TRENDS OF USING DIGITAL INSTRUMENTS IN EDUCATION

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Abstract

The introduction of digital tools takes place in all spheres of life, including the education. In this paper, I attempted to structure and characterize the existing digital educational tools in terms of functions and capabilities for users, characteristics of user interactions in tools. In the literary review in first part of this work, the current state of digitalization of various spheres of life was investigated, and the relation of society to perspective universal automation and digitalization of all on the basis of the published scientific works were studied. The purpose of the study was to structure and consolidate the data about the available digital learning tools and digital educational environments, to perform the role of the teacher in the use of each tool, and to highlight the ability of students and teachers in the framework of specific tools. This paper suggests the need for a closer transfer of knowledge and technology in the educational process, with the parallel formation of the concept of "digital competence" and the identification of the criterion of its evaluation in future and practicing teachers.

Key words: digital tools, digital competence, teacher formation, digital tutor

Digital technologies are entering the lives of 21st century citizens. Teachers are beginning to recognize the training potential of these technologies and are looking for ways to use them effectively in support of learning. In this regard, we want to contribute by summarizing some theoretical problems, offering implementation suggestions for the efficient integration of digital technologies in teaching and learning. The increased ubiquity and instructional benefits of digitalizing education have made teachers use them in the classroom to keep up with modern trends in education, without assessing, however, how beneficial digital technologies are to their students. Teaching has evolved over the centuries by adopting new approaches, methods, tools and technologies to reach a wider audience (Akbar, 2016). With the new technologies, this fact is very important not only to evaluate their influence on the students, but also to combine new trends with some traditional methods, known methods and which have been successful in education for a long time. Although teachers, understand that education should use all that science has to offer and follow it, they should be cautious in transferring all innovations and new technologies as appropriate to a particular group. In addition, new approaches in education create real challenges for both teachers and students. Education, understood as the capability to know what, how, where, when, why and for what would appear to be fundamental for any human being. Not only education is essential for finding or creating a job, but it is also a prerequisite for living as a democratic and global citizen. Today more than ever people need to have access to educational and learning processes that foster the best of oneself and life- long, life-wide and life-deep learning skills.

The modernization of the education system aims to train a person who has developed a high level of key competences. The use of digital in educational activities creates new opportunities, suitable methods for the transfer, dissemination and management of digital information, developing the skills needed on the basis of digital literacy, ensuring fair access for all. There is a view that in 5-7 years the paper textbooks will disappear (Makarova, 2018). How well will the programs be respected? Will the textbook be digitized and placed on student tablets? Or will different textbooks be created? There are already some notable experiences, in which the manual has been transformed into an interactive activity, benefiting from multiple audio-video functions. In this way, it ensures the respect of the scientific content but offers the student a dynamic experience, in which he can choose the right type of activity (accompanying the text text, music, videos, accessing links with additional information, searching for keywords, solving application).

We live in a multimedia rich world, so we must use these unique opportunities to "learn

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anytime, anywhere", but we should not forget that our human dynamics are becoming increasingly exposed to the risk of addiction to digital devices in life. students (Pedro, by Oliveira Barbosa, Santos, 2018). Appreciated by both students and teachers, digital technologies are often seen as a remedy in itself to many educational problems. But technologies can become a problem, it adds difficulties faced by students and teachers.

MATERIAL AND METHOD

Digitalization, as one of the characteristics of the openness and availability of the educational process, requires a revision of the approaches of the educational process and of the teachers training. For modern education, special training of staff is required, based on their competences, taking into account the flexible role of the teacher in the educational process. Under the current conditions, the teacher not only presents information, but also organizes the activity between the students to obtain this information. He not only explains and presents the material, but also answers questions. He should not only provide instructions for the task, but also help in discussing possible solutions with students. The information extracted in such a common activity becomes the personal knowledge of the learner and the teacher who works in this way, becomes a mentor or tutor (Makarova, 2018). Guidance support is a pedagogical activity in the individualization of education by identifying and developing the students' motives and interests, looking for resources to create a personalized educational program. Creating such a program is much easier with digital tools, the teacher having multiple functions for monitoring and recording the student's progress or regress.

Also, e-counseling experiences, using internet-mediated communications, between teachers to perfect their planning and training (Smith & Israel, 2010), have proven to be indirectly beneficial to their students or students. It is worth mentioning here, there are also teachers from some rural schools, who had limited access to resources due to geographical obstacles, engaged in online counseling using private messaging and Skype to support the refinement of teaching practices (Sawchuk, 2013). Overall, digital technologies create additional options for teachers by expanding resources and training to help address time constraints or geographical constraints. Among the digital tools, the most frequently researched seems to be the video function as a tool for examining teachers regarding their own practice and that of others. It was shown that the video recording was based on the teachers' abilities to critically and objectively evaluate their own practices and to consider possible refinements (for example, Rich & Hannafin, 2008; Tripp & Rich, 2012). The

combination of video reflection with tutoring / mentoring has led to significant changes in student / student learning practices, and has been correlated with the improved quality of teacher language use during assignment cues. Moreover, video and web tools, combined with tutor feedback and implication, have led to significant changes in teacher training practices (Powell and Diamond, 2013) compared to using technology without tutorial support. Thus, in order to become a mentor or tutor of the students in the digital learning activity, it is necessary to exist for the teacher, another mentor to relate with. In this way, the confidence of the two partners is successful.

