

THE ROLE OF ICT USE IN CHANGING LEARNING ENVIRONMENT AND ITS IMPACT ON WELL-BEING

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Received: 31.08.2014; Accepted: 11.10.2014; Published online: 17.12.2014

These day's lifelong and dinamically variable mobile learning environment the modern technologies (electronic, mobile and network devices) used by the learning activities reached a decisive role. The information gathering process can change using these technologies, which raises a significant question: how to transform the gathered information into valuable knowledge? The information obtaining and resource management are definitely determining factors in the learning process. The learning process takes place either individually and independently or collaborating with peers made, the question is how the students can cope in the learning process.

Keywords: ICT, learning, well-being

Access to information - scenes

In order to widen the boundaries of human mobility, to develop the intercultural and digital competencies, the issue of getting information must be solved: in what capacity, how much information can the students get during their studies, and moreover what kind of means/tools can they achieve the most effectively?

The relationship between the individual and the community has an emphatic role in the information gathering process. These days the development of communication technology is being increasingly exploited primarily by the industrial, economic and business sector. However, we have to admit, that in the field of education would be an urgent need to keep pace with these technological developments, because the well-trained professionals, whom the industrial, the economic or the business sector need, carried out of the educational area.

The worldwide network, the mobile and virtual world is present in daily life, but the majority of people use only minimal opportunities and turn in their favor. In turn, the Internet with its unlimited geographic and temporal availability can provide the liberty and independence for the people and the possibility that a link between individuals present in different locations in the world can be established at any given moment.

The Internet allows the change of the interconnectedness and community life, moreover these areas are constantly changing and forming out of public eyesight. All of these there is the screen as the interface behind the scenes.

Like the Internet, the mobile devices mean the freedom and independence for the people. Its more accessible presence in daily life can provide the contact with community. Virtuality is the new achievement of the online revolution. With the self-centeredness it can help the individual to/in self-expression and thus can show one's hidden treasures to others, which is also dominant in the relationship between individual and community. The connection enables communication between people, which can be effectively implemented by the appropriate technology.

Connection between technology and well-being

Recent studies have examined the technology use of students and its effects on their well-being. Several studies examine the use of different types of information and communication technologies among individuals during the lifelong learning process, however only few researches are based on the social effects of technology use particularly from the side of well-being.

Well-being outcomes are often identified with stress, social support, self-esteem, loneliness, depression and psychological distress by sociologists and behavioral scientists. In case of medical studies scientists mainly focus on illness, diseases and physical health conditions. Above all, the consideration of well-being outcomes contains alcohol use, Internet addiction, abuse and obsessive-compulsive tendencies as well.

On the one hand, previous research has explored how ICT can solve one's personal problems, satisfy his needs. However, the latest researches primarily investigate the effects on sociability and the relationship with social networks. On the other hand, the public and some researcher expressed their worries in concern about the health effects of radio frequency radiation in the use of mobile phones, while others suggest that cell phone use "may also be health protecting in facilitating the maintenance of social relations and diminishing insecurity of the physical environment" according to Leena Tomi & Arja. Holding the closeness with friends and the online contacts with strangers can be beneficial, though some researchers have revealed that excessive Internet use can cause dependence. Above all, more research is needed in order to find out what social stressors or personality types lead to Internet addiction. The results of small-scale experiments show that the use of the Internet was associated with decreasing loneliness and depression and increasing self-confidence, mattering (care for others). It also turned out that being connected to the Internet effect a high level of personal emotional loneliness. The literature does not currently deal with the various aspects of privacy for which effects prevail.

Previous researches in the field of Internet use turned out, that:

- there is negative association between time spent on the Internet on purpose of surfing or noncommunicative activities and self-esteem;
- there is positive association between chat and self-confidence and has strong impact social relations;
- in the matter of communication there is connection between increasing e-mail or chat connection and decreasing depression;
- e-mailing has higher impact on males, for whom the depressive symptoms decreasing in this case;
- gaming and shopping also were associated with depressive symptoms;
- higher level of Internet use for communication or searching information can connect with stronger family cohesion.

Different types of Internet and different motivations would require to be examined in specific researches, because general studies have not revealed the complex relationships yet.

In association with the relation to the Internet use and social effects, particularly individual well-being, most studies have focused on the network of relationships, social cooperation, loneliness and depression are as output. However mattering and self-esteem are also important outputs, which can link either directly or indirectly to technology use. It is also necessary to examine the social impact of the students' stress and self-efficacy as well. Each output is an important manifestation of the student's well-being. Perhaps it would also be important to consider how the ICT tools can be used for health education(Cotten, 2008).

The participants in the educational process supported by technology

The impact of technology on well-being is undeniable. In addition to the social impacts, the technology use requires attention primarily in the area of education so that the rising generation become successful members of the society.

