https://doi.org/10.52326/ic-ecco.2022/KBS.07



# The impact of the COVID-19 pandemic on the financial education of primary school students

Lidia Sabău<sup>1,2,3</sup>, ORCID: 0000-0002-2858-7232

<sup>1</sup> "Ion Creangă" State Pedagogical University of Chișinău, PhD School "Education Science", Chișinău city, Ion Creangă 1 street, MD-2069, www.upsc.md

<sup>2</sup> "Vasile Alecsandri" University, Calea Mărășești 157 street, Bacău, Romania, www.ub.ro

<sup>3</sup> "Mihai Drăgan" Secondary School, Logofăt Tăutu 7 street, Bacău, Romania, <u>www.scoalamihaidraganbacau.com</u>

Abstract— The global COVID-19 pandemic of 2020 has exposed both the underdevelopment of education systems around the world and the level of financial literacy - both of the population and students. This aspect brought back to the fore the importance of using ICT in school, in the actual act of teaching financial education, as education systems were preparing for the transition to online education due to school closures. This critical research provides an overview of the challenges brought by the pandemic: the problems faced by teachers in schools in the form of online teaching. the fundamental change in teaching methods during the pandemic, and the adaptation that both teachers and students must adopt, alike. This article will also provide some recommendations for integrating digital technology into financial education learning environments in the postpandemic era.

Keywords— COVID-19 pandemic, financial education, digital technology, teaching and learning, global pandemic

#### I. INTRODUCTION

Regarding the application of information and communication technology (ICT) in the field of education, much research has been carried out, especially in the last two decades, since the Internet has taken on greater importance, with the rapid advancement of technology, but also the presence of the virtual in the real.

Information and communication technologies have had a major impact on the teaching of compulsory and optional subjects - such as financial education in primary education, which is the subject of our research. Thanks to technology, learning financial concepts takes a new dimension, arouses more interest among students, and stimulates learning, memory, thinking, and language skills, especially in management, money management, savings, expenses, wants, and needs.

In recent years, digital technologies have facilitated active and interactive learning, promoted access to information, and brought to the attention of the entire educational community their potential to make learning an easier, faster, but also more dynamic process. Nowadays, the use of digital technology is present not only in education but also in many other aspects of our social life, especially in the financial sector, due to the new global coronavirus pandemic (COVID-19).

Under certain conditions, the presence of social sites (social web) can create the conditions for a good collaboration between teachers and students, who simultaneously form active social and learning environments, as well as new opportunities for interaction based on a diversity of opinions [1].

In teaching and learning, the use of digital technologies has made it possible to teach and deliver financial programs to students even when schools have been closed. However, since teachers have had to deliver their lessons online, the question is their adaptability, their ability to deliver the curriculum in a pedagogically relevant way, to continue to promote quality learning during times of general society, such as a pandemic.

We emphasize the importance of teachers' teaching methods and tools and their impact on student education, but also the adaptation of teachers and their tools to online education because there has been a transformation in the act of delivering financial education due to the COVID-19. The key challenges teachers face in teaching are precisely the most effective ways and methods to adopt to maintain students' interest and curiosity in learning, especially choosing an effective way to convey simpler and more complex concepts to students or abstract (such as those in the field of economics).

Finally, the document makes recommendations on integrating digital technology in the post-pandemic learning environment for the financial education of elementary school students.

## II. DIGITAL TECHNOLOGY IN FINANCIAL EDUCATION

In this article, the author notes that digital can be seen as an extension of information and communication technology (ICT). Digital technologies are computerized electronic devices that generate, store, or process data from a variety of sectors, including finance, to facilitate and facilitate the operation of people more efficiently.

The world of finance today is mainly done in the online sphere: databases, financial transactions, payments, purchases, digital documents, virtual currencies, online transfers, etc. Mobile phones, tablets, and the Internet are common examples of digital technologies, all of which serve society, but all require prior training to use them effectively.

