

Online Learning for Primary School Children during the Covid-19 Pandemic

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Introduction

As in many countries worldwide, as part of the consequences of the COVID-19 pandemic lockdown, all schools in Romania were closed in March 2020. Although schools partially reopened in September, only to be closed once again in November, far-reaching restrictions remain in place, and any prediction as to when closures will end completely seems hardly possible at the moment. Consequently, teachers and students face significant challenges in adapting to online classes.

Although the extensive school closures occurred during an era that has generally been shaped by rapid transformation in technological innovations, online learning for primary school children has brought to light a series of problems, ranging from the lack of access to the online learning environment (either for economic or logistic reasons), lack of computer skills, to problems relating to effective communication or the understanding of the material taught.

Thus, the present paper aims at bringing forward the difficulties or weaknesses of online learning and discussing how these can affect the overall learning experience.

In what the **method** is concerned, the data collection took place through a semi-structured online survey designed for both parents and children in November 2020, at which time schools were completely closed. A sample of 110 participants from Galati was used and, thus, the effect of online learning has been studied only from the point of view of children who live in the urban area. Moreover, since this research is a primary, cross-sectional study, it may be added that the results revealed at this point may suffer changes in time.

Discussion and results

The focus of this study revolves around aspects regarding communication and the role of all participants (teacher and students alike) in an online context, based on the theoretical model developed by Garrison, Anderson and Archer (2001). Their “community of inquiry” comprises of three components: cognitive presence – advocating for the necessity of an environment in which one’s critical thinking skills may develop and grow, social presence – creating a comfortable and safe environment in which students may express freely their ideas or disagreements, and teaching presence (Garrison, Anderson, & Archer, 2001, p. 8). In as far as the last component is concerned,

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it “is associated with the design, facilitation, and direction of a community of inquiry” (Vaughan, Cleveland-Innes & Garrison, 2013: 23). Although these critical roles assure a unifying power that allow the three components to become one, attention should be focused on the fact that it is not just the teacher who is responsible for these issues. All participants in an online learning environment are encouraged to assume responsibility for the three types of presence, in order to simplify expectations, rethink requirements, evaluate understanding and challenge ideas. In other words, a community of inquiry is where “students listen to one another with respect, build on one another’s ideas, challenge one another to supply reasons for otherwise unsupported opinions, assist each other in drawing inferences from what has been said, and seek to identify one another’s assumptions” (Lipman, 2003, p. 20).

Considering this theoretical model and its implications on all levels, it may be safe to admit that an online method of education may be considered highly efficient for mature, responsible participants who can accept the roles implied. The online medium indeed creates a form of learning that is more accessible and permissive, considering the possibility of changing the time and place of the educational interaction, of supporting various content formats (multimedia, video and text) and the availability of a vast range of information resources in almost every home and workplace.

Nevertheless, according to our study, the online learning experience brings to light a number of disadvantages, proving to be an inappropriate learning environment for more dependent learners who need constant guidance. Primary school children are unable to assume any degree of responsibility to control, adjust or contribute to the learning experience, in other words, to the community of inquiry, therefore the teacher must step in and impose his/her own approach to teaching and learning, orchestrating the entire ‘play’. The teacher, thus, becomes the only person who not only performs the functions of the teaching presence, but also goes beyond, moderating the learning experience by developing and improving social and cognitive presence.

