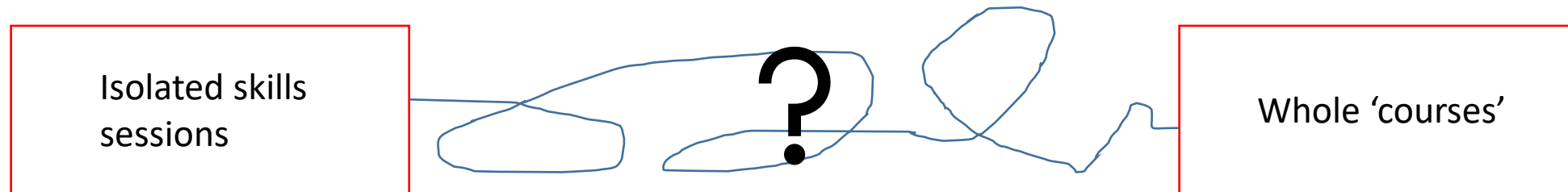
- Regions have limited time, resources, etc.
- Few athletes have a dedicated, knowledgeable personal coach
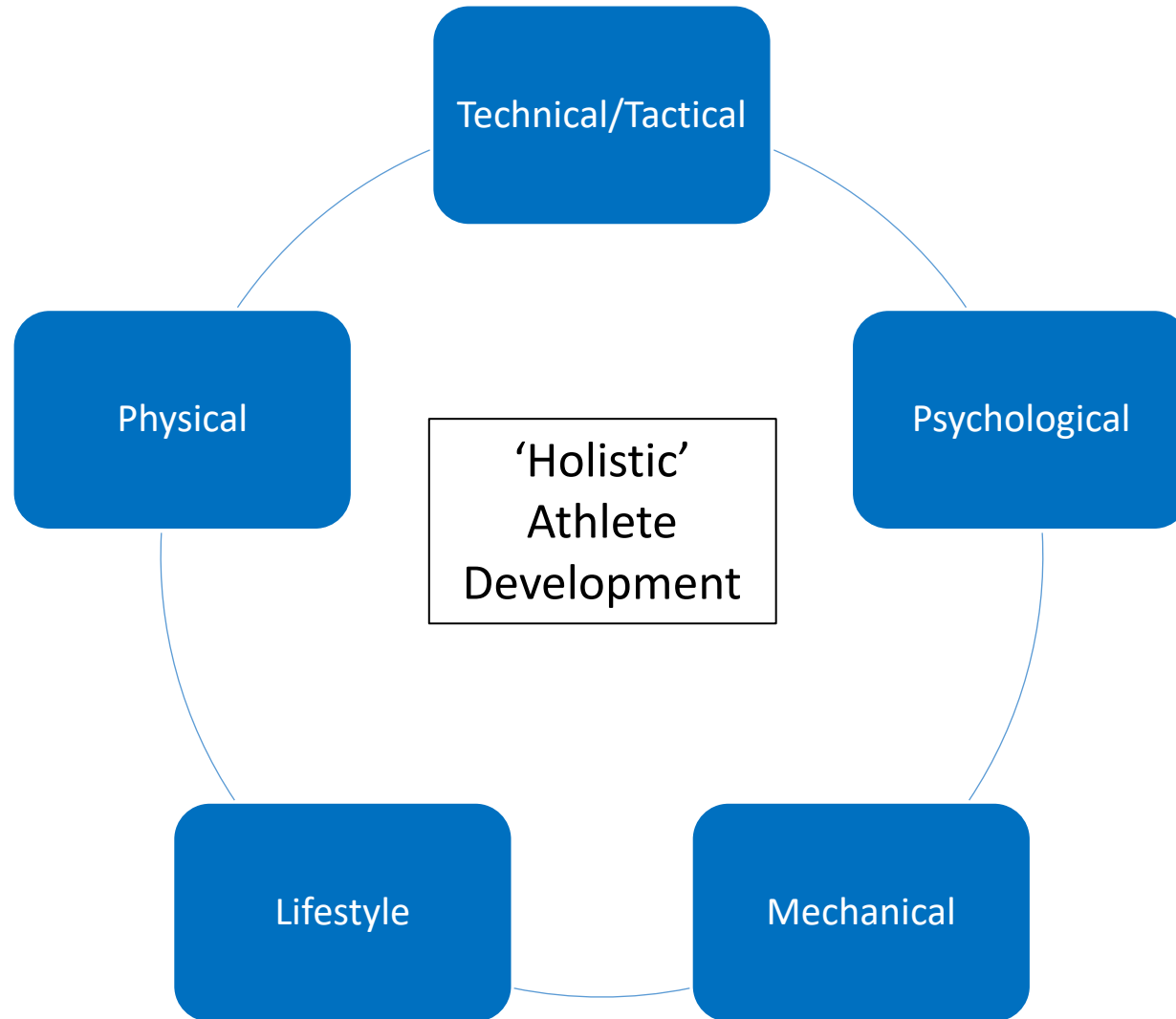- End result – junior athletes with significant 'gaps'

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Macro-Strategy

Micro-Strategy

Tactical

MACRO STRATEGY

Technical/Tactical

Psychological

Physical

Mechanical

Lifestyle

'Holistic' Athlete Development

On entry to the squad, and at the start of each season, there will be a review and planning process (eg. via ADP), built around assessment of strengths and weaknesses in each of these domains

MACRO TO MICRO STRATEGY

Ali Thomas
- Robust technique
- Strong physically
- Consistent racer

Freddie Carcas
- Physically v quick
- Good sprinter/1st leg relay runner
- Inconsistent racer

What is good orienteering?

