BOOK OF ABSTRACTS from 8th International Mountain and Outdoor Sports Conference

Faculty of Physical Education and Sport

Charles University, Prague, Czech Republic

23th - 26rd November 2016

Organisers:

Partners:

BOOK OF ABSTRACTS

from

8th International Mountain and Outdoor Sports Conference

Faculty of Physical Education and Sport

Charles University, Prague, Czech Republic

23rd – 26th November 2016

8th International Mountain and Outdoor Sports Conference

23rd – 26th November 2016
Prague, Czech Republic

Topics:

1. Promoting well-being and outdoor activities
2. Integrating reflection, learning and outdoor activities
3. Cross-cultural approaches to outdoor activities
4. Environmental education through outdoor activities
5. Social and economic impact of outdoor activities
6. Research and performance in outdoor sports

Editors: Lucie Kalkusová, Jiří Baláš, Andrew J. Martin

Organisers: Department of Turistika, Outdoor Sports and Outdoor Education, Faculty of Physical Education and Sport, Charles University

Prague, November 2016

Programme IMOSC 2016

Wednesday 23rd November

18:00 - 19:00 Registration at the faculty entry

19:00 Opening Banquet

Thursday 24th November - conference day

9:00 – 10:00 Registration at the faculty entry

10:00 Official opening of the conference

10:30 – 11:45 Psychophysiological performance in friendly environment with cross-cultural and social learning (may be out of door)

12:00 Lunch

14:00 – 15:30 **K. Weis workshop** - *Mount Kailas and the Caves of Milarepa:*

Visiting Holy Tibetan Sites, Bridging Cultures and Religions,

Combining Sports and Adventure, Expedition and Spirituality.

15:30 – 16:00 Coffee break

16:00 – 16:30 **J. Baláš - *Forearm muscles adaptations in sport climbers***

16:30 – 17:10 M. Jindra T. Brtník, K. Hejrová - *The effect of different bike tires to the energy expenditure of the organism*

U. Dettweiler – *Outdoor education and the promoting of mental well-being. Some empirical hints on the circadian rhythm of children in outdoor and indoor classes*

Friday 25th November - conference day

9:00 – 9:30 **P. Becker, M. Lindner -** The International Master Course TEOS-Transcultural European Outdoor Studies

9:30 – 10:20 K. Weis - *Adventures for Body and Soul? Body Techniques of Different Cultures for Extreme and Holistic Experiences*

F. Ghafouri , S. Eskandari - *A comparative study on the role of technology and social/cultural factors in development of community sport; global approaches and national priorities*

10:20 – 10:50 Coffee break

10:50 – 11:20 **S. Shibli - *The economic and social benefits of outdoor recreation***

11:20 – 12:00 G. Cetinkaya, E. Omuris - *Examination of outdoor sports activities on Positive and Negative Affect*

E. Kätting, K. Törngren - *The Margareta-tour, an annual skiing-tour for women.*

12:30 Lunch

14:00 – 14:30 **S. Beames -** *Re-conceptualizing Adventure Education*

14:30 – 15:10 I. Turčová, J. Neuman, A. Martin – *Contemporary state of outdoor adventure education in CZ*

J. Stredova - *Outdoor activities for school kids in Germany. The reality!*

15:10 – 15:30 Coffee break

15:30 – 16:10 I. Martínková, J. Parry - *Safe Danger – On the Experience of Risk, Adventure and Challenge in Education*

L. Kalkusová – *Injuries incidents in outdoor courses at Faculty of Physical Education and Sport, Charles University*

16:30 Guided tour in Prague

Saturday 26th November – conference day

9:00 – 9:30 **U. Dettweiler -** *Adventurous research expeditions: Bridging the gap between science and environmental teaching in transformative education*

9:30 – 10:10 P. Kida - *Perception of space and outdoor activity in research using photo as a tool*

J. Dlouhá, J. Dlouhý, K. Kristjánsdóttir - *Competences and environments for outdoor sports. The concept of wilderness and its role in leisure activities*

10:10 – 10:30 Coffee break

10:30 – 11:10	S. Vomáčko – *Sling resistence decrease during static load in climbing knots*
	A. Thomann - *European Network of Outdoor Sport*
11:30 – 12:15	Slackline, rope park, parkour
12:30	Lunch
14:00	Divoká Šárka natural park tour/ Visit of research facilities at the faculty
18:00	Closing Banquet at Libocký Dvůr Restaurant

Mount Kailas and the Caves of Milarepa: Visiting holy Tibetan sites, bridging cultures and religions, combining sports and adventure, expedition and spirituality.

K. WEIS[1]

[1] Former Institute of Sociology, Faculty of Sport Science, Technical University of Munich, Germany

