Education during a State of Emergency

Radoslava Topalska

South-West University "Neofit Rilski", 66 Ivan Michailov st. 2700 Blagoevgrad, Bulgaria

Abstract – **The accessing changes in the world order provoke fields such as education, work, and in general human lives. The pandemic caused by the spread of Covid-19 affected an extremely large part of the Earth, including the Republic of Bulgaria. Pupils and students had to switch to distance learning, being more precise go-to distance learning in an electronic environment. This was unexpected for us all - parents, students, and especially teachers. The teachers are the ones who have extremely difficult task of dealing in a very short time with the selection of (and possibly acquaintance with) appropriate software, as well as to master information and communication technologies, in most cases, and they may have never been trained in. This situation also provoked the study, which found a place in this report. It was targeted at the very beginning of the forced isolation, including the closure of educational institutions, in the Republic of Bulgaria - in the period from March 18 to April 10, 2020. A logical choice in this state of emergency was the way of conducting it - an electronic survey.**

Keywords – **State of emergency, Isolation, Training, Education, Information technology, Distance learning, Electronic environment.**

1. Introduction

The pandemic that spread around the world in early 2020, has led to many changes in all areas of life.

One of the most serious turned out to be the education of our children. The transition to e-learning from a distance was inevitable, during the situation with the spread of the infection. This training was not introduced in all of the Bulgarian educational system areas. Thus in turn, it shows how unprepared we were for this change - starting with teachers who still had isolated cases, never used a computer, go through the lack of digital devices suitable for conducting training and end up with students who find it much more difficult to be disciplined when distance learning is concerned. This situation aroused our interest (from the point of view of both a parent and a university lecturer) and provoked us to carry out the study described in this report.

As a matter of principle, the author is a supporter of the active application of any technology type in the learning process, when it is accomplished with thought and within reasonable limits. The author agrees with the statements of some other authors, talking about the extensive opportunities provided by technology and e-learning to build a completely new (and adequate to the needs of modern children) educational reality. The fact is that "in e-learning, the use of web technologies in the field of education offers opportunities to implement new didactic intentions in different learning contexts" [1]. As it is supplemented in [2] the "technological development made the question of introducing new standards for educational processes relevant". In [3] is stated that "the continuous acquisitions of knowledge and competences have become compulsory to guarantee the integration and responsibility of people in the society".

The fact is that this kind of change is necessary for the educational system due to the growing need of modern children for the participation of technology in their lives, respectively in their learning process.

Probably one of the working solutions is the application of information technologies. In [4] is stated that "the use of modern information and communication technology as a means of training pupils and students has become a popular trend".

However, the Covid-19 pandemic did not leave time for preliminary preparation and comprehension of this change, but imposed it quite spontaneously, obligatorily, and categorically, albeit temporarily. This fact provoked the current survey to be held in the period from March 18 to April 10, 2020, with 249 Bulgarian primary teachers.

2. Implementation of the Study

The current teachers who took part in the study were 96.39%. 22.89% have pedagogical experience over 30 years, 19.28% work from 25 to 30 years, 11.65% - between 20 and 25 years, 9.64% are teachers from 15 to 20 years, between 10 and 15 years teach 8.43%, and 11.65% are in this position between 5 and 10 years. Only 12.85% of all respondents have been appointed in the last 5 years. These statistics show that the participants in the study are people with extensive pedagogical experience, which is complemented by the fact that among them there are principals, assistant principals, and a large percentage of head teachers. We can also judge the qualification of the respondents by the fact that 38.15% of the graduates have a master's degree, and a part of them have also been awarded a professional qualification degree (PQD). If we look at the settlements of the respondents we will see that there are representatives of all major cities in the Republic of Bulgaria, as the most significant is the percentage of citizens (15.66%), followed by colleagues from Burgas, Plovdiv, Blagoevgrad, Ruse, Stara Zagora, Veliko Tarnovo, Varna, Shumen, Pleven, Pazardzhik, Dobrich, Montana, and others. This distribution will help to study the opinion of teachers from a large number of different settlements, which in turn will contribute to a clearer picture of the state of the problem.

