The 9th INSHS International Christmas Sport Scientific Conference



"Qualitative and Quantitative **Research in Sport Science**"

4-6 th December 2014, Szombathely

Final Programme and **Book of Abstracts**

Edited by Mike Hughes, Henriette Dancs and Zoran Milanovic



international network of sport and health science

FOREWORD

The Christmas Sport Scientific Conference is a unique event, having the aim of providing an informal forum for the presentation of research, projects and proposals by postgraduate students or inexperienced researchers. It hopes to provide an opportunity for young researchers to present their ideas in English, a daunting task to most of us, and begin their career path in a friendly atmosphere. There are always a number of very experienced Sports Scientists invited as Keynote Speakers and, as well as providing exemplars in presentation style and content, also provide the delegates with feedback and positive criticism on their research communication skills. In effect the Conference then becomes a practical output for Scientific Writing and Research Methods courses. It was the dearth of such courses in Europe that 'sparked' the ideas for the first Conference nine years ago.

Each year the Conference grows, so much so that we will have to have a rethink on the structure and organisation. This year we had over 100 abstracts – this sort of size inhibits flexibility. It might be in the future that we cannot accept abstracts in the morning that the conference starts. We might even expect the submissions to meet the publishers' guidelines in formatting? On the other hand.....?

Good conference everyone. See you next year to celebrate the 10th.

Mike Hughes and Henriette Dancs



The 9th INSHS International Christmas Sport Scientific Conference

"Qualitative and Quantitative Research in Sport Science"



Final Programme and Book of Abstracts

4th - 6th December 2014

University of West – Hungary, Savaria Campus, Institute of Sport Science and INSHS (International Network on Sport and Health Science), Hungarian Society of Sport Science

Szombathely – Hungary



international network of sport and health science

The 9th INSHS International Christmas Sport Scientific Conference



"Qualitative and Quantitative Research in Sport Science"

Summary Programme

3rd December 2014 (Wednesday)

1800 - Arrival

Optional Programme

15.00 – 20.30 Xmas Market visit and Xmas Gluhwein drinking on the main square or Wellness at Park Hotel Pelikan (optional)

New venue from this year: Tovendeglo Conference Center (Szombathely, Rumi Rajki setany 1.)!!!

4th December 2014 (Thursday) – Tovendeglo Conference Center

- 08.30 10.00 Arrival and registration
- 10.00 10.20 Opening Ceremony
- 10.20 13.00 Keynote and Presentations of participants
- 13.00 14.30 Lunch
- 14.30 16.10 Keynote and Presentations of participants
- 16.10 16.30 Coffee Break
- 16.30 19.00 POSTER presentations of participants1.
- 19.00 19.30 **Project Meetings: INSHS Meeting, NAWGFest -** 1 staff/student from each institute should be there

20.30 – Xmas Dinner (Tovendeglo Conference Center)

5th December 2013 (Friday) – Tovendeglo Conference Cemter

- 08.30 09.30 Arrival and registration
- 09.30 11.30 Keynote and Presentations of participants
- 11.30 12.00 Coffee break
- 12.00 13.30 Presentations of participants
- 13.30 14.30 Lunch

14.00 – 16.00 **SPECIAL WORKSHOP IN RESEARCH METHODS** Keynote Presentations Prof. Mike Hughes Prof. Nic James

16.00 – 16.30 Coffee Break

16.30 – 19.00 POSTER Presentations 2

19.00- INSHS SUBGROUP MEETINGS – Pedagogy, Psychology, Methodology, Physical Education, Performance Analysis Subgroup meetings: SPOCPAS, SportProfNet ,Varioo EDU, Sport and Disability – 1 staff/student from each institute should be there

6th December 2013 (Saturday) – Tovendeglo Conference Center

09.30 - 10.40 Keynote presentations

- 10.40 11.00 Coffee break
- 11.00 12.30 Presentations of Participants

12.30- 12.45 Closing Ceremony

DEPARTURE

Conference Themes:

- **1. SPORT AND SOCIETY**
- 2. SPORT PEDAGOGICAL AND PSYCHOLOGICAL ASPECTS
- 3. PERFORMANCE ANALYSIS, BIOMECHANICS
- 4. LIFE STYLES FOR HEALTH SPAN /SPORT MEDICINE
- **5. SPORT PHYSIOLOGY**
- 6. TEACHING (PE), COACHING
- 7. LEISURE/TOURISM/RECREATION

Programme

THURSDAY 4th December

1000 – 1020 Official Welcome

SPORT AND SOCIETY Chair: Prof. Boris Bazanov

1020 – 1100 KEYNOTE PRESENTATION

Integrative approach of performance analysis in basketball.

Prof. B. Bazanov University of Tallin, Estonia

1100 – 1115 COFFEE BREAK

ORAL PRESENTATIONS

SPORT PHYSIOLOGY

1115 – 1125 Adaptive displays of body constitution in gravity cyclists.

Damjan Siriški and Jan Novotny, Faculty of Sport Studies, Masaryk University, Brno, Czech republic

1125 – 1135 Heart rate response to a climber's fall in sport climbing

David Chaloupska, University of Hradec Kralove, Faculty of Informatics and Management, Department of Recreology and Tourism. Czeh Republic

1135 – 1145 Skin temperature changes of muscle regions in training swimmers .

Silvie Rybářová and Jan Novotný, Masaryk University, Brno, Czech Republic

1145 – 1155 A physical activity self-reported questionnaire (PASRQ) and dexa scan assessment for bone mass density valuation in beta-thalassemic children, 18 years and over.

¹Genti Pano, ²Dhimitraq Prifti and ²Robert Çina, ¹Department of Physical Acitivity Health and Recreation Research, Sport Sciences Research Institute, Sports University of Tirana, Albania. ²Department of Sport Medicine, Faculty of Movement Sciences, Sports University of Tirana, Albania.

SPORT PEDAGOGICAL AND PSYCHOLOGICAL ASPECTS Chair: Nic James

1155 – 1205 The importance of emotional intelligence in team sports.

Y. Kuzmina and N. Ershova, Velikie Luki Sports Academy, Russia.

1205 – 1215 The field research: evaluation of efficiency of P.E. lessons.

Brigita Stloukalová, Tomáš Roztočil, Zdeněk Chlup and Dana Fialová, Department of PE and Sport, Faculty of Education, University of Hradec Králové, Czeh Republic

1215 – 1225 Effect of dancing on subjective experiences and psychological state of dancers.

Dagmar Hrusova, Department of Leisure and Tourism, Faculty of Informatics and Management, University of Hradec Kralove, Czech Republic.

1225 – 1235 Developing health related life skills during physical education lesson - junior high school example.

Nela Klimas, The Eugeniusz Piasecki University School of Physical Education, Poznan, Poland.

1245 - 1255 Influence of Olympic education on the development of

prosocial behaviors in context of physical education.

Agata Glapa, University School of Physical Education, Poznan

1255 – 1305 The warm up in the lesson physical education with some basic skills in volleyball.

Brahimi Tarek, I.S.T.A.P.S University Of Zaian Achour, Djelfa, Algeria.

1305 - 1430 LUNCH

TEACHING (PE), COACHING Chair: Karen Hennessy

1430 – 1445 NaWG Fest – A Net and Wall Games Festival

Henriette Dancs, Mike Hughes, Marcel Weigl

1445 – 1455 The level of general physical performance and physical development of 7 and 10 years old boys and girls.

Ivan Čillík, Rastislav Kollár, Juraj Kremnický, Pavol Pivovarniček and Martina Mandzáková, Department of Physical Education and Sport, Faculty of Humanities, Matej Bel University in Banská Bystrica, Slovakia

1455 – 1505 Children centred teaching methods in PE. Processing athletics teaching material in project method.

H. Ekler Judit, University of West Hungary, Hungary

PERFORMANCE ANALYSIS

Chair: Prof.Mike Hughes

1505 – 1515 Contralateral local muscle strength deficit and asymmetry in the

pedalling kinematic patterns of competitive cyclists.

Indrek Rannama, Kristjan Port, Boriss Bazanov and Kirsti Pedak, Institute of Health Sciences and Sport, Tallinn University, Estonia.

1515 – 1525 Analysis of erring at selected orienteering runners.

Pavlína Chaloupská, Departement of recreology and tourism, Fakulty of Informatics and Management, University of Hradec Kralove, Czeh Republic

1525 – 1535 Forehand stroke biomechanics in adults and young tennis players.

Anna Zusa¹, Janis Lanka¹, Andrei Vagin² and Antonio Cicchella³, ¹Latvian Academy of Sport Education. ²Russian state University of Physical Culture, Sport and Tourism. ³Bologna State University, Italy.

1535 – 1545 Soccer players training load during Estonian premium league matches: comparison of high and low ranking teams.

Mikola Misjuk¹, Norbert Hurt² and Indrek Rannama¹ Institute of Health Sciences and Sports, Tallinn University¹; Football Club Flora², Estonia

1545 – 1555 3D scanning measurement for foot arch description in flatfoot diagnosis in childhood.

Lucie Kinclova¹ and Ondrej Kaller². ¹Faculty of Sports Studies, Masaryk Univerzity, Brno, Czech Republic ; Privat clinic LOGO, Brno, Czech Republic. ²Faculty of Electrical Engineering, University of Technology, Brno, Czech Republic.

1555 – 1605 The differences in acceleration, maximal speed and agility between soccer, basketball, volleyball and handball players.

Jaromír Šimonek, Pavol Horička and Ján Hianik, Constantine the Philosopher University, Nitra, Slovakia.

1605 – 1615 Longitudinal monitoring of performance in cross-country running by young orienteering runners.

Ivan Růžička, University of Hradec Kralove, Faculty of Education, Department of Physical Education and Sport, Hradec Kralove, Czech Republic.

1615 – 1625 Monitoring of hemodynamic changes depending on the physical load -

case study.

Jana Mílová, University of Hradec Kralove, Faculty of Education, Department of Physical Education and Sports, Hradec Kralové, Czech Republic.

1625 – 1635 Profiling risk factors of falls in one-day eventing (horse trials).

Karen D. Hennessy, Institute of Technology Carlow, Ireland.

1635 – 1645 Relationship between isokinetic muscle strength and 100 meters finswimming time.

Vladimir Kunitson, Kristjan Port and Kirsti Pedak., Institute of Health Sciences and Sport, Tallinn University, Estonia.

1645 - 1655 Analysis of teamwork in officiating in basketball.

Pavel Šmíd, Pedagogical faculty University of Hradec Králové, Czech Republic.

1655 – 1730 COFFEE BREAK

Chair: J. Ekler H.

1730 – 1900 POSTER SESSION 1

SPORT PEDAGOGICAL AND PSYCHOLOGICAL ASPECTS

The social self-efficacy perceptions of students.

Dilek Yaliz Solmaz, Anadolu University, Faculty of Sport Sciences, Eskişehir., Turkey

Orienteering: spatial navigation strategies and cognitive processes

Pio Alfredo Di Tore, Felice Corona and Maurizio Sibilio University of Salerno, Italy.

Critical moments in the freestyle BMX/MTB and their impact on prestart conditions.

Siriski, D. and Hrebickova, S., Faculty of Sport Studies, Masaryk University, Czeh Republic

PERFORMANCE ANALYSIS, BIOMECHANICS

Changes in mean swimming speed and efficiency in the front crawl at 2x25m track.

Jan Šťastný and Motyčka Jaroslav, Brno university of technology, Centre of sport activities, Czeh Republic.

The running economy difference between running barefoot and running shod.

Tomas Kalina, Jan Cacek and Linda Kmetova, Faculty of Sports Studies, Masaryk University, Brno, Czech Republic.

Effect of high-intensity strength interval training program on body composition.

Michaela Juránková, Jiří Bílý and Eduard Hrazdíra, Faculty of sport studies, Masaryk University, Department of Athletics, Swimming and Outdoor Activities, Brno, Czeh Republic

Comparison of isometric strength men's upper limbs from the Czech Republic with a group of athletes from different sectors.

Martin Vilím, Michaela Juránková and Petra Janíčková- Slámová, Faculty of Sport Studies, Masaryk University, Department of Athletics, Swimming and Outdoor Activities, Brno, Czeh Republic

The isometric strength comparison of the upper limbs of women from the Czech Republic with a group of sportswomen from various branches.

Michaela Juránková, Martin Vilím and Petra Janíčková, Faculty of Sport Studies, Masaryk University, Department of Athletics, Swimming and Outdoor Activities, Brno, Czeh Republic

Effect of high intensity circuit training on body composition.

Petra Janíčková, Ján Namešanský and Eduard Hrazdíra, Faculty of sport studies, Masaryk Univerity, , Department of Athletics, Swimming and Outdoor Activities, Brno, Czech Republic

The evaluation of the differences in energy expenditure of adults walking.

Pavla Kourilova, Tomas Kalina and Martina Bernacikova, Faculty of Sports Studies, Masaryk University, Brno, Czech Republic.

SPORT PHYSIOLOGY

Physical and physiological characteristics of baseball trained adolescents.

Gülsün Aydin, Hayriye Cakir Atabek and Ilker Yilmaz, Anadolu University, Faculty of Sport Sciences, Eskişehir, Turkey.

Analysis of Body Mass Index (BMI) of boys 3 to 18 years of age in 6 cohorts

G. A. Tóth¹, Cs. Suskovics², B. L. Buda³ and G. Cornélissen⁴, ¹ University of West Hungary, Savaria Campus, Institute of Biology, Szombathely.

², University of West Hungary, Savaria Campus, Institute of Sport Science, Szombathely.

³ Private Practice for Neurosomnology, Szombathely.

Health injury risks of heading in young football players.

Lukaseka Kalichova, Faculty of Sport Studies, Masaryk University, Brno, Czeh Republic

The role of spiral stabilization exercise on the level of postural stability.

Ivan Struhár¹, Kateřina Kapounková¹, Jana Řezaninová¹ and Tomáš Vencúrik², ¹Faculty of Sport Studies, Department of Health Support, Masaryk University, Czech Republic.

Heart rate response to game load of u19 female basketball players.

Tomas Vencurik, Jiri Nykodym and Ivan Struhar, Faculty of Sport Studies, Masaryk University.

1900 - 1930 PROJECT MEETINGS for : NAWGfest and INSHS

Profs. Mike Hughes, Henriette Dancs

1 staff and/or students from each participating university should participate.

Participating Universities: Zagreb, Szombathely, Brno, Salerno, Napoli,

Tallin, Hradec Kralove, Banska Bystrica, Nitra, Bratislava, Nis, Tirana, Alicante, Carlow, Nancy, Poznan, Veliki Luki, Riga, Matera, London, Pécs, Budapest

20.30 – Xmas Dinner

Park Hotel Pelikan

FRIDAY 5th December

ORAL PRESENTATIONS

SPORT AND SOCIETY Chair: Robert Citozi

0900 – 0910 Sport - Art - Olympic - Games!

A. Lobach and N. Ershova, Velikie Luki Sports Academy, Russia.

0910 - 0920 Swimming as a part of early childhood education in Czech Republic.

Brigita Stloukalová and Tomáš Roztočil, Department of PE and Sport, Faculty of Education, University of Hradec Králové, Czeh Republic

0920 – 0930 Hermeneutics of (sport) heroism.

Ondřej Štaud and Josef Oborný, Faculty of Physical Education and Sport, Comenius University in Bratislava, Bratislava, Slovakia.

0930 - 0940 Physical activities of primary school boys and girls in central Slovakia.

Stefan Adamčák, Pavol Bartik and Boris Cipov Department of Physical Education and Sport, Faculty of Arts, Matej Bel University, Slovakia

0940 - 0950 The adapted physical activity as a valuable tool to overcome social prejudice to the disabled person.

Laura Savino, Laura Rio and Filippo Gomez Paloma, Department of Human, Philosofical and Education Science, University of Salerno, Italy.

0950-1000 Physical activities and Special Educational Needs

Laura Rio, Paola Damiani, Filippo Gomez Paloma Department of Human, Philosofical and Education Science, University of Salerno, Italy

LEISURE/TOURISM/RECREATION Chair: Joel Gaillard

| 1010 – 1020 | The contribution of faculty of physical activity and recreation in the development of sport tourism in Albania. Roland Palushi ¹ , Robert Çitozi ² and Elton Spahiu ² , EcoTour Albania, Faculty of Physical Activity and Recreation, |
|-------------|--|
| 1020 – 1030 | Sport University of Tirana, Albania. A physical activity self-reported questionnaire (PASRQ) and dexa scan assessment for bone mass density evaluation in beta-thalassemic children, 18 years and over. |
| | ¹ Genti Pano, ² Dhimitraq Prifti and ² Robert Çina, ¹ Department of Physical Acitivity Health and Recreation Research, Sport Sciences Research Institute, Sports University of Tirana, Albania. ² Deparment of Sport Medicine, Faculty of Movement Sciences, Sports University of Tirana, Albania. |
| 1030 - 1040 | Anthropometric changes, obesity, coordination and motor skills in 7-11 years old children. |
| | ¹Keida Ushtelenca, ² Genti Pano and ¹Blerina Mema, ¹Department of Social Sciences and Education. Faculty of Movement Sciences. Sports University of Tirana. ²Department of Physical Activity Health and Recreation Research, Sport Sciences Research Institute, Sports University of Tirana, Albania. |
| 1040 - 1050 | Physical activity and bone mass density in β -thalassemia subjects. |
| | ¹ Genti Pano, ² Robert Çina and ² Dhimitraq Prifti, ¹ Department of Physical Acitivity Health and Recreation Research, Sport Sciences Research Institute, Sports University of Tirana, Albania. ² Department of Sport Medicine, Faculty of Movement Sciences, Sports University of Tirana, Albania. |
| 1050 1100 | Outdoor representation's contribution against adoptory lifestyle and |

1050 – 1100 Outdoor recreation's contribution against sedentary lifestyle and negative health consequences.