Mountain ranges, peaks and caves all attract human interest. Mountains used to be the seats of gods, peaks became the goals of human climbers, and caves have been used as places for protection and solitude, withdrawal and retreat. Caves are sometimes seen as the other side of the mountain, its counterparts. Caves and peaks may complement each other. This relationship became rather obvious in Tibetan mythology. Milarepa, Tibet's great yogi, a cave dweller, may serve as an example. In the south-west corner of Tibet, now part of China, close to the borders of Nepal and India, lies Mount Kailas, which reaches an elevation of 6714m, the highest peak in the Kailas Range. Mt. Kailas (Kailash, Kailasa, known as Gang Tise to the Tibetans) is the holy mountain of four present-day religions: The Tibetan Buddhists, the old Bön religion of Tibet, and the Shivaites and Jains of India, both pre-dating Buddhism and the Tibetan Buddhist veneration of the holy mountain. Some identify it with Mt. Meru or Sumeru, the cosmic centre of the universe. Officially, Mt. Kailas was never climbed, as it is considered a holy, sacred, and taboo site. On the way to Mt Kailas one would pass and should purify and cleanse oneself in the Mapam Lake, Manosarovar Lake, reputed to be the highest freshwater lake in the world at 4557 m above sea level. Some consider the mountain and the lake like male and female, god and goddess, the holy unity. Or they see the whole Kailas area as mandala, the peak in its centre, surrounded by the sources of the four major Asian rivers Indus, Brahmaputra, Sutley and Karnali, the springs of life. Although access to both Mt. Kailas and Manosarovar Lake as places of religious pilgrimage was permitted after the Chinese occupation of Tibet in 1951 and guaranteed in the Sino-Indian Treaty of 1954, access was restricted after the suppression of the subsequent Tibetan rising, and the frontier was closed in 1962. Ever since then, it was opened and closed. When we tried to go there for a traditionally special date in 2015, the Chinese closed the whole area. At other times, it becomes overcrowded. The Chinese Cultural Revolutionaries, or the Chinese occupational forces, tried to destroy the religions of Tibetan Buddhists and Bönpos by simply destroying hundreds of monasteries and killing many thousands of monks, but they were not really successful. However, flooding temples, holy sites and monasteries with curious, senseless and uninformed tourists may do the trick. Turning all Christian churches into museums with free access for everybody to every spot might have similar results. When the author circled Mt. Kailas in 1999, in a three weeks tour, it was still a place with a spiritual atmosphere. Now, the whole place is either completely closed, or hundreds of busses on the newly built roads may aim for the holy region, and the visitor groups are given numbers and are administered by official guides on strictly controlled walkways which they must follow and not leave.

Milarepa (1052 – 1135 AD) is known as the most renowned and legendary saint, yogi, mystic, poet and reformer of Tibetan Buddhism. He spent his ascetic life in many caves. Legend has it that Milarepa got into a dispute and a magic competition with Naro Bönchung, a magician and

representative of the old Bön tradition, about who would first make it to the peak of holy Mt. Kailas. The Bönpo started much earlier than Milarepa, who with the first rays of the sun then flew directly to the peak, and the Bönpo finally had to accept his defeat. This story is known to all Tibetans, and especially the pilgrims who for thousand years have come to circle the holy mountain are fond of it and of all its details. In 2016, at the age of 75 (after he had climbed a peak of 6150m in 2015) the author visited the Milarepa caves in Nepal, Lapche area, at and on the Tibetan (Chinese) border, and across the border, above and below 4000 m, in one of his most exhausting, adventurous, dangerous and successful trips and climbs. The area was pretty inaccessible, and the normal paths had been washed off by the disastrous earthquake of 2015. The group found the hermits, Tibetan Buddhist monks, who have been spending their life in retreat, meditation and isolation, some of them up there for 20 years, following their famous model and master Milarepa. The group happened to arrive the day before the annual big festival and was then invited to the big puja. On the last day of our way home, after we had crossed the last bridge over a torrential river, the monsoon started and wiped off the bridge. Had we been there one day later, we might have been forced to stay there for some more months waiting for the end of the monsoon and a new bridge. In both instances, to Mt. Kailas and to the caves, we were led by Bruno Baumann, an adventurer and explorer, Tibet expert, author and friend. This report on our trip to the Milarepa caves provides examples of one thousand years for fasting, going into silence, spending time in meditation and solitude, and living in caves as a cultural High Mountain Outdoor Activity (or better: "non-activity").

Finger flexors strength and hemodynamic response in sport climbers

J. BALÁŠ[1]

[1] Faculty of Physical Education and Sport, Charles University, Prague, Czech Republic

Sport climbing encompasses intermittent isometric contractions of the forearms that are separated by dynamic whole body movements. As such, intermittent finger flexor strength and endurance is considered a determining factor of success in sport climbing performance. Recent research provided evidence that high local oxidative capacity is related to fast recovery during intermittent contractions and climbers might benefit from specific endurance intermittent training. This presentation will review the role of finger flexor strength and endurance in climbers, and the evolution of testing specific strength and endurance. As climbing specific endurance is related to local oxidative capacity, hemodynamic changes covering microvascular and macrovascular adaptations, and tissue oxygenation will be discussed.

The effect of different bike tyres on energy expenditure

M. JINDRA[1], T. BRTNIK[1], K. HEJROVA[1]

[1] Faculty of Physical Education and Sport, Charles University, Czech Republic

Aim
The aim of the study was to determine energy expenditure (EE) of cycling when using different types of bike tyres.

Methods
The research group consisted of 5 males (age 26.4 ± 2.2 years, body height 186 ± 8cm, body mass 87.0 ± 12.6kg). All those tested were active cyclists. Three types of bicycle tyre were tested: road type, trekking and fat bike tyres. All used tyres were the 'Specialized' brand. For road tyres the model was Espoir Sport 700x25C, for trekking tyres Fast Trak Sport 29x2.0 for Fat Bike tyres Ground Control 2Bliss Ready 650Bx3.0 fattie. The test ride was carried out in the laboratory on cycling rollers. Participants completed one test ride on each type of tyre in randomized order. The test ride lasted on average 4:55 ± 1:50 min:s. Oxygen consumption (VO_2) was recorded during the entire test by a metabolic analyser MetaMax 3B. Measured values of monitored variables were evaluated by descriptive statistics: arithmetic mean and standard deviation.

Results
We found significant differences (more than 10% difference) in energy expenditure between the rides with road and fat bike tyres, and also between trekking and fat bike tyres. The average energy consumption, when riding on road tyres for 4 minutes was 139.01±29.40kJ. In the case of trekking tyres it was 146.66±23.32kJ and for Fat Bike 165.09±26.46kJ. The difference between the ride on Fat Bike and road tyres was 26.07kJ, an increase of 18.76 %. The difference between trekking and Fat Bike tyres was also significant, 18.43kJ, i.e. an increase of 12.56 %. Conversely, the difference when riding on road and trekking tyres was only 5.5 %, representing 7.65kJ, which was not significant.

Conclusion
The EE reached a significant increase while using tyres with the largest contact patch compared to using tyres with the smallest contact patch. The data can serve as a basis for development of bike tyres or as an interesting sign for cyclists´ training.