- What are we trying to achieve?
  - Competition = fastest possible time

- How to have the fastest possible time?
  - Time = distance × pace
  - Shortest optimal distance
  - Fastest possible pace

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# The key factors of orienteering performance

- Selecting the best route-choice for us
- Running optimal route without adding extra time
  - Avoid extra distance by unnecessarily deviating from our line
  - Avoid slowing down due to uncertainty/hesitation or bad lines

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Selecting the best route-choice for us

- Read the map
  - Areas/lines of runabilty
  - Areas/lines of resistance
  - Technically challenging areas
  - Technically safe areas
- Identify viable route options
- Calculate estimated time
- Calculate estimated risk
- Select most suitable route

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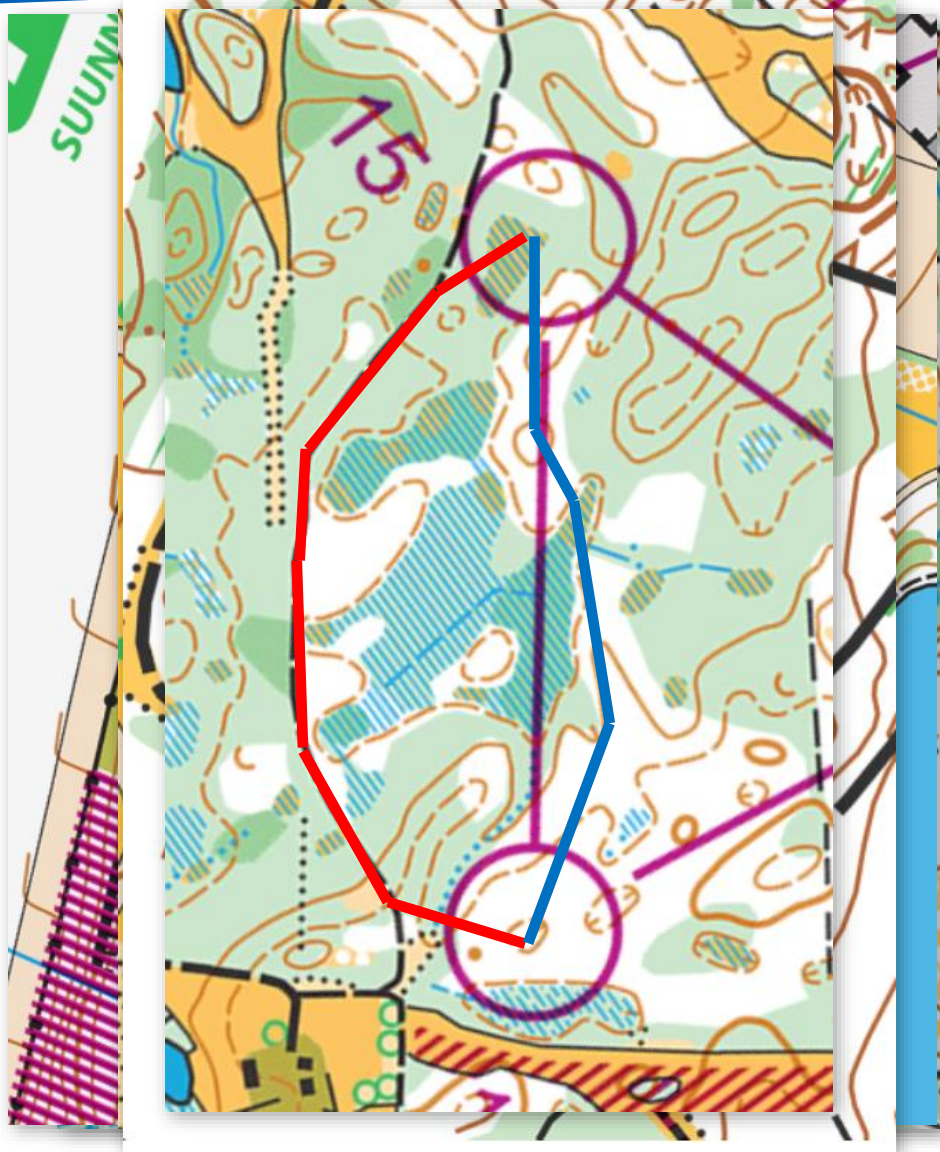
Selecting the best route-choice for us

- Calculating estimated time (distance x pace) of a route
  - Physical demands of leg
  - Physical abilities and weakness of ourselves

- Calculating estimated risk of a route
  - Technical demands of leg
  - Technical strengths and weaknesses of ourselves