The use of digital in education in general and financial education, in particular, is not new. Research on the impact of digital technology in education, especially teaching and learning, has been conducted since the internet became more widespread and accessible to educational institutions and the general public. There have been and continue to be discussions about the effectiveness of technology in transforming instruction, as well as in improving student learning at all levels and in all disciplines. Thus, in 2018 it was stated that ,,digital technologies succeed in recreating an ecology, learning conditions close to natural ones, those that normally predispose to authentic learning experiences" [2], following as in 2020, amid the pandemic of COVID-19, the Council of the European Union to conclude that "in the long term, artificial intelligence will amplify the effects of the digital transformation of societies, potentially offering new promising opportunities for learning, teaching and training in the future" [3].

Therefore, the pandemic facilitated the wider use of online financial instruments: online purchases and payments, money transfers, financial information over the Internet, and access to banking products without going through a bank. Digital technology is involved in the conversion of methods teaching methods by eliminating the disadvantages caused by different teaching styles [3]. Several researchers, including Utami et al. [4] found that digital technology as an application is effective in improving learning in some subjects. Financial education has made great strides in this respect: more physical activities have been moved online, more students can participate in real-life financial education activities, a wide range of Educational apps available, and more. Digital financial education has been launched, the teachinglearning-assessment process has been digitized - thus saving physical resources. Financial education is therefore more accessible to students.

Thanks to technology, they no longer need physics textbooks or special notebooks, and the transmission of

information and the lessons themselves become much more interactive. However, published reports show less promising results. For example, in 2015, before the pandemic, the Organization for Economic Co-operation and Development (OECD) reported that it had evidence that digital technology had no impact on improving educational outcomes in partner countries. Even researcher Manfred Spitzer disagrees with the digital version of education because of the "increasing inability to use and control mental abilities to their fullest extent", leading to a loss of consciousness control [5]. Here, supporting the use of digital for an effective teaching action is always controversial. In contrast, in March 2020, education expert Andreas Schleicher said that "those from privileged backgrounds will find their way through closed school doors to alternative, subsidized learning opportunities parents are supportive and willing to learn; disadvantaged people will remain excluded if schools close" [6], meaning they prioritize financial resources when implementing digital in education. Instead, let's remember that technology involves both spending and investment.

Contrary to all sound arguments for or against the effectiveness of technology in education, the global pandemic of 2020 has forced all education systems around the world, at all levels, to adopt technology as an alternative to traditional teaching-learning methods, so that education does not become interrupts, to have a continuity, by maintaining educational activities, including for financial education in primary school.

Regardless of the will of the actors involved in shaping student behavior, the 2020 pandemic has mobilized resources from and within education, so that the educational process can continue. Financial education was available to elementary students even before the pandemic, in physical form, with handouts, textbooks, workbooks, and file support. Online schools have used presentations, digital media, and meetings with experts digital technology makes accessing this type of education easier.

## A. The impact of the pandemic on financial education

The global COVID-19 pandemic in 2020 has changed the world, leading to the collapse of state-owned economies, the collapse of entire industries, and tremendous transformations in society, and within the family, but there are also significant changes in education. People's lifestyles have changed dramatically, regardless of their nationality, education level, income, or gender. New ways of living in society have emerged social/physical distancing, distance learning, significantly higher use of food delivery, and video products. Financial education has changed in terms digitized and made available online, can access this education for many people at the same time. Some educational activities in the financial sector are even carried out with multiple classes at the same time.

The way the education system delivers education at all levels has also undergone dramatic changes. School closures due to COVID-19 have caused significant disruption to education in general schools. According to the United Nations Educational, Scientific and Cultural Organization (UNESCO) (2020), approximately 1,6 billion children in 194 countries have been affected by these disruptions. Schools at all levels have quickly switched to online education using digital technology, which has had a great impact on the education industry [7].

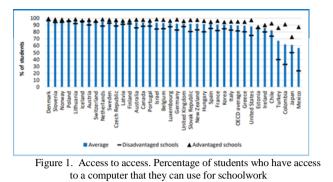
Having digital devices for all students is a big challenge from a financial point of view, but this detail is very important because it thus offers the possibility that education can be accessed by all subjects of the training activities. The pandemic forced school systems in many countries around the world, even if they were not prepared or had the financial resources to do so, to act financially urgently to find viable alternatives to the traditional curriculum that was no longer being carried out. So, the use of distance learning alternatives using the online environment and digital devices have emerged as viable options in order not to be obstacles in the way of students' training.