Robert Çitozi¹, Agron Kasa¹ and Genti Pano² ¹Faculty of Physical Activity and Recreation, Sport University of Tirana, Albania, ²Sport Sciences Research Institute, Sport University of Tirana, Albania.

1100 – 1130 COFFEE BREAK

1130 – 1210 KEYNOTE PRESENTATION

The law, the sport and the handicapped historical approaches.

Gaillard Joel, Faculty of Sport Nancy France, LISEC : Laboratoire des Sciences de l'Education et de la Communication

- 1215 1230 International Projects Program Prof. Henriette Dancs, UWH, Institute of Sports Science, Szombathely, Hungary.
- 1230-1245 SportProf Net

Esther Soler and Pablo Aleixandre

1245-1255 Orienteering: spatial navigation strategies and cognitive processes

Pio Alfredo Di Tore, Felice Corona and Maurizio Sibilio University of Salerno, Italy.

1255-1305 The dependence of the number of shots and rebounds on the change of the rules in the top Czech Basketball Men League: a pilot study

Petr Hrusa, Department of Leisure and Tourism, Faculty of Informatics and Management, University of Hradec Kralove, Czech Republic.

1305 - 1400 LUNCH

RESEARCH METHODS WORKSHOP

1400 – 1500 SCIENTIFIC WRITING

Prof. Mike Hughes, Institute of Technology Carlow, Eire.

1500 – 1600 PRODUCING RESEARCH PUBLICATIONS

Prof. Nic James, London Sports Institute, University of Middlesex, UK.

1600 – 1630 COFFEE BREAK

1630 – 1800POSTER PRESENTATION 2
Chair: Prof. Michael Vit

Sport Tourism in the Czech Republic.

Pavel Korvas and Hana Lepková, CESA, Brno University of Technology, Czech Republic.

Tactical and technical trends during 2013-2014 national football championship.

¹Bujar Kasmi and ²Bashkim Delia,
¹Faculty of Sport Science, Sports University of Tirana, Albania.
²Department of Physical Activity Recreation and Tourism, Faculty of Physical Activity and Recreation, Sports University of Tirana, Albania.

Impact of 6 months aerobic gymnastics, for improvement of vo2max & weight control in healthy females.

Mara, F.¹, Canaj, F.¹, Prifti, Dh.¹, Çina, R.¹, Misja, B.¹, Toçi, B.² and Nika F.² ¹ Sport University of Tirana, Albania ² State University of Tetova, Macedonia.

Postural control in young players: differences between the cognitive approach and ecological-dynamic one.

Erik Nughes and Gaetano Raiola University of Basilicata, Matera, Italy, University of Parthenope Naples, Italy.

Basketball feint and non-verbal communication:empirical framework.

Gaetano Altavilla* and Gaetano Raiola** *University of Basilicata, Matera, Italy, **University of Parthenope Naples, Italy.

Teaching method of physical education and sports by prescriptive or heuristic learnings

Gaetano Raiola and Domenico Tafuri, University of Parthenope Naples, Italy.

Sport skills and mental health.

Gaetano Raiola, University of Parthenope Naples, Italy, and University of Basilicata, Matera, Italy.

The role of spiral stabilization exercise on the level of postural stability.

Ivan Struhár¹, Kateřina Kapounková¹, Jana Řezaninová¹ and Tomáš Vencúrik², ¹Faculty of Sport Studies, Department of Health Support, Masaryk University, Czech Republic.

²Faculty of Sport Studies, Department of Sports, Masaryk University, Czech Republic.

Effectiveness of weight-reduction stays in children sanatorium in Křetín (Czech Republic).

Jana Juříková and Jarmila Prudilová, Masaryk University, Faculty of Sports Studies, Department of kinesiology, Czeh Republic

Training and health in gymnastics.

S. Coppola¹, R., Vastola¹, M., Scatigna² and L. Fabiani²,
¹ Department of Human, Philosophical and Education Sciences, University of Salerno.
² Department of Life, Health and Environmental Sciences, University of L'Aquila., Italy

Situation awareness and complexity: the role of wearable technologies in sport science.

Pio Alfredo Di Tore, University of Salerno, Italy.

Tactical and technical approach efficiency to acquiring game skills in mini-handball.

Silvia Priklerová and Ivan Kucharik, Comenius University in Bratislava, Faculty of Physical Education and Sports, Department of Sports Games, Slovakia.

Gender differences in coordination and motor-skill development in pre-school years.

Ilaria Viscione* and Francesca D'Elia**, Department of Human, Philosophical and Education Studies, Faculty of Science of Formation, University of Salerno. Italy

Development of motor-praxic skills in evolutive age.

Debora Di Iorio, Nicolina Pastena and Filippo Gomez Paloma, Departament of Human, Philosophical and Education Science, University of Salerno (Italy).

The emotional benefits of the motor activity in developmental age.

Vincenza D'Amico, Paola Damiani and Filippo Gomez Paloma, Department of Human, Philosofical and Education Science, University of Salerno, Italy.

Dynamic stretching versus static stretching in gymnastic performance. A brief review.

Cristiana D'Anna and Filippo Gomez Paloma, Department of Human, Philosophical and Education Science, University of Salerno, Fisciano, Italy.

Competitive sport and self-esteem in adolescent.

Cristiana D'Anna, Laura Rio and Filippo Gomez Paloma, Department of Human, Philosophical and Education Science, University of Salerno, Fisciano, Italy.

Learning disabilities and dyslexia. Do the Visual Motor Abilities influence reading and writing skills?

Nicolina Pastena, Cristiana D'Anna and Filippo Gomez Paloma, Department of Human, Philosophical and Educational Sciences.

Physical and physiological characteristics of baseball trained adolescents.

Gülsün Aydin , Hayriye Cakir Atabek and Ilker Yilmaz, Anadolu University, Faculty of Sport Sciences, Eskişehir, Turkey.

The social self-efficacy perceptions of students .

Dilek Yalız Solmaz, Anadolu University, Faculty of Sport Sciences, Eskişehir.

SATURDAY 6th December

Chair: Zoran Milanovic

KEYNOTE PRESENTATIONS

| 9.15 10.00 | New methods of analysis of Squash. |
|--------------------------------|---|
| | Prof. Nic. James London Sports Institute, University of Middlesex, UK |
| 10.00 - 10.45 | Physical Education with focus on prevention of victimization - self- defence for children and youth in the school curriculum. |
| | Prof. M.Vit, (Masaryk University, Brno, Czeh Rep.) |
| 10.45 - 11.30 | Kinesiology in the names of higher education institutions in Europe and the United States Of America. |
| | Prof Goran Sporis Faculty of Kineziology, Zagber, Croatia |
| 11.30- 11.50 | COFFEE BREAK |
| Chair: Goran Sporis | 3 |
| 11.50 - 12.20 | HIIT vs Continuous training: Who will win the historical race for VO2max improvements? |
| | Zoran Milanovic University of Nis, Serbia |
| | |
| 12.20 - 12.30 | The application of pedagogical knowledge in the work of junior class soccer coaches . |
| 12.20 - 12.30 | The application of pedagogical knowledge in the work of junior class soccer coaches . Zsolt Németh University of Pécs, Institute of Sport Science and Physical Education Pécs, Hungary |
| 12.20 - 12.30 12.30 - 12.45 | The application of pedagogical knowledge in the work of junior class soccer coaches . Zsolt Németh University of Pécs, Institute of Sport Science and Physical Education Pécs, Hungary CLOSING/SUMMARY |

The 9th INSHS International Christmas Sport Scientific Conference

"Qualitative and Quantitative Research in Sport Science"



BOOK of ABSTRACTS

University of West – Hungary, Savaria Campus, Institute of Sport Science and INSHS (International Network on Sport and Health Science), Hungarian Society of Sport Science, SportProfNet Academic Community in Sport (SPN)

2014, Szombathely

ORAL PRESENTATIONS

Adaptive displays of body constitution in gravity cyclists.

Damjan Siriški and Jan Novotny, Faculty of Sport Studies, Masaryk University, Brno, Czech republic 156111@mail.muni.cz

Abstract

The objective of our study was to investigate somatotype, body constitution and motor skills of elite cyclists of technical gravity disciplines (freestyle MTB, biketrial) and downhill gravity disciplines (fourcross, downhill) and to characterize the impact of specific training process on body constitution and level of motor skills.

Test group consisted of 30 riders (15 technical gravity disciplines, 15 downhill gravity disciplines). We used Heath-Carter method to define somatotype and Matiegka method to define body constitution of cyclists. Participants attended 2 motor skills tests focused on explosive leg strength and coordination (broad jump, rotation jump).

Downhill gravity cyclists proved significantly higher muscle mass (downhill disciplines 47,2%, $\sigma = 3,9\%$; technical disciplines 44,3%, $\sigma = 3,08\%$; p = 0,0564) and higher value of mesomorph component (downhill disciplines 5,04, $\sigma = 0,43$; technical disciplines 4,66, $\sigma = 0,69$; p = 0,1103). There were no significant differences in other anthropometric values. Downhill gravity cyclists proved statistically significant differences in broad jump (downhill disciplines 226,9cm, $\sigma = 21,15$ cm; technical disciplines 210cm, $\sigma = 15,17$ cm; p = 0,042).

Technical gravity cyclists proved statistically significant differencies in rotation jump (technical disciplines 547,7°, $\sigma = 110,3°$; downhill disciplines 441,5°, $\sigma = 65,1°$; p = 0,0074). Differences in somatotype, body constitution and motoric tests relate with characteristics of training and use of specific training methods. In this study high level performance athletes were tested, therefore it could be helpful for riders and coaches to increase the efficiency of the training process.

Key words: motor skills, somatotype, training process

Heart rate response to a climber's fall in sport climbing

David Chaloupska, University of Hradec Kralove, Faculty of Informatics and Management, Department of Recreology and Tourism, Czeh Republic

Abstract

The research deals with response of heart rate to a climber's simulated fall in the leading position when indoor climbing.

Heart rate of climbers was recorded during ascents of an overhanging route in the leading position, to the given point high above the ground, followed by falling into the last protection. The length of the free fall was defined by the place of the last belay anchor, which was at the height of the climber's ankles. The length of the fall was about two meters of free fall plus the consequent rope shift in dynamic belaying system. The total length of the fall was 3 to 6 meters, depending on the dynamic belaying. The sample comprised 14 subjects at the age of 16 - 43; 12 men and 2 women; all the participants were advanced climbers experienced with a fall in the position of the lead.

Heart rate values observed during the fall do not significantly exceed the heart rate values during the actual climbing, when climbers usually reach 84 - 96% of their maximal heart rate (1 exception). The results of the analysis suggest inter-individual differences in heart rate response to the load when climbing and subsequently falling, particularly during the fall and also in the recovery of the actual fall.

Keywords: Climbing, rock climbing, physiology, fear, stress.

Skin temperature changes of muscle regions in training swimmers .

Silvie Rybářová and Jan Novotný, Masaryk University, Brno, Czech Republic

Abstract

Our aim was to detect changes in infrared radiation, overloaded structures of the musculoskeletal system at the main part of the shoulder girdle and upper body with the help of elite swimmers of Kometa Brno.

First measurement was done before training and second 15 minutes after training in water in the swimming pool. The group consisted of seven Czech national swimmers. Athletes participated in testing during six months. Every measurement contains four positions. Front and back side, right and left side. Every athlete went through 13 measurements. We directed infrared thermograph camera FlukeTiR at 10 muscular groups that are most used in swimming. Besides we have form about training with kilometres, other exercise out of water, competitions, illness and be absent at training and other pain muscles, ligaments etc.

We have analysed all temperatures only of one swimmer. Here was significant increased temperature after swimming only in deltoideus anterior at right side (from $33,4\pm1,02$ °C to $34,0\pm0,69$ °C). The other temperature was significant decreased: muscles groups of pectoralis major and minor (right side from $33,6\pm0,92$ to $33,1\pm0,61$ °C; left side from $33,8\pm0,82$ to $33,1\pm0,69$ °C), latissimus dorsi and erector spinae - pars lumbalis at both sides together.

Five of twenty muscle regions have notable tendencies of increased temperatures, including a front part of deltoideus at right side which is very active by spreading arm forward and beginning of swimming stroke. In nine areas, including the main agonist for swimmers movement forward – triceps brachii, we found out only no significant lowering of temperatures. That was caused by cooling of the swimmer in the water. We have next six swimmers to analysis.

Key Words: Swimming, infrared thermography, muscular work

A physical activity self-reported questionnaire (PASRQ) and dexa scan assessment for bone mass density evaluation in beta-thalassemic children, 18 years and over.

¹Genti Pano, ²Dhimitraq Prifti and ²Robert Çina,

¹Department of Physical Acitivity Health and Recreation Research, Sport Sciences Research Institute, Sports University of Tirana, Albania.

²Department of Sport Medicine, Faculty of Movement Sciences, Sports University of Tirana, Albania.

Abstract

According Albanian Ministry of Health, in Albania are approximately 300 thousand thalassemic carries (8-9% of the population) and around 80 new cases of thalassemia every year. Mostly the subjects are children and youth. Beta thalassemia is one of the most common genetic disorders in the world.

The study will randomly select the patients' from the national Albanian Thalassemic Association database. A self-reporting questionnaire for PA engagement will be used to evaluate the PA status of these subjects. Only transfusion-dependent beta-thalassemia patients aged 18 and over will be part of these study. BMD of lumbar spine and right femoral neck will be measured using DEXA Scan method to evaluate the bone mass density. Bone mass density differences are expected between groups (PA and non-PA subjects).

All patients should be screened periodically for bone mass density in order for them to have comparative data's to prevent further problems. Further research is needed to identify risk factors and means of prevention. Also further longitudinal studies involving different PA intervention should be done with these group category in order to have more reliable results regarding PA engagement recommendations.

Key words: Beta thalassemia, Physical Activity, Bone mass density.

The importance of emotional intelligence in team sports.

Y. Kuzmina and N. Ershova, Velikie Luki Sports Academy, Russia.

Abstract

The problem of emotional intelligence (EI) is very important in professional sport. Its main peculiarity is the concentration on the high level of achievements and its demonstration in different stress situations that athletes cope with. Modern sport requires the athlete to have a high level of physical, technical and tactical training. The personal development of athletes depends on their ability to solve sports problems, manage their emotional state, to create the necessary condition in the important moments of the time, to perceive failure adequately.

Research aim is to consider the value of the level of emotional intelligence in team sport. According to research procedures, the indicators of emotional intelligence of volleyball and basketball players show a direct relationship with the level of self-regulation of athlete's behavior and strategies of coping stress. Research procedures included diagnostic of athletes on the base of the test of Emotional Intelligence Scale by N. Holl, Morosanova, V. I. Questionnaire «Style of self-regulation of behavior» (SSPM) and on the base of the «Ways of Coping Questionnaire» by Susan Folkman and Richard S. Lazarus.

The improving EI level connects, on the one hand, with increasing the emotional stability and, on the other hand, decreasing the negative feelings during the competitions. Coaches in different disciplines of sport and applied sport psychology must recognize various aspects of personality. Thus, the problem of emotional intelligence development is also urgent in the field of professional sports as in other important spheres of life.

Keywords: professional development, psychology, sport games

The field research: evaluation of efficiency of P.E. lessons.

Brigita Stloukalová, Tomáš Roztočil, Zdeněk Chlup and Dana Fialová, Department of PE and Sport, Faculty of Education, University of Hradec Králové, Czeh Republic

Abstract

We focused on the efficiency evaluation of some methodically-organising forms used often for the loading and growth of physical load in the PE lessons. The aim of our research was to create and realise exemplary PE lessons oriented to fitness development and to measure data (lesson timing, heart rating). The short relays and cours were selected methodicallyorganising forms. The observing was an initial method. We measured physiological time (tf), pedagogical time (tp) and fault time (tz). The physical load was assessed through a heart rate. Two pupils in every PE lessons were measured. We used a theoretical calculus of the maximal heart rate according to the formula "TFmax = 220 - age" and coefficients to find intensity zones. We were interested in two zones in our intentions: 60-70% TFmax zone (middle intensity zone) and 70-80% TFmax zone (higher intensity zone).

During evaluation of the PE lesson efficiency we watched a) total physiological time in the lessons; b) total time of loading in the middle and higher intensity zone.

