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BENEFICIAL ASPECTS OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE TRAINING PROCESS OF PHYSICAL EDUCATION AND SPORT SPECIALISTS

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ABSTRACT. This article addresses the issue of both the need for information and communication technologies (ICT) in the process of training specialists in the field of physical education and sport, as well as their beneficial aspects within the given process. The analysis of bibliographic sources on the issue addressed allows us to ascertain the role of information and communication technologies from the point of view of the professional training of the profile specialist. The use of technologies in the instructive-educational process contributes to the development for students of the skills required by modern society, focusing the educational process on the student, who in turn becomes the subject of the educational process. Information and communication technologies provide instant access to information, which is why its presence in the teaching process is so important. The implementation of technologies also creates differentiated instructional pathways to meet the unique needs of students as individual learners. The personnel involved in the didactic process must possess, in addition to the theoretical and practical knowledge related to the discipline studied, also skills in the use of information technologies. At the current stage, the use of information and communication technologies by teachers and students has become a priority. Focusing on information and communication technologies in the teaching-learning-evaluation process becomes a pressing necessity in the conditions of the contemporary information society.

Keywords: *Benefit, computer, digital competence, physical education, professional training, sport, student, information and communication technologies.*

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REZUMAT. ***Aspecte benefice ale tehnologiilor informaționale și de comunicare în procesul de pregătire a specialiștilor de educație fizică și sport.*** Articolul dat abordează problema atât a necesității tehnologiilor informaționale și de comunicare (TIC) în procesul de pregătire a specialiștilor în domeniul educației fizice și sportului, cât și aspectele benefice ale acestora în cadrul procesului dat. Analiza surselor bibliografice la problema abordată, permite să constatăm rolul tehnologiilor informaționale și de comunicare din punctul de vedere al pregătirii profesionale al specialistului de profil. Utilizarea tehnologiilor în procesul instructiv-educativ, contribuie la dezvoltarea pentru studenți, a abilităților impuse de societatea modernă, focalizând procesul educațional asupra studentului, care la rândul său devine subiectul procesului de învățământ. Tehnologiile informaționale și de comunicare oferă acces instantaneu la informație, motiv pentru care prezența acesteia în procesul didactic este atât de importantă. Implementarea tehnologiilor creează, de asemenea, căi de instruire diferențiate pentru a satisface nevoile unice ale studenților ca instruiți individuali. Personalul implicat în procesul didactic trebuie să posede, pe lângă cunoștințele teoretice și practice aferente disciplinei studiate, și abilitați de utilizare a tehnologiilor informaționale. La etapa actuală, utilizarea tehnologiilor informației și comunicațiilor de către profesori și studenți a devenit o prioritate. Axarea pe tehnologiile informaționale și de comunicare în procesul de predare-învățare-evaluare, devine o necesitate stringentă în condițiile societății informaționale contemporane.

Cuvinte cheie: *Beneficiu, calculator, competență digitală, educație fizică, pregătire profesională, sport, student, tehnologii informaționale și de comunicare.*

INTRODUCTION

Initially viewed as a support for the conduct of business activity, information technology plays an increasingly important role in the life of all organizations, due to the rapid changes in the market and the expansion of global connections. IT comprises an assembly of computing equipment and software applications used together to store, process, manipulate and transmit data.

The information society is based on multifunctional communication and is in a permanent expansion of technological possibilities, including not only telecommunications, but also other spheres of society, such as the economy, trade, media coverage and virtualization and, last but not least, education.

In competence-centered education, special attention is drawn to interactive pedagogy, integrated through modern educational technologies, including new information and communication technologies.

According to the Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning (2006/962/EC), digital competence has been recognized as one of the eight key competences for lifelong learning. Digital competence involves the safe and critical use of Information Society Technologies (IST) for work, leisure and communication.

The key competences provide a frame of reference in support of the efforts made at national and European level to achieve the objectives they define. This framework is primarily addressed to policy makers, education and training service providers, employers and learners.

It is observed that the educational process is prioritized in the reference framework, a fact beneficial for the good development of society.

Digital competence is embodied in the confident and critical use of the full range of information and communication technologies for information, communication and problem solving in all areas of life.