Researchers in educational area are trying to keep step with the increasing amount of information and data and the rapid pace of development of communication devices, establishing subsequent teaching and learning methods. Mastery of them are motivated by maximum utilization of "high-tech" devices' opportunities, and by the development of the most effective forms of curriculum. In the point of operating schools, perhaps the most important consequence of changes is that in education can no longer be spoken of a well-defined student environment (desktop, classroom, study hall, etc.), but also a kind of "dilation" must be based in the teaching and learning space and time. This means that the locations and actors who may be involved in the educational activity, shape the learning environment both virtually and in reality. The task of the participants in the educational process is to suit the requirements of digital culture in the virtual environment by owning digital skills. In order to create value in the digital world, the participants should be able to achieve information literacy: critical thinking, digital reading, ability to evaluate information, knowledge of processing and understanding digital data.

The participants of student-side field in recent educational process have been going through in a totally different type of socialization process than the members of the previous generations. They are the members of the Internet generation, often be mentioned as digital natives. It is the generation who are socialized in the digital environment of the present age. The freedom of information, the openness, the online social relationships, the collective knowledge building, collaborative content creation and sharing are an integral part of everyday life for them. The learning and teaching process is partly or wholly based on the information and communication technology.

Compare the students' side with the academic side, easily can be observed that they usually made up of the digital immigrants who cling to the traditional methods, but also the integration of new technologies in the educational process is inevitable for them. New technology does not necessarily mean new methods. Rather, the application of old methods in other dimensions, that's what we can talk about in case.

New technology - new learning methods

The number of learning support options via the Internet or electronic devices has multiplied in the last decade. The computer has become an integral part of the daily lives in case of students as well. In fact, present life's children may be online all day via the mobile communication devices, there is no need to step out their virtual private life, either. In higher education can mostly be noticed that the students are welcome and even evidently use or test the new possibilities offered by ICT tools. It is important to take care of applying to all new forms of learning, learning method therefore making learning more effective, accessible anywhere and they will be more colorful.

The information retrieval as a learning process is emphasized in the individual-centered, teamwork supported learning models against the traditional learning processes (such as Problem Based Learning, Project Based Learning, or the Bloom's Taxonomy).

The information retrieval and resource management is the definitely determining factor in the process. It can be considered as the first step of it. The aim is to examine: how to thrive the students in the information retrieval during the learning process? This can be managed individually / independently and in collaboration with peers. So clearly visible that the learning environment changes from moment-by-moment.

For students who socialized on media, the knowledge acquired by the information conveyed by the screen is relevant. The public education system now implements conventional education, classroom lessons and learning based on social activities. The new forms of education does not differ from this, only found in other dimensions with respect as well as location, time and community. Not the invention and presentation of new teaching methods is the target, but the integration of traditional teaching methods in new age mobile environment (Ősz, Fodor & Váraljai, 2013).

The eLearning integrates the use of digital tools in the new learning environment. The learning and teaching process is partly or wholly based on the information and communication technology. Learning is becoming more and more accessible to students by eLearning. In the higher education system the clear use of eLearning is increasingly widespread, on the one hand as the complement of traditional teaching process, on the other hand as a mixture of the presence and distance learning, as well as a support of individual and team learning.

According to my survey at College of Dunaújváros, the electronic learning environment is the most important source for supporting individual's information retrieval in learning process. This phenomenon is due to the fully supporting attitude of the College. More and more cases teachers adapt their teaching materials into the electronic environment and give support student's activities online. Number of learning material is available in eLearning continuously in time and space as well, moreover the members (students and teachers) can get in contact here using forum, chat or e-mail possibilities. Other forms of interaction between the actors is also supported e.g. file transfer, content sharing, wiki building (Ősz, Fodor & Váraljai, 2013).

Recent research found that 95 percent of students used the eLearning environment called Moodle for information retrieval in their learning processes. Not much fewer, 91 percent said they often surf on the Internet for information connected to their studies. 72 percent of students got in touch with peers during the learning process in either physical or virtual reality. However the traditional physical scenes were used as well, such as library.

The virtual environment support not only the individuals learning processes, but also support information retrieval activities connected to school life. The survey shows that the use of Internet-connected ICT devices has beneficial effect on students' academic achievements in case of acquiring the information related their studies. The right information form the right place at the right time is essential, only one must learn to handle. The academic eLearning educational system is a proper tool to give assistance in this.

The use of information communication technology has another beneficial effect on student's well-being connected to the social relations. As the eLearning also offers access to community contact. Using electronic or mobile communication technologies, the screen is that direct interface between individual and peers, therefore students can do activities individually (like test or individual exercises) or cooperate with others (like chat, forum, video-conference) (Ősz, Fodor & Váraljai, 2013).