Outdoor education promoting mental well-being: The circadian rhythm of children in outdoor and indoor classes

U. DETTWEILER[1], CH. BECKER[2], B. AUESTAD[1], P. SIMON[3], P. KIRSCH[4]
[1] University of Stavanger, Stavanger, Norway
[2] Technical University of Munich, Munich, Germany
[3] Johannes Gutenberg University, Mainz, Germany
[4] Central Institute of Mental Health, Mannheim

Aim
This longitudinal survey examined stress levels of pupils having regular outdoor teaching (ROT) in the forest controlled against children in the normal school setting. We were especially interested in the effect ROT might have on the children's normal circadian rhythm with high C levels in the morning and a steady decline towards noon.

Methods
In the survey, 47 children (mean age = 11.23; SD = 0.46) were enrolled, 36 in the intervention group (IG) and 11 in the control group (CG). The intervention consisted of one full school day per week in the forest with physical education, geography and some science lessons. In order to examine the stress level, we measured the cortisol levels (C) which is considered a good marker for mental stress. We took three samples of saliva per day (morning, mid-morning-noon) in three seasons (fall, spring, summer). Furthermore, the children's physical activity (PA) had been monitored using Axivity AX3 accelerometers. The satisfaction of their basic psychological needs (BPN) had been determined by using BPN-constructs developed for this target group. For data analysis, we used a linear mixed effects (LME) model with random intercept and general correlation matrix for the within unit residuals. Starting from a full factorial model including the third order interaction between group, time and season, the third order interaction and the interaction between time and season were excluded according to the AIC criterion and likelihood ratio tests. The resulting model showed good fit to the data according to residual plots.

Results
LME yields that the IG in the outdoors have significantly greater decline of C compared to CG; rate 0.0102+0.0588=0.069 vs. 0.0102 (log-units/2hours), p-value: 0.0092. The IG has expected lower C-level in spring compared to the CG, difference: 0.0915, p-value: 0.0468. Also there is some support in the data that the IG has expected lower level in summer compared to the CG, difference: 0.0879, p-value: 0.0523. BPN correlate slightly negatively with the decline of C, but the effect is hardly practically relevant. PA shows no significant correlation with the noon-levels of C. Thus, we did not include PA into the covariate analyses. The inclusion of BPN variables in the model(s) does not affect the above reported overall results.

Conclusion
The main effect in our measures is that the IC has a steady decline of C during the school day, which is constant over the school year. The CG does not show this effect, which is medically alarming since a significant decline of C from morning to noon is crucial for physical and mental health according to the circadian rhythm. The limitations of this study are clearly the small numbers of observations, and we believe the data not being completely free of pre-selection bias and potentially measured artefacts. However, the cortisol data are consistent and valid, so that we can conclude that regular outdoor education promotes mental well-being in children in our IG, in contrast to indoor teaching in the CG.

The International Master Course TEOS -Transcultural European Outdoor Studies

P. BECKER[1]

[1] University of Marburg, Germany

Since 2010 I have been engaged in developing and teaching in an international Masters course, which has the title "Transcultural European Outdoor Studies" and is run by the three Universities of Cumbria/Ambleside, Marburg and Oslo. This course is an academic reaction to the process of globalization, which has transcultural influences not only on national economics but also on national cultures - specifically national outdoor cultures. This development has been accelerated by the internet. In this context my presentation will give examples of historical and current transcultural influences, and will discuss concepts of culture and its consequences. I will also present the concept of Bildung, the study program and its organisation.

Adventures for body and soul? Body techniques of different cultures for extreme and holistic experiences

K. WEIS[1]

[1] Former Institute of Sociology, Faculty of Sport Science, Technical University of Munich, Germany

All sensory perceptions, all experiences, all the knowledge about the inner and outer worlds thusly gained, are made with the body. Which body techniques and which physical structural conditions did or do other cultures use to direct inner processes and consciousness expanding experiences on the search for spirituality? In our new focus on health and wellness, on sports and outdoor experiences, and also in the rediscovery of traditional religious cultures, the body is "booming". It is also being rediscovered for its ability to provide heightened spiritual and physical experiences.

The paper addresses a wide range of spiritual disciplines, techniques, rituals and related practices. Some people even run to reach a level of enlightenment. Seeking enlightenment through their own bodies, e.g., Tendai Buddhist monks on Japan's sacred Mount Hiei cover 52.5 miles (83 km) daily, incredibly, for 100-day stretches. On the other side, in our Western culture, sport - reaching its pinnacle in the Olympics - is regarded primarily as a competitive enterprise. In contrast, most traditional cultures (reflected in some modern trends) practiced body mastery and control techniques for a variety of other purposes, including:

(1) Religious cultures and monastic traditions use fasting, silence, meditation and solitude to gain deeper insight, spiritual strength, healing and enlightenment.

(2) Various old cultures from Mesoamerica to the Far East use breathing techniques for relaxation, inner strength, health and spiritual experiences.

(3) The highly developed Yoga techniques stemming from ancient Indian traditions aim at energetic, therapeutic and consciousness-widening experiences and, ultimately, the unification of human and godly consciousness.

(4) In traditional Far Eastern martial arts, body and mind are trained and conditioned to influence each other.

(5) In old tribal cultures, dancing and running were used to produce trance-like states or to expand consciousness, apart from fitness for fighting and warfare..

(6) Religiously focused self-mutilation from the blood rituals of the ancient Maya to the medieval flagellants and the modern crucifixion rituals in the Philippines are used for penitence, trance, visions and other spiritual experiences.

(7) Old and neo-Shamanic cultures use psychoactive plants to expand states of consciousness and for healing.

(8) Love, the art of surrender and melting together, is one of the basic powers of the universe. All religions address it. Christian mystics reported it. Indian temples show it. Spiritual schools of Tantra teach it.