At the same time, the concept of digital competence is interpreted from the point of view of several aspects, it includes dimensions that represent the convergence of several fields that evolve very quickly, as new digital technologies appear. Being digitally competent today means more than being able to use the latest digital technologies (phones, tablets, etc.) or computer software – it's about having the skills to search for relevant information, to critically and creatively analyze web services, to be able to communicate with others, using a variety of digital tools and applications, to understand/perceive media as a digital habitat, to protect digital identity and to respect ethical norms of conduct in network.

The problem of computer application in training was deeply and multilaterally researched in several countries, and the proposed solutions were determined by the respective stage of education development in the given country, as well as by the degree of computerization of the society at the time of the investigation (Burlacu, 2015).

In the field of physical education and sport, information technologies aim to help teachers/students/coaches and provide them with the necessary support in the teaching-learning-evaluation process.

Several specialists (Oboroceanu, 2016; Risneac, Milici & Rata, 2004; Volcu & Volcu, 2019), consider the application of IT means such as audiovisual ones, in the instructive-educational process, as a method that can contribute to solving the tasks of practical lessons, bringing the teaching staff closer to non-standard means and at the same time having a positive influence on the actual work.

The importance of video recordings is also recognized by Gorsgeorge, quoted by Ciocoiu (2009) who believes that they facilitate the analysis of collective actions, and even recommends that teachers and athletes use video feed-back during the training process.

In the opinion of Balan (2012), the modernization of pedagogical education currently includes two converging trends: the transformation of the learner into a subject of his own development and the approximation of professional knowledge to scientific knowledge.

It is indubitable that the use of information technologies in physical education and sport obviously improves the efficiency of the field.

The consequences of the development of information technologies spread like an echo in different structures of society, bringing changes in education not only at the level of skills in particular, but they agree in the connection of pedagogical models, currently based on the symbiosis of the traditional and the digital environment. The digital habitat imposes paradigms in education that combine the training of the necessary skills in the 21st century and the daily pedagogical activity, which becomes optimal with reference to learning and education, generating new experiments and didactic methods. In recent times, information technologies have constantly focused on training with the help of numerous applications, electronic platforms and virtual educational environments. The pedagogical concordance offered by ICT to the training process coincides with the requirements and expectations of the growing generation to facilitate the formation of transversal skills, necessary in modern society. In the 21st century, pedagogy has acquired the meaning of skills pedagogy and challenges the teacher to develop his professional mastery by applying digital skills.

OBJECTIVE AND HYPOTHESIS

Through this paper, we aim to effectively contribute to the professional training of physical education and sport specialists by promoting the use of information and communication technologies in the instructional-educational process, both by academic staff and students/master students, so that they are competitive on the labor market.

In this research, we started from the hypothesis that the implementation of information and communication technologies in the training process of physical education and sport specialists will significantly improve their professional development and, as a result, they will become able to face the challenges of the field.

The purpose of the research is to highlight the benefits of using information and communication technologies in the process of training specialists in the field of physical education and sport.

MATERIALS AND METHODS

We used the following research methods: theoretical analysis, statistical-mathematical method, graphic method, survey method, interview, observation.

Data collection was carried out by developing a questionnaire and filling it in by the students. Participants were asked to provide an answer for each item. For this, the respondents were given general instructions on how to complete the questionnaire, as well as the use of the data provided by them.

At the same time, an analysis of some statistical documents was carried out, such as: Access and use by the population of information and communication technology; strategic: the 2030 Sustainable Development Agenda adopted at the UN Summit, which represents an action plan for People, Planet and prosperity.

RESULTS AND DISCUSSIONS

The widespread acceptance of information technologies in education has an important effect, first of all, on the representation and assimilation of didactic content; technology is gradually changing the way of learning and transmitting information. Today's generation of learners is being trained in the digital habitat and as they progress through the training process, they tend to use interactive, collaborative learning content with limitless opportunities. Precisely for that reason, teachers must include in the teaching-learning-evaluation activities the technologies that will allow them to design educational content and computer-assisted learning scenarios.

In order to carry out an analysis on the topic, I conducted a study on some statistical data and a sociological survey, where the following results were obtained:

When asked about the necessity of using information technologies in the training process of future physical education and sport specialists, 57.5% gave a categorically positive answer and only 2.5% denied, and 40% of respondents were indifferent, considering it difficult to answer this question (Figure 1). A part of society believes that information technologies do not really have a place in physical education and sport, due to the specificity of this, which requires a healthy way of life by practicing physical exercises and proper nutrition.

