

## *Mathematics in the pandemic*

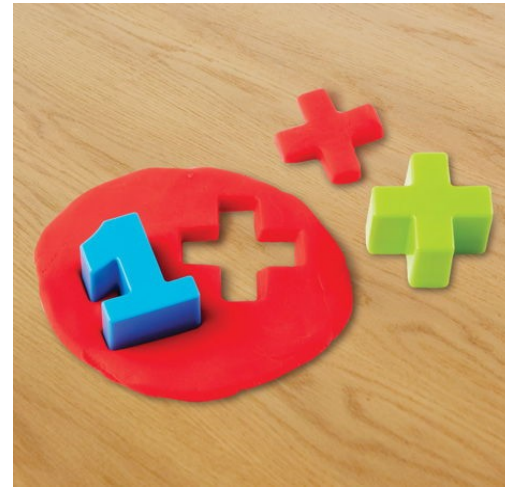
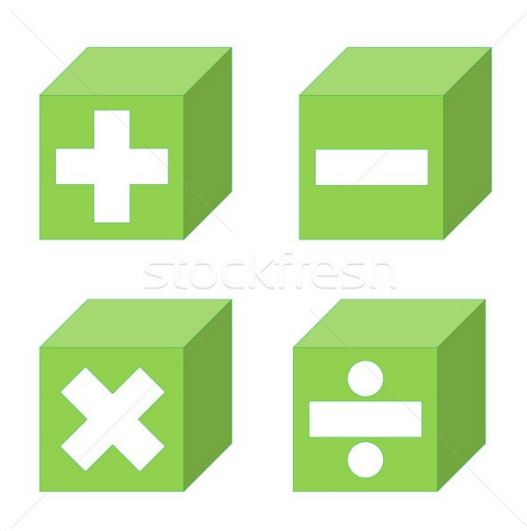


The beginning of the 2020 marked a major societal change, both in Romania and the world around. Thus, the system of education had to cope with unprecedented obstacles since the outbreak of the pandemic challenged us all, in a way we had never imagined. All the actors involved in education, teachers, managers, students and parents, tried to adapt to the new situation imposed by this pandemic.



## *Mathematics in the pandemic*

I would divide my experience as a Math teacher during the pandemic into two stages. I hope there won't be other stages anymore.



## *Mathematics in the pandemic*

*1 The first stage lasts from the outbreak of the pandemic until the end of the school year 2019-2020.*

In the months of March and April, everybody was disoriented, finding it hard to believe that this pandemic will last long. This is the reason why many teachers did not try to change their methods of teaching or communication and did not bother to learn how to deal with online courses.



## *Mathematics in the pandemic*

- The majority of teachers, myself included, appealed to WhatsApp. It was difficult, chaotic and the results were modest. I personally had initiated WhatsApp groups for all the classes of students I was teaching, a while before the outbreak of the pandemic. These WhatsApp groups were at the time extremely useful for sending worksheets, exercises from various sources to my students.



More than that, students used the app to ask questions or clarifications in order to find the right solutions for the different assignments they had. I thought I was helping them at the time, by accepting this alternative way of communication. So, when the pandemic struck I was somehow prepared (or, so I thought) to communicate with my students. I was hoping the days without face-to-face-communication will not last, but I was wrong.

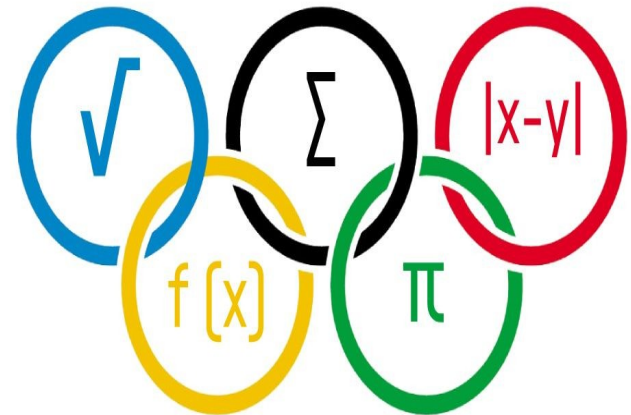
## *Mathematics in the pandemic*

- Unfortunately, after a while, I came to realise that the pandemic would last longer than I had expected and that I would have to change the way I communicated with my students: I needed to practically see my students. From colleagues, from mass-media I heard about lots of options, about platforms and applications that could be used to improve communication with students. I was reluctant to use ZOOM as many of my colleagues did, since I had heard of its inconveniences. At the time Zoom was not secure, anybody could participate in the meeting and so on and so forth and so I decided to use Skype.