Table 1. Professional experience and qualification

What is your professional experience?	%	What is your professional qualification?	%
Under 5 years	12,85	Master	38,15
5 - 10 years	11,65	1 PQD	1,61
10 - 15 years	8,43	2 PQD	5,22
15 - 20 years	9,64	3 PQD	2,81
20 - 25 years	11,65	4 PQD	4,02
25 - 30 years	19,28	5 PQD	4,02
Over 30 years	22,89		

Having the idea of the respondents' profile (Table 1), we can proceed to the analysis of the answers given by them, dedicated to training in a state of emergency.

Of interest to us was the presence (or lack) of skills and competencies on the part of teachers, necessary for them to adequately cope with conducting such a specific type of training, requiring a certain set of specific knowledge, skills, and competencies for working with computers, educational software solutions, and synchronous and asynchronous learning platforms.

The first question of this module was dedicated to the provision of training by the directors of educational institutions, and developing these competencies. Unfortunately, it turned out that only 30.92% of teachers were involved in such training. Besides, they were asked if they had ever participated in distance learning training at all. Here over three quarters of respondents (77.91%) answer negatively. Also worrying is the fact that almost the third of teachers are not considered qualified enough to conduct such training (Figure 1). Only 20.88% are certain that they have the necessary knowledge and skills. We can conclude that four-fifths of all respondents are insecure about the qualification for distance learning, due to lack of experience in working with information and communication technologies.

In [5] is ascertained that "very few classroom teachers have received training on online instructional approaches and tools".

Figure 1. Do you think that you are qualified enough to conduct such training?

On a positive note, the Ministry of Education and Science introduced a compulsory course for teachers called Information and Communication Technologies in Teaching and Working in the Digital Environment a few years ago. That gives us hope that at least future teachers will have the necessary competencies to conduct such training.

The next module of questions was dedicated to the selection of software solutions providing distance learning for primary school students. When asked whether they chose what software to work with or the institution where they work directed them, 53.80% of teachers said that they made this choice individually. 31.73% were referred by the director, 6.02% consulted with colleagues, and only 1.61% turned to a specialist. These answers come as a surprise when viewed in the context of the results already obtained in the previous questions. Namely - the fact that although they do not feel familiar enough with these technologies, the choice of software is made independently by many teachers.

The software solution used by the largest number of respondents is the platform developed by Microsoft - Teams (23.69%), followed by the social

network Facebook with 20.48%. Next on the list are Classroom, Zoom, and Shkolo. The distribution of the answers to this question is in Figure 2. It is expected due to the popularity of the selected software products and their companies. The large percentage received from social networks, we can attribute to the familiarity of a significant number of people with them, as well as their daily application on other occasions.

In [6] is discussed the necessity to devise "new conceptual models of training and learning software, tailored to the skills and preferences of the end-users". The lack of consistency in the operation of the various tools is mentioned in [7]. In [8] the taking place changes, which are defined as "haphazard assortment of pedagogies and their technologies". Thus, it ought to be the reason for conclusion made in [9] that "open Distance Learning is the center stage of teacher development in the 21st century".

We could acknowledge the position that "the strategy of application of distance technologies in educational entities should be an important part of the fourth technological revolution, which progresses right now" [10].
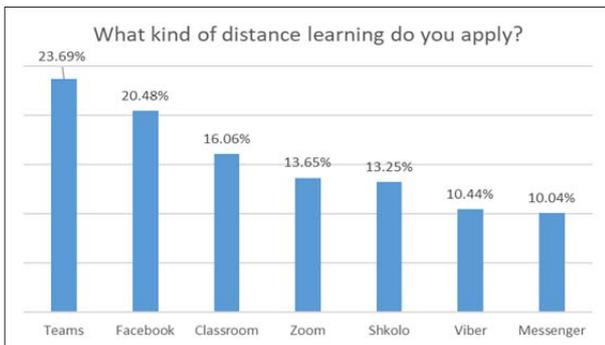

Figure 2. What kind of distance learning do you apply?