(9) In modern experiential education or adventure therapy with nature prone sports, we try to foster inner stability and to develop maturity in juvenile delinquents and even top managers.

(10) People engaging in modern extreme and risky sports look for peak experiences and the sense and meaning of life.

(11) Modern "trendy" sports using skate, snow, surf or kite boards are touted as providing a totally new sensation of a floating and gliding body between strain and relaxation.

(12) Only the ancient and modern Olympic Games are not interested in any transcendence or spirituality. They have been organized primarily to ensure the fame of the winners, the fun of the spectators and the finances of promoters and the media.

This paper analyses (a) the methods and (b) the goals of all twelve approaches to using the human body. It thus sheds light on the culturally and religiously different ways to physical and holistic and spiritual experiences. The author includes reports on his own experiences. He used to run marathon, crossed the Gobi desert and the Takla Makan desert on foot, climbed in 2015, just before his 75th birthday, a peak of over 6000 m in the Himalaya, and now spends four weeks every year deep down in the Amazon jungle in order to cure his cancer - with the help of indigenous shamans and their traditional master plants.

A comparative study on the role of technology and social/cultural factors in the development of community sport: Global approaches and national priorities

F. GHAFOURI[1] , S. ESKANDARI[1]

[1] Allameh Tabataba'i University, Tehran, Iran

Aim

This study aimed to compare the role of technology and social/cultural factors in the development of community sport, based on global approaches and national priorities.

Methods

The study combined qualitative and quantitative explorations in two phases and was conducted among sport research community experts. The selection was based on a snowball method in which 50 subjects were chosen. The first phase of the study was implemented by sending emails and other social media posts to experts globally in the field of community sport. In addition, national priorities were identified by in-depth interviews with 12 experts in the field of community sport. Then the obtained indicators were categorized in a questionnaire followed by hierarchical analysis by the Expert Choice11 software based on the AHP method.

Results

The results showed that technology with an average weight of 0.247 was the highest priority compared with social and cultural factors. Social media, with an average weight of 0.251 was the highest priority in technology. Therefore, we suggest designing social media applications and active video games that encourage people to outdoor recreation. Regarding the fact that community sport is one of the main priorities of the Ministry of Sport and Youth of Iran, utilization of social media can be a great help in the advancement of the objectives of the Ministry.

Conclusion

Social media is an emerging communication tool among new generation. Managers and social strategists cannot ignore this wonderful opportunity in their programs.

The economic and social impacts of outdoor recreation

S. SHIBLI[1]

[1] Faculty of Health and Wellbeing, Sheffield Hallam University, Sheffield, UK

In 2012 the Outdoor Industry Association described outdoor recreation in the USA as 'An overlooked economic giant' because the industry was not fully recognised for its economic value. In short, Americans were reported as spending $646 billion on outdoor recreation per year, which in turn supported around 6.1 million jobs. In Europe, notably in the UK there is a growing body of evidence to demonstrate the contribution of outdoor recreation to the economy, health, sustainable transport, and society more widely. This presentation reviews a body of research undertaken by the Sport Industry Research Centre at Sheffield Hallam University over the last 10 years that helps to quantify the value of outdoor recreation at a national level in Northern Ireland and city level in Sheffield. In both instances, the findings have been used positively to make the case for taking the industry more seriously. Direct outcomes include securing investment funding, incorporating outdoor recreation assets, and in place marketing initiatives to attract visitors. Beyond the 'hard' economic facts are a series of other 'soft' benefits which help to position outdoor recreation as a useful device for wider aspects of social policy. Prime amongst these is the contribution to both physical and mental health arising from outdoor recreation. As governments attempt to tackle the downstream consequences of inactivity, 'green exercise' has been shown to be effective method for increasing physical activity. Where suitable routes exist, path networks have been shown to provide a viable alternative to motorised transport for short journeys. Despite the positive evidence that exists to demonstrate the value of outdoor recreation, the fractured nature of the industry means that often it does not achieve the recognition it deserves. To move towards greater recognition, and thereby resourcing, requires learning and speaking a new language. This is the language of applied economics which can be used to convince policymakers about the hard and soft benefits of outdoor recreation in terms that they understand.

Examining the positive and negative affect of outdoor sports activities

G. CETİNKAYA[1], E. OMURİS[1]

[1] Akdeniz University Antalya, Turkey

Aim

The gradual increase in outdoor sports and their development into major recreational activities has resulted in studies with findings stating that participating in outdoor sports positively affects the moods of individuals who are involved in these activities. However, the number of studies analysing the effect of outdoor activities on the emotions of individuals is limited. The purpose of this study is to examine the changes in overall affect, positive affect (PA) and negative affect (NA) according to the activities participated in. Moreover, the study aims to describe daily satisfaction levels of participants of outdoor sports activities.

Methods

This study was conducted in the south of Turkey, Antalya, Köprülü Canyon National Park and followed daily diary studies in non-experimental methods. Affect levels of 104 voluntary participants (female=33, male= 25, missing=46; age range=18-26), who were not actively involved in recreational sports activities, were measured. The participants were arranged in three different groups and experienced three different outdoor sports activities (rafting, canyoning and rappeling) for three consecutive days. PANAS (Positive and Negative Affect Schedule) was applied to the participants after each activity for three days to determine their affect levels. The data obtained was analysed through PAWS 18 software.

