Systematic Orienteering

A top-down approach to navigation

by Mark Nixon

British Orienteering Coaching Conference
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Biography - coach

- Lead Technical Coach, British Orienteering
- Head of Performance, Edinburgh University

Biography - athlete

- **World Champs** 2012, 2013
- **World Cup** 2005, 2012, 2013
- **European Champs** 2012
- **World University Champs** 2012
- **Junior World Champs** 2003, 2004
- **Junior European Cup** 2002, 2003, 2004

Systematic Orienteering

A top-down approach to navigation

- What?
- Why?
- How?
- Who?
- When?

Systematic Orienteering

A top-down approach to navigation

- What?
- Why?
- How?
- Who?
- When?
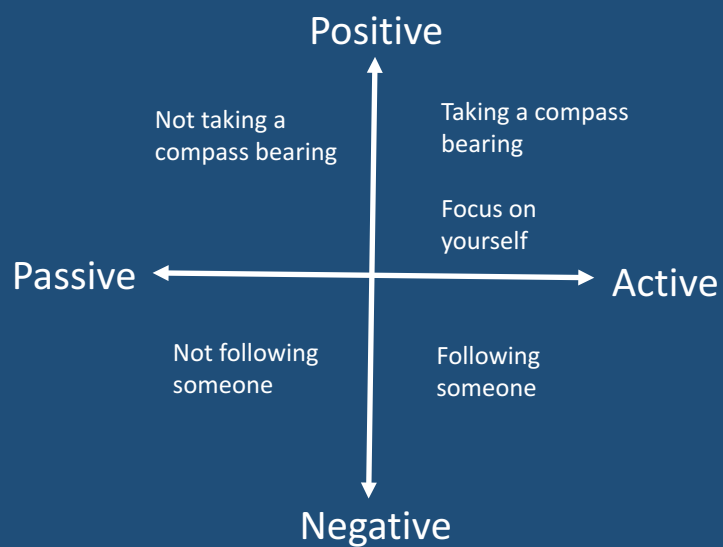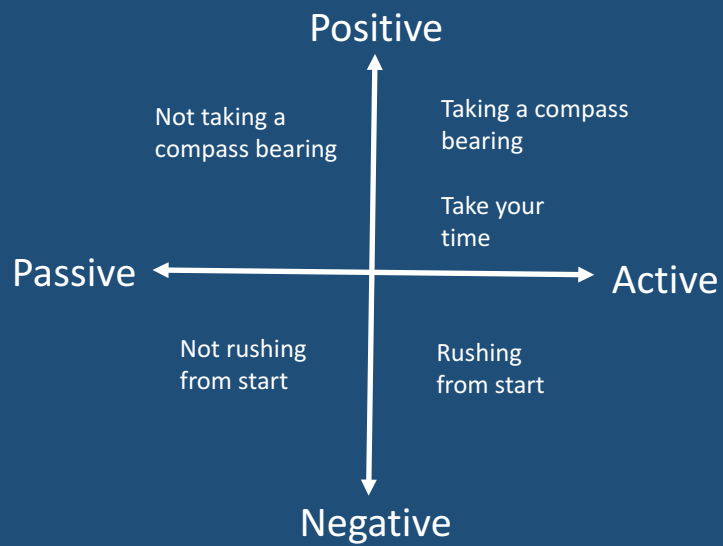
Systematic Orienteering

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- What?
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Good vs Bad Technique

