



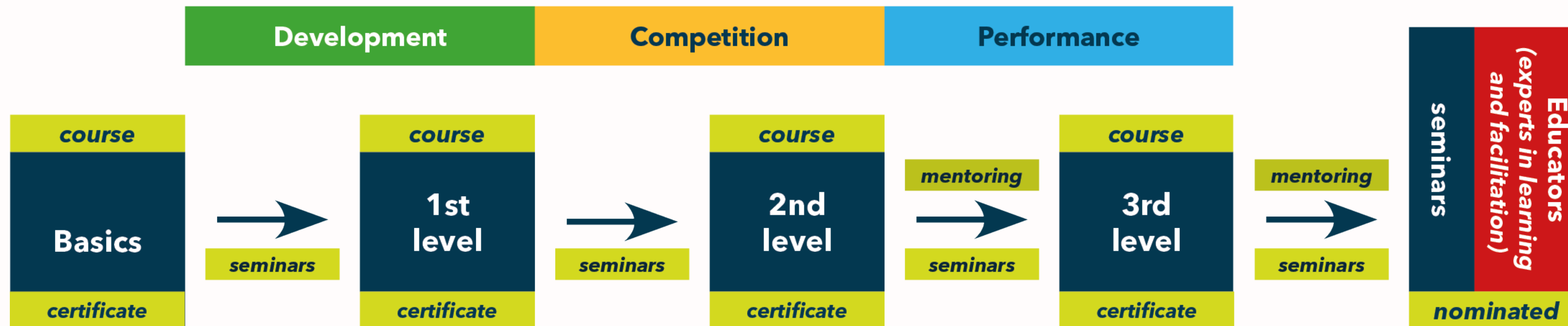
Development Info Day 2023
IBU Academy

22 March 2023

Coach Education

- ✓ 4 Levels
- ✓ 6 to 18-days in person learning
- ✓ E-learning tasks
- ✓ 10-20 coaches each course
- ✓ Target group orientated

IBU Academy Model of Coach Education Pathway



From general principle modules to advanced modules based on professional development coach needs

Coach Education

	Basic Course		1st Level Course		2nd Level Course		3rd Level Course	
Target Group	<ul style="list-style-type: none"> Coaches with basic knowledge Former Athletes PE Teachers Entry course for C, D, E nations 		<ul style="list-style-type: none"> Athletes (min. 3 years senior level) Coaches (min. 3 years experience) Basic Course Certificate or equivalent 		<ul style="list-style-type: none"> University Education or similar Junior National Coach or higher First Level Course Certificate or equivalent 		<ul style="list-style-type: none"> Head Coaches (international) Sports University or higher Second Level Course Certificate or equivalent 	
Content	Skiing Technique Coaches Skills Training Science Motor Skills	Shooting Physiology Business of Sport Equipment	Skiing Technique Coaches Skills Training Science Motor Skills Biathlon Integrity Recovery/Prevent	Shooting Physiology Business of Sport Equipment Nutrition Psychology Sustainability	Skiing Technique Coaches Skills Training Science Motor Skills Biathlon Integrity Recovery/Prevent	Shooting Physiology Business of Sport Equipment Nutrition Psychology	Skiing Technique Coaches Skills Training Science Motor Skills Recovery/Prevent	Shooting Physiology Equipment Nutrition Psychology
Duration	Total: 90 hours Theory: 45 hours Practice: 45 hours		Total: 200 hours Theory: 110 hours Practice: 90 hours		Total: 180 hours Theory: 90 hours Practice: 30 hours Mentorship: 30 hours		Total: 140 hours Theory: 110 hours Mentorship: 30 hours	
Outcomes	<ul style="list-style-type: none"> Basic biathlon knowledge in theory and practice Conducting of basic biathlon coaching sessions Safe management of kids and youth groups 		<ul style="list-style-type: none"> Planning, delivery, review, and evaluation of training sessions Construction of training plans for different kinds of sessions Safe management of group activities in youth and junior level 		<ul style="list-style-type: none"> Construction and delivery of annual training & competition plans Management of groups up to senior level In-depth knowledge of selected specialist areas 		<ul style="list-style-type: none"> Long term development planning In-depth knowledge of several specialist areas Development of others coaches Broad, current, and integrated knowledge Leadership competence 	
Start of the Pilot Courses	April 2022		May 2022		September 2023		2024	
Courses	1 x 6 days (April)		3 x 6 days (May, October, March)		3 x 5 days (September, April, June)		TBD	