- S.W.O.T Analysis
  - Strengths & Weaknesses (physical & technical)
  - Opportunities & Threats (physical & technical)

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Route-choice Heuristics

Making decisions with incomplete or inaccurate data

- Runability of terrain

- Visibility of terrain/features

- Mapping accuracy/age

- Elephant tracks

- Control visibility

Colour and Runnability
The basic principle is as follows:
- **white** represents typical open forest,
- **yellow** represents open areas divided into several categories,
- **green** represents the density of the forest and undergrowth according to its runnability and is divided into several categories
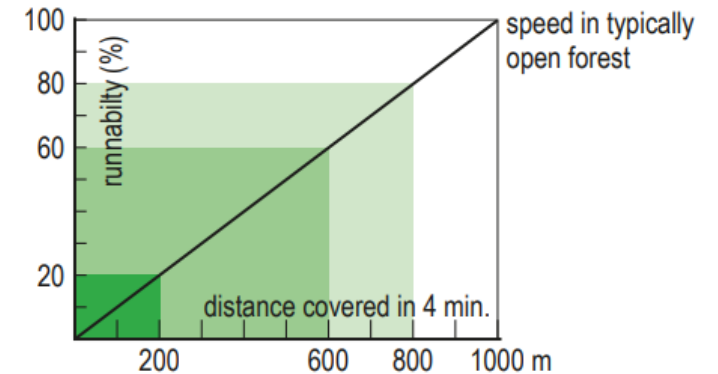
The runnability depends on the nature of the vegetation (density of trees / scrub and undergrowth: bracken, brambles, nettles, etc.), but runnability is also affected by marshes, stony ground, etc. which are shown by separate symbols.

IOF ISOM 2017-2, ISSprOM 2019

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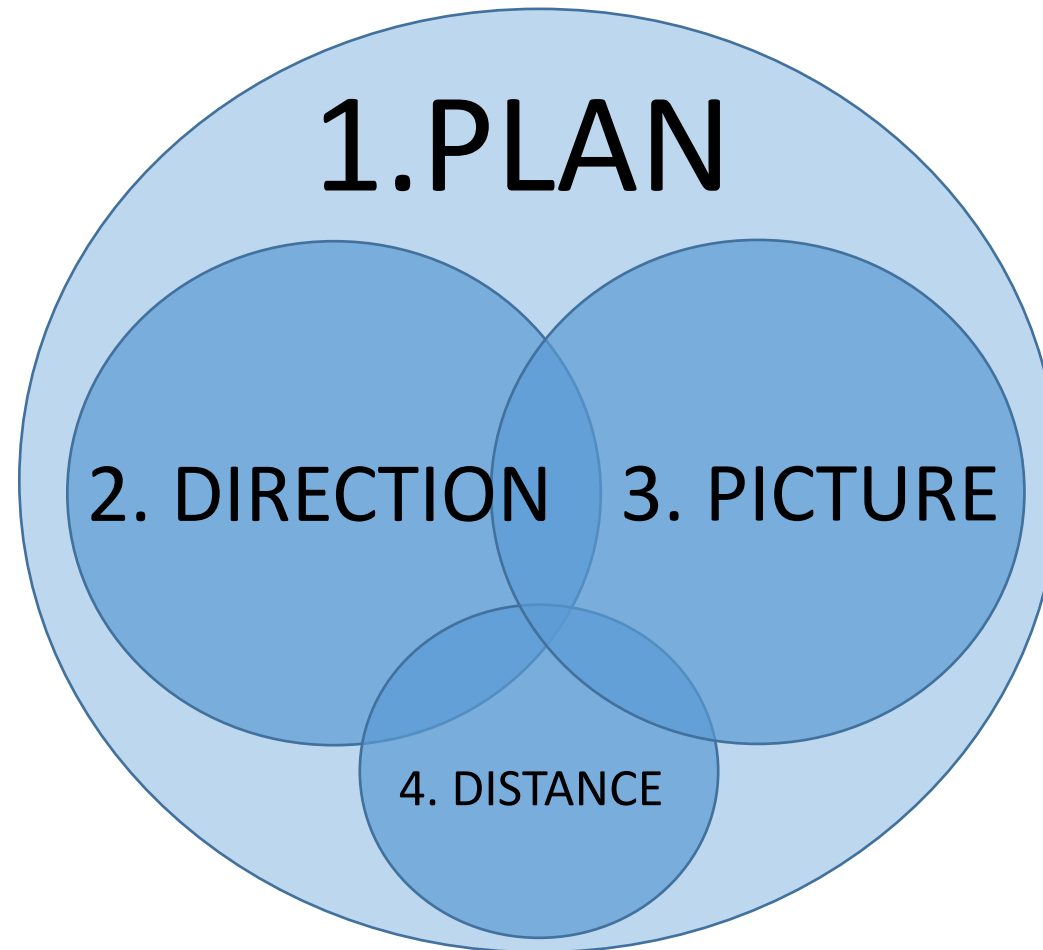 - Avoid slowing down due to uncertainty/hesitation or bad lines