Results

Average positive and negative affect values of participants involved in outdoor sports activities were compared for each of the three days by Paired Sample T-test analysis. Average satisfaction levels of participants were also evaluated. When the overall changes in the affect levels of participants were considered, a significant increase was observed between the 1st ($\overline{X} = 2.74$) and 2nd days ($\overline{X} = 2.97$) (p<,001); and there was a significant decrease between the 2nd ($\overline{X} = 2.97$) and 3rd ($\overline{X} = 2.72$) days (p<,001). The changes in PA's of participants were significant with an increase between the 1st ($\overline{X} = 4.12$) and 2nd ($\overline{X} = 4.28$) days (p<,001) and a decrease between 2nd ($\overline{X} = 4.28$) and 3rd ($\overline{X} = 4.09$) days (p<,001). There was not a significant change between the days regarding NA. Average satisfaction levels of participants of outdoor activities were evaluated in terms of days and activities. Participant satisfaction levels were calculated as $\overline{X}_{\text{1st day}} = 4.63$, $\overline{X}_{\text{2nd day}} = 4.75$, $\overline{X}_{\text{3rd day}} = 4.60$. Evaluation of the average satisfaction levels from the activities (rappeling, rafting and canyoning) revealed that the activity where the participants had the least satisfaction in each of the three days was canyoning ($\overline{X}_{\text{1st day}} = 4.48$, $\overline{X}_{\text{2nd day}} = 4.65$, $\overline{X}_{\text{3rd day}} = 4.32$).

Conclusion

The results reveal that participating in outdoor sports activities positively influenced the overall and positive affect levels of participants. However, there was not a significant change in their negative affect levels, although canyoning caused least satisfaction. Further in-depth analysis is required to determine which outdoor sport activity affects the PA levels of participants most or how the emotional moods of participants change depending on the frequency of activities participated in.

The Margareta-tour, an annual skiing-tour for women

K.TÖRNGREN[1], E. KÄTTING[1]

[1] Swedish Tourist Association, Linköping, Sweden

Background

The Swedish Tourist Association (STF) arrange skiing and hiking trips in the Swedish mountains. About 14 years ago they were contacted by a woman who wanted them to arrange a skiing trip only for women and led by female leaders. Kerstin Törngren, a tour leader for many years, was asked to arrange the trip and it was a success from the beginning. After five years the group had grown so it was necessary to have two leaders and since then it has been the two of us who lead this annual skiing trip. Now, after 12 tours it is still popular and we want to share some of the findings we have done during these years. We ski between huts in the mountains for about one week and everyone has to carry their own belongings and food for one or two days in a back pack.

Questions

Why do our participats come back almost every year? Why do our participants keep on training more often and more intense then the average women in their age group? What is most important, the physical activity or the social bonding?

Method

We ski about 15 to 25 km /day. Our main method for collecting information about the experience of the activities, has been interviews. We have done both structured interviews in focus groups and semistructured, more informal interviews, individually. We have also sent out a questionare to all participants who has taken part in the activity during the 14 years. The intervies were done during the trips and during other meetings with the group. Because of the informal settings it was impossible for us to record the inteviews so we have had to rely on taking notes.

Results

Even if we decided to have no age limits for the group, the participants are usually beteween 50 and 75 years. They are physically fit and they keep on training all year round to keep fit to be able to participate in our actvity. The majority of the participants are widows/divoreced or have partners who can't take part in outdoor activities. Most of the participants come back every or every second year and keep contact with the group between the activities. Even if our participants are fit and good skiers they don't feel comfortable in mixed, regular STF-groups. Most of the women believe that this helps them to keep active all year round and that there are not so many activities offerd for for them or for their age group. We have also noted that it is empowering even for other groups to see that it is possible to keep on skiing even if you have passed 70 years of age.

Conclusion

In both Sweden and many other countries there are populations that tend to live longer and also want to be more active at relatively high age. We have found that physical activities and long lasting social relations can be important tools to keep this growing group healhty and happy. The Margareta-tour can be regared as an example of a kind of activitiy that can be used for this purpose.

Re-conceptualizing adventure education

S. BEAMES[1]

[1]School of Education, The University of Edinburgh, Scotland

We know that forces of globalization, rationalization, and commodification and neo-liberalism have an enormous influence on educational practices. These same forces have also infiltrated adventure education programmes to such a degree that many have become highly standardized, packaged and predictable, and--most crucially--have little connection to useful, 'real-world' learning. While these arguments have existed for 20 years, theoretically-informed guidelines for re-conceptualizing adventure education have been less forthcoming. Key features of uncertainty, authenticity, agency, and mastery are presented as being central to any enterprise claiming to be both adventurous and educational.

The current state of outdoor adventure education in the Czech Republic

J. NEUMAN[1], I. TURČOVÁ[1], A. J. MARTIN[2]

[1] Charles University in Prague, Faculty of Physical Education and Sport, Czech Republic

[2] Massey University, Palmerston North, School of Sport & Exercise, New Zealand

The change of the political system in 1989 brought many changes for citizens of the former Czechoslovakia in all spheres of outdoor life including outdoor adventure education. The fall of the Soviet bloc opened possibilities to study abroad, travel and visit conferences, to access information, and resulted in diverse and changing influences on new outdoor sporting trends involving practice, commercialism and equipment coming from western countries. The foundation of the European Institute for Outdoor Adventure Education and Experiential Learning (EOE), conferences and the support and cooperation of colleagues in Europe also provided significant inspirational sources for successfully adapting practice. We will describe the cultural importance of sustaining Czech outdoor traditions and particularly summer camps, *tábory*, post WWII Soviet suppression. Also highlighted is the history of other international influences pre 1989, such as Scouts and Woodcraft and some of the unique outdoor cultural terms and practices specific to the Czech Republic, and related research. There was significant change post 1989 involving commercialisation, which impacted formal education at all levels (from nursery schools through to universities). Non-formal organisations delivering outdoor adventure education programmes and traditional culturally unique *turistika* activities (active movement in nature, playing games, involving cultural activities) re-engaged and adapted their practices, and commercial outdoor companies were formed, which did not exist before 1989. For over 50 years Charles University's Faculty of Physical Education and Sport has been at the forefront of developing tertiary connections between *turistika* traditions, *výchova v přírodě* (outdoor education) programmes, and adapting new trends from abroad. Finally, we will discuss the concept of outdoor adventure education in the Czech Republic.

Outdoor activities for school kids in Germany: The reality!

