




SPORT SCIENCE – FOR HEALTH AND PHYSICAL ACTIVITY

PhD, Prof. Juris GRANTS

INTERNATIONAL CONFERENCE «BE ACTIVE – ENGAGE IN RECREATIONAL TEAM SPORTS»
 Liepāja, Latvia, September 8, 2015



Presentation Outline

- Sport science branch in Latvia
- Sport science in the Latvian Academy of Sport Education (LASE):
 - as a tool in study process
 - as a tool of excellence
 - sport science development directions
 - PhD studies
- Baltic Sport Science Society
- Research laboratories structure
- Current investigations of health and physical activity

INTERNATIONAL CONFERENCE «BE ACTIVE – ENGAGE IN RECREATIONAL TEAM SPORTS»
 Liepāja, Latvia, September 8, 2015



Branch of Sport Science

Currently, the Latvian Council of Science (LCS) database division in scientific and sub-sectors in Sport Science (No. 38) was merged with the Social Sciences. Sport Science is a branch of science which studies human physical health, development, physical fitness and the regularities of the formation of sports achievements.

INTERNATIONAL CONFERENCE «BE ACTIVE – ENGAGE IN RECREATIONAL TEAM SPORTS»
 Liepāja, Latvia, September 8, 2015




Branch of Sport Science

Sport science has two sub-sectors:

38.1 Sport Theory and History which is a Science subsector that explores methodological and theoretical correlation formation between human physical health, physical development and sporting achievements, as well as historical development of Sport theory.

38.2 Sport Pedagogy - a scientific sub-sector exploring the regularities of sports and health education, teaching, mentoring and training. Sport Science involves sport-related integrated research on pedagogical, psychological, medical, biological, biomechanical, sociological and economical science issues.

INTERNATIONAL CONFERENCE «BE ACTIVE – ENGAGE IN RECREATIONAL TEAM SPORTS»
 Liepāja, Latvia, September 8, 2015




Branch of Sport Science

In several European countries science branch classifiers, Sport science as a separate branch already appeared in the last century (70s – 80s).

In Latvia Sport Science as a separate branch of science was approved on February 17, 1998, with the LSC's decision, but it did not had corresponding name of Scientific degree, therefore it remained the same – Doctor of Pedagogy (Dr.paed).


INTERNATIONAL CONFERENCE «BE ACTIVE – ENGAGE IN RECREATIONAL TEAM SPORTS»
 Liepāja, Latvia, September 8, 2015



FACTS SHEET ON LASE

Students: 1st level professional higher education program, Bachelor, Master and Doctoral study programme Sport Science / Health care – 1300

Academic staff (01.09.2015):
 University teachers - 69
 Researchers – 5
 Total = 74



The Latvian Academy of Sport Education (LASE) is the only higher education institution in Latvia that coordinates and carries out research in sport science, as well as trains education and sport specialists.

INTERNATIONAL CONFERENCE «BE ACTIVE – ENGAGE IN RECREATIONAL TEAM SPORTS»
 Liepāja, Latvia, September 8, 2015

Conference "Be Active – engage in recreational team sports!"
 Liepāja, Latvia, September 8 and 9, 2015
www.AGONproject.eu

LATVIJAS SPORTA PEDAGOĢIJAS AKADEMĒJA

Sport science as a tool in study process

INTERNATIONAL CONFERENCE «BE ACTIVE – ENGAGE IN RECREATIONAL TEAM SPORTS»
 Liepaja, Latvia, September 8, 2015

LATVIJAS SPORTA PEDAGOĢIJAS AKADEMĒJA

Sport science as a tool of excellence

INTERNATIONAL CONFERENCE «BE ACTIVE – ENGAGE IN RECREATIONAL TEAM SPORTS»
 Liepaja, Latvia, September 8, 2015

LATVIJAS SPORTA PEDAGOĢIJAS AKADEMĒJA

Sport science and health care in sport development directions

LASE sports science and health care in sport development directions 2010-2020 Appendix 2