Ad a) The values of physiological time were 20:03 and 26:51 (in minutes) in the lessons using the cours and 21:08 and 19:13 in the lessons using the short relays. We evaluated the efficiency of the methodically-organising forms by the means of a quotient tf in the total time in the main part of the lesson. The cours were showed as more effective with regard to this point.

Ad b) Both of used forms filled demands on the total time of the loading in the middle and higher intensity zone (development fitness). Generally we can say the pupils moved for a longer time in the middle intensity zone and we can see differences between sporting and not sporting persons.

The measured heart rating characterising middle and higher intensity zones and the total time of the activity in these zones showed both of used forms filled demands on the PE lessons; the cours are physiologically more effective than the short relays.

Keywords: health-oriented efficiency, health-oriented PE, physical load, fitness, cours, short relays

Effect of dancing on subjective experiences and psychological state of dancers.

Dagmar Hrusova, Department of Leisure and Tourism, Faculty of Informatics and Management, University of Hradec Kralove, Czech Republic.

Abstract

Dance is a physical activity that improves physical fitness, and also develops social and psychological aspects. The research study focused on dancing and psychological aspects in experiencing common feelings of individuals and their changes due to the dance training. The aim was to determine the current feelings and experiences and their possible changes in relation to the actual effects of the selected dance styles - street dance and modern scenic dance.

The problem was solved by an empirical approach with quantitative and qualitative data analysis. A sample comprised 20 subjects, active dancers (10 street dancers + 10 modern scenic dancers). The main method of data collection was a standardized questionnaire of the structure and dynamics of subjective experiences and individual states (SUPSO). Both positive (P – psychological wellbeing, A – activeness) and negative (U - anxious expectations and fears, S – sadness and depression) components were employed as indicators of psychological state of dancers. The positive and negative components of the psychological state were assumed to be changed due to the dance training.

The data were evaluated by quantitative and qualitative analysis and the results suggested that dancing influenced psychological state. There was an increase of positive components and decrease of negative components, both in street dance and modern scenic dance.

Keywords: dance style, street dance, modern scenic dance, feelings, emotions

Developing health related life skills during physical education lesson - junior high school example.

Nela Klimas,

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Abstract

The aim of the study is to present the idea, outline and efficiency of the proprietary health education program aimed at developing choosen life skills in female students of junior high schools in Poznan, Poland. Among those skills are: team working, developing a positive self and body image, setting aims and creating plans to achieve them, copying with negative emotions. The background is the former own study assessing the level of above mentioned life skills among junior high school students and its findings.

The experimental group consists of 60 female junior high school students (two first and two second classes) and the control group is comprised of 30 ones (one first and second class). The main research method is the pedagogical experiment. In the study the questionnaire and the EUROFIT physical fitness test are also used. The program duration is 30 physical education lessons using the active learning and teaching methods.

Keywords: health promotion, school curriculum, positive self and body image, setting aims.

Influence of Olympic education on the development of prosocial behaviors in context of physical education.

Agata Glapa,

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Abstract

The aim of the research done in 2011-2013 in Poznan was to establish effectiveness of an Olympic education on the development of prosocial behaviors in the context of physical education introduced among the students of junior secondary school.

(The research was conducted within the European project "Olympism and the integration of young people in the education" no.2010-1-PL 1-COM13-11564 1 within the program Lifelong education – Comenius Regio Partner Projects.)

The project included the introduction of an experimental program in three classes of juniors aged 13-15 from a secondary school whose results achieved at the beginning and the end of the school year were compared with results achieved by pupils from three control classes. There were 88 pupils examined all together. What is more, the obtained results were compared with the results of a similar program realized in Poznan in 1997/98 by Bronikowski.

The project carried out in Poznan also allowed an estimation of the level of prosocial behaviors among youth from Sport Mastery School in both control and experimental groups. There was a statistically significant positive change in prosocial behaviors of the pupils from the experimental class at the end of the school year.

The project proved Olympic education programs to be effective in school environment.

Key words: experimental program, sport, olympism, junior secondary school

The warm up in the lesson physical education with some basic skills in volleyball.

Brahimi Tarek,

I.S.T.A.P.S University Of Zaian Achour, Djelfa, Algeria.

Abstract

The aim of study to perform of effect to introduce the part of learning on the warm up in the lesson physical education with Some Physiological in learning the some basic skills in volleyball. Choose the subjects from the students of College of Physical Education from University of Al- mustansiriya and divided into groups (controlling group and experimental group), And using experimental research, and measures some Physiological (Heart rate, tow blood pressure, Breathing frequency, and proficiency of nervous system) after the warm up in the lessons physical education. Conclusions it is the experimental variables take place by develop learning the some skills in volleyball, and recommendation of the research to necessary to introduce the part of learning on the warm up in the lessons physical education

The level of general physical performance and physical development of 7 and 10 years old boys and girls.

Ivan Čillík, Rastislav Kollár, Juraj Kremnický, Pavol Pivovarniček and Martina Mandzáková, Department of Physical Education and Sport, Faculty of Humanities, Matej Bel University in

Banská Bystrica, Slovakia

Abstract

This contribution deals with the level of general physical performance and physical development of 7 and 10-years old pupils attending primary schools. The sample consisted of pupils from all primary schools in Banska Bystrica: 492 pupils attending the 1st grade and 433 pupils attending the 4th grade.

The following indicators of general physical performance were monitored: sit-and-reach, standing long jump, sit-ups in 30 s, flexed arm hang, shuttle run 4x10 meters, endurance shuttle run. Also basic somatic indicators such as body height, body weight and BMI were found out.

In both age categories we found out that male pupils achieved better level in five tests of general movement performance: long jump, sit-up, flexed arm hang, shuttle-run 4 x 10 m and endurance shuttle-run. At the age of 7, male pupils are statistically significantly better in three tests (p<0.05) and at the age of 10, they are better in four tests (p<0.05). Girls achieved statistically significantly better level of joint flexibility of lower back (p<0.05).

Seven year old boys and girls achieved better level of joint flexibility of lower back than 10 - year old boys and girls. In other tests, boys and girls at the age of 10 are better.

Key words: physical education, primary schools, 7-years old pupils, 10-years old pupils, general physical performance, physical development

Children centred teaching methods in PE. Processing athletics teaching material in project method.

H. Ekler Judit, University of West Hungary, Hungary

Abstract

In the 21st century, projects have become educational and instructional devices applied with increasing frequency at school, whereas the method is teaching material processed by project method. Whether assessing from a teaching process aspect or by viewing the teachers or students, applying project work is appealing by several beneficial traits.

Irrespective of the grade of school we use a project at students will enjoy the task-oriented and activity-centred organization of their work as it offers variety from the routine. Project activity is motivating by itself due to its interactive character. The synchronic activity lead on several streams will get them immersed into the well-known world of their spare time activities they are keen on (e.g. cyber games).Project-oriented learning approaches the topic or task from a broader scope and in a complex manner, far beyond that of the framework of interpretation of a particular subject. This interdisciplinary approach will often make more tangible and real the teaching material.

Proportioning by 3-4-6 weeks long cycles with project logics is a recognized practice in the Hungarian PE education. Thinking in projects, alas, can renew PE classes from many aspects. Versatile approach of the chosen topic can activate the children for a differential, self-dependent and creative work. It sets measuring as a possible, moreover, inevitable means at the beginning and the ending of the project, keeping track of personal development, and is used as an engine of personal progress. Coupling the motion material of the project with other kind of information from different fields can help realizing and understanding the cause and effect. By this it can be a device of attitude- and lifestyle forming beyond the actual motivation.

In this presentation we would like to present the methodological experience involves the participation of 11 teachers with their 20 classes of different grades each, within a period of 4-6 weeks. Processing the athletics teaching material was performed by adopting the project method and clustering around two project titles. One was the 'Peasant Olympics' (6 projects), the other was the 'Athletics sports at close quarters' (5 projects). Contents outside the PE class and school environment were in the limelight. Differentiating was main focal point, just like individual activity and volunteering. Pupils performed tasks on their own, in group and on class level.

The students' vitality increased in the field of motion and other activities. Because other subjects and fields of activity were involved in the framework of a PE lessons, students who had never been proactive, in this process have become so. In many fields of activity – of

course in motion activities as well– differentiation became obvious. Therefore, the various activities in the project provided for many students chances of success, perhaps more than in a usual routine.

The individual work, the cooperative solutions between students and external relationshipbuilding was a characteristic of the process. Isolation of school classes was solved by project activity. Connecting different fields of science can raise understanding, the awareness, thus connecting sciences to real life. In this synthesis many teachers of other majors helpfully supported the PE teacher. It was hard for the teachers on the other hand, to get used to the helpful, supportive role demanded by the project-method, instead of the common 'boss role' which was usual.

Keywords: method experience, differentiation, happy experiences
Contralateral local muscle strength deficit and asymmetry in the pedalling kinematic patterns of competitive cyclists.

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Abstract

Aim of the study were to examine the relationship between contralateral isokinetic local muscle strength deficits (DEF) and asymmetry (ASY) in the kinematic pattern of lower limbs in cycle sprinting.

Sixteen competitive road cyclists (20.0 ± 3.9 yrs., 181.5 ± 4.9 cm, 74.8 ± 6.9 kg) performed 10 Sec isokinetic maximum power test with cadence 120 RPM in sitting position. The kinematic patterns of the ankle, knee and hip joint extension (EX) and flexion (FL) were described by the angular position (AP), velocity (AV) and acceleration (AA) values. Also isokinetic peak torque (PT) of ankle plantar (PF) and dorsal flexion (DF), knee and hip EX and FL were measured at angular speeds 60, 180 and 240^{0} /s. The differences in kinematic patterns and isokinetic PT values between two limbs were computed in percent's and the correlations analyse between ASY and PT DEF values of 3 lower limb join were performed.

Knee EX DEF at 60° /s correlated significantly (p<0.05) with ASY in knee average AP (r=0.66), maximal EX AP (r=0.76), AP amplitude (r=0.61) and maximal EX AA (r=0.67). Knee FL DEF at 60° /s were positively related with ASY in knee maximal FL AV (r=0.57) and ankle maximal DF AP (r=0. 60). Hip EX DEF at 60° /s correlated with ASY in hip AP amplitude (r=0.59) and hip FL DEF at 60° /s correlated with ASY in ankle PF AV (r=0.56). In higher strength testing speeds were found significant relationships only between knee FL DEF at 240° /s and ASY in ankle AP amplitude (r=0.63), maximal ankle DF AA (r=0.73) and hip FL AA (r=0.56).

The asymmetry in sprint cycling kinematic patterns is related with contralateral muscle strength deficit and is most strongly correlated with knee extensors strength deficit in low $(60^{0}/s)$ testing speed.

Keywords: isokinetic dynamometry, sprint cycling, peak torque

Analysis of erring at selected orienteering runners.

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Abstract

The Aim of this paper is to analyze causes of errors made by the selected elite orienteering runners, in qualitative research. Four elite orienteering runners in junior categories were monitored in September and October 2011, based on use of modern recording equipment: SPORT IDENT and GPS. The sample was analyzed in 10 races, which were held in the given period of 2 months. Based on the analysis of the data from the recording devices and based on interviews with the participants the most frequent types (specify) of errors were specified and their causes determined. The research study provides a significant contribution to the improvement of the training process in orienteering.

Forehand stroke biomechanics in adults and young tennis players.

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¹Latvian Academy of Sport Education.

²Russian state University of Physical Culture, Sport and Tourism.

³Bologna State University, Italy.

Abstract

The purpose of the study was to determine and to compare biomechanical characteristics of the forehand stroke production for adult and young tennis players.

Kinematic data were collected with an optoelectronic motion capture system Qualisys (Sweden). In the experiment took part 6 mid-level adult tennis players (age 19.5 ± 2.3 years, weight 66.8 ± 7.7 kg, height 170.5 ± 7.8 cm, sports experience 13.2 ± 1.7 years) and 4 young tennis players (age 11 ± 0.6 years, weight 43.5 ± 4.8 kg, height 156.3 ± 4.8 cm, sports experience 5 ± 0.5 years). The task of the motion was to carry out forehand stroke for 3 times, the position of the feet and type of stance was not regulated.

Results showed that racquet speed during forehand "follow through" phase, is significant higher in adult players. Angular kinematic indicators do not depend on players' age and qualification level. Adult athletes more effectively realize muscle-tendon complex prestretching principle.

As adults, as young tennis players realize principle of sequential action of body segments during the stroke, according to their technical skills and level of training. In the racquet acceleration phase were observed sequential body segments inclusion and also braking before touching the ball, that testifies on generation of impulse and transmission principle realization during the stroke. Young players more actively use lower segments, but adults more upper body part during the swing production.

Soccer players training load during Estonian premium league matches: comparison of high and low ranking teams.

Mikola Misjuk¹, Norbert Hurt² and Indrek Rannama¹ Institute of Health Sciences and Sports, Tallinn University¹; Football Club Flora², Estonia

Abstract

The purpose of the research was to compare training load of a high ranking soccer team with a low ranking team.

Two Estonian Premium League soccer teams participated in this study. One team was in the top and other in the bottom of Estonian Premium League Championships. Both teams played against a team ranking in the middle of Estonian Premium League Championships. 21 field players participated in the study, 11 players from the high ranking team (22,3±4,2 yrs; 181,0±6,9 cm; 74,9±8,1 kg) and 10 players from the low ranking team (22,0±4,4 yrs; 183,1±4,7 cm; 78,2±5,5 kg). Match performance data was measured by BioHarness 3 monitors and OmniSense software (Zephyr Technology Corporation).

Statistically significant differences between the high and the low ranking team were found for: mechanical intensity, mechanical load, training intensity and training load. No statistically significant difference between the high and the low ranking team is found for: physiological intensity and physiological load.

Higher ranking team had lower training load than lower ranking team during a soccer match. This result indicates that it is necessary to improve technical and tactical skills to reduce training load during a soccer matches.

Keywords: Estonian Premium League, soccer, training load

3D scanning measurement for foot arch description in flatfoot diagnosis in childhood.

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²Faculty of Electrical Engineering, University of Technology, Brno, Czech Republic.

Abstract

The prevalence of flatfoot diagnosis is high in childhood. This diagnosis represents the major cause of clinic visits in pediatric ambulance. The aim of this study was to introduce a new method to evaluate the foot arch from a three dimensional perspective.

The research group consisted of seven participants (aged 6.6 ± 1.5 years) with the flat foot diagnosis. There was used 3D medial arch scanning by phase shift profilometry method utilization. Parameters of navicular height and longitudinal arch angle were measured in position with one leg standing. The parameter of foot arch volume was measured in position for sitting and standing. The arch volume index represents the difference in volume between sitting and standing position.

The arch volumes when sitting and standing were highly correlated with the navicular height. The navicular height ranged from 23 to 38 mm, the arch volume ranged from 7.22 mm³ to 12.73 mm³ when sitting and from 4.22 mm³ to 8,45 mm³ when standing. The arch volume index decreased with increasing age. This study indicates the possibility for clinical description of the foot and therefore for evaluation of treatment effect.

Key words: 3D measurement, foot arch, rehabilitation, profilometry

The differences in acceleration, maximal speed and agility between soccer, basketball, volleyball and handball players.

Jaromír Šimonek, Pavol Horička and Ján Hianik, Constantine the Philosopher University, Nitra, Slovakia.

Abstract

Complex reaction speed, acceleration, maximum speed, speed of whole-body change of direction and agility represent the basic components of sport performance mainly in sport games and combat sports. However, contradictory findings have been reported as to the extent of the relationship between the different speed and agility components.

This study comprised 119 players (soccer – 56, basketball – 25, volleyball – 20, and handball – 26) playing youth leagues U15-U17 who were assessed for 10-m sprint (acceleration), flying 30-m sprint (maximum speed), triple-jump (special explosiveness) performance, Illinois agility test (speed of whole-body change of direction) and Fitro Agility Check (agility). Low (0.112-0.425 in soccer) correlation coefficients between the factors were found in soccer, while in the other sport games they were medium (0.329-0.623 in basketball; 0.414-0.686 in handball) to high (0.569-0.768 in volleyball).

Negative relationship was observed between Triple jump and all other tests performances in all sports games. The findings suggest that specific training procedures for each speed and agility component should be utilized already in junior ages.

Key words: speed tests, fitro agility check, illinois test, soccer, basketball, volleyball, handball, sports training.

Longitudinal monitoring of performance in cross-country running by young orienteering runners.

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Abstract

The aim of this paper is focused on the one of platform of the system for regular work with talented children and youth on the field of the orienteering. The article brings partial results of longitudinal testing talented youth of East Bohemian region of the Czech Republic in orienteering. 10 - 14-year orienteering talented runners took part in testing motor skills standardized tests.

The text approaches the methodology and presents the selected results of the measurement - the performance in cross-country running test at 3 km and 5 km depending on age category as one of the many tests that young athletes participating in always at the beginning of the season.

Results of the research show a significant difference among selected athletes and indicate tendencies performance in cross-country running of youth orienteering runners in the region.

The conclusions highlighted indicate the long-decreasing level of endurance abilities of young orienteering contestants between 1997 and 2014, describes the possible reasons and suggestions remedial options.