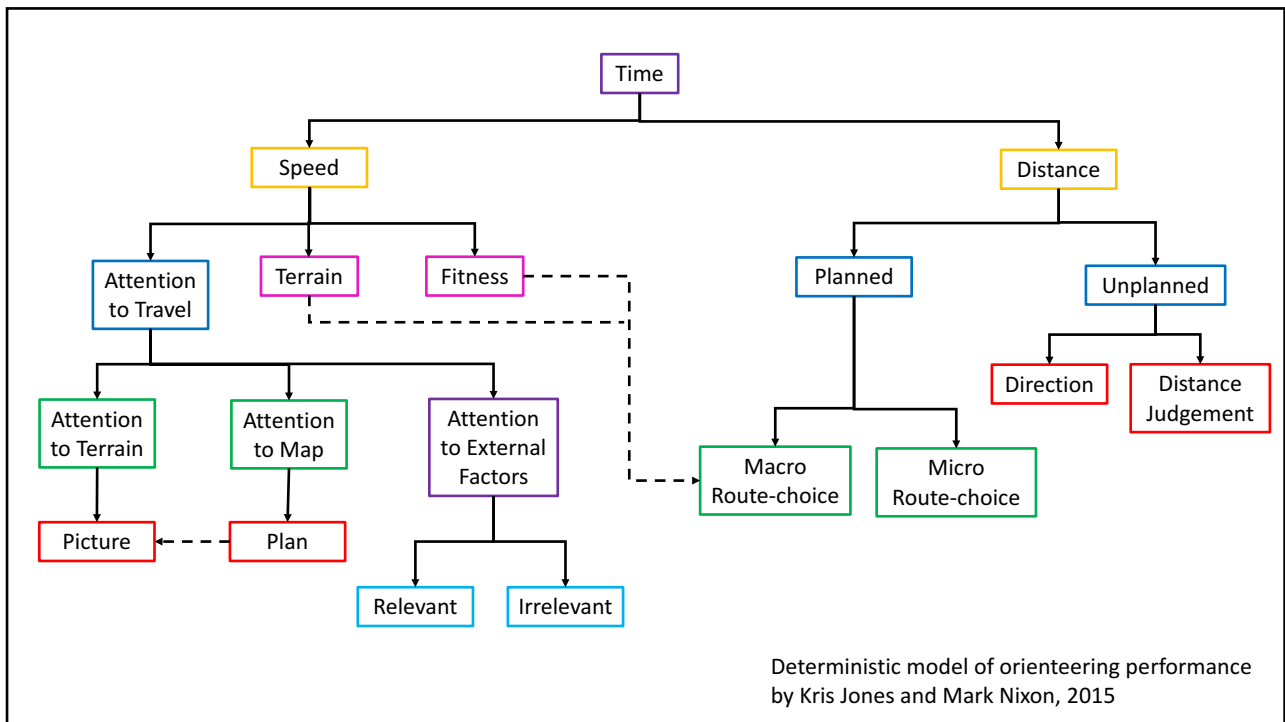1. Name skills, techniques, strategies, and tactics
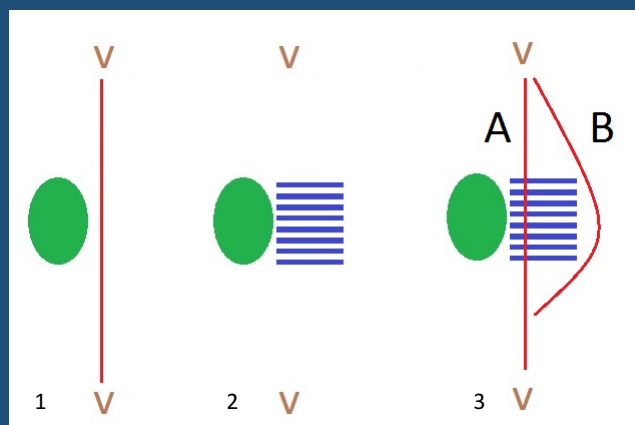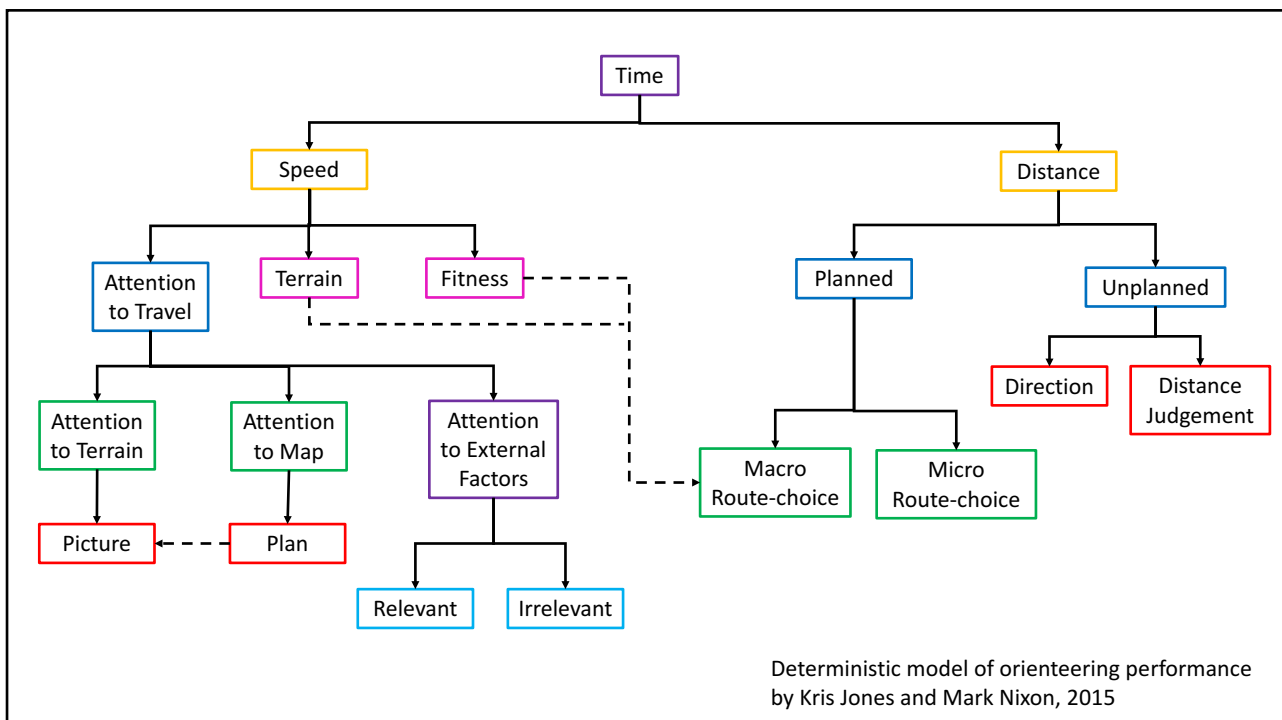2. Name mistakes and errors

