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POSSIBILITIES OF APPLYING E-LEARNING SOLUTIONS IN SPORTS ORGANIZATIONS

Summary: The article contains basic definitions connected with the developing concept of electronic teaching, technology-based learning (e-learning). As a part of the study the analysis of the subject literature was used for pointing out possibilities of using e-learning solutions in contemporary sports organizations. Building theoretical basis of e-learning implications in the area of electronic learning process and knowledge repository is the main object of the paper. Taking the main idea about importance of knowledge and information as resources for sport professional organizations, the practical aspects and benefits from extending education abilities were showed. The paper contains also proposals for managers, coaches, administrative staff or specialists to use e-learning solutions.

Keywords: electronic learning, e-learning, media in sport, knowledge management, intellectual capital.

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1. Introduction

The development and intermingling of contemporary sciences are unprecedented in the history of our civilization. Nowadays, it is very difficult to follow the changes and development of knowledge, there are new scientific areas created because of the current needs. On the other hand organizations have a lot of new opportunities. Entropy in the area of process solutions affects decision-making processes. In order to avoid intuitive activities organizations are developing solutions in the area of knowledge management and decision support. Organizations are changing themselves, often as a result of short-lived trends, pulses actions, dynamic actions of environment, appearing technological possibilities, market swings or effects of the competition. Sport organizations are also changing – professional sport has little in common with what was universal 20 or 30 years ago. The knowledge, information, methods of action are goods very sought for, the material resources are not necessarily crucial ones.

Numerous authors show the expansion of the organization to such direction as a knowledge orientation [Senge et al. 2012, p. 232; Chatterjee, Senge 2012, p. 121;

Perechuda 2005, p. 25; Witkowski, Cieśliński 2005, p. 395; Stosik, Morawski 2009, p. 153; Idzikowski, Kopecka-Piech 2012, p. 103]. In the hereby article, the authors are pointing out the possibilities of new technology implications in the area of knowledge in contemporary sport organizations. The article covers the problem of application of e-learning solutions in sport organizations (on the universal level). In the paper, literature analysis as well as the model building method were used in designing theoretical solutions for sports organizations. The main purpose of the article is description of possibilities and benefits of using e-learning systems in professional sports organizations.

2. E-learning – what is it?

E-learning or Technology-Based Learning (TBL) is a teaching process based on the technology. E-learning is a form of electronic teaching process directed to the trainee person. It provides organization members with the knowledge repository to satisfy individual needs associated with the learning. This process can be carried out through the participation in trainee groups or in special interest groups where members are getting and exchanging information and knowledge.

E-learning empowers independent learning processes, and more than this, it encourages to do that. However, the effectiveness of the e-learning process in this system to a large extent depends on the trainee support. The effectiveness of this direct support, rather than applying the sophisticated technology, is creating the appropriate added value [Armstrong 2007, p. 200].

J. Schramm [2001, p. 145] points out three main applications of the e-learning:

- educating by using multimedia technologies – teaching is actually reading training materials without the contact with other trainees or the coach;
- educating in the real time – it is focused on trainee and oriented on the practice direct on the acting; to a great extent it is based on contacts between a trainee and coach who directs learning processes;
- unofficial education in the e-learning system – it regards educating processes inside the organization; it is directed at the practice and based on multidirectional interactions between trainee, supervising mentors and experts in the normal work processes mode.

All applications listed above are evolving and gaining the greater significance and meaning in our times. According to the definition of e-learning, it is important to explain what the “e” prefix means in e-learning. In colloquial meaning it comes from English word “electronic”.

Based on literature analysis we can assume that e-learning is a form of knowledge sharing and knowledge building process, described with the following features [Głowicki, Łasiński 2010, p. 85]:

- the teacher and students/knowledge receivers are separated from themselves,
- digital media are applied (they are integrated in interaction processes for knowledge repository creation as well as information and knowledge exchange),

- a bilateral digital communication is provided,
- educational process management systems are used (LMS – Learning Management System, LCMS – Learning Content Management System),
- part of the educational process tasks is being carried out simultaneously (in the real time),
- an appropriate technological background/equipment and human teams are provided,
- the process is based on specific, common standards under the synchronous procedure (partly),
- specific SCORM standards are fulfilled, AICC (and/ or other).

Based on the above definitions, we can define e-learning also as a satisfying knowledge process through digital media like the Internet, the Intranet, the Extranet, the satellite transmission, audio systems and video, the interactive TV and data sources (CD-ROM, FDD, HD, the DVD, Blu-Ray, magnetic tapes, optical plates and others).