Key words: Longitudinal monitoring, orienteering, motor testing, measurement, crosscountry running, talented youth.

Monitoring of hemodynamic changes depending on the physical load - case study.

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Abstract

The paper presents partial results of the research: Changes of Hemodynamics Indicated through Noninvasive Laboratory Method of Recording of Cardiovascular System in Dependence on Physical Strain during Studies of Students of Physical Education

We describe the possibilities of using this method to determine the effect of physical loading on the body. The method uses measurements of forces and moments resulting from cardiac activity using force platforms to measure the time from the moment of opening of the aortic valve to the shock pulse wave on abdominal bifurcation. We are building on previous research of this issue (Šeba, Kříž, 2008).

In the initial hypothesis, we assume that changes in pulse wave velocity are analogous to the changes in the level of motoric performance indicated by an endurance motoric ergometry test and examination. Probands, who improve the level of fitness, also improve the pulse wave velocity and vice versa.

For the examination of pulse wave velocity we chose the principle of balistokardiografie. The method for detecting physical fitness was an endurance motoric test. Physical loading took place over two semesters with increased frequency of weekly physical activities according to the curriculum of the field of physical education.

In this case study we describe four individuals, two men and two women with different levels of physical fitness. For the men and for the woman with lower baseline levels of physical fitness substantive improvements have been made in both variables (motoric tests and pulse wave) and on the contrary the man and the woman with higher initial levels of physical fitness have not improved in the monitored variables.

The present case study in qualitative research indicated the possibility of application of this approach in our future work, when we increase the number of probands and repeat the experiment. This allows us to refine the work using the quantitative data analysis.

Key words: noninvasive testing, ballistocardiography, pulse wave velocity, students of physical education

Profiling risk factors of falls in one-day eventing (horse trials).

Karen D. Hennessy, Institute of Technology Carlow, Ireland.

Abstract

The equestrian sport of eventing is considered the most dangerous of all Olympic sports. In an 18 month period between 2007 and 2008, a total of 12 rider fatalities occurred internationally, all in the cross-country phase of the competition and most as a result of a rotational fall of the horse. A number of injury preventative measures have been incorporated including fence construction (frangible pins, deformable fences) fence design, protective equipment etc.

Research into the risk factors associated with falls reported increased risks when; taking-off from water, landing into water, a drop fence (Murray et al., 2004b, Murray et al. 2005), an angled fence, spread fences (Murray et al., 2004b), successive elements of combination fences, narrow obstacles, brush fences, fences with alternatives (Stachurska et al., 2010) rider knowledge of leading the competition (Murray et al., 2004b, Murray et al. 2005), riders perceived approach pace to fence as too fast or too slow (Murray et al., 2004b), in receipt of cross country coaching (Murray et al., 2004b, Murray et al. 2005), earlier performance on the cross country course (Murray et al., 2004b).

The FEI, the International governing body of equestrian sport (Fédération Equestre Internationale) has established an international data collection system for falls incurred both at international and national competitions. This system is driven by capturing percentage of fallers per starters at the various levels of competition. No research to date has considered looking at profiling risk (competition history) of the horse/ rider combination who incur a fall the cross country competition.

Eventing Ireland (EI, the national governing body for eventing in Ireland) maintains a data base of competition results for all affiliated eventing competitions in Ireland. The case history of any horse and rider competing under EI rules is captured including cross country falls. The aim of this research was to explore the participant case history of all recorded falls on the cross country phase of all EI run events in the 2014 season. This was achieved by analysing the number of cross country starters, number of fallers, competition level, type-of-fall (rider/ horse). Four profile variables were captured as follows: upgrading horse (fall occurring within 3 outings at new level), upgrading rider (fall occurring within 3 outings at new level), new partnership (fall occurring within 3 outings of new partnership), new season (fall occurring within first 3 outings by horse that season).

There were a total of 6898 cross-country starts under Eventing Ireland rules in 2014, a 154 of whom incurred a fall (2.2%) on the cross-country phase. Of the 154 falls, 70% were rider falls, 26% horse falls and 4% unclassified falls. There was variation in the percentage of falls incurred across the levels of competition with the highest incidence of falls occurring in the U18 (4.2%) and U16 (3.5%) rider age categories compared to 1.9% in the most advance level

of competition. Very interestingly a percentage of falls came within one or more of the profile variables as follows: upgrading horse (47.4%), upgrading rider (31.6%), new partnership (38.3%), new season (52%).

Further research is warranted on the profiling of risk factors associated with cross-country falls. However these findings would indicated that there may need to be better preparation/training of horses and riders prior to upgrading, in establishing new partnerships and in advance of starting their competitive season, with a view to reducing the risks of incurring a fall on the cross country.

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Relationship between isokinetic muscle strength and 100 meters finswimming time.

Vladimir Kunitson, Kristjan Port and Kirsti Pedak., Institute of Health Sciences and Sport, Tallinn University, Estonia.

Abstract

Finswimming is a sport where athlete uses one big monofin to produce propulsion. The purpose of this study was to describe relationship between isokinetic strength of different muscle groups and 100 meters finswimming time. Study questions was: what muscle groups have relationship with finswimming time.

Seventeen international level monofin swimmers, 9 male (age 16.9 ± 1.8 yrs., height 180.0 ± 10.0 cm., weight 76.0 ± 6.9 kg) and 8 female finswimmers (age 17.6 ± 4.7 yrs., height 170.0 ± 10.0 cm., weight 68.6 ± 13.5 kg) performed 100 meters monofin surface swim and where also tested within a two days on isokinetic dynamometer (knee, hip and trunk extensors and flexors at angular speeds of 60° /sec and 180° /sec). Force data at angles from 0-90 degrees with 10 degree step were used for correlation.

There was a strong correlation (p<0.05) between swimming time and knee extensors (r=-0.81, at angle 50°), hip flexors (r=-0.70, at angle 10°) and trunk flexors (r=-0.70 at angle 20°) in male swimmers. Surprisingly, we did not find corresponding correlations among female finswimmers.

Current study found relationship between strength between main muscle groups and swimming speed only in male swimmers. It is expected that strength plays a role in swimming time, but the lack of relationship in female swimmers suggests at the need to introduce a measure of swimming effectiveness instead of pure resultant time. The proposed hypothesis is further supported by the high level of competence among study participants (incl. multiple European champion, and several finalists).

Key words: Finswimming, isokinetic muscle strength, swimming time,

Analysis of teamwork in officiating in basketball.

Pavel Šmíd, Pedagogical faculty University of Hradec Králové, Czech Republic.

Abstract

The aim of this paper is to characterise the role, activity and participation of the referees in games with a focus to basketball games. The author generally discusses these issues analysing changes in referees teamwork during the last three years, He presents referees' individual positions on the basketball court (lead, centre, trail), places of their competences, duties and responsibilities.

The method of study was direct observation of 45 basketball games during seasons 2012-2014 in mens basketball of the Mattoni National Basketball League in the Czech Republic. The author compares the basic three positions according to the criteria of the area on the basketball court, referees' position and time in the game in relation to the players' personal fouls.

Results of the research show significant changes in the participating basketball referees during the game, indicating the most common problems in referees' teamwork and suggestions on how to improve this work.

Key words: basketball, referee, teamwork, fouls.

POSTER SESSION 1

The social self-efficacy perceptions of students.

Dilek Yaliz Solmaz, Anadolu University, Faculty of Sport Sciences, Eskişehir. Turkey

Abstract

According to social learning theory, human beings are proactive in shaping themselves through arranging courses of action and using initiative. In this sense, self-efficacy is effective in determining intended individual goals, their practise and in control of given environment. Self-efficacy belief influences intended individual goals, how much effort to spend and how long to endure difficulties in achievement of goals as well as individual reactions in case of failure. The aim of this study was to investigate social self-efficacy perception of Physical Education and Sports School students at Anadolu University in terms of gender, departments and ages.

Anadolu University Physical Education and Sports School students (N=274) formed the research population. Data were collected by means of "Social Self-efficacy Scale" which was originally developed by Smith-Betz (2000) and reorganised by Palancı (2002) in Turkey. The survey consists of two parts. In the first section contains demographic factors. Second part of the questionnaire is to determine social self-efficacy perception of students in the School of Physical Education and Sports at Anadolu University and consisted of 25 items. In the data analysis, "arithmethic mean and standart deviation" for numerical comparisons were used. In order to determine the differences among attitudes, t-test was used for two-way comparisons for independent groups and ANOVA was used in order to compare variables of groups more than two. In the statistical analysis, 0.05 was accepted as the significance level.

The results of the analyses indicated that the social self-efficacy perception of students use differentiated according to gender and departments, but didn't differentiate according to ages.

As a result of this study, there is significant difference between male and female students points in terms of the self-efficacy of the students of Phyisical Education and Sports School. The result of this study is supported with literature (Türkçapar, 2007). As a another result of this study, there is significant difference between their departments and the self-efficacy points of the students. Çubukçu ve Girmen's (2007) findings correspond to the results of this research. There is no significant difference between their ages and the self-efficacy points of the students. Akkoyulu ve Orhan (2003) ve Dönmez's (2011) findings is not consistent withthe results of this research.

Key Words: Self-efficacy, Social Self-efficacy, Phyisical Education and Sports

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Orienteering: spatial navigation strategies and cognitive processes

Pio Alfredo Di Tore, Felice Corona and Maurizio Sibilio University of Salerno, Italy.

Abstract

This work will argue how the cognitive processes involved in the orienteering peculiar activities (reading maps, identifying routes, spatial thinking) are also involved in the management of intersubjective relationship. In essence, the skills involved in reading maps and in developing strategies for spatial navigation are skills that allow us to see the world from different points of view, abandoning the egocentric perspective (Berthoz, 2000). To get out from egocentrism means being able to see the reality (not just the spatial reality) from several points of view, however other than our own.

In this perspective, the work develops describing orienteering as a sport, and facing a review of scientific literature on the cognitive processes involved in spatial navigation and management of spatial reference systems, in light of the contribution made to this specific field studies from neuroscience. The work thus illustrates the spatial theory of empathy and concludes with a proposal for the spread of orienteering as an effective teaching practice in inclusion-oriented education contexts and as a powerful learning resource for Special Educational Needs.

Keywords: Orienteering, Spatial Reference Frames, Spatial Navigation, Special Educational Needs

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Critical moments in the freestyle BMX/MTB and their impact on prestart conditions.

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Abstract

Critical moments in relation to personality traits play an important role in the prestart conditions in their respective heats and the whole race in Freestyle BMX and MTB racing. The aim of study was to describe critical moments in the Freestyle cycling race from the perspective of competitor and compare them with the personality traits of competitors. Participants were elite athletes (n =7, age 18+ years). The study based on semi - structured interviews and SPARO test – monitoring of basal psychical autoregulation of personality (Mikšík, 2004), which was evaluated with t-test. Particular segments were compared with population and with top athletes of different sports.

Before the race has emerged as an important aspiration level with respect to the performance of the rider, current physical and shape of competitors and external conditions of the race hall. As an important indicator was reflected the influence of the experience and performance associated with the level of specific skills in the Freestyle BMX/MTB. The second point was the draw between opponents and overcome individual aspiration level for a specific race.

Keywords

cycling, psychology, prestart condition

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Changes in mean swimming speed and efficiency in the front crawl at 2x25m track.

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Abstract

The Centre for Sport Activities of Brno University of Technology has been involved in monitoring the performances of Czech swimmers and the development of a measuring device and software since 2009.

The swimmers that have participated in the research study include members of the Czech national swimming team, members of the Czech junior swimming team, competitive swimmers at national level, and students of sport secondary schools.

The device used for monitoring speed of rectilinear movement of an object or a person measures swimming velocity by using two tachographs. Besides, it can synchronously record the underwater movement of a swimmer by using three cameras. Records of instantaneous speed in time enable us to calculate mean speed and to determine efficiency of swimming. Changes in instantaneous velocity are influenced by swimming technique and endurance strength of the swimmer. They are also determined by a lot of variables such as inhalation, stroke cycles, kicks, coordination of movements, position of the swimmer's body, etc. These factors may negatively influence the efficiency of swimming technique and lead to decline in velocity.

Between the years 2009 and 2014 our team have collected data from more than 2000 measurements of four different swimming techniques. This article focuses on the measurements conducted during 50m front crawl swimming at a 25m pool. Data of 85 swimmers (46 males, 39 females) were analysed, some of the swimmers were measured repeatedly. The aim of the study was to compare swimming efficiency and mean speed during two consecutive 25m segments.

The average swimming efficiency and standard deviation during two successive 25m segments of the 50m distance were:

1) all measurements 0,979; s =0,013396; 0,972 s = 0,017616

2) males 0,974; s = 0,018071; 0,962 s = 0,024814 3) females 0,983; s = 0,008431; 0,979 s = 0,004562

The mean speed and standard deviation during two successive 25m segments of the 50m distance were:

1) all measurements 1,639; s = 0,129161; 1,556; s = 0,121743

2) males 1,504; s = 0,042109; 1,443; s = 0,056049

3) females 1,734; s = 0,060302; 1,637; s = 0,082359

Results show that swimming efficiency and mean speed decrease during the second 25m segment of the 50 m distance.

Table 1 and Table 2 show that swimming efficiency and mean speed decrease during the second 25m segment of the 50 m distance.

Keywords: tachograph, camera, swimming technique, national team, velocity

The running economy difference between running barefoot and running shod.

Tomas Kalina, Jan Cacek and Linda Kmetova, Faculty of Sports Studies, Masaryk University, Brno, Czech Republic.

Abstract

Barefoot (BF) running is very popular topic among runners and coaches, and very often discussed in papers and even mass-media point is health aspect. The aim of this study is verify influence BF on physiological indicators. Nine women (age 21.1 ± 1.79 y.o., weight 59.7 ± 5.86 kg, height 164.8 ± 4.02 cm, no previous BF running experience, athletes, non-runners) completed two tests of running economy (RE) in minimal gap of 48 hours. Test of RE consisted of dynamic stretching warm-up and 7 minutes run on treadmill (constant velocity 7 km·h⁻¹, inclination +1 %) BF and shoed (RS). Hearth rate (HR; beats·min⁻¹) and oxygen uptake (RE, running economy; ml·kg⁻¹·min⁻¹) were collected in last two minutes of each test. There were found insignificant differences ($\alpha = .05$) in HR (BF 160.92 ± 22.62 vs. RS 163.5 ± 20.99 ; p = .214) a RE (BF 31.5 ± 2.65 vs RS 30.21 ± 2.91 ; p = .086). There were been discovered seven individual lower values of RE in BF, as well as same number of lower values of HR (BF). Running barefoot is insignificant economical in among non-experienced barefoot women athletes.

Keywords: jogging, cost of running, energy, women, breath-by-breath, treadmill

Effect of high-intensity strength interval training program on body composition.

Michaela Juránková, Jiří Bílý and Eduard Hrazdíra, Faculty of sport studies, Masaryk University, Department of Athletics, Swimming and Outdoor Activities, Brno. Czeh Republic.

Abstract

The aim of this work was to examine the effect of 10-week high-intensity strength interval training (HIIT) program on body composition. Seven women $(31.0 \pm 6.0 \text{ years old}, 65.7 \pm 9.8 \text{ kg body weight}, 23.6 \pm 2.8 \text{ kg}*\text{m}-2 \text{ BMI}, 18.6 \pm 5.8 \text{ kg body fat}, 26.0 \pm 3.4 \text{ kg muscle mass})$ completed intervention program. We performed an analysis of body composition before and after training program. We focused especially on body fat and muscle mass.

Each session consisted of short term bouts (until 30 s duration) with rest in ratio 2:1. HIIT itself lasted 15-20 min three times per week (30 trainings overall).

The results showed that 10-week high-intensity strength interval training have non-significant positive effect on decrease of body fat and non-significant positive effect on increase of muscle mass.

This result is unconvincing and it is appropriate to continue in research with more test subjects and more homogenic sample.

Comparison of isometric strength men's upper limbs from the Czech Republic with a group of athletes from different sectors.

Martin Vilím, Michaela Juránková and Petra Janíčková- Slámová, Faculty of Sport Studies, Masaryk University, Department of Athletics, Swimming and Outdoor Activities, Brno. Czeh Republic

Abstract

The aim of this work was to find out the strength difference of the static flexors of the hand between the dominant and non-dominant upper limbs of sportsmen from chosen branches and general population.

A group of 20 sportsmen (10 tennis players and 10 javelin throwers) and a group of general population (252 probands from the whole Czech Republic area) took part in the measuring. All tested people were aged 18 - 29. The measured values (in kg) were obtained by means of a test of handheld dynamometry (digital handheld dynamometer).

The measuring showed that sportsmen have higher values of dominant upper limb isometric strength than general population (58.2 kg and 53.8 kg). With the non-dominant upper limb, the situation is reverse: higher values were discovered with general population (51.2 kg) whereas with sportsmen it was only 50.1 kg.

A substantially higher difference of isometric strength between the dominant and nondominant hand was discovered with sportsmen (8.1 kg); this difference is much smaller (2.1 kg) with general population.

Key words: handheld dynamometry, dominant hand, non-dominant hand, men.