SPORT SCIENCE AND HEALTH CARE IN SPORT DEVELOPMENT DIRECTIONS

INTERNATIONAL CONFERENCE «BE ACTIVE – ENGAGE IN RECREATIONAL TEAM SPORTS»
 Liepaja, Latvia, September 8, 2015

LATVIJAS SPORTA PEDAGOĢIJAS AKADEMĒJA

NUMBER OF DOCTORAL THESES IN SPORT SCIENCE (PhD) DEFENDED IN 2009-2015

Nr.	Year	LASE Promotion Council
1.	2009	4
2.	2010	3
3.	2011	3
4.	2012	5
5.	2013	4
6.	2014	3
7.	2015	3

INTERNATIONAL CONFERENCE «BE ACTIVE – ENGAGE IN RECREATIONAL TEAM SPORTS»
 Liepaja, Latvia, September 8, 2015

LATVIJAS SPORTA PEDAGOĢIJAS AKADEMĒJA

BALTIC SPORT SCIENCE SOCIETY

<http://balticsport.weebly.com/>

INTERNATIONAL CONFERENCE «BE ACTIVE – ENGAGE IN RECREATIONAL TEAM SPORTS»
 Liepaja, Latvia, September 8, 2015

LATVIJAS SPORTA PEDAGOĢIJAS AKADEMĒJA

Structure of LASE Research Laboratories

<http://www.lspa.eu/>

LATVIAN ACADEMY OF SPORT EDUCATION
 SCIENTIFIC INSTITUTION NO.172075 (09.05.2006.)

LASE Sports Science DEPARTMENT
 COORDINATOR: RESEARCH LABORATORIES (RI) AND CENTERS (CI)

INTERNATIONAL CONFERENCE «BE ACTIVE – ENGAGE IN RECREATIONAL TEAM SPORTS»
 Liepaja, Latvia, September 8, 2015

LASE RECREATION RESEARCH LABORATORY

Doctoral Project:
Physical Recreation to Improve the Well-being of 45-55 Years Old People
 PhD Ieva Kundziņa

http://www.lspa.eu/files/students/Promotion/IEVA_KUNDZINA_kopsavilkums.pdf

INTERNATIONAL CONFERENCE «BE ACTIVE – ENGAGE IN RECREATIONAL TEAM SPORTS»
 Liepāja, Latvia, September 8, 2015

LASE RECREATION RESEARCH LABORATORY

Actuality and introduction
 Sedentary lifestyle, affecting more and more people, and causing serious consequences for public health in general

Physical activity plays a fundamental role not only in improving the physical health, but also in increasing the well-being



Biddle, Mutrie, 2002, 2007; Diener, 2009; Ryff, Keyes, 2006; Sylvestre et al., 2012.

INTERNATIONAL CONFERENCE «BE ACTIVE – ENGAGE IN RECREATIONAL TEAM SPORTS»
 Liepāja, Latvia, September 8, 2015

LASE RECREATION RESEARCH LABORATORY

General description of research topic

The aim of the research:
 to discover how the natural means for outdoor recreation (biking, Nordic walking, cross-country skiing) influence the beta-endorphin levels in the body and the positive and negative emotions of the 45-55 year-old people

The subject of research:
 45-55 year old people

INTERNATIONAL CONFERENCE «BE ACTIVE – ENGAGE IN RECREATIONAL TEAM SPORTS»
 Liepāja, Latvia, September 8, 2015

LASE RECREATION RESEARCH LABORATORY

Program for facial analyses – FaceReader 3
 Recognizes facial expressions with an accuracy of 89%.


