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Perceptions of teachers regarding the implementation of the internet in education

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ABSTRACT

This paper aims to examine how much teachers are interested in using the Internet and how much they are trained to use the Internet in teaching and in their personal development, as well as to examine the perceptions of teachers regarding the implementation of the Internet in education. The study included 143 primary and secondary school teachers. The variables of this study were the type of school, work experience and profession. In order to assess the perception the teachers have regarding the use of the Internet in education, a five-point Likert scale intended for teachers was designed. The scale consisted of 45 claims and is intended for determining teachers' attitudes regarding the implementation of the Internet in education. The results of the research show that teachers are interested in using the Internet in education.

1. Introduction

Nowadays, the modern society places new demands for schools, moving boundaries and the focus of education from traditional teaching to the modern multi-disciplinary approaches and the implementation of information and communication technology (ICT). With the development of ICT, educational institutions are trying to restructure its educational programs. This process of restructuring enables development in specific areas, promotes the importance of learning and improves professional productivity (Tomei, 2005). This productivity is reflected in the fact that students learn in an easier way and that they are willing to accept work with the new technologies (Koert, 2000). Today, with using modern technology, education is not only the transfer of knowledge from the teacher to the students. With the use of modern technology education is work in groups, work on projects, sharing ideas with their peers, and much more (Zhang, de Pablos, & Zhou, 2013). Lytras and Ordóñez de Pablos (2011) in his work note that technology must serve to the achievement of Knowledge Society through knowledge based information systems.

Pupils, teachers and parents consider that ICT has a positive impact on pupils' learning. In Europe, 86% of teachers state that pupils are more motivated and attentive when computers and the Internet are used in class (Korte & Hüsing, 2006). By means of using ICT, teachers can improve the interaction with students. This interaction can be achieved through several levels: presentation, demonstration, drill and practice, interaction, and collaboration (Haddad & Draxler, 2002). Because of these new interactions, education cannot remain immune to the new changes, but must come to grips with them and with current educational trends. As far as the impact of ICT on education is concerned, it can be said that major research was conducted in the work of Harrison et al. (2002), Ramboll Management (2006) and Machin, McNally, and Silva (2006).

The Internet, as well as educational and computer software, are used very little in our schools, mainly due to outdated hardware platforms but also because schools are not sufficiently equipped for the implementation of the Internet in the classroom. Machin et al. (2006) state in their study, that it is difficult to provide a link between the use of ICT and education results. Unlike them, (Kessel, 2005) states that with the implementation of ICT, teachers become more confident in their work. Moreover, teachers who use the Internet tend to give more complex multimedia tasks to their students (Becker, 2001). A new generation of teachers and theoreticians of education are facing a great challenge of improving and modernizing the existing educational practices. One of them is a survey conducted by Stevanović and associates (2010), where they came to the conclusion that teachers like to use the Internet, but that it is just occasionally used for communication. Either way, the computer has become a routine auxiliary tool for teachers

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which enables and facilitates their work (Becker, Ravitz, & Wong, 1999). Wells and Lewis (2006) stated in their research that 89% of schools use the Internet to provide information for lesson planning, 87% of schools provide individual instructions and use materials from the Internet, 51% of schools use the Internet for professional development of the employees and 32% provide help to students through online courses.

Unlike traditional learning where the requested books at libraries in the E-learning students prefer fast searches of materials over the Internet to discover and find the electronic materials. For this reason there is a great need for the creation of electronic materials and personalized learning tools that may be suitable for the profile of each student (Kurilovas, Kubilinskiene, & Dagiene, 2014). Numerous studies have shown that students who use E-learning are more motivated and willing to spent time learning from other students (Brusilovsky, Sosnovsky, & Yudelson, 2009; Weber & Brusilovsky, 2001). According to his own experience in learning, almost all students pleaded E-learning is much superior to traditional learning (Dascalua et al., 2015). These research have clearly highlights the importance of the Internet in education and the importance that teachers must be sufficiently literate in computer science as well as to covering every aspect of innovation in education.