J.STREDOVA[1]

[1]Trainer of outdoor education, Bavaria and Baden-Württemberg, Germany

Background

This is a report on the actual situation in outdoor education of school kids in Germany from the point of view of a trainer. The trainings were held at different institutions and organizations – commercial and non-commercial, who offer outdoor programs. The types of representing activities were: high rope courses, team games, wilderness training, GPS – tour, rafting and canoeing, climbing (tree/rock/boulder), mountain biking and hiking.

Methods

Data collection involves direct observation and experience of chosen factors and elements while working with the kids outdoors. Observed factors in behavior and ability to adjust outdoors: clothes and equipment, physical skills and body movements, mood and motivation, social behavior, fun factor and other objectives. The observations took part in two summer seasons, from May to October 2015 and 2016. More than 1500 kids were involved aged 10 to 15 years, from 5th to 8th grade classes from different schools all over Germany.

Results

Clothes and equipment has got generally better thanks to relatively affordable outdoor clothing and shoes. Unfortunately there are always a few kids without rain jacket in the class. Jeans are common wear even for outdoor activities. Overall poor fitness, less stamina and many overweight and oversized participants were observed in the groups. 2 to 3 kids in the class could not swim! About 3 of 10 kids were not able to bike well and for example did not know how to brake and shift gears. The ability to balance of many kids is badly developed, for example they are not able to stand on one foot. Social skills, communication and solving problems in the group are a big challenge. Concentration is low after short time. Loss of patience is normal. Anxiety for heights, water, insects, sun, being dirty and others were issues observed in the groups. Generally it is hard to motivate the kids, they often don´t want to do anything, they just want to hang around or go home and play games. Action means fun, but not for everyone. Rafting was shown as the activity with the most fun and adventure; the most boring activity was GPS-tour and hiking.

Discussion and conclusions

Is there any sustainable impact and learning effect of outdoor activities in the groups of kids? Do we want them to have fun or are we forcing them? Where does it lead and how is the future of outdoor education – these topics will conclude a discussion on the presentation.

Safe danger: The experience of risk, adventure and challenge in education

I. MARTINKOVA[1], J. PARRY[1]

[1] Faculty of Physical Education and Sport, Charles University, Prague, Czech Republic

In the context of children's education, safety has become an important issue in contemporary Western society. This paper discusses the problem of the exposure of children to risk and danger in educational situations, drawing especially on Russell's widely accepted paper (2007), which claims that in some measure danger is important for children's development. Unlike Russell, we claim that it is not real-life danger that children should be exposed to, but rather to various kinds of adventure, challenge and risk education. After presenting an analysis of the main relevant concepts in this area (Adventure, Challenge, Risk and Danger), we suggest that whilst various activities entail risks (including 'risk-of-failure'), they need not entail the risk of serious danger ('risk-of-danger'). We argue for the use the term 'safe danger' to refer to those risks that can be educationally useful and developmental, namely, those that are risk-assessed and adequately 'safetified', and which can contribute to risk education.

Injuries incidence in outdoor courses at the Faculty of Physical Education and Sport, Charles University

L. KALKUSOVÁ[1], J. KLADIVO[1]

[1] Faculty of Physical Education and Sport, Charles University, Prague, Czech Republic

Aim

Outdoor sports are nowadays often called extreme or high-risk sports. The aim of the study was to analyse the injuries incidence of activities and sports that are taught by the Outdoor Sports Department, Faculty of Physical Education and Sport, Charles University.

Methods

The research sample consisted of 7888 students and 867 teachers who participated in 2000 days of courses (10802 hours) organised by the Outdoor Sports Department during six years (2009 – 2015). We analysed the data of injuries, courses and their final reports. The data was compared by quantifying the injuries incidence and objectively grading the injury severity using the National Advisory Committee for Aeronautics score per 1000 hours of sporting participation. The examined sports were: alpine skiing, cross country skiing, snowboarding, freeride and ski touring, water touring, wild water sports, sea kayaking, climbing and bouldering, cycling, orienteering, games in nature, exercise in nature.

Results

The injuries incidence at all courses of the Skiing Department was 0.248 injuries per 1000 hours. The most injuries were found in freeride and ski touring (0.715/1000h), then snowboarding (0.289/1000h), alpine skiing (0.266/1000h) and cross country skiing (0.151/1000h). The Department of Water Sports had in total 0.392 injuries per 1000 hours. The most injuries happened in sea kayaking (1.065/1000h), wild water sports (0.457/1000h) and finally water touring (canoeing) – 0.203/1000h. The activities of the Turistika, Outdoor Sports and Outdoor Education Department indicate the highest injury incidence – 0.770 injuries per 1000 hours. The most risky were exercises in nature (together with ropes courses and parkour) – 1.767/1000h and games in nature (1.511/1000h). Cycling had 0.398 injuries/ 1000h, orienteering 0.220/1000h. Climbing and bouldering were completely safe, there was no injury at all. The total injury incidence of the whole Outdoor Sports Department was 0.438 injuries per 1000 hours. The largest number of injuries happened during the third day of the course.

Conclusion

The injury incidence of the courses organised by Outdoor Sports Department, Faculty of Physical Education were similar to other international studies of outdoor activities injury

incidence. Outdoor sports and activities injury incidence appears to be much lower than in many mainstream sports such as football, ice hockey, basketball or handball.

Adventurous research expeditions: Bridging the gap between science and environmental teaching in transformative education

U. DETTWEILER[1]

[1] University of Stavanger, Stavanger, Norway

Aim

Recently, the gap between science and environmental teaching has been prominently and drastically described by leading educational and environmental researchers. In this keynote I will address this problem with reference to recent curriculum developments in the USA and in Germany and present concepts that bridge the above mentioned gap. Finally, I will present some empirical data supporting the hypotheses that adventurous educational research expeditions are some good means to that end.