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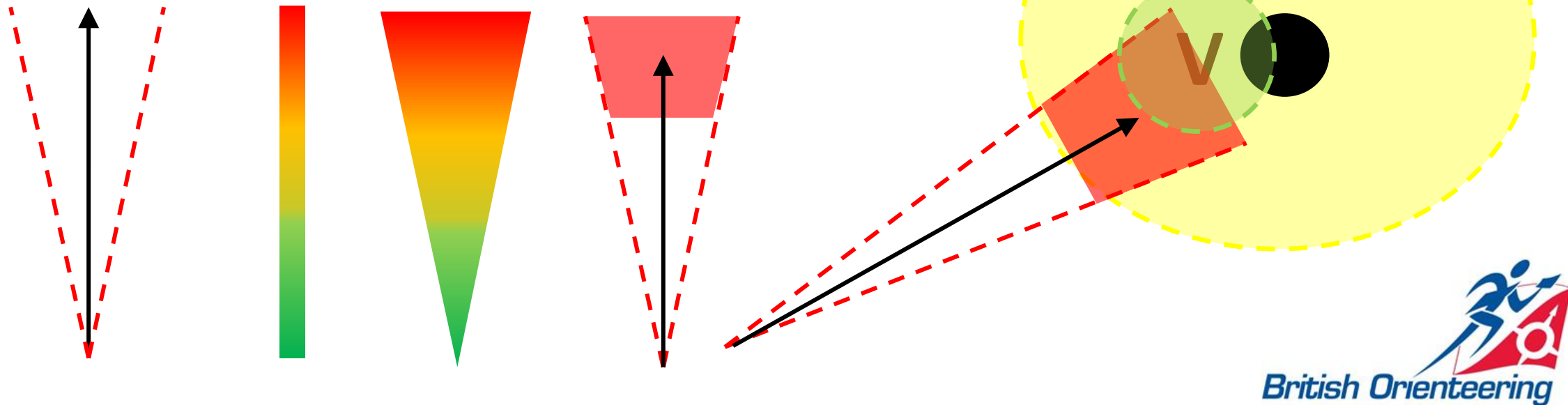
Executing our route without extra distance

- A route-choice ≠ a plan

- What is a plan?
    - Where you're going?
    - What you're going to see?
    - How you're going to get there?
- What is a good plan?
    - Covers the whole leg
    - Detailed at crucial moments
    - Simple at safe moments

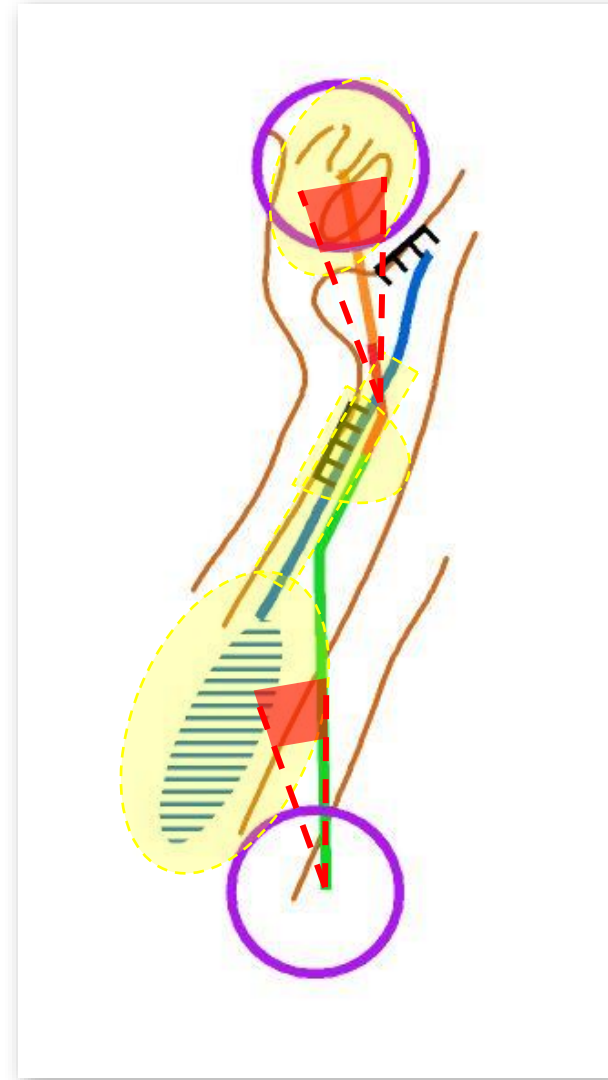British Orienteering

Start with a solid plan

Fundamental Skills

- Directional accuracy/drift
- Distance judgement
- Likely position

- Feature visibility

Building a plan using fundamental skills

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When can you run fast?