Presentation of survey results

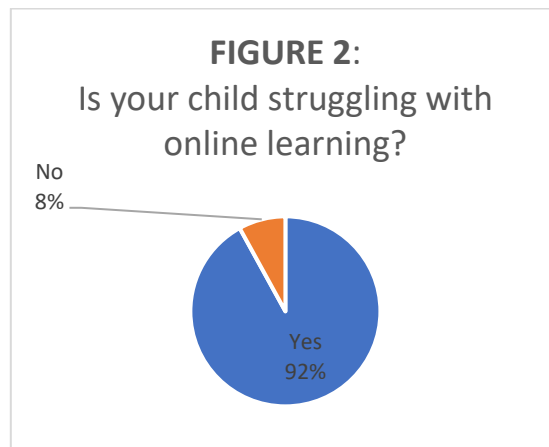
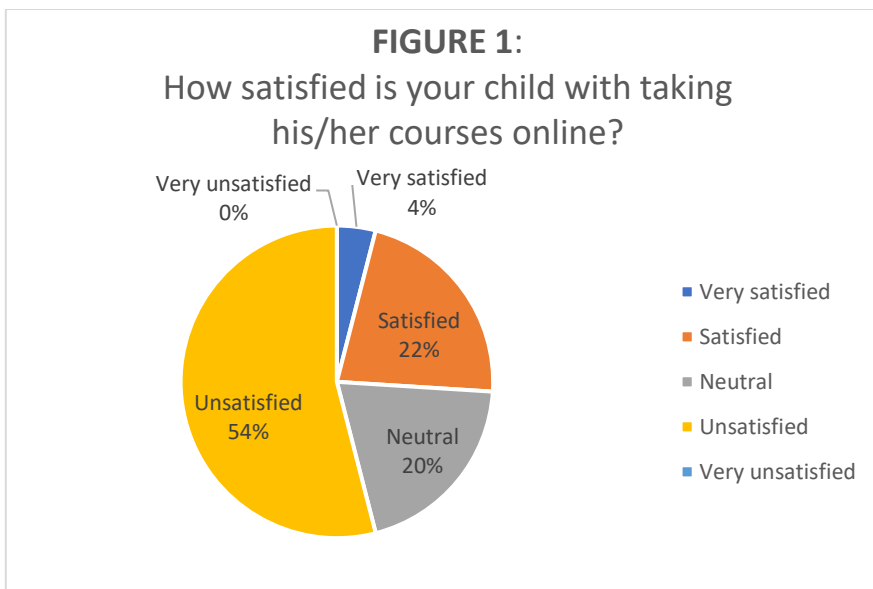
The survey started with basic questions related to gender, age and community type (summarized in Table 1), followed by questions related to the topic of this study, such as “What does your child prefer? Online or face-to-face classes?”. Out of 110 participants, 97% preferred face-to-face classes and only 3% chose online classes. The next question (“How satisfied is your child with taking his/her courses online?”) takes us a little deeper into the matter, 54% being unsatisfied, 20% - neutral and only 4% saying they were very satisfied (see Figure 1). The next question “Is your child struggling with online learning?” (Figure 2) brings to light that the shift from classrooms to online classes during the pandemic has been very difficult for almost all primary school children (92%).

CATEGORY	PERCENTAGE %
<i>Gender</i>	
Female	66
Male	34
<i>Age (years)</i>	
6	51

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7	23
8	21
9	8
10	7
<i>Community type</i>	
Urban	100
Rural	0