Many learners were also knowledgeable about a range of digital technologies which they used out of school and college. For example, the use of mobile telephones, mp3 players and iPods for digital recording were reported by learners to be commonly used out of school. Where schools acknowledged and built on the technological skills and confidence that learners brought with them, this was seen as a driving force and was associated with an increase in learners' access to digital technologies. However, these skills were rarely used to aid learning in school, and the strength of the restraining forces which actively discouraged the use of such technologies within institutions, often because of concerns about control and safety, was evident in many of the case study schools and colleges. Conole, de Laat, Dillon, and Darby (2008) found that learners select and appropriate technologies to suit their own needs, for example they use computers, the Internet and books simultaneously. They also found that students appropriate technologies to play to their strengths in terms of visual and auditory capabilities, for example those with a preference for auditory information would download and listen to Podcasts or create their own recordings. Although these findings relate to learners in post secondary education, there is a strong likelihood that, given the chance, learners within schools would appropriate technologies to suit their needs and thus personalise their learning in this way.

As shown in a previous paper (Sancho, 2010), today students are literally besieged by auditory, visual and sensory stimuli, which provide them with very different life and learning experiences, which are often neglected or rejected by schools. According to Twenge (2006), these people belong to Generation Me, the first generation capable of speaking the language of self: "Just be yourself." "Believe in yourself." "Express yourself." For these people, the so-called Web2.0 seems like a perfect set of tools for expressing "self" through digital social media that facilitates creativity, collaboration and sharing between users and efficient information management. Members of this generation were named Millennials (Howe and Strauss, 2000), Instant Messenger Generation (Lenhart *et al*,

2001), homo sappiens (Veen, 2003), Internet Generation (Oblinger and Oblinger, 2005), Gamer Generation (Carstens and Beck, 2005) and even the Einstein generation (Boschma and Groe, 2006), being considered smarter, faster and more social. Given what we know about how people learn (Sawyer, 2006; Carey, 2014) and the opportunities offered by digital media (Järvelä, 2006), researchers and teachers need to turn the idea of teaching the subject into teaching to the subjects. This means promoting and guiding the learning of students. Changing the idea of representing teachers as those who know and students as empty passive vessels, to the idea of partners in the learning process, becoming equal parts in the instructional-educational approach.

RESULTS AND DISCUSSIONS

The wide range of digital tools available now, through personal devices, allows teachers to think innovatively and creatively about how they meet, both with students, and how they actually work with their peers. However, although some web and video-based resources have gained recognition as guidance and support tools (e.g. Downer, Kraft- Sayre, and Pianta, 2009; Neuman and Wright, 2010), research on the use of other digital technologies for improvement of the pedagogical practice remains rare. In addition, some teacher teams may find that certain technologies are better suited to their goals than others, so the flexibility and willingness to experiment with new tools is important for success.

Taking into account the basic principles of the development of the digital educational process, the objective is the independent learning of the students, and the following provisions can be proposed:

• moving to a new qualitative level of the relationship between mentor and teacher, between teacher and student, based on changing personal positions, resulting in a partnership in education.

• the educational activity becomes a new one, starting as manager of the training process;

• The system of educational activities becomes one in which interactive digital educational technologies, productive and creative tasks play a major role.

The mentioned researches provides insight into how flexible use of multiple digital tools can support high-quality interactions between tutors and teachers, between teachers and students. This implementation allows the teacher and the student to assume the full ownership of the instruction, increasing its effectiveness. The flexibility offered by digital tools creates new options for mentoring / tutoring contexts that facilitate solving instructional problems and create space for

teachers to reflect and innovate. By expanding the range of learning tools, teachers and students have the opportunity to choose their own unique learning path. Also, with the help of digital materials available to both in the classroom, student-teacher interactions focus more on problem solving, thus deepening the learning process. In short, teachers can revitalize the school syllabus if they are able to use the learning standards and understandings of digital literacy for formal education. This is a call for a change in what is meant by academic learning, where teachers can continue their education, but adapt the way knowledge is transferred. Therefore, many of the educational practices, suggestions and ideas are not new; rather, it offers a reform of the investigation of digital instruments and technologies as a means of production. Digital educational technologies are the most promising ways to improve the competency- oriented learning process, based on problem- solving principles, distinguishing it from the traditional methods of the education system. Research shows that combining digital educational tools and innovative teaching technologies is an intensive way to increase the independence of beginner teachers, not to the detriment of the volume of information processed, but due to the depth and speed of their processing.

CONCLUSIONS

In the last decade, there has been a change in learning. The ubiquitous nature of digital instruments in educational institutions has brought changes in the design of courses and pedagogical practices. We are witnessing a growing discrepancy between the learning styles that are cultivated in formal education and those that characterize students' experiences outside of school. The students / students are immersed in a consumerist culture that determines their autonomous and active sense, although much of their learning is passive and directed (Buckingham, 2007). This situation is a challenge for teachers and decision-making institutions called upon to modify the behaviors generated by his need to have as much as possible(s) of all offers in favor of the need to be his own selection criteria favorable to becoming. It is a task that we can fulfill including by using technology to find solutions capable of showing us the possible variants and their effects.

In general, combining digital educational tools with innovative teaching technologies helps teachers improve their skills and gain experience in the following areas: identifying, selecting and solving problems; working with information -

understanding the meaning of the results described in the situation; analysis and synthesis of information and arguments; work with assumptions and conclusions; evaluation of alternatives; decision making; discussing problems and understanding other people (teamwork skills); taking into consideration the problems associated with learning implementation, management decisions; correlating theories and concepts in the learning process and in real life activities; coordination of conflicting objectives; interactive learning; experience conceptualization skills; reflective skills; self- esteem and developing self-awareness. Since the teacher has expertise in these areas, the student or student can see in it the mentor who gives them confidence, support in meeting the objectives and understanding the possible limits.

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