The main components of the e-learning system are as follows [Głowicki, Łasiński 2010, p. 85]:

- interactive class modules,
- electronic mail system,
- newsgroups,
- discussion groups,
- the synchronous tools in the Internet:
 - chat,
 - audio- and videoconferences,
 - white board.

Considering the definitions mentioned above it is possible to concentrate on the software aspects associated with the e-learning.

3. Systems and platforms used in e-learning

Contemporary e-learning solutions are integrated with platforms equipped with the solutions useful in planning, realization, evaluation and the process control of knowledge development processes. The most popular commercial LMS systems and LCMS in Poland are [Głowicki 2009, p. 102]:

- Lotus Learning Space, IBM,
- Docent, Hewlett Packard,
- SABA, Betacom,
- iLearning, Oracle,
- Intralearn, BCnet,
- Edumatic, Edustrada,
- Alatus, Alatus.

Obviously open-source solutions are also used, particularly in the education at the university level. Systems differ from each other in properties, the functionality and the extensiveness of interfaces. It is also possible that in the future it will be very competitive situation on the field of e-learning systems [Głowicki, Łasiński 2010, p. 85]. The e-learning managing includes three spheres associated with the process of teaching:

- managing the teaching processes,
- managing contents of the teaching,
- managing the communication and the synchronous cooperation.

All three of these systems are available in a number of forms (often LMS systems and LCMS are called platforms of the e-learning). The first one, Learning Management System (LMS), and the second one, Learning Content Management System (LCMS), have mutual system connections and often constitute one integral part. The LMS system provides the access to various knowledge sources and it has functionality prepared to automatic administration of learning programs. LMS is not a cohesive application. However, it is popular software solution proposed by majority of e-learning providers. LMS should have functionality to easy-use and change dynamic knowledge repositories (DKR). The specificity of e-learning processes is also very important according to the different roles creators/teachers/coaches. LMS software needs to consider technological limitations of hardware and network systems. LMS is a high level e-learning system proposal, it is a strategic solution being used to planning, delivering and managing the process of teaching/learning in organizations [Machol 2003]. Among others R.C. Clark and R. Mayer, on the basis of their cross level perspectives researches, point out changes processes in education. One of the examples of ILT and Technology base proposals in organizations is Figure 1 [Clark, Mayer 2011, p. 16].

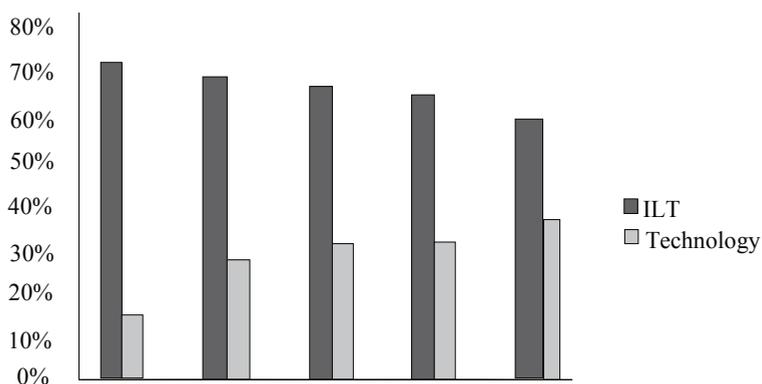


Figure 1. Percentage of learning hours available via ILT (Instructor-Led Training) and Technology

Source: [Clark, Mayer 2011, p. 16].

The authors also describe the influence of the different educating types in whole teaching processes (Figure 2).

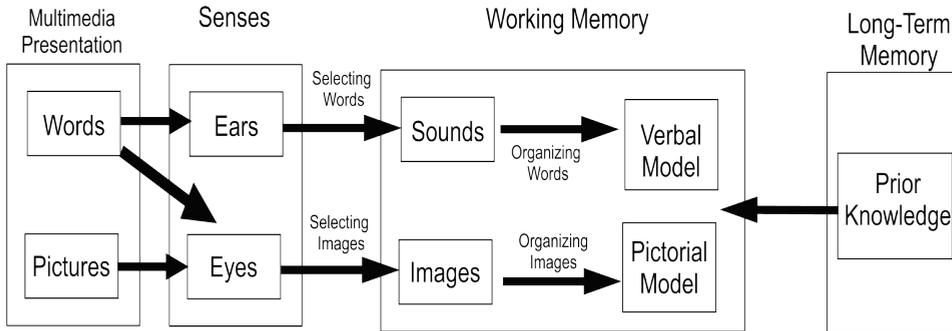


Figure 2. Cognitive theory of multimedia learning

Source: [Clark, Mayer 2011, p. 36].