Quickly, the use of digital technologies such as video conferencing tools (such as Zoom and MS Teams), learning management systems, and online learning materials became the new standard in education. Thus, the use of the term ,,digital learning" has become a topic of discussion in the educational community.

According to studies carried out by various world organizations, access to digital learning was conditioned by various factors: access to electricity, access to the Internet, the existence of electronic devices in a household so that every member of the family has access to education (Figure 1) [8].

To these are added the inevitable dangers of the online environment: the decrease in the quantity, quality and yield of learning, the discrepancy between the lack of digital equipment and skills and what can be achieved in reality, discrimination in the digital world, students' access to the virtual world through the Internet [9].

The society was not prepared for such a challenge, being forced to adapt quickly, on the fly, so that the training of the students would not be endangered.



Pandemic times have affected the financial education of adults and children by the unpredictability of various and unexpected situations from day to day. The imposition of security restrictions has certainly led to better thinking about how to spend money, a financial balance has been applied to the unpredictable, and unknown online payment tools have been introduced is used, a critical reflection process has taken place and an analysis of personal financial circumstances, family priorities, financial /investment costs have been taken into account, a clearer distinction between needs wants and needs. In addition to the impact on formal education, the COVID-19 pandemic has also had a major impact on informal family education.

Because education is done online using existing technology, parents have a certain role to play in their children's learning at home. Parents will need a mentor for non-formal education programs, the main needs of these parents are related to the need for knowledge to help their child learn at home, their numbers accounted for 80,43% [10]. Since parents are financial role models for their children, children learn from their parents about family spending, savings, shopping lists, and a clear distinction between wants and needs. The results of existing financial education in training people before the pandemic can be seen in the organization of individual households throughout the pandemic.

## *B. Financial education teaching practices during the COVID-19 pandemic*

During the pandemic, to avoid interruptions, educational institutions had to keep education running, so they had to adapt quickly to the situation [11]. As social distancing became imperative, teachers adapted their teaching methods and replaced them with pre-scheduled online meetings to teach the school curriculum. Later, morning reports were conducted in the virtual classroom, inviting expert speakers to join via video conference [12]. It was easier to invite specialists from the economic environment to the classroom, as physical travel was no longer necessary. So, at the heart of all this is the use of digital technology. Thus, teachers had to adapt quickly to the use of online digital technology, whether they liked it or not. In other words, they had to do this action, to adapt to new concepts and pedagogical ways of teaching, for which they may not have been trained. This, then, raises several questions about the digital utility and effectiveness of the technologies: How have they been implemented by teachers? How prepared were teachers to move from face-to-face to fully online delivery? What are some of the challenges found? What kind of solutions were adopted?

In other words, COVID-19 has exposed many inadequacies and inequities in our education systems [13], but also the fact that some financial education activities can take place more easily in the virtual environment.

It can be easily anticipated that teachers could not comfortably carry out their regular daily teaching activities in an online environment. It was a huge challenge to maintain established relationships with students in the classroom due to the loss of direct contact and lead time that students would have had in their physical learning activities. It is not just about delivering the program using an online platform, but significant challenges. The biggest challenge, acknowledged by teachers, was keeping students interested and motivated.

Students from marginalized groups who do not have access to digital learning resources or lack resilience and commitment to learning on their own are at risk of falling behind [Idem]. Lacks or inadequacies in digital technology have hindered learning more or less. However, the educational resources in the online environment meet the students, helping them to go through the subject at their own pace. Even so, many teachers found themselves in a situation where they had to redesign their learning activities so that they fit the learning needs of their students. However, they did not feel they had the training to do this effectively. According to the OECD, around 60% of teachers surveyed in partner countries reported a high need for training in the use of ICT / digital technologies. Certainly, this requires calling in professionals as well as continuing professional development programs in teaching through digital technologies.