The isometric strength comparison of the upper limbs of women from the Czech Republic with a group of sportswomen from various branches.

Michaela Juránková, Martin Vilím and Petra Janíčková,

Faculty of Sport Studies, Masaryk University, Department of Athletics, Swimming and Outdoor Activities, Brno, Czeh Republic

Abstract

The aim of this work was to find out the strength difference of the static flexors of the hand between the dominant and non-dominant upper limbs of sportsmen from chosen branches and general population.

A group of 17 sportswomen (10 tennis players and 7 javelin throwers) and a group of general population (217 probands from the whole Czech Republic area) took part in the measuring. All tested people were aged 18 - 29. The measured values (in kg) were obtained by means of a test of handheld dynamometry (digital handheld dynamometer).

The measuring showed that sportswomen have higher values of dominant and non-dominant upper limb isometric strength than general population. With the dominant upper limb was difference 7.1 kg and non-dominant arm 2,9kg.

A substantially higher difference of isometric strength between the dominant and nondominant hand was discovered with sportswomen (6.8 kg); this difference is much smaller (2.6 kg) with general population.

Key words: handheld dynamometry, dominant hand, non-dominant hand, women.

Effect of high intensity circuit training on body composition.

Petra Janíčková, Ján Namešanský and Eduard Hrazdíra, Faculty of sport studies, Masaryk University, Department of Athletics, Swimming and Outdoor Activities. Czech Republic

Abstract

The aim of this study was to determine the effect of high intensity ciruit training (HICT) on body composition (body fat, muscle mass) in mildly owerweight women. 10 young women participeted in the study, 7 finished it $(31.4 \pm 5.9 \text{ y}, \text{BMI} = 25.1 \pm 4.0)$. The intervention lasted for 10 weeks, each participant completed 3 training sessions per week (30 trainings overall). Each training session lasted for 1 hour and consisted of 10 expercises applied by circuit method.

The total body fat didn't significantly (p = 0.06) changed in post-test compared with pre-test. No statistically (p = 0.87) significant differences were observed between muscle mass in pretest compared with post-test.

Despite statistically insignificant results in the comparison of body fat, there was a positive effect in fat loss (-1.1kg) while maintaining muscle mass. This result is unclear and it is appropriate to continue in research with more test subject to achieve more evident result.

Key words: fat loss, HICT, muscle mass

The evaluation of the differences in energy expenditure of adults walking.

Pavla Kourilova, Tomas Kalina and Martina Bernacikova, Faculty of Sports Studies, Masaryk University, Brno, Czech Republic.

Abstract

This study describes differences between oxygen uptake (VO₂; ml·min⁻¹·kg⁻¹) and energy expenditure (EE; kJ·min⁻¹·kg⁻¹) during treadmill walking at various velocities (3, 4 and 5 km·h⁻¹) and inclinations (0, +12 a -12 %). Six men [age 22,83 ± 2,23 y.o., weight (BM) 75,18 ± 4,83 kg, height 180,5 ± 4,51 cm; body fat (PBF) 15,3 ± 3,67 % of BM]. Anthropometric variables and walking test were been performed during one session. Walking test consisted of 5 minutes stages (all combination of 3 velocities and 3 inclination, total test length of 45 minutes) and at the last two minutes of each stage were collected EE and VO₂ in breath-by-breath analysis. Significant difference (p < .05) were discovered between the velocities at same inclination in VO₂ and EE except walking downhill at velocities of 3-4 (p = .074) and 4-5 km (p = .116, reps. p = .106). The most noticeable change is the diversity of VO₂ and EE between the various speeds at different treadmill inclinations. No significant relations were found between anthropometric variables and VO₂, resp. EE, with the only exception BM vs. EE at 3 km·h⁻¹ +12% (r = .84).

Keywords: gait, fat, men, breath-by-breath, treadmill

Physical and physiological characteristics of baseball trained adolescents.

Gülsün Aydın, Hayriye Cakir Atabek and Ilker Yilmaz, Anadolu University, Faculty of Sport Sciences, Eskişehir, Turkey.

Abstract

Baseball requires quick and fast starts, sudden stops and direction changing, speed, power reaction time, flexibility, agility, balance, strength and coordination especially upper body force, running speed, acceleration skills. So it is recommended that baseball players have less body fat, more fat free mass and plan a training program to develop their strength, power baseball skills (Axe, 1998; Andrews et. al., 1998; Coleman, 2000; Walter, 2002). The aim of the study is to contrast the physical and physiological characteristics of 13-16 years old baseball trained adolescents with the same age inactive adolescents.

Baseball trained adolescents (n=10), who were trained approximately 45 ± 10.67 month, and inactive adolescents (n=14) participated in this research voluntarily. Sit and reach flexibility test, 10-20-30 meter sprint test, counter movement jump and squat jump tests, hand grip strength test, Wingate anaerobic power test were used to evaluate the physical physiological characteristics of baseball trained adolescents and inactive adolescents.

As a result of the research there is no significant difference between the inactive adolescents' and baseball trained adolescents' age, height, body mass, BMI, body fat percentage and sit-reach flexibility test values. There is a significant difference between the inactive adolescents' and baseball trained adolescents' counter movement jump and squat jump test, 10-20-30 meter sprint test, left and right hand grip strength test values. Baseball trained adolescents' counter movement jump test, 10-20-30 meter sprint test, left and squat jump test, 10-20-30 meter sprint test, left and squat jump test, 10-20-30 meter sprint test, left and right hand grip strength test values. Baseball trained adolescents' absolute peak power and absolute average power were determined higher than inactive adolescents but no difference was found between the relative peak powers, relative average powers of them.

Keywords: Baseball, adolescents, flexibility, anaerobic power, strength

Analysis of Body Mass Index (BMI) of boys 3 to 18 years of age in 6 cohorts

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Abstract

Growth and maturation of children is a dynamic and complex biological process, influenced both by genetic and environmental factors. Children's growth pattern can change from time to time, therefore, it is necessary to investigate the state of children's somatic development repeatedly. According to a widely accepted and scientifically proven theory, children's growth and maturation status is a fine indicator of the nutritional and health conditions of the general population. In other words, information about growth and development of children and youth mirrors the biological status and/or welfare of a population.

The "Körmend Growth Study", a chain of repeated cross-sectional growth studies performed on children in the town of Körmend (Hungary), was one of the first realizations of this principle. Anthropological investigations have been performed in Körmend in every 10 years since 1958 in a systematic way.

The data are prepared from groups of 1563 to 2867 boys in Körmend, between 1958 and 2008 at 10-year intervals. Body Mass Index (BMI) was introduced into the human biology practice for the statistical evaluation of nutritional status according to the suggestions of Keys and coworkers. Comparing distinct ten-year intervals from 1958 to 2008, a characteristic tendency of BMI can be observed in boys.

Keywords: Body Mass Index, Körmend Growth Study

Health injury risks of heading in young football players.

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Abstract

The aim of the research is to contribute to findings concerning increasingly acute problems connected with heading in football. Unlike most of available studies where heading with adults is dealt with, our study focuses primarily on heading with children. With acceleronmetry we aim to establish kinetic parameters of an impact of a ball on a head to find out more about the risks to developing organism of children. Sixteen children aged 10, weighing $36,2\pm4,7$ kg took part in the research. Each tested person executed headings of a ball dropped from 0,5 m (3,13 m/s), 1 m (4,43 m/s) and 1,5 m (5,43 m/s) ie. 3 headings in total. The total number of tests was 48.

A triaxial accelerometer was used in the measurements.

It is capable of collecting data at 1000 Hz and store it on mini SD card with measuring capac ity of 70 hours. The range is \pm 16g and it enables to measure rotation 2000°/sec per axis. The size of our accelerometer (60x38x16mm) along with its low weight does not restrict or bothe r sportsmen, nor children, during their performance and makes it ideal for measuring in real-life conditions while in training as well as in competitions.

As presumed, with increasing drop-height the head acceleration increased on impact. With drop-height of 0,5m we recorded $59,4 \pm 15,8$ m·s-2, with 1 m we measured $76,4 \pm 15$ m·s-2 and $100,1 \pm 25$ m·s-2 from 1,5 m. Given that this momentum lasts an instant, we were much interested in average acceleration of impact lasting more than 3 ms, which is the border line of a brain injury. These figures rise with increasing drop-height of a ball accordingly: $39,4 \pm 6,7$ m·s-2, $52,6 \pm 13,5$ m·s-2 a $64 \pm 14,3$ m·s-2. These figures do not pose danger if individual, however, we came to conclusion that repeated impacts, especially those of higher speed, may lead to functional problems of a child's brain.

The problem of the development of information potential in sports higher educational establishments is a widely-discussed one. Scientific ideas concerned with foreign languages, must be specially fixed, transformed and spread. This principle is observed when dealing with video projects.

A video-based project is defined by scholars as a means of the elimination of language obstacles, a strong motivating factor in language learning and a powerful resource of information potential development. The measurements of students' motivation level before the project have shown a low interest rate to learning the English language while after the project the students' use of speech patterns within the compiled material has increased.

The video project was presented at the 16th Festival of sports higher educational establishments in nomination "Lingua" (Smolensk, 2013) and awarded the first place in the nomination. Being a combination of audio and visual information, a film is a multi-means helping to motivate students to search for the most adequate ways of getting new knowledge extracting it from video episodes and using it to understand all possible aspects of culture and education. This brings the information potential of an individual to a higher scale which he used to have before taking part in a video project.

Key words: Accelerometry, football, head, child

The role of spiral stabilization exercise on the level of postural stability.

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²Faculty of Sport Studies, Department of Sports, Masaryk University, Czech Republic.

Abstract

The main aim of our study was to find out if the exercise of spiral stabilization can improve level of postural stability (PS). PS is often described as the ability to maintain center of gravity within the base of support and it is also a fundamental part in assessing the efficacy of intervention for improving balance. Both, static and dynamic PS is the result of relationship between proprioception, vision and vestibular system. These three main sources are responsible for position of the body during static or dynamic activity.

The participants were randomly divided into an experimental group (11 girls; mean age= 13.3 ± 1.3 years; mean height= 1.52 ± 0.07 m; mean body weight= 44.56 ± 4.13 kg) and control group (11 girls; mean age= 13.5 ± 0.80 years; mean height= 1.50 ± 0.08 m; mean body weight= 46.45 ± 6.27 kg). At the beginning of the experiment, the parents of participants signed the informed consent about participation on the programme. An electronic balance board was used for measuring PS. The exercise regimen was set up 2 times weekly for 12 weeks.

The result of the study showed significant improvement in a level of postural stability in the experimental group (paired samples t-test; p=0.00989; the significance level 95%).) and there is no significant improvement in the control group (p=0.25564; the significance level 95%).

Key words: balance, proprioception, spine

Heart rate response to game load of u19 female basketball players.

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Abstract

The aim of the study was to compare the intensity of game load among players' positions (guards, forwards, centers) and between 1st and 2nd half of the games in female category U19.

Ten female basketball players (17.6 ± 0.9 years old) participated in this study. The beep test was used to determine the maximal heart rate (HRmax) and based on the HRmax the four intensity zones were set (< 75%, 75-84%, 85-95%, > 95 % of HRmax). The heart rate (HR) and its development during the competition were monitored by telemetric device Suunto Team Pack.

We did not record any statistical significance among players' positions in particular intensity zones, nor in % of HRmax (85.99 ± 2.68 vs. 88.28 ± 2.81 vs. 87.68 ± 3.21 ; guards vs. forwards vs. centers). Moreover, when we compared the 1st and the 2nd half, of individual games, in particular zones and in % of HRmax (87.84 ± 2.95 vs. 86.77 ± 3.14) we also did not record any statistical significance. The female basketball players spent 74.29% of total time with HR greater than 85% of HRmax which indicates high physiological demands during the competition on all players' positions. The results can be used for comparison with the intensity of training load and for optimizing the training process.

Keywords: intensity of load, players' positions, maximal heart rate

ORAL PRESENTATIONS

SPORT AND SOCIETY

Sport - Art - Olympic - Games!

A. Lobach and N. Ershova, Velikie Luki Sports Academy, Russia.

Abstract

The history of the Olympic Games should be studied at every level of education, because Olympic Games are the greatest sporting event which ever the wars can't prevent. But we should know not only the history of the Olympic sports events but the history of such phenomenon and interesting event as Olympic Art Contests which were held from 1912 to 1948. The study aims to describe and analyze the art contests at the Olympic Games from 1912 to 1948. Lead the overall statistics of the results of competitions arts, to identify the most significant events and personalities.

Research objectives: 1. To carry out the analysis of the history of origin and development of art competitions at the Olympic Games. 2. To show the statistic of the winners and medalists of art competitions at the Olympic Games.

Olympic Art Contests were held from 1912 to 1948. During all contests 147 medals were given (45 gold, 53 silver, 49 bronze). The total participants taken part at the Art Contests were 1,796 (1,604 men and 192 women) from 51 countries. In 1954, at the IOC Congress it was finally decided to replace the artistic contests to the exhibitions.

Keywords: exhibitions, history, art contests.

Swimming as a part of early childhood education in Czech Republic.

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Abstract

There has been the swimming education a compulsory part of PE since 1970' in Czech Republic. Originally the swimming education related only to elementary schools but during the last twenty years the system of the swimming education turns to kindergartens. Today the swimming education is an obligatory part of school curriculum, not compulsory one. Swimming is a favourite movement activity in Czech Republic and in general, swimming is also considered beneficial to the physical, psychical and social development of children. This fact implies that there is a great parents' interest in the swimming education of even the youngest children.

Twenty years ago Swimming Schools was founded. They specialize in providing of the swimming education for the schools and they offer place, methodic and personal matters. In years 2006 - 2012 we carried out a research in kindergartens in several regions focused on interests of kindergartens in the offer. Our goal was to find optimal conditions - material, personal and financial - for the swimming education of preschool children. Now the research has continued, it focused on the used methods and our final aim is to create an ideal concept of swimming education for kindergartens.

Keywords: swimming education, swimming schools, conditions for swimming education, Czech Republic

Hermeneutics of (sport) heroism.

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Abstract

The work is based on an interpretation of heroism and its specific forms in comparison with the possible heroism of sports.

The first part discusses the definition of heroism and then we acquaint with selected concepts of heroism (Campbell's conception, interpretation of literary myths, Christian heroism, Carlyle's interpretation of heroism and Boorstin's "Graphical Revolution").

The second part follows in critical perspectives of the possibility of sports heroism (Zdebska, Jirásek, Robertson, Sheler, and Hyland). In the results appear the syntheses of these two parts, which appraise the possibilities of the athletes as heroes.

We notice mainly the fact that the potential sports hero is missing many aspects of classical heroes. In addition of that, most of mentioned Critics claim that sporting events is out of real world and it is a sort of theater with no real ties to the world.

Key words: Heroes, sport heroes, interpretations

Physical activities of primary school boys and girls in central Slovakia.

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Abstract

Our survey deals with the major issues affecting young people, which is the active leisure. We explore the most risky age – boys and girls attending primary school at age 13 to 15 years. By using questionnaire we detect and analyze differences of opinion on the use of physical activities in the leisure time among 808 boys and 797 girls. We found that there are significant differences between boys and girls only in the use of the leisure time pool. From our perspective, the most alarming fact is that 63.5% of all respondents (58.7% boys and 68.2% girls) in this age devoted to physical activity in leisure time up to 2 hours per week, what represents only 5% of leisure time pool per week! This confirms the tendency of reducing young people's interest in movement, which may with the combination with puberty lead to serious health disorders or the orientation to unwanted sociopathic phenomena.

Keywords: leisure, physical activity, boys and girls of primary school

The adapted physical activity as a valuable tool to overcome social prejudice to the disabled person.

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Abstract

The Adapted Physical Activity, in modern times, is defined as the program with an educative target so it promotes the autonomous recovery of the person through direct experience of physicality (Cottini L., 2008). The ICF (OMS, 2001) is a guide achieving this objective because it defines disability as the product of the relationship between the health of the person and the context in which he lives. The context creates disability because it doesn't have the appropriate tools to allow the free expression of the person for the different life contexts (Cottini L., 2008). Finally the "conquest" consists in the implementation of Adapted Physical Activity. This activity is expressed in the manipulation of the physical context according to the various needs of the person to improve all their dimensions.

The TMA test is the methodology used to evaluate the functionality of Adapted Physical Activity to empower the global person's self-esteem. This instrument has favored a primary monitoring to understand the initial condition of the four disabled, involved in the research work, and the whole class group. The results obtained in this first phase were classified as negative according to the American standardized sample. The test had determined how the global self-esteem of the disabled person was influenced by his conditions of marginalization determined by the prejudice that limited action.

The A.P.A., during the hours of physical education, has facilitated the achievement of positive results compared to those of departure. These results represent a practical demonstration of how prejudice is an abstract entity resulting from the lack of people knowledge. In any case the activity has placed all subjects on the same plane to achieve a performance, a common target. The person's improvement is the starting point in the understanding of this work.

Keywords: Adapted Physical Activity, ICF, Self-esteem, Autonomy, Prejudice

Physical activities and special educational needs.