Based on conclusions as the result of these readings and researches, it can be stated that applying electronic media and e-learning platforms in education systems is justified.

4. Needs and possibilities in e-learning applications of contemporary sports organizations

As a response to challenges sports organizations face, a lot of new needs are created. Authors like R.A. Hernandez [2002] point to the new-type, common sport organization needs as follows:

- the need for theoretical studies and educational resources,
- the need for greater personal expertise in sport management,
- the need to be familiar with PR activities and media relations,
- the need for guidance and tools to attain higher administrative level.

The transformations area of sports organizations is large and changing. Obviously in any kind of system solutions many determinants are connected with the ultimate effectiveness of educating processes. Of course also in sport organizations exists the background of media-based learning with e-learning tools [Głowicki, Łasiński 2013, p. 616]. Sport organizations have great needs in the area of knowledge [Seweryniak, Szuliński 2013, p. 62]. Teaching processes based on electronic systems give also essential possibilities to build the responsibility of workers and managers and build new control functions. Authors like D.R. Garrison [2010, p. 11] clearly defend the idea of responsibility and control functions importance in e-learning solutions.

The conditions and conclusions as the result of the above literature analysis allow us to formulate the following proposals of solutions, using e-learning systems dedicated for sport organizations (Table 1).

Table 1. E-learning solutions in sport organizations

E-learning processes users	Possibilities of applying e-learning solutions
Management board of the organization	<ul style="list-style-type: none"> • analysis of changes in the organization • initiating changes in the area of knowledge • implementation of idea management tools • administration • obtaining information for the employee evaluation
Coaches	<ul style="list-style-type: none"> • knowledge bases building • self-education • educating competitors/team members • reporting own development needs • management by objectives • cooperation inside and outside of the organization • consulting and coaching in the knowledge area
Managers	<ul style="list-style-type: none"> • knowledge and information acquisition • self-education • participation in processes associated with the knowledge management • cooperation inside and outside of the organization
Medical support	<ul style="list-style-type: none"> • self-education • participation in processes associated with the knowledge management • specialization development • research and development • cases analysis
Administration	<ul style="list-style-type: none"> • self-education • participation in processes associated with the knowledge management • specialization development
Competitors, team members	<ul style="list-style-type: none"> • self-education • reporting the own development needs

Source: own elaboration.

Naturally other directions of e-learning system use can be developed. The examples above are just general proposals. It is clearly shown that the new age of digital media and e-learning solutions are not only useful in production and services oriented organizations, but also in sport organizations.

5. Conclusions

In the age of changes, organizations are looking for universal, long-lasting and flexible solutions enabling to build the knowledge, based on compatible and opened solutions. The possibility of using contemporary software in the area of e-learning for sport organizations is giving the chance to build the knowledge structures. Also e-learning functions adapted to the specific needs of the organization or sports sections can be helpful in strategic change processes. The implication of this type of solutions gives also very valuable opportunity. One of them can be personal risk management in sport organizations. Implementing the education models and LMS systems gives ability to the organization to identify the key elements of organizational culture and encourage organizations to be more active in the creation knowledge processes.

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MOŻLIWOŚCI ZASTOSOWANIA ROZWIĄZAŃ E-LEARNINGOWYCH W ORGANIZACJACH SPORTOWYCH

Streszczenie: Artykuł zawiera podstawowe definicje związane z rozwijającym się pojęciem współczesnego nauczania elektronicznego (e-learningu). W ramach opracowania przeprowadzono analizę literatury przedmiotowej oraz wykorzystano metodę modelową do wskazania na możliwości wykorzystania rozwiązań e-learningowych we współczesnych organizacjach sportowych. Głównym celem publikacji jest zbudowanie podstaw teorio-poznawczych umożliwiających w sposób systemowy implikację rozwiązań w zakresie elektronicznego kształcenia i budowania repozytoriów wiedzy. Wychodząc z głównej przesłanki dotyczącej wagi wiedzy i informacji jako zasobów dla organizacji sportowych, wskazano na praktyczne aspekty i korzyści wynikające z poszerzenia możliwości kształcenia w organizacjach sportowych. W publikacji zamieszczono także odwołania do możliwości wykorzystania e-learningu we wspomaganiu poszczególnych interesariuszy, takich jak menedżerowie, trenerzy, pracownicy administracyjni czy też specjaliści.

Słowa kluczowe: nauczanie elektroniczne, e-learning, media w sporcie, zarządzanie wiedzą, kapitał intelektualny.