Factors effecting how fast you're running:

- Physical fitness

- Runability of terrain

- How hard you try
  - Traffic lighting
  - Confidence in route
 - Tactical reasons

You can run fast when you know where you are going and take a good line

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Concentration for speed

At any given moment your concentration must be on something

- Reading the map

- Looking in the terrain for features

- Focusing on running (internal & external focus)

- Punching control

- Checking codes

- Drinks points / energy gels

- Other competitors

- Other distractions (present or imaginary)

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# How to plan planning
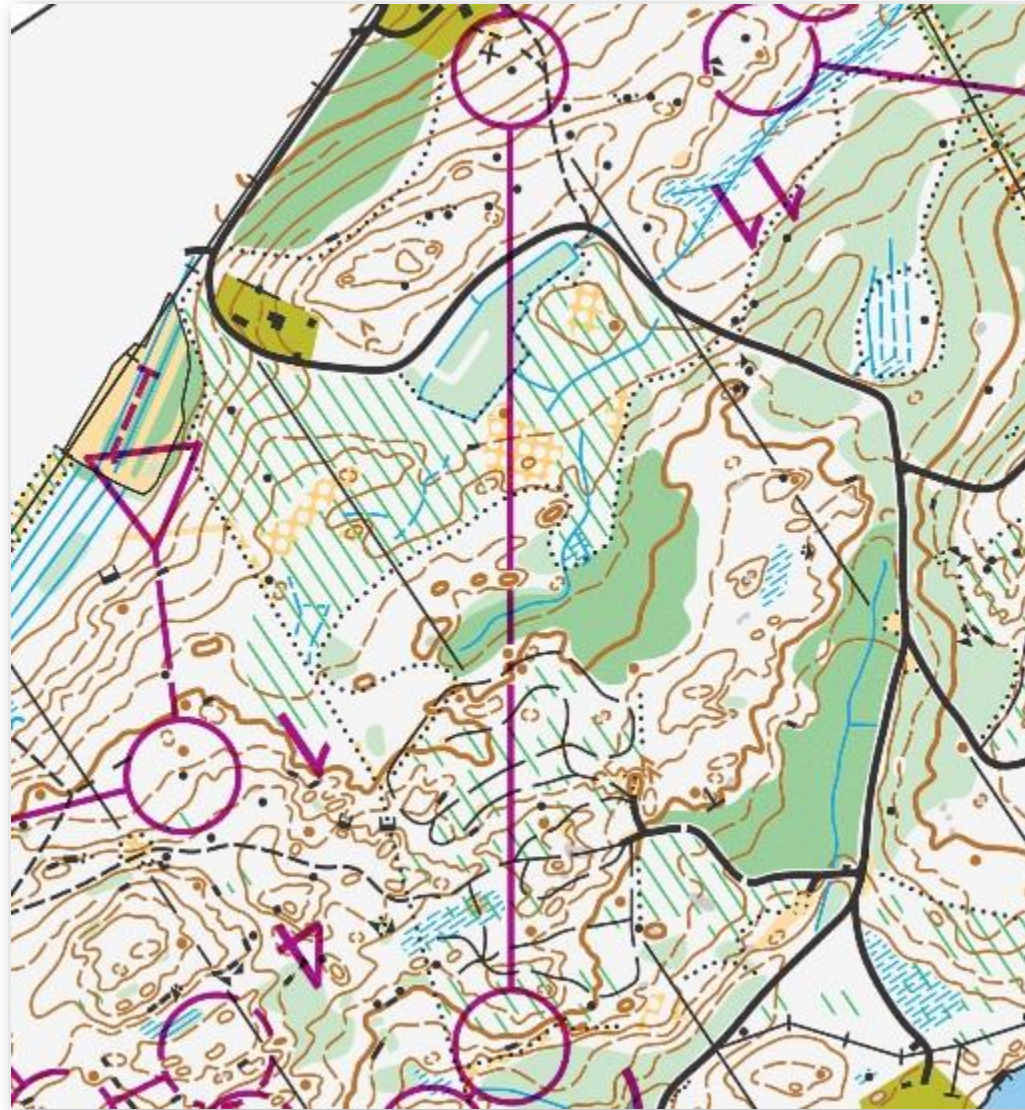
How to plan planning

Executing you plan at full pace

- Simplification
  - Use the minimum number of features as you need
    - Too few = mistakes = extra distance
    - Too many = over-navigating = hesitations

- Compartmentalise the plan
  - Know what is coming up next
  - Get you head up and look for the next feature
  - Use safe sections to prepare for the next section
  - If your plan expires, stop and get one before moving on