Coach Education 2023 & 2024

Basic Course

- ✓ Application deadline: 28 February
- ✓ 42 Applicants
- ✓ 20 Coaches
- ✓ Course: 15 – 20 April
- ✓ Place: Salzburg/Ruhpolding

Second Level Course

- ✓ **Application deadline: 30 April**
- ✓ 20 Coaches
- ✓ Courses: 3 Weeks + Mentoring
 - ✓ 23-27 September in Oberhof
 - ✓ 7-11 April in Lillehammer
 - ✓ 29 June – 3 July in Antholz

First Level Course

- ✓ **Application deadline: 31 March**
- ✓ 20 Coaches
- ✓ Courses: 3 Weeks
 - ✓ 6-11 May in Hochfilzen
 - ✓ 7-12 October in Östersund
 - ✓ End of March 2024: TBC

Third Level Course: Plan

- ✓ Application: Spring 2024
- ✓ 10 Coaches
- ✓ Courses: 3 x 4 days + Mentoring
 - ✓ Summer 2024
 - ✓ Autumn 2024
 - ✓ Spring 2025

Final Week of First Level Course in Jakuszyce: 26-31 March 2023

Time	Saturday 25.3.	Sunday 26.3.	Monday 27.3.	Tuesday 28.3.	Wednesday 29.3.	Thursday 30.3.	Friday 31.3.	Saturday 1.4.
08:00	Arrival Day	L1.16: Training planning, evaluation, documentation: Marko Laaksonen / Matthias Ahrens	L1.19: Recovery and Prevention - Kornelius Kraus	L1.17 Diagnostics and talent identification: Ahrens/Brevik	L1.21: Psychological aspects of training and competition: Amelie Heinrich	L1.18: Nutrition, hydration and regeneration: Judith Haudum	L1.22: New IT technologies in sport	Departure
08:30								
09:00								
09:30								
10:00		L1.25: Sustainability in Biathlon: Daniel Cade	P12: Ski Technique Analyses: Video	L1.18: Nutrition, hydration and regeneration: Judith Haudum				
10:30								
11:00		Lunch	Lunch	Lunch	Lunch	Lunch		
11:30								
12:00		L1.24 Ethics and welfare in biathlon: Gatterer/Rothauer BIU	P6: Shooting drills and exercises	P12: Ski Technique Analyses: Video	L1.18: Nutrition, hydration and regeneration: Judith Haudum	P14d: Practical coaching: assignments with feedback		
12:30								
13:00		P13: Coaches methodology: Building up a session	P14a: Practical coaching: assignments with feedback	P14b: Practical coaching: assignments with feedback	P14c: Practical coaching: assignments with feedback	P14e: Practical coaching: assignments with feedback		
13:30								
14:00		Tomasz Bernat: Team protocol, grinding, unified waxing, flour ban	Evaluation of Coaching P 14			Social Activity with Dinner		
14:30								
15:00								
15:30		In-class lectures						
16:00								
16:30	In-class online lectures							
17:00								
17:30	Practice							
18:00								
18:30	Lunch							

E-Learning Platform: Learning Suite (LS)

- ✓ Basic and First Level Course: 580 pages, regularly updated
- ✓ Second and Third Level Courses: Currently filled (content review)

[Link: Learning Suite](#)

Public Content

- ✓ Access for Biathlon Family: **List to NFs** (please complete!)
- ✓ Content for coaches, technicians, physicians, staff
- ✓ Content from seminars, webinars, lectures, etc.
- ✓ Certificated education: safeguarding, rules, etc.
- ✓ Results from the Research Grant Programme, Lit. Database
- ✓ Notification and Calendar (Events, Webinars, etc.)



