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Using New Communication and Information Technologies in Preschool Education

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Abstract

The research investigated educational activities in terms of educational resources used in preschools. Educational resources were seen as classic teaching tools versus new information technologies teaching tools and resources. From this perspective, the objective of the research has focused on investigating the use of classic and modern educational resources in preschools. The main method used was questionnaire survey. Results obtained show that the vast majority: 96.12% (N=218) uses frequently modern educational resources: often 39.4% and very often 57.8%. The implication of these results show that teacher use both classic and NTIC educational resources and are aware of their benefits and limits.

Keywords: teachers; preschool education; educational resources; new information technologies;

1. Introduction

New technologies are an "umbrella term" that encompasses diverse technologies. Some experts believe that may be considered new media both blogs, podcasts, video games, virtual worlds, wikis encyclopedias, as well as any mobile device, interactive televisions and even websites and email. Others consider that blogs and virtual worlds have their place in the social media category, because it encourages the formation of virtual communities and social networks (Gane, Beer, 2008). New media, due to the interactive properties, have a big impact on the way in which students grow, develop, learn, communicate, or establish their own scale of values. The computer is very useful to both student and teacher but its use must be carried out in order to improve the qualitative educational process, not

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to hinder it. The computer should be used to pursue the acquisition of knowledge and the formation of skills which should enable the student to adapt to the demands of a society in constant evolution (Mărgean, 2012).

2. Background

There are studies that suggest that the use of these technologies depend on environment training, instructional strategies, and learning materials (Clark, 1983, cited in Anderson, 2008). R.B. Kozma (1991), on the other hand, argues that the particular attributes of the computer are required to bring real models and to carry out simulations in learning. The computer itself is not the one who makes the students learn, but the design of real models, simulations, student's interactions with them are very important (Kozma, 2001). The computer is only the vehicle that provides processing capability and offers students instructions. He maintains the utility and the positive characteristics, depending on the purpose of use and time allocated to virtual activities (Clark, 2001).

Children and young people are the most adaptable to the transformations which have occurred under the impact of technological development. That is why they are called "net generation", "digital generation", "gamer generation", or "generation M" (Carstens, Beck, 2005; Montgomery, 1996; Tapscott, 1999; Prensky, 2001; Oblinger, Oblinger, 2005; Pedró, 2006; Rideout et al, 2005; Prensky, 2001). This can be explained in terms of increased capacity of the new interception and the possibility of allocating a higher time frame, compared to adults, for familiarity with the information and communication resources and testing multiple functionalities and uses thereof. Most of them, having grown up in the family and school environments abundant in digital equipment, were obliged to learn early their use, both in the light of the fact that they have been standing around, and the necessity of joining the group, and align with the "digital inclusion" (Livingstone, Helsper, 2007). It is a generation that, in the field of education, it feels more comfortable with a personalized, collaborative and interactive learning (Sánchez, Salinas, Contreras, Meyer, 2011). As regards their social attributes, students seem to make use of their spare time for the consumption of the different media at the same time, and in particular digital media (Pedro, 2006; Prensky, 2001; Rideout et al, 2005).

From the perspective of existing solutions for access to information support, there are three categories of solutions for IAC: online, offline and mixed (Mierlus, Mazilu, Nistorescu, Rose, 2005; project,, Key skills through virtual games in kindergarten - teaching resources to build up training key skills in preschoolers'-POSDRU/91/2.2/S/63158). The past few years, brought to the forefront, the e-learning adapting for mobile learning (mLearning). However, so that the mLearning to achieve his entire potential, it is essential to develop pedagogy mLearning and the training design tailored to the needs of this new environment for learning. Dual-coding theory presented by a. Päiviö (1986, 1990), formal and informal mLearning (Li, Zheng, Ogata, Yano, 2005; Livingstone, 2007; Andreatos, Michalareas, & 2008) register mLearning in the current trends of the information technologies field. In the past three decades, the digital technologies have been introduced inside and outside the course. The digital technologies are used so far unconsciously in education. From "radical optimism" (Inge, 2003/1912) to pessimism (Dienstag, 2006) the use of new information technologies in education still remains an open subject of discussion.

3. Methodology

The objective of the research focused on the identification and analysis of educational activities from the standpoint of teaching resources used in the process of education, the teaching means were divided into classical didactic means and teaching means of new information technologies. Research hypotheses are:

1. the tools still used in the teaching process belong in general, to the classical type: plates, magnetic whiteboard, blackboard, flipchart, markers, chalk, sound recordings, television, videogames and less to those of the new information technologies;

2. increased age cannot be regarded as a restraining factor for the use of new information technologies in teaching.

In research, the main method used was a questionnaire-based survey; the questionnaire is built on three dimensions: types of teaching used in educational process, the use of means in the process of learning and the usefulness of the new information technologies. The questionnaire was developed and validated specifically for this