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Abstract

The Ministerial Directive dated December 27, 2012 and the subsequent Circular dated March 6, 2013 for the identification of students with special educational needs (SEN), have planned a school that knows how to respond appropriately to all the difficulties of students by preventing them, in the perspective of a deeply inclusive school.

Ianes & Cramerotti (2013) stated that in order to recognize the real needs of a student, it is necessary to understand their current and general situation of functioning; ICF (WHO, 2001), in fact, being fundamentally organic-psycho-social, obliges to consider the totality and complexity of the functionings of the people and not only organic and structural aspects. From this perspective, the didactic setting that is built during Physical Education and Sport, is an excellent valuation framework for the identification of SEN, because physical activity has always been recognized as a disciplinary area that allows students to express their personality, build dynamics of relationships, express motor behavior, etc. (IN 2012). The Personal Factors, in fact, were considered key elements for the construction of instruments with indicators and qualifiers, because according to the latest neuroscience research (Caruana & Borghi, 2013; Damasio, 2009; Gomez Paloma, 2013), they are particularly influencing into the learning process.

The research involved 34 schools (2500 students) from four different regions. For data collection has been activated an online platform which allowed to the teachers to download the necessary tools for the assessment and enter the results at the end of the process.

From the data analysis it was possible to understand that there is a significant and positive correlation between indicators encoded by ICF and indicators that detect situations, attitudes, behaviors and postures specially created for the identification of difficulties and special educational needs, affirming the validity and reliability of the tool and giving teachers the opportunity to apply strict criteria to identify pedagogically students and act in an inclusive way.

Keywords: Special Educational Needs (SEN), International Classification of Functioning, Disability and Health (ICF), Physical Education, Sport, Inclusion.
LEISURE/TOURISM/RECREATION

The contribution of faculty of physical activity and recreation in the development of sport tourism in Albania.

Roland Palushi¹, Robert Çitozi² and Elton Spahiu², EcoTour Albania, Faculty of Physical Activity and Recreation, Sport University of Tirana, Albania.

Abstract

Albania is a country poorly known in Europe despite its rich history and cultural heritage. Otherwise known as "the land of eagles" or "the bridge linking the east with the west", Albania has given a lot to the history and culture of Europe. In 1992 this country came out of a long communist dictatorship and began its path to democratization. Tourism, which during the communist era was considered as "a problem of society", is taking a leap today, becoming one of the main branches of the Albanian economy. In this context there was needed to inform and educate the public for the advantages and the disadvantages of tourism.

The Geo-Physics condition of Albania provides enough opportunities for the development of different forms of Sports Tourism. With about 70% of the mountain surface, Albania offers the possibility of outdoor sports development as: Hiking, Mountaineering, Skiing, etc. The 400 km coastline offers the possibility of the development of aquatic sports such as Kayak at Sea, Diving, Kite Surf, etc. Numerous rivers and lakes offer the opportunity of developing sports: Fishing, Rafting etc.

This rich natural tourist potential and the growing demand of tourists that practice these kinds of sports faces with tourist and cultural deficiencies service that Albania offers. For this reason the Sports University of Tirana and in particular the Faculty of Physical Activity and Recreation have created opportunities to students in this field. Between lessons in the auditorium and hours of practice in mountainous areas and in coastal areas, those first generation students in sports and recreation tourism was given the opportunity to be pioneers in the development and spread of this sports tourism culture in Albania.

Key Words: Sport Tourism, Touristic Potential, Cultural Heritage,

A physical activity self-reported questionnaire (PASRQ) and dexa scan assessment for bone mass density evaluation in beta-thalassemic children, 18 years and over.

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Abstract

According Albanian Ministry of Health, in Albania are approximately 300 thousand thalassemic carries (8-9% of the population) and around 80 new cases of thalassemia every year. Mostly the subjects are children and youth. Beta thalassemia is one of the most common genetic disorders in the world.

The study will randomly select the patients' from the national Albanian Thalassemic Association database. A self-reporting questionnaire for PA engagement will be used to evaluate the PA status of these subjects. Only transfusion-dependent beta-thalassemia patients aged 18 and over will be part of these study. BMD of lumbar spine and right femoral neck will be measured using DEXA Scan method to evaluate the bone mass density. Bone mass density differences are expected between groups (PA and non-PA subjects).

All patients should be screened periodically for bone mass density in order for them to have comparative data's to prevent further problems. Further research is needed to identify risk factors and means of prevention. Also further longitudinal studies involving different PA intervention should be done with these group category in order to have more reliable results regarding PA engagement recommendations.

Key words: Beta thalassemia, Physical Activity, Bone mass density.

A physical activity self-reported questionnaire (PASRQ) and dexa scan assessment for bone mass density evaluation in beta-thalassemic children, 18 years and over.

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Abstract

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Key words: Beta thalassemia, Physical Activity, Bone mass density.

Anthropometric changes, obesity, coordination and motor skills in 7-11 years old children.

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Abstract

The phase before puberty 7-11 years are marked by very good learning abilities and are proven to be the best motor learning age in childhood (Meinel., 1960), considering this age as a sensitive period (Hirtz and Starosta., 2002)

The aim of this study was to review the latest literature with focus on anthropometric changes, obesity, coordination and motor skills in 7-11 years old children. We have searched in PubMed, JabRef, ResearchGate.

Only 10 studies have fulfilled the inclusion criteria to be part of this review.

More longitudinal and randomized studies need to be done in order to investigate periodically anthropometric changes, BMI levels, coordination and motor skills abilities in these age group. Also PA programs need to be more focused in improving these parameters.

Keywords: Obesity, anthropometric, coordination, motor abilities, children.

Physical activity and bone mass density in β**-thalassemia subjects.**

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Abstract

Beta thalassemia is a blood disorder that reduces the production of hemoglobin. Patients with thalassemia show a variety of bone disorders that include bone deformities, osteopenia and osteoporosis, growth failure, and spinal deformities (Karimi M et al., 2007). Despite the introduction of intensified transfusions and iron chelation therapy in TM patients, exercise intolerance and fatigue still remain a common finding in these patients (Trikas et al., 1998), also poor physical fitness is a common problem among thalassemic patients. The main objective of this paper was to review the recent literature regarding physical activity influence on bone mass density in β -thalassemic subjects.

The search was made mainly focusing in PubMed, ResearchGate, Hinari, for studies focusing on PA intervention in β -thalassemia subjects. Only 6 papers fulfilled the inclusion criterias. There is a lack of studies focusing in PA influence on bone mass density in these patients category. Further research is needed to identify risk factors, means of prevention and also to establish specific PA engagement guidelines and recommendations for this social category.

Key Words: Thalassemia; Bone mass density; Physical Activity.

Outdoor recreation's contribution against sedentary lifestyle and negative health consequences.

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Abstract

An outdoor lifestyle must be reinforced as not just an Europian value, but also a family value. Research dictates that building the critical connection to nature at an early age is vital to the enjoyment of the outdoors later in life. Outdoor recreation and nature tourism, are the big growth areas in leisure and holiday activities today in the world. As the populations of most European countries become more urbanized, and as work becomes less and less connected with the land, many more people are seeking to regain a connection with nature and with wild landscapes. There are many reasons for visiting and exploring the great outdoors: physical exercise, release from the stresses of city life, clean and fresh air, getting closer to nature, enjoyment of the scenery, hunting and fishing ect. For most people it is probably a combination of reasons.

The trends in how people spend their time change from year to year, but contain broadly the same ingredients: a chance to escape from the city, to be alone, to be close to nature, and to relax and enjoy oneself. The activities that people pursue range from strenuous hiking into wild mountainous areas, days from the nearest settlement, to a gentle stroll in a park or woodland a short distance out of town, or just sitting and looking at the view. 'The outdoors' is an all-embracing term that covers all those places where people feel they can achieve that special feeling of being 'away from it all'.

Outdoor recreations contribution to health can be considered in the context of\wellness.. The World Health Organization (2003) defines health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.. This definition moves from a strictly medical model of health toward the concept of well-being.

Key Words: Outdoor recreation, public health, physical activity, children's health.

The law, the sport and the handicapped historical approaches.

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We cannot find a unique definition of the concept of handicap in Europe. Even within individual countries, many approaches are generally observed according to now this term is applied.

Handicap is a generic concept which can comprise heterogeneous groups of people. Any international comparison reveals itself to be an arduous task. In fact the groups of people concerned are not the same everywhere and practices vary according to this specific cultural, social and economic backgrounds. Public policies depend on the different representations of the notion of handicap and are influenced by both disabled people themselves as well as by policy makers as well. For example in France from the early 1960s the word "handicap" was progressively replaced by other nouns such as "infirme" (disabled) or "inadapté" (usted, malad)

The shift in meaning of the word "handicapé" seems to be related to the distressing ordeals experienced by some, which have led to somatic and mental weaknesses and to the idea that ways can be found to compensate for handicaps and allowing ways to live as a able-bodied person. Beyond the widely spread social norms and behaviour, the handicapped person faces constraining representations almost stereotypical which a lead to the sense of enclosure. Beeing born triggers or handicapped generates a whole set of psychic disorders provoking an inner and collective moral suffering

The human body can be considered as the prevailing pillar of identity for both handicapped and valid people. A two-fold psychological mechanism seems to be at the root of the handicapped person's self-acceptance and his/her relationships to others and to social groups. Through a mechanism of objectivation the subject rediscovers his/her own and full identity within the world of able-bodied persons. Through the mechanism of appropriation the handicapped person accepts his/her self-experienced own image as he experienced it.

The construction of this new identity is internally nurtured and is strengthened by the close personal interactions which certainly contribute playing an important role in the development of our identity. The process is firstly generated among family members and then it is progressively encouraged more widely encouraged by social relations. In this perspective sport will fully impact the process. Beyond too widely and hurriedly accepted evidences it is highly recommend one should disregard preconception we might have, even those barred or so-called evidence and be prepared to change our area of focus to define the ideal approach.

The main goal was to try to understand why and how sport activities can help to generate a transformation of self and social perception of our identity. The report presents the results of a survey, which was conducted in 2011 by the «Pôle Ressources National Sport et Handicaps » addressed to 1600 Clubs and 16000 Athletes indicate that a large number of

clubs are really involved in the procedure of welcoming and confirms the positive impact of physical activity in order to reclaim a normal social image despite number of personal obstacles and considerable number of people with disabilities live in residential institutions.

The traditional approach to disability policy has been based on the belief that disability is a deviation from normality. "Disabled people are not excluded from society, contrary to the assertion of associations and political speeches. They often constituted a sub-category of the poor-especially those who were foreigners. They were left to wander the open countryside when not entrusted to groups of merchants or pilgrims or set adrift in boats on the great rivers of the Rhineland and the channels of Flanders-hence the image of the "Ship of Fools" (Foucault 1972: 21-23. Disabled people live and rather work, create, play sports, have friends, a family and are living in a today's society. They escape from what Robert Castel had called disaffiliation, an output of socio-familial link and/or societal integration "p 174.

The disability is not determined with this or that type of life style, but rather related with social aspects. It occurred with certain people or in certain situations more often than with others. Disability is the result of a "social construction" The social approach locates the problem of disability in the environment, which fails to accommodate people with disabilities.

In this context, the policy orientation adopted by society is one of rehabilitation; the aim of which is to help compensate for the deviation and to encourage the disabled person to function as near as possible to the social norm. Currently this relationship between disability and "normality" is undergoing a revolution; a revolution instigated primarily by disabled people themselves. In this respect, it is increasingly being recognised on a global scale that human difference should be embraced as a phenomena which is both natural and beneficial to human society. The survey shows also that clubs adapt their structures and procedures to facilitate the inclusion of people with disabilities, rather than expecting them to change to fit in with existing arrangements.

The European commission call on members states

1. To consider if relevant national policies take into account, in particular, the following orientations:

- Empowering people with disabilities for participation in society, including the severely disabled, while paying due attention to the needs and interests of their families and carers;
- Mainstreaming the disability perspective into all relevant sectors of policy formulation;
- Enabling people with disabilities to participate fully in society by removing barriers;
- Nurturing public opinion to be receptive to the abilities of people with disabilities and toward strategies based on equal opportunities.

2. To promote the involvement of representatives of people with disabilities in the implementation and follow-up of relevant policies and actions in their favour.

The European Charter of Sport for All 1987 (Recommendation No.R (86) 18) argues however that "the promotion and development of sport and physical recreation for all disabled people can improve the quality of their life, while contributing to their rehabilitation and integration into society " and invite the government "to take measures towards eliminating the distinction between disabled and mainstream sport in order to provide acceptance and integration for the disabled

The Declaration on the specific characteristics of sport and its social function in Europe, adopted in Nice in December 2000, underlines that "The Commission furthermore encourages Member States and sport organisations to adapt sport infrastructure to take into account the needs of people with disabilities. Member States and local authorities should ensure that sport venues and accommodations are accessible for people with disabilities. Specific criteria should be adopted for ensuring equal access to sport for all pupils, and specifically for children with disabilities. Training of monitors, volunteers and host staff of clubs and organisations for the purpose of welcoming people with disabilities will be promoted"

The Nice Declaration (Nice December 7;8 & 9; 2000) underlines that "sporting activity should be accessible to every man and woman, with due regard for individual aspirations and possibilities". It also recognises that "for the physically or mentally disabled, the practice of physical and sporting activities provides a particularly favourable opening for the development of individual talent, rehabilitation, social integration and solidarity and, as such, should be encouraged."

It is difficult to measure the extent to which the objectives are being met and the extent to clubs as a valuable aid for promoting integration in and through sport?

Asking the question is an indicator of the integration process impaired people in the sports world and specifically in sports clubs cause the individual is the center of a triptych we have to consider to help peoples face to disability.



Sport is a "total social fact" in the words of Mauss and because it conveys values, sport was used as a privileged instrument of integration. Disability it is perceived as "total social phenomenon, at any point created by the social, but in turn making or undoing the social in its relation to the integration and exclusion" However Sport is undoubtedly a "total social

fact", a social construct developed at a particular moment. Is not a homogeneous space which cannot claim to be a tool of education, integration, remediation neither a privileged place of socialization in so far that sport is, sometimes strengthening more than reducing differences.

The High Council of Integration describes integration "not as a medium term between assimilation and mere insertion but as a specific process prompting active participation in national society by a variety of different elements, while at the same time accepting the continuation of cultural, social and moral specificities and holding that the whole is enriched by such diversity and complexity ". Social integration is underway through a variety French sport system implementing and/or building blocks like schooling, public services, sport association a.s.o. Sport strengthens the sense of belonging, at both the community and the national levels without losing identity and autonomy, in the social, cultural, health and educational areas

With regard to disability, the principle of equal treatment entails the identification and removal of barriers in the way of persons with disabilities who, with reasonable accommodation, will be able to achieve a performance. These approaches are self-explanatory, and provide quite a clear indication of the magnitude of the task to be accomplished if the goal of universal sport accessibility is to be achieved. In this way, all strategic thinking about changes in our societies and about timely adjustments in policy should incorporate the experience of people with disabilities.

In addition, some disability specialists and Sport (Marcellini Anne and Gilles Bui Xuan) offer long, the emergence of a "new sport" by the cancellation of disability and thus to suggest "games with handicap" ("equity" by building and not by measuring the biological body) forms of games that can be found elsewhere, but not at the top level of the regular sport. So that the integration process will be complete only when a person with a disability can take up a sport like any other citizen.

Orienteering: spatial navigation strategies and cognitive processes

Pio Alfredo Di Tore, Felice Corona and Maurizio Sibilio University of Salerno, Italy.

Abstract

This work will argue how the cognitive processes involved in the orienteering peculiar activities (reading maps, identifying routes, spatial thinking) are also involved in the management of intersubjective relationship. In essence, the skills involved in reading maps and in developing strategies for spatial navigation are skills that allow us to see the world from different points of view, abandoning the egocentric perspective (Berthoz, 2000). To get out from egocentrism means being able to see the reality (not just the spatial reality) from several points of view, however other than our own.

In this perspective, the work develops describing orienteering as a sport, and facing a review of scientific literature on the cognitive processes involved in spatial navigation and management of spatial reference systems, in light of the contribution made to this specific field studies from neuroscience. The work thus illustrates the spatial theory of empathy and concludes with a proposal for the spread of orienteering as an effective teaching practice in inclusion-oriented education contexts and as a powerful learning resource for Special Educational Needs.

Keywords: Orienteering, Spatial Reference Frames, Spatial Navigation, Special Educational Needs

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The dependence of the number of shots and rebounds on the change of the rules in the top Czech Basketball Men League: a pilot study

Petr Hrusa, Department of Leisure and Tourism, Faculty of Informatics and Management, University of Hradec Kralove, Czech Republic.

Abstract

The research study focused on the dependence of shooting and rebounds on the change of basketball rules that came into effect from the beginning of the season 2014-15. A substantial rule change concerned the offensive rebound. The team, that controls the ball and shoots on the basket, so that the ball touches the ring, and then the same team goes on the offence, has only 14 seconds for shooting (before the change there was 24 seconds).