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Technical analysis

Going orienteering doesn't make you good at orienteering
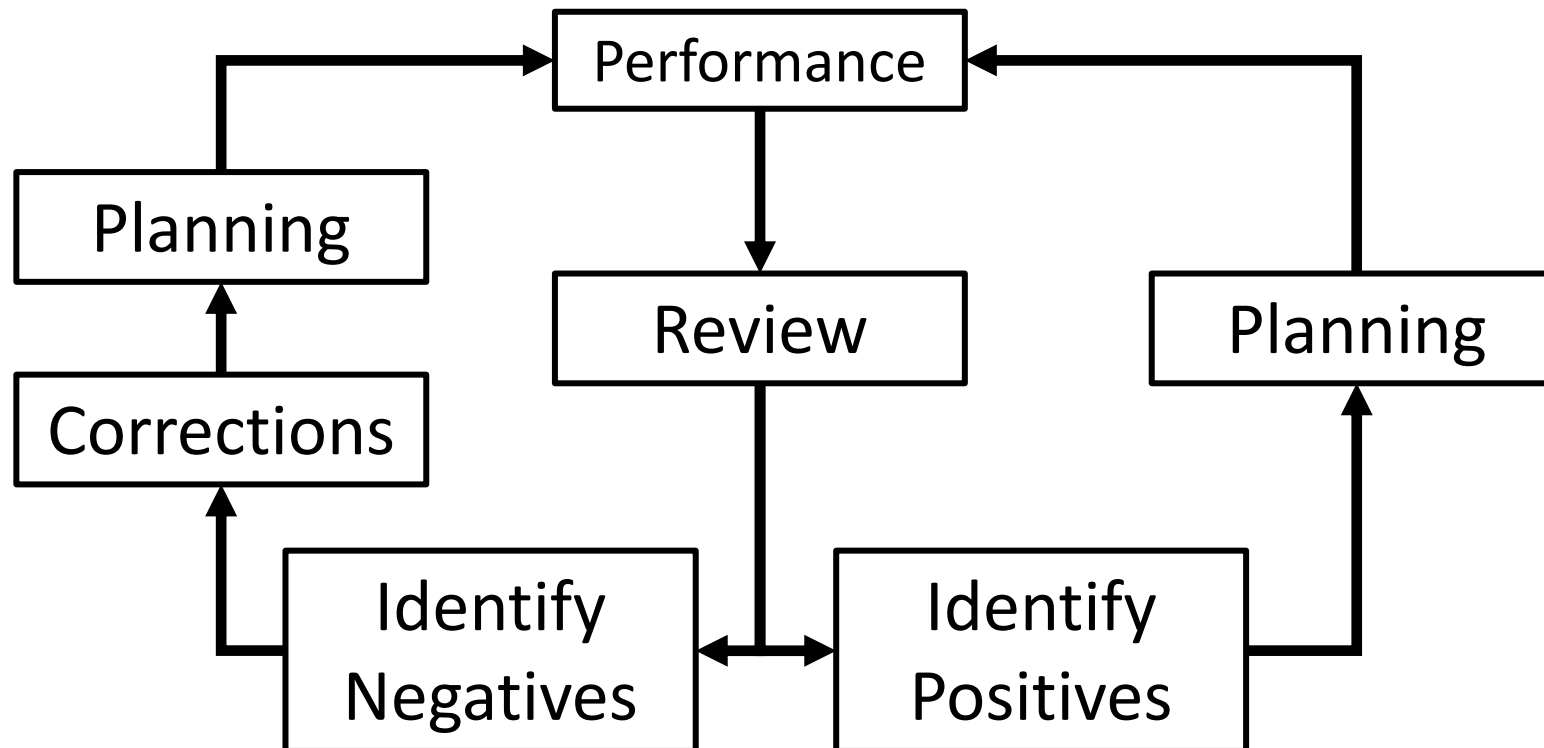