IBU LEARNINGSUITE FEATURES

- **Multimedia**
content is supported by graphics and videos
- **Structure**
a well-based course structure leads you through all content step-by-step
- **Flexibility**
access your courses and materials at any time and at any place
- **Combination with face-to-face lectures**
enables the best possible learning outcome

LAUNCH OF THE IBU LEARNINGSUITE

As part of the IBU Academy, we launched an online learning platform for all participants of the first IBU Coach Education Courses Basic and First Level. With the launch of the Second and Third Level Courses even more content will follow. In the future, the IBU LearningSuite will further serve as a knowledge-sharing platform inside the biathlon family and provide access to content and information about all aspects of biathlon.

Seminars/Webinars for 2023 & 2024

- ✓ 25 May 2023: Coach Webinar, Topic: Shooting
- ✓ 31 May 2023: Safeguarding Webinar (BIU)
- ✓ 14/15 June 2023: Physicians Webinar
- ✓ 6 July 2023: Athletes Webinar, Topic: Culture of Biathlon Training
- ✓ 6/7 September 2023: Coach Webinar, Topic: Recovery and Prevention
- ✓ 19-21 September 2023: Technicians Seminar, Topic: Flour Ban (in Salzburg-Rif)

- ✓ **Plans 2024:** Coach Webinar Motor Skills Training (Strength & Endurance), Coach Webinar Skiing Technique, Kids and Youth Recruitment - **YOUR IDEAS?**

Research Grant Programme

2021/22: 4 projects supported

- ✓ Montana State University (USA)
- ✓ University of Jyväskylä (FIN)
- ✓ Research Institute of Olympic Sports (FIN)
- ✓ Academy of Physical Education Katowice (POL)

2022/23: 5 projects supported

- ✓ AECC University College (GBR)
- ✓ Nord University (NOR)
- ✓ Norwegian School of Sport Science (NOR)
- ✓ Mid Sweden University (SWE)
- ✓ Federal Institute of Sport Magglingen (SUI)

About RSGP

High quality topics in different fields, to be shared with NFs (Website, Learning Suite, Journal of Biathlon Coaching), one year for candidates to deliver the results, please encourage researchers to apply (via IBU-Scope), deadline: each year on **31 March!**

Introduction

The project focuses on the evaluation of effectiveness of two alternative approaches to performance enhancement of biathletes. First is based on motor competence and is focused on postural balance and the second approach focuses on psychological competency and is built on the concept of mindfulness. Recent research suggests that in resting conditions and after physical exercise, rifle sway during aiming at the target in a standing shooting position seems to be coordinated with the postural sway of the biathlete's body. Thus, an increase in postural sway contributes to a greater sway and lesser stability of the rifle. With respect to the second approach, the core of mindfulness is a way of paying attention that entails intentionally being aware of the present moment and accepting things just as they are without judgment. Mindfulness-based approaches in sport, exercise, and performance psychology is a fast developing area of sport psychology. There are many athletes (and coaches) who know that mental factors such as concentrating, relaxing, and letting go of thoughts and feelings can aid performance, but have no idea how to actually do these things under the pressures of training and competition. Moreover, recent findings indicated that mindfulness facets were positively associated with shooting performance, with higher levels of Awareness, Refocusing, and Awareness being related to better shooting performance in competitions. The 6-week balance training program and a 6-week Mindfulness Sports Performance Enhancement (MSPE) program was implemented in parallel among youth biathlon athletes in order to elicit improvements in their performance and verify the effectiveness of these programs.

Aim

The aim of the project was to implement two types of training in biathlon athletes and verify their potential to improve shooting effectiveness.

The first of the training programs focused on motor preparation and concerned the balance of the athlete's body. The second training program focused on mental preparation, specifically mindfulness.