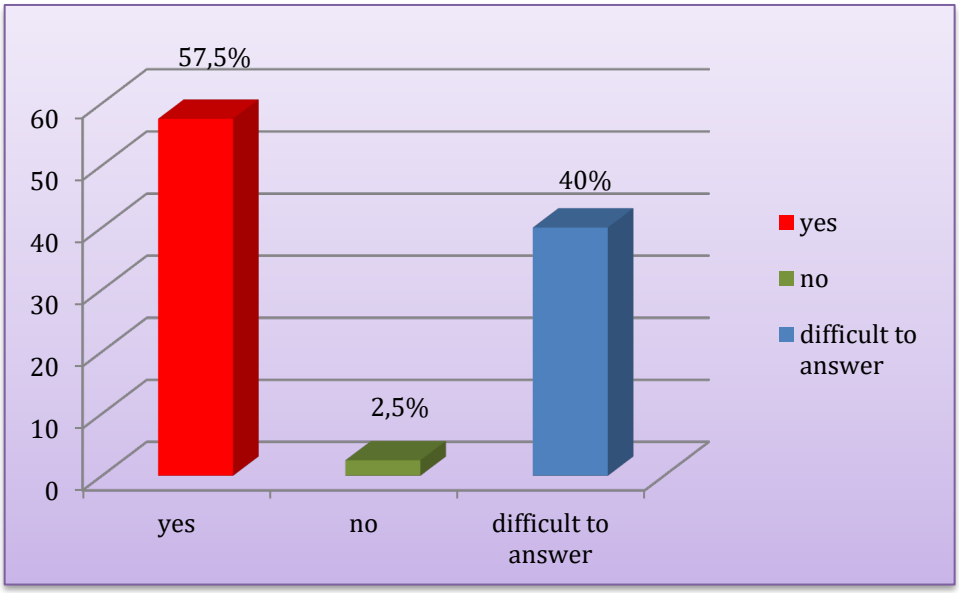

Figure 1. The percentage distribution of the answers regarding the need to use IT in the training of profile specialists (yes, no, difficult to answer)

The change in the education system aims at increasing the efficiency of learning activities, developing skills and individual study, which is an educational and scientific research activity, aimed at developing the necessary skills and is carried out with the methodical guidance of the teacher, but without his direct participation (Volcu & Volcu, 2023). Their achievement depends on the degree of preparation of the teacher in the use of the computer, the style of the teacher, the number of students, their interest, knowledge and abilities, the institutional climate and the quality of the programs used, the time the software is integrated into the lesson, the synchronization of the explanations with the sequences used, the evaluation methods, the developed worksheets, etc.

According to the data of the National Bureau of Statistics of the Republic of Moldova (2018), in 2017 over half of the households in the Republic of Moldova had computers (52.3%), being connected and using the Internet (50.7%), with an increase in the last four years of both indicators by more than 10 p.p. In the urban environment, 2 out of 3 households have computers (65.7%), exceeding by about 24 p.p the share of those in the rural environment (41.6%), the increase of the indicator in 2017 compared to 2013 being approximately the same in both environments (about 10 p.).

In the context of the 2030 Agenda for Sustainable Development (2015), information technologies and information are the main tools for achieving the objectives and reaching the targets of sustainable development.

Among the indicators for measuring access to ICT, proposed at the international level, the indicator of the proportion of pupils/students who have access to the Internet in school is also mentioned. There are no official data regarding access to the Internet in educational institutions by pupils/students, however sociological studies show that the majority of pupils/students have access to the Internet in institutions, about 2/3 of pupils/students confirm that they accessed the Internet during the year at school, college, university (free).

In the context of the above, 90% of the respondents know how to use the computer, and 10% considered it difficult to answer this question, which highlights the fact that some of the respondents encounter difficulties in using the computer (Figure 2).