## III. POST COVID-19 CONSIDERATIONS REGARDING FINANCIAL EDUCATION

The COVID-19 pandemic has exposed deficiencies in education systems, one of which is preparing teachers to use fully online curriculum delivery at any grade level, in any subject, including financial education. With the pandemic, it has been established how important digital technologies are in the teaching-learning process. Digital technology is not only changing the teaching and learning methods of education in general and financial education in particular, but it can also change the role of teachers from transmitters of knowledge to coaches, mentors, and evaluators [6]. Thus, teachers need school- and systemlevel support as well as professional training in this area more than ever.

Teachers must participate in continuous training courses constantly to be able to innovate in educational activities, as well as to adapt to unexpected changes or transformations. Therefore, teachers and institutions need to prepare and improve their skills to cope with the changes in the education system after the COVID-19 pandemic. As it was done, for example, in one of the universities in Vietnam, in terms of e-learning infrastructure, "we are preparing for technological advances in our modern global development, and individuals will also remain resilient to social challenges, as is COVID-19" [14].

This is to ensure that the design of teaching and learning through the use of digital technologies is in line with pedagogical practices. Teachers must avoid what Teräs et al. [11] pointed out in their paper, that "some forms of online learning are criticized for not following pedagogical principles and good practices". In other words, teachers should think first about the best pedagogy, especially when planning the online delivery of educational activities. Support in the home learning environment is also important.

Within the family, a certain working atmosphere must be created to ensure at home an environment conducive to the online education process, and to facilitate the development of a more intelligent generation with good character, both in the eyes of parents and in the eyes of society [15]. Parents and homeschoolers need to be familiar with technology, and electronic devices to help children in the learning process. It wouldn't be bad if the schools got involved in initiating some community development programs, programs that would involve the "home teachers".

This is to provide effective guidance if the student is stuck in learning due to various reasons related to the technology they are using. Indeed, success in student education can be achieved if the three responsible persons work together in this process. The three responsible persons are the family, the school, and the community [16]. The pandemic has heightened the importance of schools and communities working together to maintain student well-being and engagement in learning.

Schools need to actively engage in research to continue to develop, improve, and establish effective practices in using digital technology for teaching and learning. With that, a school should focus its efforts on developing its online and distance learning infrastructure to improve system accessibility and reliability. The process of developing the capacity of students and teachers to learn and teach in different ways, to enhance the online learning experience similar to face-to-face communication, should continue. It can be said that learning is largely a social enterprise. Therefore, teachers need to emphasize the priority of developing and maintaining relationships in the online environment. Not only knowledge, and skills but also attitudes and character development must also be developed during the learning process, especially during the COVID-19 pandemic and post-pandemic.

Intania & Sutama [17] explain that: (1) the purpose of education in training students is concerned with promoting the good, an achievable aspect of their social life; and (2) in the age of the COVID-19 pandemic, the mission of education is to motivate students to learn the subject independently, but also to develop in students a responsible attitude towards the tasks assigned to them by the teacher received in online training activities. If teachers are not trained in ethics, character, or values education, they will not be prepared to teach these areas themselves [18]. This can be achieved with pedagogies that promote connectivity (relationship teaching), inclusion (filial teaching), equity (cognitive and reflective teaching), and voice (teaching dialogue) [19].

It should be noted that the considerations presented above are based on the assumption that online digital technologies are available to all teachers and students. For systems that are not minimally equipped to make digital technology available to all in the education system, they must reflect the role of the education system in promoting societies capable of progress, especially technological progress.

Furthermore, an effective future response depends on foresight and preparation. The following set of recommendations are designed for possible contexts of unlimited access to digital technology:

- During the financial education classes, it is good to take into account the physical size of the class, both for the safe conduct of activities and the organization of a "financial zone" essential for safety (depending on the availability of staff, the size of the class and the availability general);

- In the case of larger collectives, they can be divided into smaller groups, and team activity is recommended in practical financial organization activities: expenses, investments, financial specialists, etc.;

- Applying the role-play method in the classroom, both face-to-face and online, so that, through play and disguise, students have various tasks in financial education learning contexts;

- Use existing open educational resources or improve existing ones so that they are useful in teaching financial

concepts and achieving the objectives proposed in the didactic activity;

- Updating owned digital devices to facilitate teachinglearning activity;

- Giving priority to pedagogy, regardless of the variant of the teaching-learning activity of financial education - the curriculum, methods and pedagogical strategies are permanently applied;