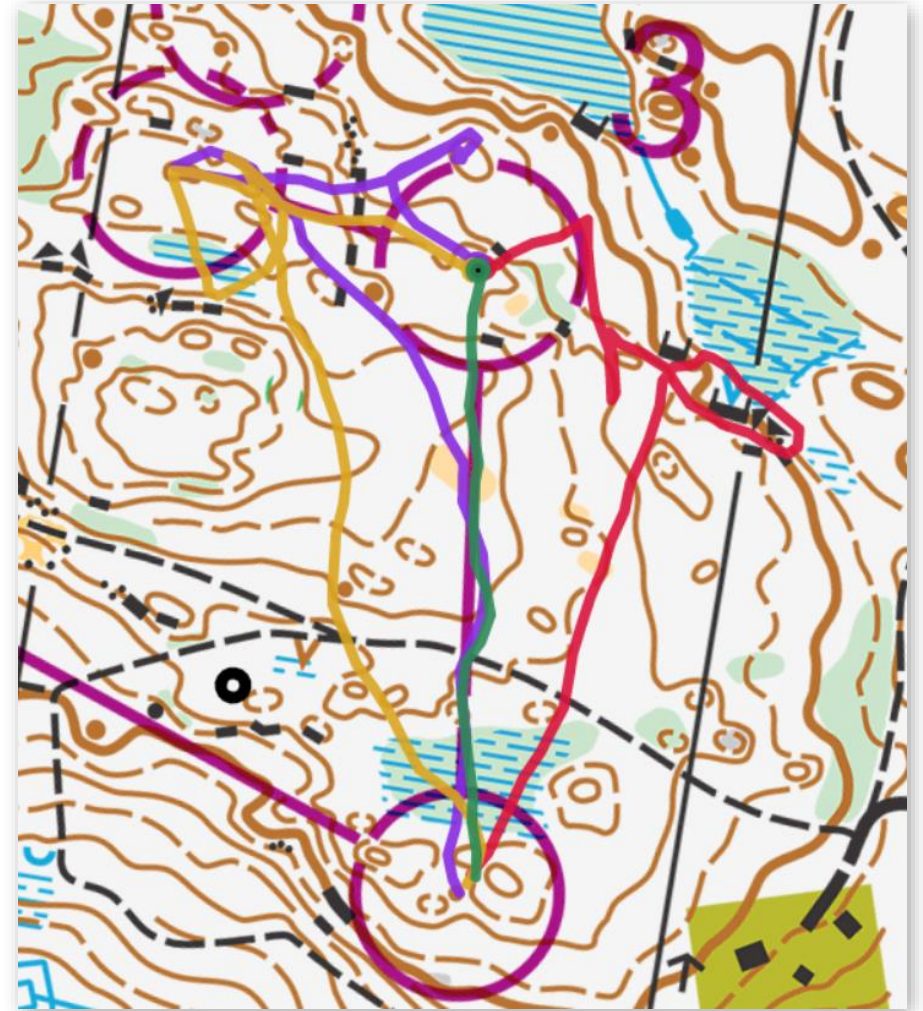
Understanding our mistakes
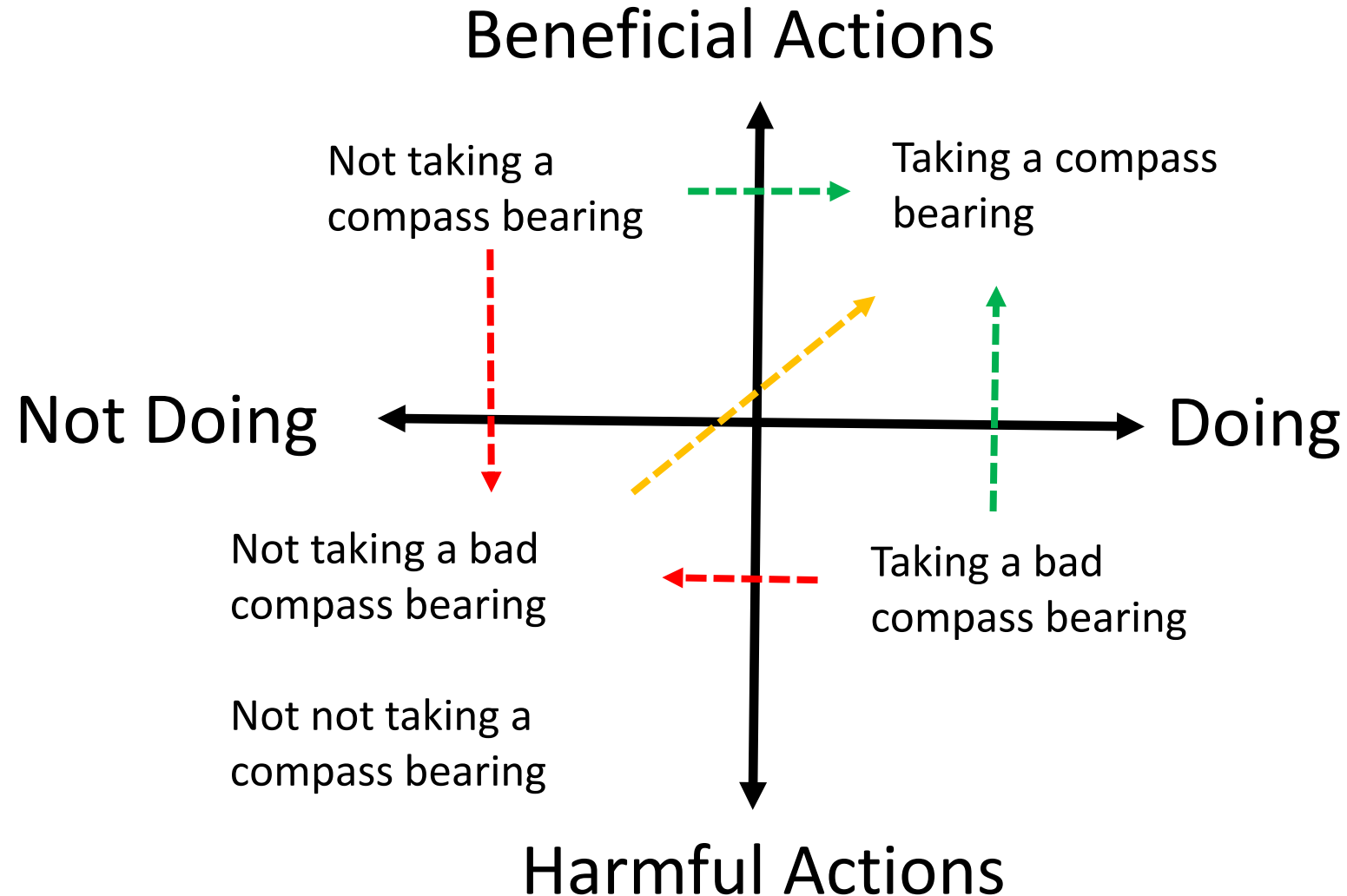
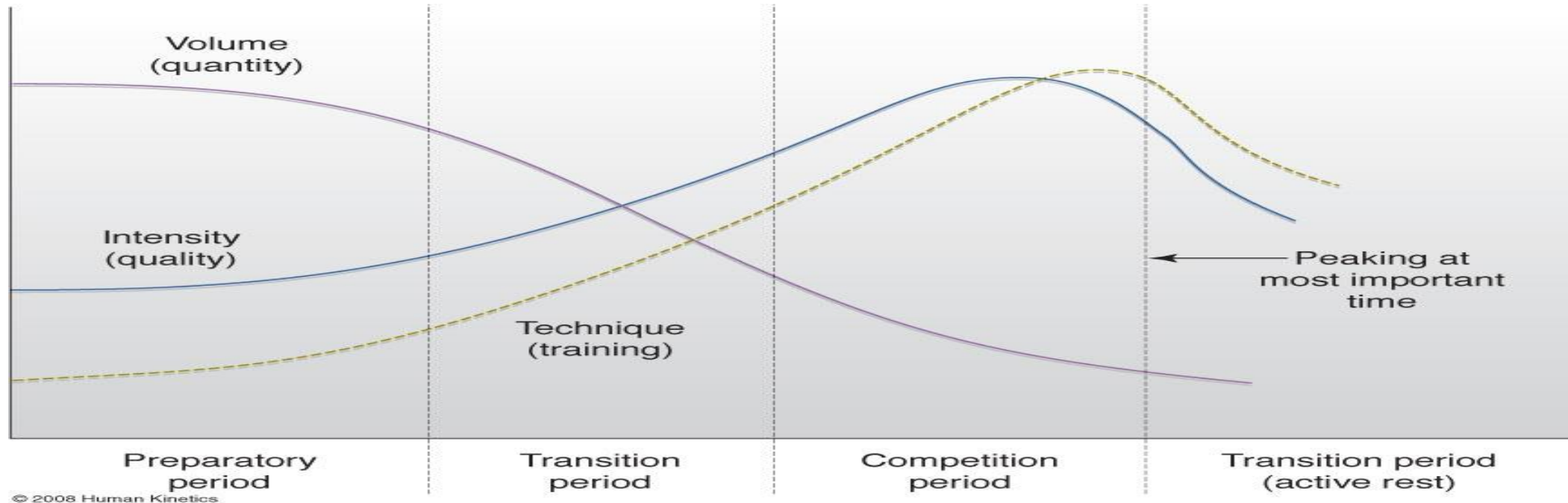# Understanding our mistakes

