INDARES.COM AS AN INSTRUMENT FOR RESEARCH AND EDUCATIONAL SUPPORT

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INTRODUCTION

Current research and education use widely information and communication technology (Zhu, 2008). The market offers various applications supporting physical activity (e.g. Endomondo, Sports Tracker), however they are not applied for research or education in schools. The on-line Indares project (International Database for Research and Educational Support) is a comprehensive system aimed at recording, analyzing and comparing physical activity (PA) of the system users (Indares, 2014).

OBJECTIVE

The objective of the research paper is to introduce the structure of Indares system aimed at research and educational applications.

INDARES SYSTEM

The main purpose of Indares is to support education and research on PA. Other aims are to promote interest of users in PA lifestyle improvement. Indares is a suitable tool for on-line collection of the data on PA (Chmelík et al., 2008). The system is accessible, multilingual and free of charge. The total number of registered users as of 1st April 2014 was 28,484 (Rubín et al., 2014). Majority of users (n = 19,987) is from Czech Republic. Other participating countries develop through research cooperation (Poland, Slovakia, USA, Mexico, Spain and others).
MODULES

The Indares system consists of five independent modules that can work for individuals as well as for groups.

PHYSICAL ACTIVITY

Users can record the duration and type of PA on a daily basis. The software estimates energy expenditure and provides feedback. The values may be compared with PA recommendations (Fig. 1).

![Daily chart of physical activities](image)

**Figure 1.** Daily chart of physical activities. *Source: Indares (2014).*

Based on PA records several variables can be easily calculated within different groups.

STEPS

The users wearing pedometers may use the Steps module to record daily steps. The system provides information on health recommendations for walking; users own results are clearly visible (Fig. 2).
Several variables can be compared for scientific purposes: gender, days in a week, weekdays and weekend days, classes, schools, regions and countries.

FITNESS ASSESSMENT

This module includes a test battery suitable for self-assessment of physical fitness and was described in detail elsewhere (Nosek & Cuberek, 2011; Indares, 2014).

ACTIVE TRANSPORT

The module allows drawing the route users took for transport from home to school or work. The feedback indicates the ratio between active and passive transport, step counts, energy expenditure, etc. (Fig. 3).
This module helped verify the fact that adolescents with active transport of up to 1000 meters have significantly higher level of PA (1-3 MET) on schooldays.

**SURVEYS**

This module allows collecting the questionnaire data (currently 6 different surveys). International Physical Activity Questionnaire (IPAQ) and questionnaire on neighborhood environments are the most used surveys serving to national and international research (Bauman et al., 2009; Cerin et al., 2013).

**CONCLUSION**

With the six active modules, the on-line Indares system has a great potential to support the educational and research process in the area of physical education and physical activity. Appropriate development and promotion of the system can result in a variety of applications in practical motivation for physical activity and effective research.
REFERENCES