- The use of physical materials, even if the activity is carried out online, because it offers concrete learning support, regardless of the Internet connection;

- The involvement of parents and "home teachers" because they can provide the necessary support to the training activity in the absence of the school teacher and can motivate the student to learn, but also to participate actively in the lessons;

- It is advisable for the teacher to have an education focused on equal opportunities, this means adapting the activities according to the limited access to technology of some students or their access to electricity (requires devices);

- Constantly getting feedback from students, so that the financial education being taught is a subject that students can understand, with appropriate language, ageappropriate concepts, but also with concrete real-life examples of the world of money;

- Due to unforeseen changes, vigilance, verticality, and adaptability, but also innovation and improvisation are valued in a teacher - all to create learning plans for students.

## IV. CONCLUSIONS

The COVID-19 pandemic represented a challenge for the whole society, in all aspects of life, with a significant impact on education and the training process of students. Financial education must continue, face-to-face or online, with physical or digital resources, so that key student skills remain a priority in instruction, regardless of its form. The teachers who found solutions, who adapted quickly, who always saw the child's supreme interest, despite the vicissitudes of the time, are to be appreciated. The students were supported, motivated, and encouraged not to give up school, even if it was conducted online.

Therefore, education systems need to provide teachers with the necessary training and support for the use of digital technologies, especially online platforms, to ensure that they can adhere to pedagogical principles and best practices for effectively engaging students in learning.

Digital technologies have proven their importance during the COVID-19 pandemic, especially in education. Thus, there is a need to rethink good pedagogies, as well as how digital technologies could be integrated into supporting students and motivating them to learn. Since learning is a social endeavor, it must be considered to involve a change in the social aspect of learning through digital learning environments. Therefore, teachers are challenged to think about how, in an online environment, **connection**, **inclusion**, the facility to maintain **awareness** and **reflection**, and **dialogue** could be maintained in providing students with experiences or even learning contexts that -would achieve in traditional face-to-face learning environments. When this is achieved, we could guarantee that teachers will have the ability to support the well-being of the student, to support their involvement in the act of instruction, and motivate the student in learning - both during pandemic times and similar ones.

#### REFERENCES

- S. Făt, "Determinări educaționale ale rețelelor sociale", în "Educația digitală", volume coordinated by C. Ceobanu, C. Cucoş. O. Istrate, I.-O. Pânişoară, Ed. Polirom, Iași, 2020, p. 50
- [2] A. Popovici, "Eu învăț, tu înveți... Care este impactul tehnologiilor digitale asupra învățării?", Research and Education, Nr. 2 Martie 2018, ISSN 2559-2033, http://researchandeducation.ro/wpcontent/uploads/2018/03/Anca\_Popovici\_Eu\_invat\_tu\_inveti\_Car e\_este\_impactul\_tehnologiilor\_digitale\_asupra\_invatarii\_REd2\_2 018.pdf (09.10.2022)
- [3] "Concluziile Consiliului privind educația digitală în societățile cunoașterii din Europa" (2020/C 415/10), Jurnalul Oficial al Uniunii Europene, 1.12.2020, 9 p., https://eur-lex.europa.eu/legalcontent/RO/TXT/PDF/?uri=CELEX:52020XG1201(02)&from=E N, (09.10.2022)
- [4] I. W. P. Utami, I. Lutfi, S. S. P. Jati, & M. Y. Efendi, "*Effectivity of augmented reality as media for History learning*", International Journal of Emerging Technologies in Learning, Vol. 14, nr. 16 (2019), pp. 83-96, <u>https://online-journals.org/index.php/i-jet/article/view/10663</u> (17.06.2022)
- [5] M. Spitzer, "Demența digitală, Cum ne tulbură mintea noile tehnologii", Ed. Humanitas, București (2020), p. 258, ISBN 978-973-50-6713-7
- [6] A. Schleicher, "The impact of COVID-19 on education: Insights from 'Education At A Glance 2020", OECD, https://www.oecd.org/education/the-impact-of-covid-19-oneducation-insights-education-at-a-glance-2020.pdf (15.07.2022)
- [7] J. Crawford, K. Butler-Henderson, J. Rudolph, B. Malkawi, M. Glowatz, R. Burton, P. A. Magni, S. Lam, "COVID-19: 20 countries' higher education intra-period digital pedagogy responses", Journal of Applied Learning & Teaching, vol. 3, nr. 1 (2020), pp. 1-20, ISSN: 2591-801X, https://journals.sfu.ca/jalt/index.php/jalt/article/view/191/163 (20.08.2022)
- [8] "Coronavirus special edition: Back to school", Trends Shaping Education Spotlight 21, 2020, OECD, 16 p., https://www.oecd.org/education/ceri/Spotlight-21-Coronavirusspecial-edition-Back-to-school.pdf (09.10.2022)