Table 1. Participant Demographics Table

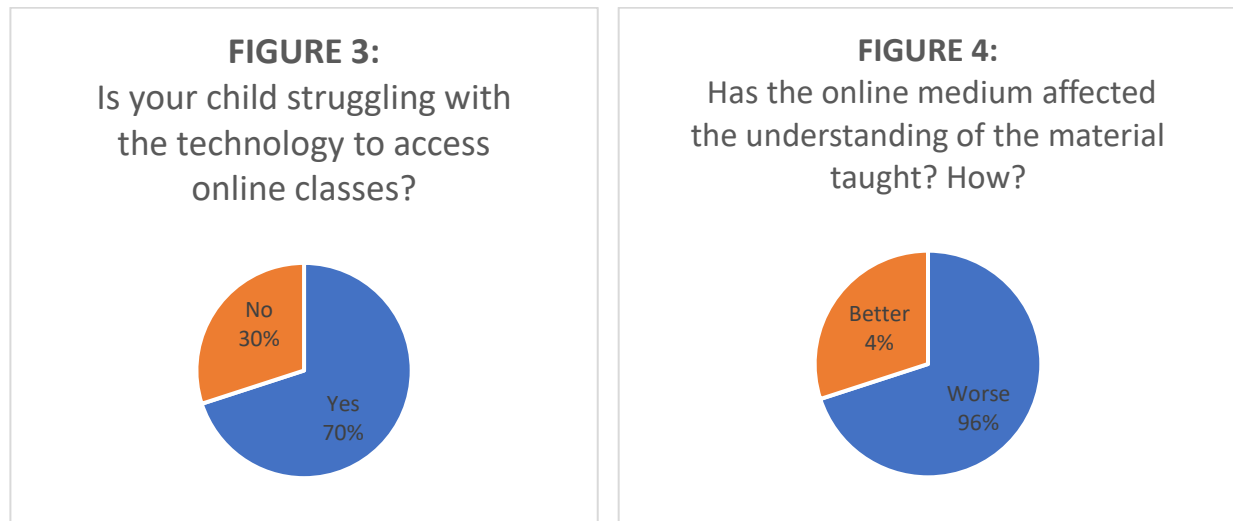


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The first problem they encounter is related to computer literacy. Most primary school children find it difficult to access the online platform or to switch from one group to another in order to participate in a different class (as we can see 70% of the participants admitted that they are struggling with technology – see Figure 3). It should be mentioned that, despite living in a highly digitalised world in which technology has shaped the way we work, learn or organise our lives, most primary school children have limited access to it. On the one hand, parents are constantly adapting in order to ensure that their child is shielded from technology, by avoiding or limiting screen time as much as possible. According to the American Academy of Pediatrics, there is concern that screen use can affect cognitive and language development, lead to problems in school and even make some mental health disorders worse. Moreover, parents are strict about technology use because they are more and more worried about the threats their children might face online, such as interacting with strangers, access to inappropriate or explicit content online and psychological and physical issues (such as eyestrain, difficulty focusing on particular tasks and even depression). On the other hand, access and usage of digital technologies are not uniform for economic reasons. According to a study conducted by the National Institute of Statistics in 2020, 14% of the participants in the 16 – 74 age group confessed to never having used the internet, 8.7% being in the urban area and 20.7% in the rural area and 20% of the total population, although Romania is placed among the top three countries in the world with the lowest broadband internet prices (the National Institute of Statistics 2021; DataReportal 2021).

Furthermore, the decrease in communication levels and the understanding of the material taught are two interrelated problems worth mentioning (see Figure 4). It is important to recognise that some subjects should not be taught online because the electronic medium does not permit the best method on instruction (such as: surgery, dental hygiene or sports). In this line of thought, most of the subjects taught at primary school should fall under the same category, as they involve fine motor activities, such as handwriting, or visual and auditory perceptions which are strongly correlated with their ability to develop oral language skills, new vocabulary, sentence structures and many more. These are all important cognitive developmental milestones that need to be met during primary school years, and the teacher's physical presence is crucial.

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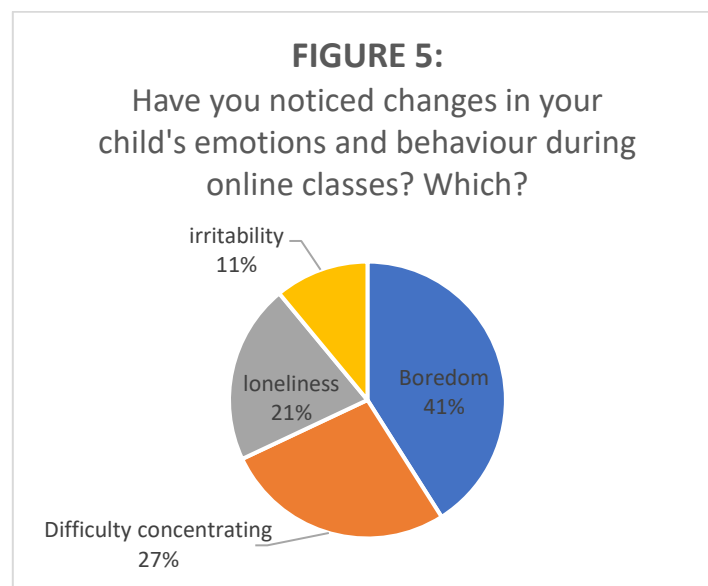
Handwriting is one of the issues that exposes the drawbacks of the online medium, being a skill that primary school children need to acquire in order to fulfil and cope with the classroom demands. In a face-to-face traditional learning environment, the teacher assumes the task of ‘coordinator’ and uses a variety of instructional practices for teaching handwriting: a correct pencil grasp results in efficient and comfortable handwriting, while an incorrect one may cause fatigue and poor letter formation; letter formation should be integrated with phonics instruction (practicing forming the letters while connecting them to the sounds they make), legibility and pacing. Although these practices pose some problems even in traditional face-to-face educational settings, it is particularly worthy of attention when the medium of communication changes. In the online medium, the teacher cannot fully cover the aspects of handwriting instructions. They are unable to see how a child holds the pencil or how hard or light they press, cannot help them trace curved lines or adapt the techniques for the left-handed children and even the activities related to dictation or simple sound pronunciation may be challenging if the audio function of the device used does not work properly or the internet connection is poor.