Good vs Bad Technique

Positive

Not taking a
compass bearing

Taking a compass
bearing

Focus on
yourself

Passive ← → Active

Not following
someone

Following
someone

Negative

Good vs Bad Technique

Positive

Not taking a
compass bearing

Taking a compass
bearing

Take your
time

Passive ← → Active

Not rushing
from start

Rushing
from start

Negative

Top down vs Bottom Up

Deterministic model of orienteering performance by Kris Jones and Mark Nixon, 2015

Micro-routechoice

Unplanned Distance

Deterministic model of orienteering performance
by Kris Jones and Mark Nixon, 2015

Performance Analysis

Plan

Direction

Picture

Distance

Orienteering Process

- Read the map
- Route choice
  - Exit
  - Route
  - Attack
  - Control
- Add details
- Select skills
- Execute
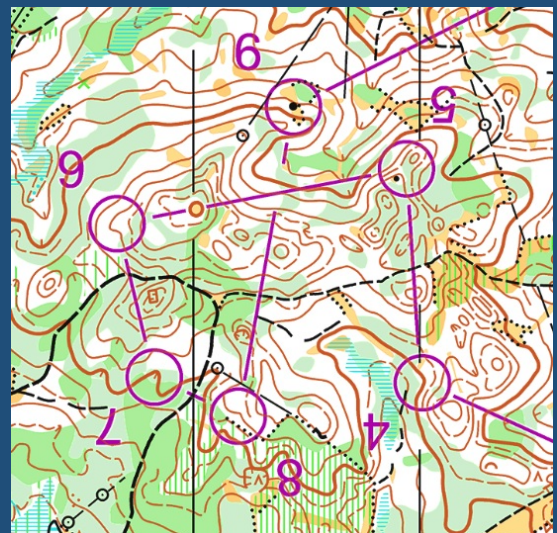
Orienteering Process

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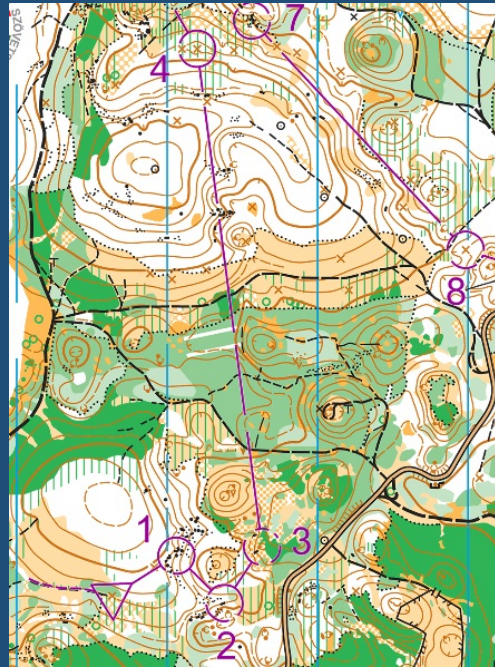## Orienteering Process