- [9] A. A. Rodideal, "Oportunități și obstacole ale învățării în mediul online", Tribuna învățământului, Nr. 11, Noiembrie 2020
- [10] R. A. Listyaningrum, et. al., "Analysis of the Needs of Parents in Mentoring Early Childhood During Learning from Home", Proceedings of the 2nd Early Childhood and Primary Childhood Education (ECPE 2020), Atlantis Press, https://www.academia.edu/65381764/Analysis\_of\_the\_Needs\_of\_ Parents in Mentoring Early Childhood During\_Learning from Home (25.08.2022)
- [11] M. Teräs, J. Suoranta, H. Teräs & M. Curcher, "Post-COVID-19 education and education technology "solutionism": a seller's market", Postdigital Science and Education, Vol. 2, Nr. 3 (2020), pp. 863-878, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7355515/ (04.08.2022)
- [12] W. Jeffrey, et.al., "Teaching During a Pandemic", Journal of Graduate Medical Education, Vol. 1, Nr. 4 (2020), pp. 403–405, <u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7450731/</u> (10.08.2022)
- [13] A. Schleicher, "How can teachers and school systems respond to the COVID-19 pandemic? Some lessons from TALIS", OECD Education and Skills Today, 2020, <u>https://oecdedutoday.com/how-teachers-school-systems-respond-coronavirus-talis/</u> (25.08.2022)
- [14] H. H. Pham & T. T. H. Ho, "Toward a 'new normal' with elearning in Vietnamese higher education during the post COVID-19 pandemic", Higher Education Research & Development, Vol. 39, Nr. 7 (2020), pp. 1327-1331, https://www.tandfonline.com/doi/full/10.1080/07294360.2020.182 3945 (01.07.2022)
- [15] M. S. Jailani, "Teori Pendidikan Keluarga dan Tanggung Jawab Orang Tua dalam Pendidikan Anak Usia Dini", Nadwa – Jurnal Pendidikan Islam, Vol. 8, Nr. 2 (2014), pp. 245-260, https://journal.walisongo.ac.id/index.php/Nadwa/article/view/580/ 527 (19.08.2022)
- [16] R.A. Listyaningrum, et.al., "Faktor Dominan Yang Mempengaruhi Partisipasi Orang Tua Dalam Mengikut Program Parenting Education Di Lembaga PAUD", Jurnal Pendidikan Nonformal, Vol. 15, Nr. 2 (2020), pp. 74-79, E-ISSN 2579-3950, <u>http://journal2.um.ac.id/index.php/JPN/article/view/17076</u> (10.07.2022)
- [17] E. V. Intania & S. Sutama, "The role of character education in learning during the COVID-19 pandemic", Jurnal Penelitian Ilmu Pendidikan, Vol. 13, Nr. 2 (2020), <u>https://journal.uny.ac.id/index.php/jpip/article/view/32979</u> (15.08.2022)
- [18] L. Revell & J. Arthur, "Character education in schools and the education of teachers", Journal of Moral Education, Vol. 36, Nr. 1 (2007), pp. 79- 92, https://www.researchgate.net/publication/238397739 Character e ducation\_in\_schools\_and\_the\_education\_of\_teachers (20.08.2022)
- [19] T. Price, V. Warren, F. Ben, & B. Willsmore, "Pedagogies enabling redemptive learning", 2020, Christian Schools, Australia, https://www.csa.edu.au/common/Uploaded%20files/Resources/Pe

dagogies enabling Redemptive Learning-PeRL-2021.pdf (25.07.2022)