It identifies six basic emotions:

- Happy
- Sad
- Angry
- Surprised
- Scared
- Disgusted
- Neutral



INTERNATIONAL CONFERENCE «BE ACTIVE – ENGAGE IN RECREATIONAL TEAM SPORTS»
 Liepāja, Latvia, September 8, 2015

LASE RECREATION RESEARCH LABORATORY



INTERNATIONAL CONFERENCE «BE ACTIVE – ENGAGE IN RECREATIONAL TEAM SPORTS»
 Liepāja, Latvia, September 8, 2015

LASE RECREATION RESEARCH LABORATORY

Results and conclusions

1. The most significant increase in the percentage of beta-endorphin level (+ 15.3%) and positive emotions was observed in those participants who performed a ride on a bike – increase in emotion of:

- joy +266,4%,
- surprise +140,6%

and decrease in negative emotions

- sadness -41,0%,
- anger -56,3%,
- disgust -71,2% (p > 0,05)



INTERNATIONAL CONFERENCE «BE ACTIVE – ENGAGE IN RECREATIONAL TEAM SPORTS»
 Liepāja, Latvia, September 8, 2015

Conference "Be Active – engage in recreational team sports!"

Liepāja, Latvija, September 8 and 9, 2015

www.AGONproject.eu

LATVIJAS SPORTA PEDAGOGU AKADĒMIJA

LASE RECREATION RESEARCH LABORATORY

Results and conclusions

2. A form of a physical recreation - Nordic walking, increases beta-endorphin level by +5,9% and the level of joy by +121,0%, surprise by +13,4% ($p > 0,05$).



INTERNATIONAL CONFERENCE «BE ACTIVE – ENGAGE IN RECREATIONAL TEAM SPORTS»
Liepaja, Latvia, September 8, 2015

LATVIJAS SPORTA PEDAGOGU AKADĒMIJA

LASE RECREATION RESEARCH LABORATORY

Results and conclusions

3. An increase in positive emotions was observed in cross-country skiers - joy emotions + 19.3%, surprise emotions + 2.9%. The only negative emotion that increased according to FR diagnosed data, was fear (+3,7 percentage points) ($p > 0.05$). The average beta-endorphin level in this group has increased similarly with Nordic walkers + 6%.



INTERNATIONAL CONFERENCE «BE ACTIVE – ENGAGE IN RECREATIONAL TEAM SPORTS»
Liepaja, Latvia, September 8, 2015

LATVIJAS SPORTA PEDAGOGU AKADĒMIJA

INTERNATIONAL OUTDOOR SPORTS AND RECREATION EDUCATION SUMMER SCHOOLS



The aim of the summer schools

To compile outdoor games and plays which are linked to the Latvian social life traditions and festivals

To introduce students with qualitative research, to train interviewing and inquiring skills to gain information

Website: osress.weebly.com

INTERNATIONAL CONFERENCE «BE ACTIVE – ENGAGE IN RECREATIONAL TEAM SPORTS»
Liepaja, Latvia, September 8, 2015

LATVIJAS SPORTA PEDAGOGU AKADĒMIJA

Sport science as a tool of excellence and a direction of LASE strategy

LASE scientific development basic guideline 2015-2020

The establishment of Latvian sport science center in collaboration with the Sports Department of the Latvian Ministry of Education and Science (MES), functionally consolidating with the Latvian Olympic Committee (LOC), the Latvian Olympic Unit (LOV), the Latvian Sports Federation Council (LSFP) Murjāni Sports Gymnasium, Olympic centers and sports federations in the field of sport science and health care in sports, as well as research in collaboration with other Latvian, European, particularly Baltic, Scandinavian and the world higher education institutions and research centers.

INTERNATIONAL CONFERENCE «BE ACTIVE – ENGAGE IN RECREATIONAL TEAM SPORTS»
Liepaja, Latvia, September 8, 2015

LATVIJAS SPORTA PEDAGOGU AKADĒMIJA

Thank you for your attention !

INTERNATIONAL CONFERENCE «BE ACTIVE – ENGAGE IN RECREATIONAL TEAM SPORTS»
Liepaja, Latvia, September 8, 2015