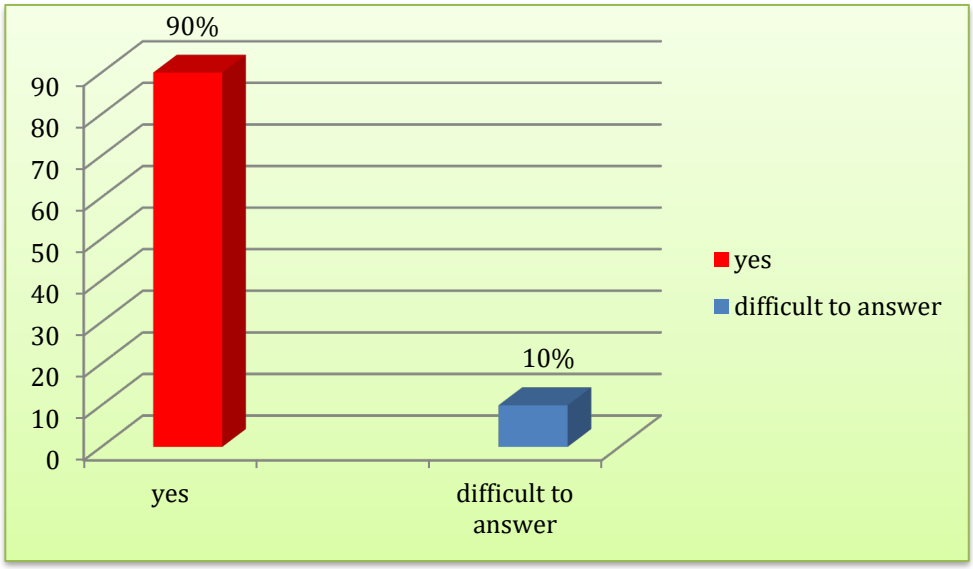

Figure 2. Percentage distribution of answers regarding computer knowledge (yes, no, difficult to answer)

The random use of the computer, without a specific purpose, at an inappropriate moment during the lesson leads to boredom, monotony, the inefficiency of learning due to the non-participation of some students in the

lesson, the failure to achieve the objectives of the lesson and can produce repulsion towards this modern means of teaching-learning- evaluation. Excessive use of the computer can lead to the loss of practical skills, calculation and reality investigation, to the deterioration of human relationships. The excessive individualization of learning leads to the denial of the student-teacher dialogue and to the isolation of the act of learning in its psychosocial context. The subject is segmented and atomized too much, and the mental activity of the students is diminished, it being directed step by step.

Taking into account these negative aspects, we cannot exclude the fact that the integration of ICT in the study process, according to some authors (Constantin & Dinica, 2006; Stan, 2012; Volcu & Volcu, 2019), also brings numerous advantages: Stimulation of innovative, adaptable learning capacity to conditions of rapid social change; Consolidation of scientific investigation skills; Awareness of the fact that the concepts learned will later find their usefulness; Increasing the yield of coherent acquisition of knowledge through the immediate assessment of student answers; Strengthening students' motivation in the learning process; Stimulation of logical thinking and imagination; Introducing a cognitive, efficient and independent style; Installation of the climate of self-surpassing, competitiveness; Mobilization of psychomotor functions in computer use; Development of visual culture; Formation of useful practical skills; Ensuring a permanent feed-back, the teacher having the possibility to redesign the activity according to the previous sequence; Facilities for rapid processing of data, making calculations, displaying results, making graphs and tables; Ensures the choice and use of appropriate strategies for solving various applications; It develops thinking so that, starting from a general way of solving a problem, the student finds the answer for a concrete problem by himself; It ensures the preparation of students for a society based on the concept of permanent education (lifelong education); It determines a positive attitude of students towards the educational discipline in which the computer is used and towards the moral, cultural and spiritual values of the society; It helps students with special needs to integrate into society and the educational process.

Also, the computer is extremely useful because it simulates complex processes and phenomena that no other didactic means can highlight so well. It allows the realization of experiments that are practically impossible due to the lack of didactic material, the inadequate equipment of the laboratories or the danger to which the participants were exposed.

It is worth noting that one of the areas of interest in the labor market is how employees use computers during working hours.

CONCLUSIONS

Information technologies are of major importance both in the training of physical education and sport specialists, as well as during professional activities, having a multitude of advantages.

The results of the sociological research carried out (Figure 1) highlighted the fact that all categories of respondents confirmed the necessity (57.5%) of using information technologies in the training of physical education and sport specialists.

The use of information technologies is a necessary trend for the evolution of the field of physical education and sport, as well as for the training of profile specialists.

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