Methods

In summer 2013, we conducted the first explorative study (n = 84, lower secondary school students aged 10-12), applying a mix of qualitative and quantitative methodology, looking into children's motivational behaviour in such an experiential approach to science teaching compared to "normal" science classes in school using the theoretical frame of Self-Determination Theory (SDT). We checked the intra-individual development of the children in motivational behaviour (SDI) from the indoor to the outdoor teaching context by paired t-tests. Furthermore, a straight-forward linear regression analysis was performed with SDI in the indoor context as the independent variable to the change value of motivational behaviour (diff_SDI) as the dependent variable. In 2014-15, we continued the survey (n=183) and included the satisfaction of basic needs (BN) in order to check the influence of psychological straits in the motivational behaviour. The influence of BN to diff_SDI was calculated in a multiple forced regression analysis with the increment-values of BN (diff_BN) on diff_SDI.

Results

Our data suggest that in the outdoor educational expeditionary setting, pupils show significantly higher SDI ($t=3.95$, $df=78$, $p < 0.000$) and that especially lower self-regulated pupils in "normal" science classes display a significant increase of self-regulated learning motivational behaviour in the outdoor educational setting ($F=143.7$ on one variable, $df=171$, $R2=.45$, $p<0.000$), irrespective of gender or school culture. The multiple regression model with diff_BN variables against diff_SDI accounts for 19 % of the variance of the data ($F = 12.08$ on 3 variables, $df = 155$, $p < 0.000$) and can be considered very high if we also take into account the qualitative data from open questionnaires and ethnographic field observations. These findings suggest that there are many more latent driving factors in such complex educational settings that cannot be quantitatively measured in psychological inventories. The decomposition of the significant regression parameters, however, reveals that the difference of "competence" accounts for 69 % of the increase of motivational behaviour, increased "autonomy" explains 23 %, and the better "student-teacher relations" make up 8 % of the difference.

Conclusion

Our results show that adventurous research expeditions programs address especially those who are least self-determined in their engagement in science and that the experience of competence is the most important driving factor. The results from Germany support the transformative strategies, bridging the gap of environmental and science education, in the USA, and show that an exchange of ideas should be formalized and fostered.

Perception of space and outdoor activity in research using photos as a tool

P. KIDA[1]

[1]Uniwersytet Wrocławski, Wrocław, Polska

[1]Pracownia Nauki i Przygody, Warszawa, Polska

Aim

Outdoor and adventure education is popular not only among sports instructors, coaches, but also teachers. Organizing space and group cooperation is entering a phase of professionalization and is the subject of research from the human science perspective. Using photography as a research tool, it is possible to see how new generations perceive this space and what types of activities stimulate cognitive and affective spheres of personality. This presentation reviews the results of comparative research from the Netherlands and Poland. The aim is to examine the hidden curriculum outdoor education space.

Methods

The research group was created by 35 people: participants of Tree House Building Camp organized by Buiten Door, in the Netherlands and a Temporary Low Ropes Course Instructor Workshop organized by the Pracownia Nauki i Przygody in Warsaw Poland. Research tools were inspired by methodologies used in sociological research. A thematic list of photographic tools used to study the project "Invisible City" revealed common characteristics and specific space and activity in the Netherlands and Poland, as well as the cultural aspects of the functioning participants in the group. The result of the research is the deconstruction and reconstruction of the hidden program, outdoor education, made on the basis of coding issues falling within the scope of the research questions of the project.

Results

An important part of the summary of research is the analysis of cultural values, which can be seen in the space and in the way how they describe it, how they establish social relations and how they organize group life. Analysis of the research material allowed deconstruction and reconstruction of behaviour from and for society, showing the role of nature and cultural values in the countries of Western, Central and Eastern Europe.

Conclusion

Components of outdoor activities are the space, the activities, and personal and social development. Research into relationships between space, people and activities, shows that outdoor activities are something more than just a physical activity. They have a cultural dimension and are in a relationship with social changes, economic and cultural values.

Competences and environments for outdoor sports: The concept of wilderness and its role in leisure activities

J. DLOUHÁ[1], J. DLOUHÝ[2], KRISTÍN RUT KRISTJÁNSDÓTTIR[3]

[1] Charles University Environment Centre, Czech Republic; COPERNICUS Alliance

[2] Charles University Environment Centre, Czech Republic

[3] University of Iceland, Faculty of Life and environmental Sciences; Tourism & Sustainability Research

Aim

Environmental management of protected regions has recently integrated the concept of *wilderness*, alongside species and ecosystems, to serve as a justification for *natural processes* to take their course unaffected by humans. In practice, this approach has led to the application of a *non-intervention principle* in the Sumava National Park (NP) in the region of Southern Bohemia, and has provoked a broad discussion among biologists, policy-makers, local governments, and NGOs. Even though human-nature cohabitation was at the root of this discussion, the issue of protecting the interests of NP visitors by ensuring authentic outdoor experiences has been insufficiently tackled. However, this concept can play a significant role in human wellbeing, and mediate authentic outdoor experiences. Questions have been raised such as which aspects of the wilderness are relevant for outdoor sports and leisure activities, why relevant emotional needs should be linked with nature protection interests, and how to take into account the specifics of outdoor sports in developing sustainable regional tourism strategies. These questions have been explored in the Sumava NP using participatory methods of inquiry.

Methods

Nature as a factor of emotional and physical health was described in desk-top research. The role of the natural environment in outdoor sports was consequently explored through a questionnaire sent to members of the orienteering community (135 respondents) and highlighted in interviews with local actors. Research was undertaken to analyse opportunities for sustainable tourism and leisure activities in the Sumava NP during the summer of 2016. Development concepts specific to the region were reviewed focusing particularly on the opportunities provided by sports. A series of structured interviews with local inhabitants and Sumava NP representatives were conducted; respondents' opinions were recorded, transcribed, qualitatively analysed; the outcomes were discussed at a public meeting. The broad characteristics of sustainable tourism were thus outlined in a participatory way, its more specific sustainability indicators derived; local barriers for more robust regional environmentally sound management were identified. The desired processes, outcomes, and requirements on the natural environment where outdoor sports take place were interpreted in light of the wilderness concept.