Based on the results of the research it can see, that beyond their learning process, students predilection use ICT for information retrieval connected to school life, keep in touch with their peers not only in the eLearning system, but community pages, social network by forming groups according to their interests. The answers given to open question, a lot of student has one or more social network group membership, where the members get the latest information connected to college events, give and/or get support in learning process form each other or just share useful information in general. All these above entertainment and free time activities in virtual community environment.

The virtual environment is determining in students' life, not only in case of their studies, but connected to other part of their school life. The research found that the use of community pages are as important in information retrieval connected to school life as the use of the website of the school (63% and 89%), and precede the online educational system (51%) too.

All the students use this possibility during their studies. The only difference is the time spent in this virtual environment. Which is evident from the responses to the 325 questionnaires were returned, the majority of students (52%) use 1-3 hours in the electronic environment for information retrieval. 15 percent of the students spend less than 1 hour online with information retrieval in their learning process, 20 percent of them use ICT for information retrieval 3-5 hours daily, and 8 percent said they online 5 hours or more a day. These outstanding results concern in period of school year, within that the semester spent writing thesis is determining.

The learning environment, the modern ICT infrastructure primarily gaining grounds in higher education within that IT and engineering fields. The existence of ICT in this level of educational system, the use of ICT in learning and communication process is obvious at this level (Ősz, 2013).

Efficiency and equity in the digital world

The digitally inclusive school uses the opportunities provided by technology and always up to date in choosing between different forms of learning. Currently, the eLearning is the form of education, which is able to make available more and more forms of learning for students. Thus providing a platform for students to create their own rhythm and capacity to be adapted to the learning process, but at the same time it must be adapted to the traditional forms of education.

The intention of collaboration is essential in the online educational process. In addition beyond the individual needs, it is also important to keep in mind that the increase of concurrent personal interactions. Therefore the purpose is to develop a kind of structures that encourage for collaboration in cooperative learning organization. The organization of the learning process is attached the participants, as they can only rely on each other to acquire knowledge.

The relationship between individual and community is crucial in online learning process: sharing ideas and content, networking, mobilization (anywhere, anytime, on any platform), social product development, collective consciousness, the mass of active users who are producers and consumers at the same time. The most suitable for this kind of community existence is a multifaceted, multi-channel, informal learning environment based on individual's autonomy and spontaneous exchange of knowledge. The use of personalized development is essential, because participants do not own the same capabilities in the learning process. During the teaching process the most important is to start from the individual competences, namely from the momentary state of individual competence and test development of the skills measured to the starting point at the end of this process.

Besides the technology in learning environment the choice of learning strategy can increase the efficiency in students' learning process. One of the efficient learning strategies which shown to be effective in the ICT supported virtual environment as opportunities offered by digitally inclusive schools is the cooperative strategies. It provides learning situations where cooperation is not primarily realized between teachers and students, but the cooperation between peers is also relevant. In group-work or peer work the participants are required to solve the problem together, in cooperation each other. The group work is developing the competencies of social cooperation, give space to unfold their creativity, and learn social problem-solving skills. Like the cooperative strategy, the individual strategy proved to be effective. The digital learning environment has provided unprecedented opportunities for the self-directed learning as individual strategy. The amount of information which is available for students by using ICT considerably change and make easier self-directed learning. So not only the traditional media offer new information conditions for self-directed learners, but the virtual environment, online learning or virtual communication (Cserné, 2006).

Summary

Collaborative learning as a way of education organizing can provide tools for the inclusive education system and multicultural educational approaches. In contrast to traditional methods of learning organization, with the provision of quality educational environment the inclusive educational system is capable of creating the unity of the triad of efficiency - successes – equity. (Varga, 2006) "Inclusive education is no longer about how few students with special educational needs can be integrated into mainstream education, but rather means an approach. Asks how to transform education systems and learning environments (social environment which encourage the personalized, flexible, interactive learning, sources of information) - the system of all the factors that affect the formal and non-formal learning effectiveness (Koczor & Németh, 2010).

In fact, the emergence of new technologies in education serves as a driving force. The digitally inclusive school -next to traditional education- tries to give a chance with modern technologies. Thus providing scope for the development of digital competences.

The networks offer the opportunity for virtual communication, which is also to support self-directed learning. The students can publish their questions, unsolvable problems and can build interpersonal connection with peers who are physical away but they can help you solve the problem. In case of institutional learning virtual communication, of course, allows them to stay in contact with other students who are involved in similar programs. The communication and information exchange among students helps the individuals in strengthening their independence during the learning process. The virtual communication makes it possible that self-directed learners who are interested in similar issues can create groups, work in projects, inform their peers about their own research, and provide their revealed information (Cserné, 2006).

In our society ICT is the most effective tool for quick information retrieval in many interactions of everyday life. Their availability should be essential for all social groups. To achieve this, the appropriate legislation, sufficient funding and a wide range of cooperation is required in society.

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