The aim of the pilot study was to verify the assumption that the rule change will be reflected in a higher number of shots and rebounds. The study focused on 2 consecutive seasons. The research sample comprised the total of 541 matches in the season 2013-14 and 128 matches in the current season 2014-15. The indicators of the change were average values of number of shots and rebounds. Data were collected from official technical score sheets that were recorded in the given seasons.

The data evaluation was based on quantitative and qualitative analysis and the results did not appear to support the hypothesis that the basketball rule change would be reflected in a higher number of shots and rebounds. With regard to the fact that this is a pilot study, further research should follow and the findings are to be compared with the data after the end of the current season.

Keywords: basketball rules, shots, rebound, basketball season

POSTER PRESENTATION 2

TEACHING (PE), COACHING

Sport Tourism in the Czech Republic.

Pavel Korvas and Hana Lepková, CESA, Brno University of Technology, Czech Republic.

Abstract

The explorative study was accomplished to understand the work of tour operators in the Czech Republic better. The focus of our research was to evaluate the number of tour operators which offer the active forms of tourism the trips which include sport activities. We have tried to find the share of sports tourism on this market and what kinds of sports are offered most. The internet survey has been carried out. We studied only the tour operators only which were registered for 2013 in the database of Ministry for regional development. Our research was completed during the second half of 2013 from the offer for year 2014.

Nine hundred and sixty tour operators were registered with the Ministry of regional development for 2013. We processed 884 tour operators the rest 76 were in bankruptcy or we did not find the web page or the offer for monitored season. The trips for the summer season were by 95 % tour operators and three quarters of tour operators prepared products for winter season (75,5,%).

Most of tour operators offered recreational trips (75,5 %) without sports in the programme. The products with the sports or physical activity offered 47,7 % tour operators and this form of tourism was on the third place among all forms. The sports trips offer was relatively rich in variety of sports, from very hard and demanding outdoor sports in mountain areas to the easy activities which are parts of tour programmes as bowling, walking, billiards, swimming etc. The most subjects organized alpine ski tours (64,7 %) and second placed hiking and mountain hiking (30,3 %). The relatively popular activity in our country - cycling tours were found in the catalogue of 19,8 % tour operators. The other sports were offered by lower number of tour operators, wellness 13,6 %, yachting 12,4 %, golf 11 % and water tourism and rafting for 10,6 %. None of other kinds of sports tours exceed 10 percentages.

We found that the most tour operators offer the skiing and hiking (mountain hiking) trips which are the traditional sports for the Czech population. We supposed the bigger number of tour operators which had offered cycling because this sport is very popular in the Czech Republic at the present time.

Key word: active form of tourism, physical activity, sport, sport trip,

Tactical and technical trends during 2013-2014 national football championship.

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Abstract

In today's football, players are required orientation ability not only in length but also the width of the field, effective action in all field positions - especially in terms of offensive and defensive transition. In this regard, the following tactical elements of today's football will be simultaneously taken into consideration: over-positioning in both sides with defenders or midfielders in cases of vertical attack, pressure and pressing, penetration of side attacking players towards center.

Analyze results and feedback from UEFA A, UEFA B and UEFA PRO coaches' qualification study programs. Obtain feedback from implementation of acquired knowledge to Superior League coaches where 95% of them have acquired UEFA PRO license.Data survey questionnaires have been obtained by analysing applied methods as well as tactical and technical flexibility of 14 football teams in Superior League in each of the 7 weekly matches during the first part of the season (august to December 2013). Evidence from on-time coach appointment to players' professionalism, despite many unsigned contracts, engaged in intensive training and preparation for the new season.

Based on statistics derived from survey questionnaire forms collected for 91 games during the first phase of the competition, the following conclusions have been drawn: Dominating tactical playing system in 75 % of the matches is 1-4-2-3-1, whereas in the remaining 25 % of the matches the 1-4-4-2 and 1-4-4-1-1 tactical playing systems were the dominating ones. Appointment of qualified coaches in charge of the technical staff, and the due beginning of the preparatory phase identified in all teams of Superior League, indicated a tactical and technical flexibility - evidence of modern football implementation.

Key words: Midfield player, match, playing system, evaluation, tactical and technical flexibility.

Impact of 6 months aerobic gymnastics, for improvement of vo2max & weight control in healthy females.

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Abstract

The main purpose of human kind is to improve the life quality considering as important weight control and VO2max. Frequenting Aerobic Gymnastic is considered the best way to reach the maximum of PA. Aerobic exercise programs for 6 months showed a loss in weight and gain of strength, and improvement of endurance. This study attempts to evaluate the effect of 6 months of aerobic gymnastic exercises programs in the improvement of aerobic capacity and body fat composition as main factors, for a healthy life style consideration.

We have studied 180 young females till 30 old, in 84 subjects' 15-19 old and 96 subjects 19-27 old. Subjects were selected not to be obese and had never practiced physical exercise before. They did 6 months one hour 3/week at moderate levels of 70-75% of aerobics, Body weight was measured before and after the training program. VO2max Astrand, 6 minute submaximal exercise test and Body-Fat percentage (%BF) was calculated through Jackson & Pollock 3-site skin-fold protocol.

From data analysis we found subjects of both the groups participating in the program, before training program had normal upper limit body fat percentile according to the age respectively 19, 18,3 \pm 3,2, 84% and 18.41 \pm 2.74, VO2 max respectively 1.47 \pm 0.09 and 1.5 \pm 0.12 and VO2 rel 29.5 \pm 3.22 and 27.17 \pm 3.01. After 6 months of training there was a significant (p>0.01) loss of body weight on both groups (5.81 and 5, 24%, the difference being in between the groups). %BF was found to fall 17, 81% and 11.78% (p>0.001 with significant difference of the change between the two groups). VO2max and VO2rel values were improved both. VO2max was improved similarly significantly (p>0.05) at both the groups by 6.81 and 8.01% with no difference between groups. VO2rel was increased with 12.83 and 14.10% (p>0.01 at both gr.) due to the influence of VO2max improvement and weight loss.

This study found that 6 months of aerobic exercise training program at 70-75%, reduces body weight and consistently reduces the %BF but increases the VO2 max and VO2 rel. The young females showed similar weight loss and % BF reducing, while young females showed greater improvement in their oxygen consuming capacity.

Keywords: aerobic capacity, body fat composition, VO2 rel.

Postural control in young players: differences between the cognitive approach and ecological-dynamic one.

Erik Nughes and Gaetano Raiola

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Abstract

Previous research had evaluated the training football effect in adolescence on postural control through the use of a platform of strength for the detection of the COP; however This research showed just how football compared to other sports or compared to sedentary individuals would improve postural stability in adolescence before the normal maturation of man. However the significance of this potential can be given by the skills developed through this sport or its exercises / situations that facilitate the learning.

This further research on the influence of football training on postural control will have to show the specific factors that lead to a greater postural control; Therefore, the project deals with two different methodologies in experiencing different workout on two groups of children aged between 6-7 years, which will be offered its training program for five years, and the beginning and end of each year / cycle training will be conducted surveys through a platform of strength of the COP to assess postural stability of children.

Teaching applications will be either prescriptive or ecological - dynamic and the final goal of this study is to highlight precisely what kind of methodological approach in football will lead to a greater postural control in adolescence, in order to get additional data that can contribute looking for the Peterson (2006) research done on the variables that influence the postural control in adolescence.

Basketball feint and non-verbal communication:empirical framework.

Gaetano Altavilla* and Gaetano Raiola** *University of Basilicata, Matera, Italy, **University of Parthenope Naples, Italy

Abstract

Bodily communication has its own epistemological framework in which the message follows a process of encoding, transmission and decoding (Argyle, 1988; Hall, 1966). It establishes contacts and relationships that are developed first by data processing and after by message content evaluating. It has, within it, an ethnic-social substrate that changes in different cultures and contexts (Meharabian, 1972). It is a dynamic flow consisting of five basic elements: context, sender, recipient, channel, code (Jakobson, 1956) and follows a logical and analogical process. The arguments of bodily communication affect the feint, which means manifest intention of achieving a goal through the initial implemented in totally different pursuance It refers to the "tactics" decoding of bodily communication. In this way, non verbal communication have to be included both in experimental and human sciences (Raiola, 2012), so it can investigated by observation and data collected and get together the quantitative and qualitative aspects.

The game situations in basketball are so many variables, determined from interacting behaviors engines all players, between teammates and against the opponents. The behaviors of the feints are of great importance both that quality execution technique that every player has and to choice the tactical option.

In this study, it is request to recognize the main aspects in basketball, such as in volleyball in past study (Raiola and Di Tore 2012a and b) and to give an argumentative and deductive classification. Method is the observation by descriptive research of three experts: coach of team, experts of body communication and performance analyst.

Results show some interested aspects. The body feint is always a deliberate attempt to deceive the opponent to gain an advantage in the context of the game, moreover, it is the basis of the game of basketball, along one players against one, on which is built the complex process of acquisition of tactical advantages over opponents. There are some prerequisites to be able to realize the motor actions of fake, definitely a good knowledge of the rules of the game, knowing how to hesitate (take time before changing direction) or anticipate a move (make a cut changing speed) and especially the ability to read situations game tactics.

In conclusion, for young athletes, the education of these aspects becomes essential to ensure the development of the imagination and anticipation motor, which imply the ability of invention and adaptation to different situations of the game. The more a player forces the opponent to react to his feint (shooting, passing or departure dribble), instead of acting, the more likely will have to gain the benefits (time and space) in order to carry out his plan motor effectively (to make an easy score).

Although, it is to highlight that, in the modern basketball defensive tactics (zone press, help and recovery, doublings, defensive switch, etc.) start to work out the following game situations: the defender must not have more behavior liabilities compared to the attacker, but in turn must perform the behavior of pretending to try to reverse the situation tactic, creating disorientation, or otherwise, creating an unexpected situation for the attacker; in order to create; an advantage for the defense (recovery of the ball on the dribble, on the steps or on the shoot).

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Teaching method of physical education and sports by prescriptive or heuristic learnings

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Abstract

Teaching method of physical education and sports is, traditionally, imparted by the teachers, coaches and trainers with tutorials that have the theoretical basis in the Cognitive approach, where the mind is the start center of learning skills process. It means, they illustrate greatly the physical activity and explain the tutorials. They are of Partial type, Varied one, Randomized one, Mental Training one and, finally, using the feedback for error correction. Cognitive approach has the physiological and psychological basis in theory of motor control in Closed Loop (Adams 1971), Open Loop, and Motor Program Generalized (Schimdt, Wrisberg, 2004). Otherwise, teaching methods of physical education and sports could be suggested according to Ecological-Dynamic approach, where the mind is a part of the phenomenon where start and end the learnings skills process. Thus, it does not use the tutorials, but it has to build a setting learning aimed at variety of skills because the learning skills process develops in a natural way using the variables in a complexity mode. It has the physiological and psychological basis in Motor Imagery (Jeannerod 2006) and Freedom Degrees (Bernstein, 1991). The Motor Imagery gives the anticipation of movement per a particular proactive aspects of the mirror neurons (Rizzolatti, 2006), it could be made in first person and in third person. Freedom Degrees is the external evaluation of the movement in three consecutive steps: Reduction of Freedom Degrees, Exploration of new Freedom Degrees and Capitalization of the final Freedom Degrees (Latash, 2004). Both of them has the main difference between the role of the mind and the role of the learning setting. Aim is to investigated on influence teaching methods on learning process about sport skills.

Methods is theoretical-argumentative with deductive way. To analyze the specific aspects of learning approach in physical education and sports. according to Behaviorism, Cognitive, Gestalt and Phenomenology (Raiola, 2014) and then to elaborate the deductive relation. Main results show two types of relationship: prescriptive learning and heuristic one. The first one is cognitive way, which includes closed loop, open loop and generalized motor program, according Behaviorism theory and Cognitive one.

Furthermore, there is relationship among tutorials techniques such as order, demand, sequence and timing and the prescriptive action of the teacher. The second one is ecological dynamic way, which includes Motor Imagery and Freedom Degrees motor control. Furthermore, there is a significant relationship among learning setting, such as environment and specific strategies of teaching method of cooperative learning, role playing, circle time, brain storming, peer education, tutorship, focus group. In conclusion, it can observe the invasive role in prescriptive learning skills in a cognitive approach and non-invasive role in heuristic learning skill in an ecological dynamic approach.

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Sport skills and mental health.

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Abstract

The use of physical and sport practice is used in a widespread manner in the world of mental health. Is recognized as a valuable tool for the prevention and as a tool to improve the therapeutic compliance. Proves to be a useful tool for rehabilitation according to the method VADO (Evaluation Activities and Objectives Definition) mentioned in the guidelines for national treatment programs and has a positive effect in the Rating Scale (FPS Operation Personal and Social). The twelfth meeting of the SIEP (Italian Society of Psychiatric Epidemiology) which had as its theme the physical activity and sport in mental health describes these approaches as effective (but not efficient) and too heterogeneous as finding the critical point of the difficulty of the practice is not unified and l'absence of a network that puts in communication these realities.

This work illustrates a practice used for a pilot project currently underway. Method is to Analyse practices used. Administering tests validated (FPS, POMS, tests Rockfort, measurement bmi) to an experimental group and a control group. They were also used additional assessment instruments calibrated for the specific use. Graphical representation of the data obtained.

Results are the following: experimental group BMI tends to be most stable and downhill while in the control group did not appear to have significant variations. Mile test shows that patients in the experimental group improved their performance index compared to the control group. POMS test that indicates the state of mind of the patient with respect to the external stress show a marked decrease in the "distrurbance scale" in the experimental group. Scores FPS show that the experimental patients have had appreciable improvements compared to the control group. The analysis of currently available data is positive, this data will be compared with the final data to get a picture more complete.

In conclusion, data recruitment encourages the creation of an experimental project in which they are involved more patients and more facilities in order to evaluate the results.

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Effectiveness of weight-reduction stays in children sanatorium in Křetín (Czech Republic).

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Abstract

Children suffering from obesity can be treated in one of the children sanatoriums in the Czech Republic. The present work finds out whether after completing a four-week stay in Children Sanatorium in Křetín, the children lost weight and if so, what was the volume of the loss.

There was 25 research children (15 girls and 10 boys) who stayed in the sanatorium in the period from June 18 to July 16, 2014. The girls were aged 8 - 17; the boys 9 - 17. The program for the reduction of body weight contained rehabilitation procedures, strengthening physical fitness, regular workouts in a gym, games in the open air and walking. A special diet was composed for children suffering from obesity. Together with the physical activities, the aim of the diet was to reduce body weight of obese children. The children were given food six times per day; the size of portions was respective of their age. It was low-calorie food but nutritionally balanced; this, children did not suffer from feeling hungry or from lacking some vitamins or minerals.

At the beginning and at the end of the cure, basic anthropometric parameters were recorded for each child. At the end of the stay, the children's body weight was measured. The results proved that the program for reducing body weight was successful for all children. Weight of the girls was reduced in average by 3.56 kg; boys lost in average about 4.91 kg. The biggest weight reduction was by 5.1 kg in an 11-year-old girl and by 6.7 kg in a 17-year-old boy. The smallest reduction was by 2.1 kg in a 15-year-old girl and 3.3 kg in a 13-year-old boy.

Key words: obesity, body weight, body height, special diet, physical activity

Training and health in gymnastics.

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Abstract

The aim of this study was to analyze the training regimen of top level gymnasts and their state of health. The research also focused on the information provided to the athletes about the relationship between sport and health. The sample consisted of 14 professional Italian gymnasts aged 13 to 18, six of which belonged to one of the largest national associations in Italy, whereas the other eight participants were interviewed during their participation in the National Championships and belonged to other associations.

The instrument used was a structured medical history interview conducted by a doctor and a graduate student in physical education. A descriptive approach was used for the data analysis. The distribution of the variables collected in the group of athletes was studied.

The results obtained in this study showed that:

 \Box The sample of young athletes need an approach to education / teaching that would enable them to deal consciously and adequately the competitive commitments, which are demanding in relation to the resources of pre-teens;

 \Box The critical aspects regarding the non-specific signs and symptoms that emerged from the self-report on the signs and symptoms of overtraining and from the perception of health status scale need to be studied in further depth;

The scientific debate on the problematic aspects with regards to the protection and promotion of the health of young athletes, may provide those elements of knowledge, health education and support to growth, which can improve the overall management and self-awareness of the athlete without compromising the performance.

Keywords: rhythmic gymnastics, training, sport and health

Situation awareness and complexity: the role of wearable technologies in sport science.

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Abstract

Situation Awareness is a key concept in activities in which cognitive and physical tasks are being performed in a complex system consisting of multiple humans and artifacts, under quickly changing conditions.

The concept of Situation Awareness was originally introduced by sports psychology of the 1970s, generally applied to team ball games. Theoretical work in sports psychology was focused on stimulus-response theory (Dickinson, 1976), perceptual cues (Abernethy & Russell, 1984), and attentional style (Nideffer, 1976). In more recent times, this concept has been taken up and applied to a large area of scientific domains (Hone, Martin, & Ayres, 2006).