The implementation of the Internet in education and E-learning provides a new dimension to the learning process where the traditional teaching tends modern form of learning through a variety of electronic resources with Internet and virtual communities. Learning with peers, use so-called collaborative E-learning through virtual communities, wikis, forums, chat rooms, virtual worlds provided successful examples of virtual learning experiences (Zhang, Liu, de Pablos, & She, 2014; Zhang, Ma, Wu, de Pablos, & Wang, 2014; Zhang, Zhang, de Pablos, & Sun, 2014). With E-learning, personalization can mean a specific student behavior in order to achieve their goals. With the development and implementation of the Internet in education appeared two aspects of E-learning: traditional and personalized. While traditional E-learning has one-to-many learning concept, personalized E-learning benefit one-to one or many-to-one learning and self-directed learning where students can learn independently (Kurilovas et al., 2014).

Good recommendations on the advantages of using E-learning is the feedback provided by teachers to the students. However, the recommendation and return the answers are not always effective. Students as such they can accept, modify or reject it. Only if they are properly designed and properly delivered can significantly improve the learning process (Dascalua et al., 2015). According (Bodea, Dascalu, & Lytras, 2012; Capuano, Gaeta, Ritrovato, & Salerno, 2014) some of the recommendations on the use of E-learning: give proper knowledge to proper members in collaborative team contexts, by respecting role, tasks, members' level of knowledge; assist students to plan their semester schedule, by checking courses that comply with constraint regulation and with students' preferences; give books recommendations; give learning tools recommendations.

Depending on the application of traditional ways of learning or E-learning, there are different styles and approaches to learning. According to Kurilovas et al. (2014), "learning styles are strategies, or regular mental behaviors, habitually applied by an individual to learning, particularly deliberate educational learning, and built on her/his underlying potentials".

Because of all the changes taking place in education, the question of whether teachers are trained to implement the Internet in teaching and in their personal development arises. The perceptions of teachers are very important for today's changes in education because they suggest which stand the teachers should take in order to improve education as well as their work in schools. There is a large number of studies that had perception, opinions and attitudes of teachers on various issues as their subject matter, such as the area of the teachers' profession, professional development and training, implementation of innovation in education and other fields, but there are small number of studies that had perception of teachers regarding the implementation of the Internet in education.

In 2014, we conducted an extensive research on the perception of teachers regarding the implementation of the Internet in education. The purpose of the research was to gain knowledge as to how the Internet and information technology are used in the daily work of teachers. In this paper, we presented the perception of teachers and their views on the implementation of the Internet in education.

The paper is structured as follows: after the introductory part (Section 1), Section 2 presents the materials and methods used in the preparation of the paper, set the main and auxiliary hypotheses, the nature and type of the sample and statistical test and the parameters used. Section 3 reveals the preliminary results of our research. Section 4 reveals discussions of our research. Conclusions are drawn in Section 5.

2. Materials and methods

This research was conducted with the aim to examine the perceptions of teachers regarding the implementation of the Internet in education and to try to give recommendation for future strategy and implementation. The subject of this research is the perception teachers have regarding the implementation of the Internet in education. The aim of the research is reflected in the effort to examine the perceptions and attitudes of teachers toward the implementation of the Internet in education.

The method applied in this study was selected in accordance with the objectives, goals and tasks of research, as well as in accordance with the set hypotheses. The study used techniques of scaling and instrument that is specially designed for this survey. After setting the theoretical basis of the work, through the methods of theoretical research and content analysis, built the way for the development of research and empirical analysis. Assessment of perceptions and attitudes of teachers on the implementation of the Internet in education constructed a five-point Likert scale, which is intended for teachers.

Hypothesis 1. It is assumed that the reliability of the rating scale as a whole is at a high level.

Hypothesis 2. It is assumed that the instrument is valid, and the factors that will be extracted from the factor analysis will be linked to the perception teachers have regarding the implementation of the Internet in education.

Hypothesis 3. It is assumed that there is no statistically significant difference in the opinion of teachers in primary and secondary schools, taking into consideration the work experience, regarding the implementation of the Internet in education.

Hypothesis 4. It is assumed that there are statistically significant differences in the perception of teachers that the used the Internet adds a new dimension to the learning process regarding the type of school.

Hypothesis 5. It is assumed that there are statistically significant differences regarding the issue of whether teachers are trained to implement the Internet in education, in relation to the type of school.