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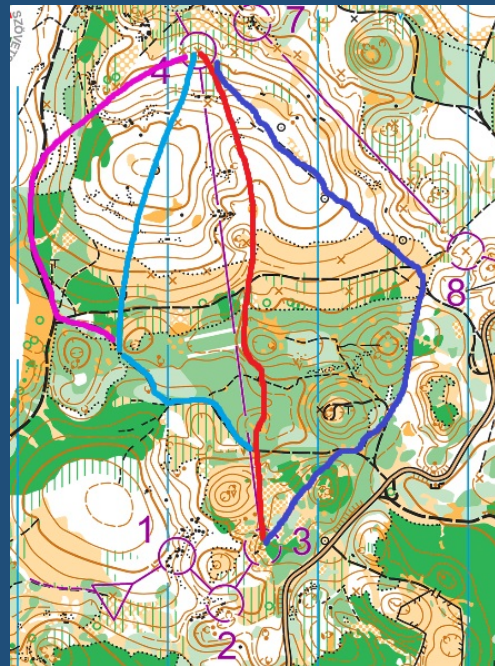- Add details
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Orienteering Process

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Orienteering Process

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Orienteering Process

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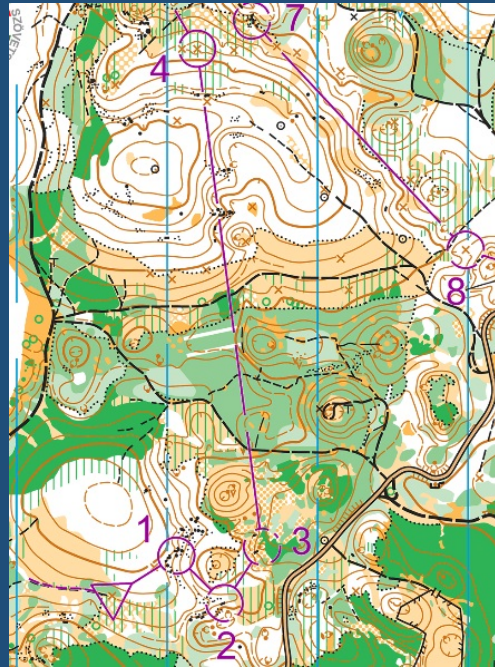 - Attack
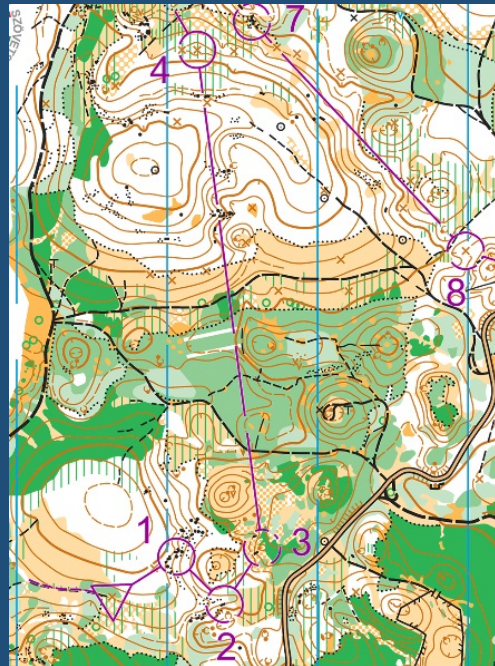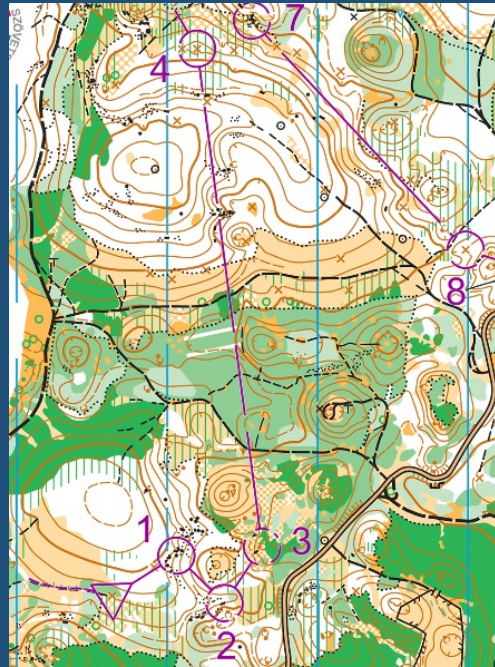 - Control
- Add details
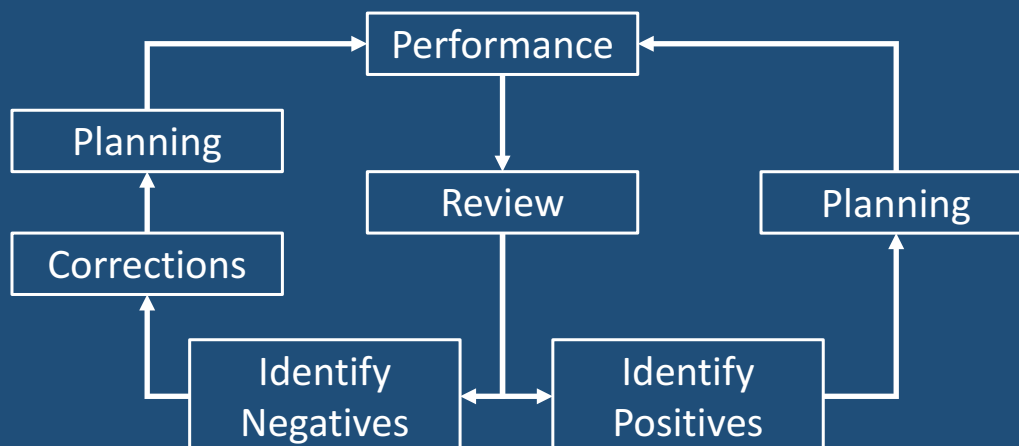- Select skills
- Execute