According to Endsley, Situation Awareness is "the perception of the elements in the environment within a volume of time and space, the comprehension of their meaning and the projection of their status in the near future" (Endsley, 1988). Endsley refers to a process divided into the three stages of perception, comprehension, projection. The perceptual level (1) concerns the collection of environmental relevant information, while the comprehension level (2) "encompasses how people combine, interpret, store, and retain information". Comprehension level "includes more than perceiving or attending to information, but also the integration of multiple pieces of information and a determination or their relevance to the person's goals". Projection level (3) involves "the ability to project from current events and dynamics to anticipate future events (ad their implications)" and allows for "timely decision making"(Endsley, 1988).

The spread, in sports, of wearable technologies that can record and return in real time a wide variety of data related to the athlete and to the context provides a great opportunity to increase the level of Situation Awareness during competitions. Often, however, we are dealing with heterogeneous devices that work on very specific elements and, taken individually, are not sufficient to build an effective representation of the complexity of the phenomenon.

The set of raw data in different formats and different levels of detail coming from the different wearable devices acquire real information value in the moment in which they are modeled according to semantic techniques.

This paper proposes a framework that, due to semantic techniques, allows to transform a set of heterogeneous devices in a network of sensors that can guide decision making.

Keywords: Situation Awareness, Decision Making, Wearable Technologies, Semantic Techniques

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Tactical and technical approach efficiency to acquiring game skills in mini-handball.

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Abstract

The aim of the study was to highlight a tactical approach efficienty to teaching mini-handball at primary schools. The experiment was conducted during mini-handball extracurricular activities of first and second year pupils for 10 weeks.

The experimental group (n=16) was taught by the tactical approach where small-sided games were applied to teach game skills whereas the control group (n=20) was taught by the technical approach with drill exercises in particular. Motor test Two-hand Throw for Accuracy and control exercises Pass for Accuracy and Technical Efficiency, Linear Dribbling and Shooting for Accuracy were used to evaluate the effects of both approaches.

The technique of game skills in control exercises were evaluated by 1-5 scoring system. Wilcoxon's T-test and Mann-Whitney's U-test were used to evaluate the data statistically and the level of significance was set on 5%. The results showed that both approaches had similar effects on game skills development (p<0.01) and there were no significant differences between improvements of the groups.

The study was supported by grant VEGA 10386/13 "Learning effects of different teaching approaches to sports games in relation to gender, age and game experience."

Key words: tactical approach, technical approach, game skills

Leisure time physical activities of volunteers with different experience in sport volunteering at the beginning and two years after the UEFA Euro 2012TM.

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Abstract

Social environments impacts human behaviour in a different way. Modeling and social support are used to be known as an important mechanism explaining the physically active lifestyle. The aim of this study was to explore the association of sport volunteering on physical activity in leisure time among youth living in Wielkopolska district in Poland.

The respondents (n=326) were randomly selected from the volunteers working during UEFA Euro 2012^{TM} in Poznan, Poland. The self constructed questionnaire referring to participation in leisure time physical activities based on a Likerts' scale and experience in sport volunteering was used. The respondents' answers was assessed twice: at the beginning of the tournament and two years later by those who left an e-mail contact at the first time (n=127). The average age in research group (n=16) was 22.31±2.15. Statistical calculations was made using the Mann-Whitney test.

The results are ambiguous. Volunteers (n=12) with previous experience in sport volunteering assessed at the beginning of UEFA Euro 2012^{TM} had statistically significant higher scores at works in the plot (p=0.000) and at playing the volleyball (p=0.03) compared to volunteers (n=4) without such experience. Two years later volunteers with the advantage experience at volunteering in sport acquired during two years of first assessment had statistically significant higher scores at fast walking (p=0.003) and ificant lower scores at skiing (p=0.005).

This study underscore the ambiguity of role that volunteering in sport plays in the modeling of leisure time physical activities. Future investigation should analyse in details kind of voluntary including work at big sport event and the local one.

Key words: leisure time, physical activity, sport volunteering, UEFA Euro 2012TM, modeling, social impact.

Gender differences in coordination and motor-skill development in pre-school years.

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Abstract

The purpose of this study is to evaluate the motor and psychomotor difficulties in children living in the province of Salerno aged between four and six with the aim of identifying gender differences in each age through the use of the Movement ABC (Assessment Battery for Children) checklist. This tool allows to investigate the difficulties of movement and quality of motor coordination expressed by the child in action, in view of possible repercussions that could be encountered in the socio-relational skills and learning, due to poor motor skills.

This checklist used is composed of 48 items relating to the behavior of the child and is divided into four sections in order to highlight the performance of the child in progressively more complex situations.

From the study carried emerges the hypothesis according to which females, with age and compared to males, could become more coordinated and skilled in terms of motor skills. The scenario presented confirms the potential of refining children's motor skills in the pursuit of full autonomy of the body in pre-school years through the expansion of mobility opportunities for both males and females.

Keywords: motor difficulties, gender differences, Movement ABC checklist

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Development of motor-praxic skills in evolutive age.

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Abstract

Intelligence could be understood as a system of active operations, which involves a functional continuity between the higher forms of thought and cognitive-motor adaptation to social and physical environment surrounding the subject. (Piaget, J., 1998) Gardner says that his multiple intelligences, especially that bodily-kinesthetic, develop when the subject is in contact with the outside world, lived experiences and assimilates information. (Gardner, H., 1988)

With this study we would like to underline as it does the development of skills praxic and its evolution over the age of development. 77 students participated in the research, from I to V elementary, to which was administered, individually, a battery of tests. The tests were acquired by the Special Organization of Florence and treated by Rossana De Beni, Gruppo MT, "Q1 elementary": tests for the compilation of initial profile of the new evaluation document. Initial results may prove as there could be a correlation between the age child's cognitive and its ability to perform movements conscious and coordinated; capacity which, according to the data, you can reach to the last years of primary school.

The correct motor development, the acquisition of skills praxic and the awareness of their motor pattern, allow the passage from the body as a tool, the own body, through an increasingly refined control of his movements. The praxis, therefore, are acquired through experience and a learning process that allows to establish an intentional relationship between motor, intellectual and emotional phenomena. (Le Boulch, J., 2006)

Keywords: intelligence, motor skills, body, movement.

The emotional benefits of the motor activity in developmental age.

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Abstract

Scanlan and Simons (1992), define the "enjoyment" in the sport as a positive affective answer toward the sporting experience. It is important to conceive the reasons of the pleasure in the motor activities, because this would help the researchers to elaborate strategies of intervention more and more effective that keeps in mind of the individuals. The objective of the search is to understand if the motor activity is appreciate by children and if it offers benefits.

The intervention on the field is developed with the CSI (Centro Sportivo Italiano) of Cava de' Tirreni (SA), that it has organized a project of motor activity, having involved children since 7 to 11 years old, among which also of the disabled persons.

The search has been divided in three phases: *Theoretical-practice phase*, where a circle time has been organized to forming the children to the emotions, to differentiate and recognize them. Then, with a questionnaire, information are picked up respect the emotional state of departure: the children have individualized the image of the emotion that more it represented them. *Practice phase*, where the boys have developed motor activity (games, crossed motor). *Conclusive phase*, where they have been picked the impressions just tried by children respect the motor activity turn.

The search is concluded administering the PACES test (*Phisycal Activity Enjoyment Scale*, Kendzierski & De Carlo, 1991), tool used for the evaluation of the motor activity.

The result has been that following the motor activity the positive emotions are increased tried by children, while the negative emotions result redoubts and/or repressed. Examining the obtained data, the majority of the children appreciate the motor activity, has lived himself pleasantly and offers them positive benefits.

From the search a objective for the future could be characterized: to induce the children to regularly practice motor activity because in degree to arouse positive emotions and to guarantee psycho-physical comfort.

Keywords: motor activity, emotion, enjoyment, PACES, development

Dynamic stretching versus static stretching in gymnastic performance. A brief review.

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Abstract

Different types of stretching techniques are commonly performed in the gymnastic training sessions. Flexibility is one of the essential aspects of this sport like so the explosive strength but actually there is a limited literature assessing the effectiveness of the specific technique to increase the range of motion and, at the same time, to improve the explosive performance.

The aim of this study was to conduct a brief analysis of the literature to understand how to plan the training programs finalized to improve the gymnastic performance.

The MEDLINE and SportDiscus databases were searched for relevant literature using textwords for English-language articles related to *stretching, flexibility, explosive strength, dynamic/static stretching and gymnastic.* Additional references were reviewed from the bibliographies and from citation searches on key articles.

Twenty-two articles were examined, of which two reviews, one roundtable discussion of flexibility training, two specific studies on gymnastics, two on basketball, one on baseball and the remaining articles focusing on the flexibility and the jumping performance in general. In accordance to several studies analyzed, the research carries out some reflections on different stretching techniques included in the training phases of gymnastics (warming-up, cooling down) useful in planning the training sessions finalized to the best performance.

These are fundamental aspects to highlight and emphasize the consequences of the use of the different techniques especially regarding the duration and the intensity of the exercises choice.

Keywords: gymnastic, static and dynamic stretching, flexibility, jump.

Competitive sport and self-esteem in adolescent.

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Abstract

Self-esteem is the degree to which an individual values himself or herself globally. Several studies have shown that the self-esteem level is a key indicator of positive mental health and well-being. The belief that physical activity and sport are often associated with the best development of self-esteem in adolescent is a commonly held view. However in literature there aren't many studies that investigate the self-esteem level in young athletes that practice competitive sport activities. The aim of this study is to assess the self-esteem level comparing athletes who practice individual sport with athletes who play team sports.

In last ten years it has become widely accepted that self-esteem is structured hierarchically and therefore on the top of all there is general self-esteem and secondly there are the various interrelated dimensions between them.

The sample consisted of seventy-eight individuals, basketball athletes (M=20, F=14) and gymnasts (M=19, F=25). All the participants compiled the Multidimensional Self-Esteem Test (TMA, Erickson), a structural questionnaire on the specific domains (interpersonal relationship, competence, emotionality, school, family, body image).

The results showed that both females and males who were physically involved in the practice of sports at competitive level (indifferently whether individual or team sport) have considerably highest level of self-esteem.

These data confirm that individuals with the a higher self-esteem manage to apply themselves better in the high-level sports and, at same time, that the competition, for the all disciplines of sport, further strengthens self-esteem.

Keywords: Self-esteem, TMA, adolescents

Learning disabilities and dyslexia. Do the Visual Motor Abilities influence reading and writing skills?

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Abstract

Statistical data confirms that today the incidence of specific learning disorders in Italy, since kindergarten, is around 12/16% with tendency to increase. There is still a general tendency to underestimate the problem, attributing the difficulty of reading to incorrect teaching strategies or to emotional-relational problems. The hypothesis that we will try to show, is that the identification and early analysis of risk situations, will reduce the likelihood of school failure. In particular the research showed that a right concept perception of laterality and directionality are strictly linked to the level of eye-hand mechanisms (precision, rapidity) fundamental qualities of spatial processing act.

A sample of ninety-three pupils attending an Italian primary school have been subjected to the longitudinal study. The protocol has been divided into two phases: in the first grade the evaluation of the requirements for the activation of the processes of learning to read, in the second grade the evaluation of the level of maturity of the reading and writing skills, using standardized qualitative and quantitative tests .

In the first grade we used: Raven's Matrices, VMI, PRCR-2, Bender Visuo Motor Gestald Test, TEACH. In the second grade we used: MT Cornoldi. The data were analyzed and the at-risk children identified.

The study pointed out, at the beginning of the first grade, that some children showed significant difficulties in the basic processes. Despite the improvements observed in the second class, the frequency of subjects at risk is still high. In addition the results of VMI highlights the strong link amongst laterality, motor coordination ability and learning disorders.

According to the model of Uta Frith, this frequency is justified because children, at this age, are in the process of the development of reading and writing skills as well as the development of motor coordination. Therefore it is important to constantly monitor the classes to reduce the risk of school failure.

Keywords: dyslexia, teaching, early diagnosis, laterality, eye-hand coordination, visuo-spatial ability.

Physical and physiological characteristics of baseball trained adolescents.

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Abstract

Baseball requires quick and fast starts, sudden stops and direction changing, speed, power reaction time, flexibility, agility, balance, strength and coordination especially upper body force, running speed, acceleration skills. So it is recommended that baseball players have less body fat, more fat free mass and plan a training program to develop their strength, power baseball skills (Axe, 1998; Andrews et. al., 1998; Coleman, 2000; Walter, 2002). The aim of the study is to contrast the physical and physiological characteristics of 13-16 years old baseball trained adolescents with the same age inactive adolescents.

Baseball trained adolescents (n=10), who were trained approximately 45 ± 10.67 month, and inactive adolescents (n=14) participated in this research voluntarily. Sit and reach flexibility test, 10-20-30 meter sprint test, counter movement jump and squat jump tests, hand grip strength test, Wingate anaerobic power test were used to evaluate the physical physiological characteristics of baseball trained adolescents and inactive adolescents.

As a result of the research there is no significant difference between the inactive adolescents' and baseball trained adolescents' age, height, body mass, BMI, body fat percentage and sitreach flexibility test values. There is a significant difference between the inactive adolescents' and baseball trained adolescents' counter movement jump and squat jump test, 10-20-30 meter sprint test, left and right hand grip strength test values. Baseball trained adolescents' counter movement jump test, 10-20-30 meter sprint test, left and squat jump test, 10-20-30 meter sprint test, left and right hand grip strength test values. Baseball trained adolescents' adolescents' counter movement jump and squat jump test, 10-20-30 meter sprint test, left and right hand grip strength test values were found statistically higher than values of inactive adolescents. Baseball trained adolescents' absolute peak power and absolute average power were determined higher than inactive adolescents but no difference was found between the relative peak powers, relative average powers of them.

Keywords: Baseball, adolescents, flexibility, anaerobic power, strength

The social self-efficacy perceptions of students .

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Abstract

According to social learning theory, human beings are proactive in shaping themselves through arranging courses of action and using initiative. In this sense, self-efficacy is effective in determining intended individual goals, their practise and in control of given environment. Self-efficacy belief influences intended individual goals, how much effort to spend and how long to endure difficulties in achievement of goals as well as individual reactions in case of failure. The aim of this study was to investigate social self-efficacy perception of Physical Education and Sports School students at Anadolu University in terms of gender, departments and ages.

The research population was 274 Anadolu University Physical Education and Sports School students. Data were collected by means of "Social Self-efficacy Scale" which was originally developed by Smith-Betz (2000) and reorganised by Palanci (2002) in Turkey. The survey consists of two parts. In the first section contains demographic factors. Second part of the questionnaire is to determine social self-efficacy perception of students in the School of Physical Education and Sports at Anadolu University and consisted of 25 items. In the data analysis, "arithmethic mean and standart deviation" for numerical comparisons were used. In order to determine the differences among attitudes, t-test was used for two-way comparisons for independent groups and ANOVA was used in order to compare variables of groups more than two. In the statistical analysis, 0.05 was accepted as the significance level.

The results of the analyses indicated that the social self-efficacy perception of students use differentiated according to gender and departments, but didn't differentiate according to ages.

As a result of this study, there is significant difference between male and female students points in terms of the self-efficacy of the students of Phyisical Education and Sports School. The result of this study is supported with literature (Türkçapar, 2007). As a another result of this study, there is significant difference between their departments and the self-efficacy points of the students. Çubukçu ve Girmen's (2007) findings correspond to the results of this research. There is no significant difference between their ages and the self-efficacy points of the students. Akkoyulu ve Orhan (2003) ve Dönmez's (2011) findings is not consistent withthe results of this research.

Key Words: Self-efficacy, Social Self-efficacy, Physical Education and Sports

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SATURDAY 6th December

The application of pedagogical knowledge in the work of junior class soccer coaches.

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Abstract

Soccer coaches working with juniors can convey their knowledge of sports most efficiently if they employ their pedagogical knowledge during the bipolar process of teaching – learning consciously. We can deduce their pedagogical competence with the help of questions, whose answers show us which domains they regard to be important in the course of their work, so that they may be efficient when transferring their knowledge of sports. The goal of my research was to map the pedagogical direction of the educational – nurturing activity that is used with specific age groups.

I asked questions in my questionnaires the answers of which helped when deducing the coaches' attitudes to pedagogy and their profession. The participants answered with the help of a five-point Likert scale. The answers were processed with mathematical statistical methods, and with the help of an SPSS program.

Evidently, the pedagogical principles vary between age groups, that is why I investigated them in relation to their age group. The younger age groups favour nurturing the players more (4,67) as opposed to the older coaches (4,57). The players' skill with the ball had a higher preference with both age groups (4,85; 4,82), which clearly shows the direction of the professional work. In the case of the younger age groups, the love of players (4,39), developing good relations with the players (4,60) and parents (4,06) and the importance of pedagogical knowledge (4,61) were emphasized. Taking the captains' opinions into account (3,94), the improvement of the conditional skills of the players (4,60) and the end of the season ratings of the players (4,49) were emphasized by the older coaches.

The coaches do not consider the end of the season ratings to be important which in my opinion are necessary for the players to get a realistic assessment of their performance. From the results it is evident that the majority of coaches emphasize knowledge transfer opposed to nurturing the players.

Keywords: interaction, pedagogy, educational – nurturing activity