Methods

- Aimed at improving the parameters of balance.
- 3 phases, with progression of exercises, optimally stimulating balance and postural stability.
- 16 training units for a period of 6 weeks (2 times a week), unit duration - 45 minutes.
- 4 main implemented aspects (Core Stability, jumping training, functional training and Stretching) and has a fixed structure:

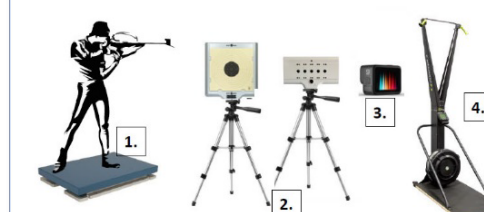
1. Short running warm-up.
2. Core Stability
3. Jumping exercises
4. Functional training with equipment.
5. Stretching exercises.

Mindful Sports Performance Enhancement training - (MSPE, Kaufman et al., 2016)

- A six-session group mindfulness program for athletes, rooted in a tradition of mindfulness-based stress reduction (MBSR, Kabat-Zinn, 1990) and mindfulness-based cognitive therapy (MBCT, Segal, Williams, & Teasdale, 2002).
- Training session: 60-90 minutes with elements of education, empirical, debatable and home practice.
- Exercises: body scanning, mindful breathing, sitting meditation, mindful vlogs and walking meditation boosting mindful awareness and acceptance.
- Learned sequentially: from sedentary to mindfulness in motion, ending with a sport-specific exercise - transition of mindfulness techniques directly to basic skills in their sport.
- Recommended daily home practice and discussion in which athletes. Access to recordings of all mindfulness exercises of daily home practice was provided through the online platform.

Measurement methods

1. Force plate (AMTI BP60900)
2. SCATT System
3. Video Camera
4. Ski Ergometer (SkiErg)
5. Video Tracker



Methods continued

Measurements (before and after the training):

1. Force plate data from quiet standing and in shooting position with a rifle in antero-posterior (AP) and medio-lateral (ML) direction.
2. Scatt training system variables.
3. Laser tracker data (shooting aiming trajectory).
4. Mindfulness test and inventories (psychological tests).
5. CHORT test (computer test).
6. Y-Balance test Upper and Lower quarter.

Results

Table 1. Correlation coefficients and corresponding p level between the shooting performance parameters and posturographic measures in the "Stability group" before the experiment

Variable	shym_slab	msward	msward_Horst	msward_Vent	score	score_swb
WCOP_ML	-0.183	-0.181	-0.201	-0.209	0.569	0.607
WCOP_AP	0.007	0.009	0.040	0.002	0.127	0.021
WCOP_ML	-0.136	-0.065	-0.065	-0.062	0.901	0.908
WCOP_AP	0.308	0.041	0.482	0.076	0.049	0.011
WCOP_ML	-0.156	-0.062	-0.062	-0.062	0.901	0.908
WCOP_AP	0.308	0.041	0.482	0.076	0.049	0.011
msRAMB_ML	-0.176	-0.261	-0.037	-0.027	0.166	0.019
msRAMB_AP	0.076	0.076	0.021	0.009	0.103	0.017
msRAMB_ML	-0.007	-0.209	-0.159	-0.156	0.747	0.029
msRAMB_AP	0.209	0.023	0.146	0.060	0.036	0.011
msRAMB_ML	-0.007	-0.209	-0.159	-0.156	0.747	0.029
msRAMB_AP	0.209	0.023	0.146	0.060	0.036	0.011
msRAMB_ML	0.002	0.144	0.002	-0.045	-0.044	0.402
msRAMB_AP	0.482	0.787	0.482	0.789	0.049	0.272

Table 2. Significant correlations in the Mindfulness group between shooting performance and Mindfulness inventories after the training (p<0.05)

Variable	Attention	Distraction	CH	mean_H	CH_swing_H
shooting score	0.719	-0.747	0.240	-0.547	0.046
	0.046	0.042	0.012	0.042	

Table 3. Pearson correlation coefficients and respective p level between Laser tracker data and posturographic parameters