In addition to the choice of specific work platforms, the opinion of teachers, as direct participants in this new type of learning process, about its effectiveness in general was also important for us. Asked whether they consider it effective enough, almost 40% answered negatively (34.13%) or unwilling to answer (5.69%) - Figure 3.
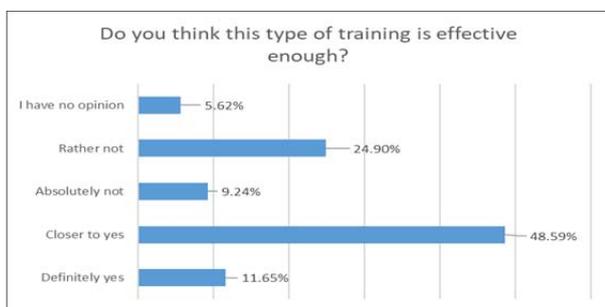

Figure 3. Do you think this type of training is effective enough?

Further, we can add the answers to the question about parental approval, according to the personal observations of teachers - as one can see in Figure 4,

percent of parents who support this type of education is almost the same as that of teachers who talk about its effectiveness. This fact can be attributed to the significantly more serious commitment of parents to the learning process when learning is conducted from a distance.

Figure 4. Judging by your personal experience - do parents approve this training?

The following questions aim at identifying the specific difficulties that teachers face in this new situation. Among the common answers are:

✓ The parents' inability to help students due to lack of qualifications, both to work with the various platforms for synchronous and asynchronous learning and their familiarity with the learning content;
✓ Lack of constant contact with children;
✓ The personal unpreparedness of the pedagogues;
✓ The physical time required for preliminary preparation of learning resources;
✓ The social status of some of the students - lack of technical security, etc.

Alike challenges standing before the academic staff in distance learning are affirmed in [11]: "lack of internet connectivity, less access to electronic devices, less knowledge on ICT use, lack of awareness among staff and learners, required extra time, prefer to learn through printed textbooks, rural, urban digital divide, less use of technology among female learners".

As possible improvements of the situation, the pedagogues most often point out: raising the qualification of both the teachers and the parents; technical provision of children in need; availability of a larger number of ready-to-use resources, etc.

Several authors have such specific works, dedicated on similar problems, including the issue on how parents could help their children cope with home education [12], [13], and [14].

The final questions aimed at formulating the measures taken by the directors of educational institutions in order to support the distance learning process. Here, the teachers point out mainly that their managers have made the most serious efforts to increase their technical security, as well as to provide the necessary accounts for access to specific platforms.

3. Conclusion

We can conclude that, in general, this extreme new situation has made it significantly more difficult for teachers, parents and students. All of them need to improve their skills in the context of the application of information technology. Despite the high percentage of disapproval that distance learning collects, we can be sure that by providing the necessary technical means and qualification training, teachers will find several positive aspects of distance learning with the application of information technology.

It is stated in [15]: "the combination of modern technology and traditional theoretical knowledge can enrich the teaching content and improve students' learning attitude". On the other hand, teachers can also interact with students in time, share teaching experience with them, cultivate their interest in learning, enhance their cognitive ability to absorb knowledge, and lead them to truly apply their knowledge.

As it is already mentioned, education needs constant changes to make it adequate to the needs of our time. Given the fact that technology accompanies the lives of people from an early age, it is logical that these changes are directly related to the technological security of the learning process. Different authors write about the positive sides of distance learning forms [16], [17], and [18].

Whether we like information technology or not, it is one of the ways to continue to carry out many of our daily activities, even during a pandemic - to work, to study, to communicate with relatives and friends, to shop, to play, etc.

In conclusion, we can recommend the governing bodies in the Bulgarian education system to take serious measures to improve the overall readiness of school institutions to conduct e-learning at a distance - to provide appropriate technical security for both teachers and students in need; to organize the conduct of a series of training aimed at raising the qualification in the context of information technologies of all participants in the educational process; to provide an information bank containing developed necessary training resources for providing quality training in all areas of Bulgarian education.