- Taking a good bearing & following it

- Taking an off bearing & following it

- Taking a good bearing, & following it for some of the way

- Not taking any bearing

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Using mistakes to provide positive feedback

- Analysing mistakes is not negative feedback

- Separate time-loss from the technical mistake / correction

- After analysis you should have an actionable outcome

- Use positive language to describe corrections
  - Say "*I will do this*"
  - Avoid "*I will not do that*"

- Link it back to a model of "good orienteering"
  - How would you re-run this leg?
  - What you would do in similar legs in future?

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Linear Periodised Plan

Volume (quantity)

Intensity (quality)

Technique (training)

Peaking at most important time

Preparatory period
© 2008 Human Kinetics

Transition period

Competition period

Transition period (active rest)

- **Base (Nov-Dec)**
  - Tech – focus on developing skills (ie. DDP)
  - Phys – focus on aerobic
  - Mech/Psych/Life – drills, new skills (eg. S&C, imagery, diet)

- **Pre-season (Jan-Mar)**
  - Tech – focus on putting skills together (ie. Plan)
  - Phys – focus on anaerobic
  - Mech/Psych/Life – refining / prepping for comp

- **Competition (Mar-July)**
  - Tech – focus on race prep
  - Phys – focus on maintenance
  - Mech/Psych/Life – race prep, analysis, recovery

- **Transition (Aug-Oct)**
  - Tech – new experiences
  - Phys – focus on active recovery
  - Mech/Psych/Life – reviewing season, prep for next

Club Coaching – A Possible Approach?

Lincoln Orienteering Group's Club Night Programme

| Week 1 – The Whole | → | Week 2-4 – The Skills | → | Week 5 – The Plan | → | Week 6 – The Whole |

Week 1 – The Whole

Run a typical course, eg. Green, with GPS

Undertake analysis via 3DRerun or eq.

Week 2-4 – The Skills

Week 2 – Direction exercises

Week 3 – Distance exercises

Week 4 – Picture exercises

Week 5 – The Plan

Putting it all together, eg. Talk O/Map memory exercises

Week 6 – The Whole

Re-run the course from week 1, with GPS, and complete analysis

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Summary – Post-Covid?

- An opportunity for a 'reset' and reflections

- Is it possible to review/amend 'event' v 'training' culture?

- Can we move towards a more consistent training environment for juniors/newcomers?

- How do we develop more coaches and 'upskill' their knowledge base?

- FA DNA project – possible within our sport?

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Thanks for listening

Time for questions...