According to Volman, van Schendel, and Jongmans, “handwriting is a complex activity in which lower-level *perceptual-motor* processes and higher-level *cognitive* processes continuously interact”, making use of fine motor coordination, hand-eye coordination, understanding of auditory and visual information and working memory (2006: 452). Within the classroom context, working memory is one of the indispensable aspects that develops during the first years of life, affecting children’s school engagement, future academic achievements and even social and emotional functioning. Another cognitive process that influences one’s actions or emotions is inhibition – the ability to focus on a less dominant thought or emotion and not on an automatic response. For example, primary school children should learn to concentrate on a particular task while disregarding distracting sounds or thoughts. Moreover, when changing from one activity to another in the classroom, children require cognitive flexibility in order to turn their attention towards the

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demands of the new situation, leaving aside the instructions and responses tailored for the previous activity. These cognitive processes assure a successful functioning throughout life and their importance should not be overlooked. However, the online medium restricts the development of these executive functions as teacher-child interactions are limited. Affective components, such as closeness, dependency and open communication (related to the dyadic relationship between the teacher and a child), along with the relationship of the teacher with the class as a group (emotional and instructional support and classroom organization) are hindered by the impersonal, digital interactions.

In close connection to this idea, Figure 5 reveals that most of the participants to this survey admit that online classes have influenced their behaviour and attitude towards learning and not only, the most frequently observed changes being boredom (41%), difficulty concentrating (27%), loneliness (21%) and irritability (11%). Similar findings are reported by previously conducted studies, showing that these effects are not limited to the emotional impact of the COVID-19 quarantine, but target the online learning environment in general. In a study carried out by Boling et al. (2012) concerning online classes, most of the participants stated that they experienced a feeling of isolation from both their teachers and their classmates. Because their interaction with others was limited, they perceived the atmosphere during online courses to be highly impersonal. Moreover, the participants described their online interaction as text-based lectures and writing assignments which prevented them from fully develop critical, imaginative thinking. In close connection to these ideas, Murphy et al. (2001) identify other issues related to online communication. Not only did the students feel alone, marginalised or overlooked, unable to share their ideas or thoughts freely, but they also argued that the online medium seems 'faceless' and many misinterpretations might occur with regard to the way they responded to nonverbal cues.



Conclusions

To summarize, the study aimed to explore whether online learning for primary school children affects the learning process in a negative way or their productivity levels. As already mentioned in the results, the majority still prefer classroom classes over online classes due to the many problems they face, mainly because teacher-student interaction is significantly reduced.

Therefore, it may be safe to assert that distance learning of any nature cannot be regarded as an adequate measure to deal with the pandemic situation in a serious way, particularly in the event of further lockdown measures or prolonged partial school closure. Rather, schools should develop their concepts towards blended learning, that is, a strategic combination of presence at school and structured approaches to student learning at home, especially for the younger generation. Moreover, school is a place for social learning among children. They go to school to meet their friends as part of their social development and to master important age-specific developmental tasks, all of which are impossible in an online environment.

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