References

[1]. Sedra, M., & Bennani, S. (2020). Competency Based Approach: Modeling and Implementation. *International Journal of Emerging Technologies in Learning (iJET)*, *15*(02), 230-238.

[2]. Pronchev, G. B., Goncharova, I. V., Pronchev, K. G., & Krichever, E. I. (2019). Russians' attitude to distance learning: a runet survey. *International Journal of Learning, Teaching and Educational Research*, *18*(11), 370-384.

[3]. de Fátima Goulão, M. (2016). Distance learning and lifelong learning. *Diethnés Synédrio gia tin Anoiktí & ex Apostáseos Ekpaídefsi*, *5*(1A), 1-15.

[4]. Kraleva, R., Sabani, M., & Kralev, V. (2019). An Analysis of Some Learning Management Systems. *International Journal on Advanced Science, Engineering and Information Technology*, *9*(4), 1190-1198.

[5]. Agarwal, S. (2020). The digital transformation of education in India during the period of lockdown due to covid-19. *Journal of Emerging Technologies and Innovative Research (JETIR), 7(5), 19-25.*

[6]. Kraleva, R., Sabani, M., Kralev, V., & Kostadinova, D. (2020). An approach to designing and developing an LMS framework appropriate for young pupils. *International Journal of Electrical and Computer Engineering (IJECE)*, *10*(2), 1577-1591.

[7]. Wiktorzak, A. A., & Kotowski, R. (2016). Distance Learning. *EDULEARN16 Proceedings, 8612-8619.*

[8]. Traxler, J. (2018). Distance learning—Predictions and possibilities. *Education Sciences*, *8*(1), 35.

[9]. Mabwe, N. (2016). 21st Century Leadership the "Cornerstone" in Teacher Development through Open Distance Learning, *International Journal of Applied Sciences and Current Research, 1, (1), 22-26.*

[10]. Muraveva, L. A. (2020). Distance Learning: Theory and Practice. In *SHS Web of Conferences* (Vol. 79, p. 01011). EDP Sciences.

[11]. Noreen, S. (2020). Implementation of Learning Management System: A Way Ahead on the Digital Journey in Distance Learning. *Open Praxis*, *12*(3), 329-342.

[12]. Champeaux, H., Mangiavacchi, L., Marchetta, F., & Piccoli, L. (2020). *Learning at Home: Distance Learning Solutions and Child Development during the COVID-19 Lockdown* (No. 13819). IZA Discussion Papers.

[13]. Apriyanti, C. (2020). Distance Learning And Obstacles During Covid-19 Outbreak. *Jurnal Ilmiah Pendidikan Dasar*, *7*(2), 68-83.

[14]. Briggs, D. C. (2020). COVID-19: The Effect of Lockdown on Children's Remote Learning Experience–Parents' Perspective. *Journal of Education, Society and Behavioural Science*, 42-52.

[15]. Zhou, Z. (2018). An Interaction Theory-based New Distance Teaching Model for Cross Talk. *International Journal of Emerging Technologies in Learning (iJET)*, *13*(06), 190-202.

[16]. Ivaneko, Y. (2020). Distance Learning as a Means of Developing Students' Self-Organization. Problems of Modern Psychology: *Collection of Research Papers of Kamianets-Podilskyi National Ivan Ohiienko University, G.S. Kostiuk Institute of Psychology of the National Academy of Educational Sciences of Ukraine, 49, 60–83.*

[17]. Sokolova, N. A., Pylkin, A. A., Stroganova, O. A., & Antonian, K. G. (2018). The pros and cons of distance learning. In *The European Proceedings of Social & Behavioural Sciences* (pp. 1478-1486).

[18]. Prasad, K. (2020). Open & Distance Learning: A Futuristic Approach. *Yojana*, *New Delhi, India.*