## *Mathematics in the pandemic*

And so I started by creating groups for all my classes and teaching my students according to a schedule agreed by my school. However, the meetings lasted 2-3 hours a week, instead of five hours per week as it was the norm. My classes are specialised in Math and IT and they are supposed to have five hours of Math every week.



## *Mathematics in the pandemic*

- The most difficult thing for me was to teach the 12<sup>th</sup> grade students, the ones who were about to graduate from high school and sit a demanding exam: the baccalaureate. I was optimistic when I realised that my online classes showed their efficiency, the students were active and I thought that face –to –face communication or the good old approach to teaching was not such a big loss.



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- What did my teaching imply at the time? I was writing problems and exercises on a piece of paper and showed them on the camera, sending them to students via WhatsApp, giving my students all the necessary explanations. My students, in turn, showed me their work on the camera. There was no question of online testing at the time and the final semester assessment was abandoned and replaced with simpler procedures. More than that, the curriculum for the baccalaureate exam was adjusted and reduced and in a further attempt to help the graduates various training tests were made available to them.





## *Mathematics in the pandemic*



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It was an arduous task to communicate with my students in the way I had done it before the pandemic and I had to work on their emotions and feelings in order to help them pass their baccalaureate exam honourably.

And so they did.

**BAC**  
2020

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- Then, the summer holiday came and I started to hope again that as of September we would go back to school, the normal way. In June and July I participated in the national assessment exams as an assessor and I believed things went for the better.



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*2. The second stage in my experience as a teacher during the pandemic coincides with the school year 2020-2021.*

- My colleagues and I began the new school year more prepared at all levels for what was about to come. In my school, efforts had been made to have laptop computers and web cameras in all the classrooms and an educational platform had been chosen for our permanent use. We are now working on Google (Meet) Classroom which is quite suitable for large classes like the ones I teach, where the number of students exceeds 30. It was a great challenge for my fellow teachers whose level of digital competences was not high enough to cope with all these novelties. However, I am proud to say that my colleagues showed interest and desire to learn how to teach online properly. The ITC teachers in my school initiated some training sessions for all the teachers who were in need of updating their digital skills.



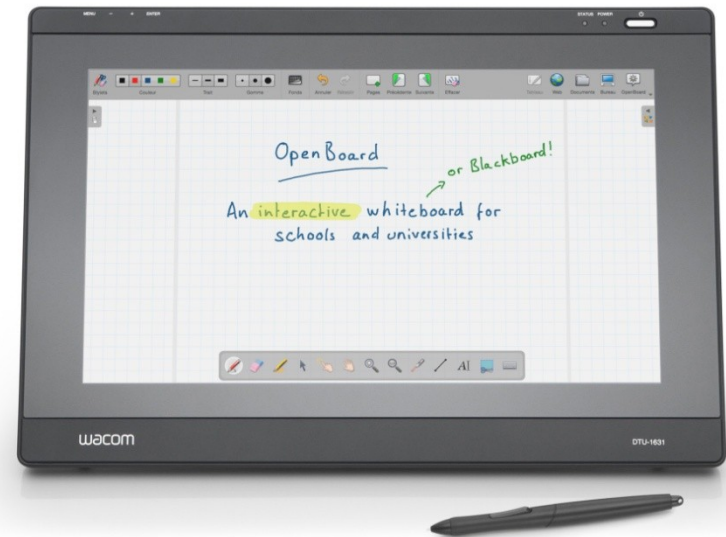
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- At the beginning of the school year we had to teach according to a hybrid model, half of the students were present in the classroom while the other half were at home, working online at the same time. I taught, wrote on the board, with the web camera positioned in such a way as to allow the students at home to see clearly. Internet connection was not a problem at all. The 12<sup>th</sup> graders, the future graduates were all present in the classroom, following strict rules of physical distancing.