Systematic Orienteering

A top-down approach to navigation

- What?
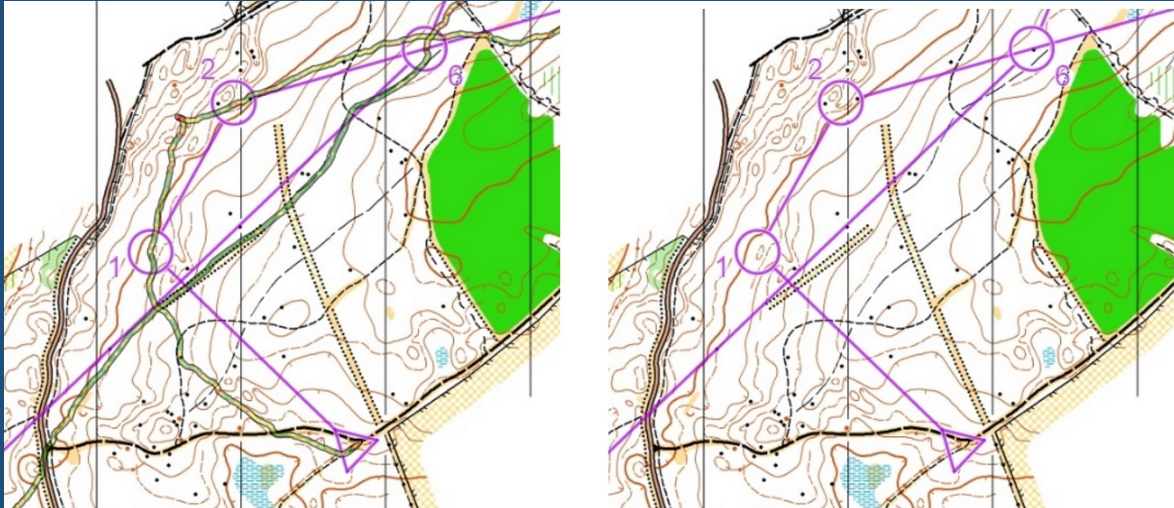- Why?
- How?
- Who?
- When?

Key training principles

- Practice makes permanent
- Analysis, analysis, analysis
- Speed / accuracy trade-off
- Whole-part-whole
- Part-whole
- Part-method

Experiential Learning Model

```
                    ┌──────────────┐
        ┌──────────▶│  Performance │◀──────────┐
        │           └──────┬───────┘           │
  ┌─────┴─────┐            │              ┌─────┴─────┐
  │  Planning │            ▼              │  Planning │
  └─────┬─────┘     ┌─────────────┐       └─────┬─────┘
        ▲           │    Review   │             ▲
  ┌─────┴──────┐    └──────┬──────┘             │
  │ Corrections│          │                     │
  └─────┬──────┘          │                     │
        ▲         ┌───────┴──────┐  ┌──────────┴──┐
        │         │   Identify   │◀▶│   Identify  │
        └─────────│   Negatives  │  │   Positives │
                  └──────────────┘  └─────────────┘
```

Technical Analysis

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Any questions?