Results

The core aspects of outdoor leisure activities relevant to the *wilderness* concept have been outlined; they were categorized as *emotional needs*, specific *competences* needed to understand nature (and survive in it), and requirements for *environmental management and sports infrastructure*. Regional development strategies in Sumava NP provide a dynamic, evolving framework that is the focal point of environmental management efforts and negotiation between actors. However, in relation to outdoor sports and leisure activities they do not work sufficiently

with the concept of the wilderness, sometimes exploiting the natural environment as a tourist attraction and host of commercial entertainment. The results of this research (in comparison with other protected areas) indicate that when the prevailing concept of outdoor activities lacking the wilderness dimension leads to the development of an "entertainment park" as opposed to a natural park where human-nature interaction is mutually enriching.

Conclusions

The specifics of outdoor sports in relation to the wilderness concept of nature should be further elaborated. This dimension of nature would ideally establish a human-nature relationship that fulfils basic emotional needs, helps to develop important competences, and exposes human beings to the environments/situations that allow specific reflections to take place, and philosophies to develop. As the concept of wilderness is a cornerstone of a "paradigm shift" in nature protection (being intensely discussed on different levels), it should also play a similar key role in the management of outdoor sports, tourism and educational policy.

The impact of selected knots on strength of flat slings under static load

L. VOMÁČKO[1], M. KOMOROUS[1]

[1] Faculty of Physical Education and Sport, Charles University, Prague, Czech Republic

Aim

The aim of the study was to assess the strength of flat sewn slings under static load and the impact of knots to decrease their strength.

Methods

The study was designed as a two-factor experiment. We examined the effect of three knots (Overhand, Figure Eight, Figure Nine) on the nominal strength decrease in two types of slings (dyneema and polyamide). Measurements were completed on a horizontal tear tester, five times for each sling and knot.

Results

The greatest nominal strength values were shown in polyamid slings 26.0 ± 1.1 kN and relative nominal strength. Dyneema slings reached the nominal strength 25.1± 0.9 kN. The strength of polyamid sling decreased to 62.8%, 66.9% and 63.8% of nominal strength in overhand, figure eight and figure nine knots, respectively. The strength of dyneema slings was decreased to 48.6%, 46.6% and 47.8% of nominal strength in overhand, figure eight and figure nine knots, respectively.

Conclusion

The decrease of sewn slings strength is more important in dyneema than in polyamide. Therefore, the polyamide is recommended, when using knots on a sling.

The European Network of Outdoor Sport s

M. McCLURE[1], A.THOMANN[2]

[1]Sport Northern Ireland, Countryside Recreation Network, Northern Ireland

[2] Department of Sport and Health Sciences, Technische Universität München, Germany

ENOS and IMOSC

The European Network of Outdoor Sports (ENOS) was established in 2013 to give outdoor sport a voice in Europe and bring people from every outdoor perspective together. ENOS had and wants to keep a strong connection to the scientific outdoor world represented through IMOSC. Therefore we are pleased to present our work over the last two years and report what's up on the European level of outdoor sport.

Actions of ENOS

ENOS promotes the value of outdoor spaces and the activities that take place in them to the EU commission. ENOS developed a charter[1] that highlights the key sustainability and socioeconomic factors that any organization promoting outdoor sports and recreation needs to think about. Now ENOS is regularly in contact with the European commission, ENOS members represent outdoor sport in several EU expert groups and ENOS is a partner in the European week of sport. As ENOS become more recognized we changed our headquarters to the House of Sport in Brussels

Erasmus +

However, the outdoor community needs to prove to policy and decision makers that investment and energy put into the outdoors yields a good return. There are extensive studies done on the health benefits of outdoor and green exercise but more recently, studies on the economics of the outdoors using the EU recommended satellite accounts system have shown that they represent a significant sector[2].While there are studies that have been done on the social and community benefits of outdoor sports, there is no agreed common methodology for carrying out such work and so there is little comparability between them. Further there has been no work done, that the author is aware of, on an agreed methodology to highlight the economic value on these social benefits associated specifically with outdoor sports. The Social Return on Investment[3] approach in the UK is one methodology that could be applied and tested within this sector. Through ENOS a number of partner organizations including several Universities, the French Ministry of Sport and Sport NI have come together to develop a research project that aims to develop and test such an approach. BOSS (Benefits of Outdoor Sport for Society) got co-funded by Erasmus+ and will start in 2017.

Get Wet (Watersport Enhanced Together) is another Erasmus+ project ENOS members could realize. It is aimed at increasing health enhancing physical activity through the use of water based sports and activities especially for those at risk of social and economic isolation. It involves collaborative working to promote opportunities for long-term sustainable engagement in sport and physical activities in, on or adjacent to water. The project aims to arrange a series of taster and try it events throughout the summer season to engage new participants with a range

of water based sports. These events aim to provide participants with some skills and encourage them into longer term activity through the club and therefore increase club membership.

Euro'meet 2017

Visit the Nature and Sport Euro'meet 2017 in La Seu d'Urgell (Spain)[4] from 26.-30. September 2017 to share best practice, create networking opportunities and to develop critical thinking and solutions on the development of outdoor sports at a European level. This Congress will tackle the need of balancing the outdoors. The topics are: balancing economic, social, environmental and institutional issues. ENOS would appreciate if delegates from the scientific sector take part and present their findings on this occasion. Call for papers will be open in December 2016.

Bibliography

[1] http://www.nature-sports.eu/page.cfm?docid=enos-charter

[2] http://www.sportni.net/sportni/wp-content/uploads/2013/03/Economic-Impact.pdf

http://www.welcometosheffield.co.uk/content/images/fromassets/100_3329_161014125319.pdf

[3] http://socialvalueuk.org/what-is-sroi

[4] http://www.nature-sports.eu/page.cfm?docid=euromeet