## Mathematics in the pandemic

- Unfortunately, the day came when we had to go online again for good, it was the end of the face-to-face communication with half of the students rotating, it was the beginning of a new challenge. I decided to buy a graphic tablet and install a free application on it (OpenBoard) in order to familiarise myself with a new gadget which allowed me more freedom to teach. In doing so, the quality of my classes increased considerably since my students could see on a new board everything I wrote. I am now teaching using this tablet as if it were a normal board and my students are happy: they like it that they have a board in front of them, they like the colours and the tools I am using. Writing is still strange, though.



# Mathematics in the pandemic

- I have always shared my experience with my colleagues, old and new and discussed about the various obstacles we have encountered in our approach to teaching. At present I am no longer afraid or bothered that I will not be able to teach properly and efficiently or that the quality of my work will suffer. The platform we are using is suitable for presentations, lessons, assignments for students as well as for their homework. I have prepared a tutorial on how students could post a homework assignment, how to scan it and give it a name before posting it.



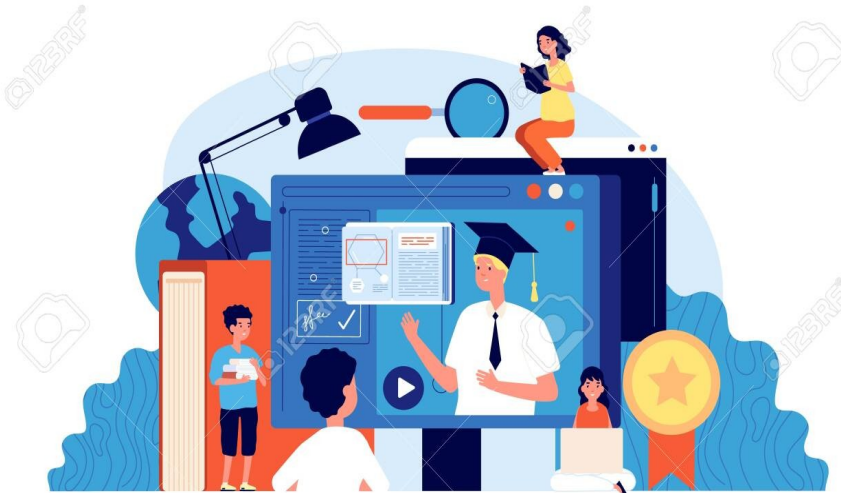
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- The next challenge was the online assessment. I was reluctant at first to appeal to it, I thought testing online was not reliable. I designed tests myself, according to a pre-established structure, similar to the one we used in class, but somehow different in order to avoid a copy-paste procedure, based on class notes or other sources. I also chose not to use tests based on multiple choice questions.



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- Evaluation was a rather simple process: the camera was positioned in such a way as to see how students write while the microphone was on. After the time was up, students posted their tests on the platform. I also created an assessment sheet and the tests were corrected together, by students and I. To be honest, I have a great chance to be a teacher at a school with hard-working and conscientious students whose results are remarkably good.





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- Although we have made a lot of progress in teaching online, in a digitalised way I am aware there will be new applications to discover, the existing ones will have to be discovered or they will be updated permanently, so the only solution is to continue our quest.



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- In hindsight, I realise that despite being terrified by the pandemic and its effects we have managed to use methods of teaching and assessment at distance, keeping up with the new technologies. Digitalised teaching had been mentioned before the pandemic, at least theoretically, but now during the pandemic, it has become a real thing, as a high percentage of teachers are using modern technologies regularly.



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- All's well when it ends well, but, despite digitalisation and modern technologies, one thing hasn't been solved yet: human interaction. You cannot relate directly to people, you cannot experience emotions or see the expressions on people's faces, you cannot see their gestures or feel the warmth of the people you talk to.
- I hope the next meeting will be face –to-face!