Variable	r	p	r	p	r	p
WCOP_AP	0.74	0.005	0.74	0.005	0.962	0.144
WCOP_AP	0.74	0.005	0.74	0.005	0.944	0.145
msRAMB_AP	0.74	0.007	0.74	0.007	0.949	0.146
msRAMB_AP	0.77	0.007	0.77	0.007	0.942	0.142
msRAMB_AP	0.77	0.007	0.77	0.007	0.941	0.141
WCOP_ML	0.62	0.013	0.62	0.013	0.768	0.022
msRAMB_ML	0.7	0.004	0.687	0.004	0.716	0.006
msRAMB_ML	0.62	0.013	0.62	0.013	0.769	0.022

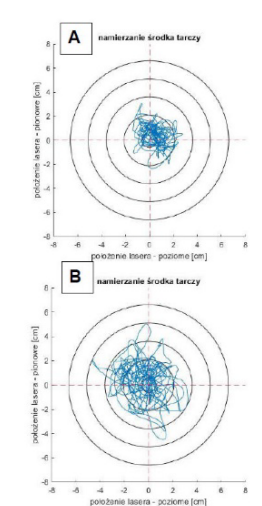


Fig. 1. Exemplary trajectory of the laser in biathlon before training. B: after training from the same athlete

Conclusions

- The body balance and the level of mindfulness can significantly contribute to the shooting accuracy.
- The training elicited significant changes of the posturographic parameters but not in the Mindfulness level estimated with the implemented tests.
- The individual statements of the participants were positive, especially with respect to the MSPE training. They reported that they were able to cope with the stress and to refocus much better with the use of the methods they were presented within the course of the project.
- The developed methodology of tracking of the aiming trajectory showed an interesting tendency in the results that suggest the training has led to better control of the rifle during aiming and resulted in a more focused tracing. This should be further explored in the future experiments.

Contact

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University Cooperations

Goals of these Partnerships

- ✓ Promote biathlon knowledge and share with NFs
- ✓ Strengthen education & research: Access to experts and projects
- ✓ Applications for funding
- ✓ Options for biathletes in dual career
- ✓ Support projects in technology, equipment, methodology, etc.



Proposed Partnerships of Universities with a strong winter sport background:

- ✓ Mid Sweden University (SWE)
- ✓ Norwegian School of Sport Science (NOR)
- ✓ Academy of Physical Education Katowice (POL)
- ✓ University of Leipzig/Cologne (GER)
- ✓ University of Salzburg (AUT)
- ✓ Montana State University (USA)
- ✓ University of Jyväskylä (FIN)

DUAL CAREER PROGRAMME

IBU ACADEMY STRATEGY

“Develop the possibility for talented, professional, and elite athletes to build an educational or job path simultaneously with a sports career and develop leaders who will serve all biathlon sectors in future“

Timeline

- ✓ June 2022: **Policy** approved by EB
- ✓ February 2023: Dual Career **Strategy** approved by EB
- ✓ 2023/2024: Dual Career **Action Plan**
- ✓ Currently running: Athletes **recruitment** after sports career & **mentoring program** for female athletes & **athletes webinars**



Make Partnerships, IBU as a Link, **Encourage NFs** , Build Platform, Show Best Practice, Erasmus + Sport

Application call deadline 31 May 2023

TARGET GROUP: FORMER FEMALE ATHLETES

- ✓ World Cup and IBU Cup level athlete
- ✓ Ended her sports career a maximum of 5 seasons ago (after the Olympic Games PyeongChang 2018)
- ✓ Started a new role in the NF or ready for the next step in the organisation
- ✓ The mentee and National Federation see a role for her in the organisation.
- ✓ The role needs to be described in the application
- ✓ Be seen as a leader today or a near future leader
- ✓ Good English!
- ✓ Application via IBU Scope by NFs

PROGRAMME INCLUDES

- ✓ Individual mentoring done by IBU mentor and SheSkillzGlobal mentor
- ✓ Group tasks
- ✓ Webinars and workshops focused on leadership skills development
- ✓ In-person meeting Q2 2024



Questions?



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