TESTING AND USING “tiSb-Albania” (TRANSPARENT INTERACTIVE SCREEN-BOARD) DURING COVID19

Romeo Teneqexhi1 and Loreta Kuneshka2

1Ex Director of Distance Education Centre, Lecturer of Electrotechnics, Polytechnic University of Tirana, Albania, Sheshi “Nënë Tereza”, No 4, Tirana, Albania
2Lecturer of Statistics, Medical University of Tirana, Albania, Rruga e Dibres, Tirana, Albania

ABSTRACT

Due to the coronavirus, almost all teachers around the world are teaching through the Internet from their homes, sitting in chairs, in most cases even without showing their faces to the students. Most of the students do not like this. They want the teacher to stand on his feet and to explain by pointing on his notes on the blackboard and making gestures with his hands according to the lesson, like they have historically done. Using the “tiSb-Albania” system, everyone can teach the right way. Moreover, you never turn your back to the students even when you write on the blackboard (which is transparent in this case) during the lecture. You will be, during the whole lecture, face to face with the students watching them in real time. This makes them more focused on the lesson despite the fact that they are following it from their homes. Learning in this form “shortens” the distance between the students and the teacher. “tiSb-Albania” is an implant where several hardware devices and software have been assembled, which serves for making and recording the lectures in real-time in a very special form. “tiSb-Albania” is the acronym for Transparent Interactive Screen-Board. The beginnings of this system were presented at the 10th e-Learning conference organized by IADIS in Madeira 2016 (Teneqexhi and Kuneshka, 2016). The system was presented with many new features at the 13th e-Learning conference organized by IADIS in Porto 2019 (Teneqexhi and Kuneshka, 2019), in which we announced that work was underway to build the prototype for ordinary users. The COVID19 created an appropriate ground for further experimentation and completion with other necessary features of the system for such situations. The use of “tiSb-Albania” during the pandemic period as well as other developments in Albanian schools and universities make us draw some conclusions and give some recommendations, we believe it is useful for achieving the teaching process in extraordinary situations, so why not implement it even for normal situations.

KEYWORDS

Transparent Interactive Screen-Board (tiSb), DTSE (Daily Twice Short Exams), Semi-Virtual Classroom (SVC)

1. MAIN PORTABLE CONSTRUCTION OF tiSb-Albania

All hardware devices explained in “Making virtual classrooms of google platform more real using transparent interactive screen-board” (2) are assembled in the construction of first prototype “tiSb-Albania” as shown in Figure 1. This system is now portable and easily implementable in every traditional classroom.

Figure 1. Main construction of tiSb-Albania
2. TWO EXPERIMENTS WITH tiSb-Albania BEFORE AND AFTER CLOSING SCHOOLS BECAUSE OF COVID-19

In Albania, due to an educational reform undertaken in recent years, Distance Education is no longer available. Our work on the “tiSb” project has started before the decision of closing distance education schools. Of course, we never liked this decision but we couldn’t do anything to prevent it. In a way we needed to test the prototype in all its parameters with real students. In fact, among other things, we had another strong reason to do an experiment. Actually, we never thought that one day would come when schools would be closed due to a virus. But due to a strong earthquake on November 26 in Albania, the schools were closed for 2 weeks and during this time teaching process was paused. We wanted to show the education authorities that we should be prepared to be able to continue the teaching process without interruption even in the future if schools are closed due to other natural disasters.

For this we used an anniversary day, The opening of the first Albanian language school, March 7, 1887. On March 7, 2020, as a sign of gratitude for my former teachers, I conducted a homage lecture through the system “tiSb-Albania” where most of the students attended it live from home via YouTube while they were logged in the “eBeam Scrapbook” platform. The lecture was very successful in all technical parameters. Figure 2. a/b. (Watch this video at: https://www.youtube.com/watch?v=G5gsAgHlyio&t=856s)

Ironically, 2 days later, on March 9, 2020, the Albanian government closed schools after the first case of COVID-19 was confirmed in Albania. Covid-19 found Albania totally unprepared to continue the learning process online. Although we notified the education authorities about the existence of the tiSb system, large-scale implementation could not be carried out for many reasons. However, I used and continued to use the “tiSb-Albania” system with great success, perfecting its special features intertwined with existing platforms such as Zoom and Meet.

Immediately after the government closed the schools, we decided to do another big experiment involving as many student as we could, this time to show the educational authorities how the teaching could be organized through the Internet, mainly for primary schools. Through the teaching secretaries, we informed all the students of the Polytechnic University of Tirana to become part of a large virtual classroom to attend a single lecture. We also made the invitation public on Facebook. To ensure participation in the experiment, we invited a well-known Albanian cartoonist, asking him to make for our lecture a cartoon without the title. With this cartoon, through a material stimulus for the participating students, we wanted to test the so-called DTSE ideas.
(we’ll talk about that later). The other reason of the cartoon was the treatment of the lecture with humor and optimistic notes, very important during the pandemic lockdown.

Well-known Albanian cartoonist Bujar Kapexhi made a very interesting cartoon which we are publishing (Figure 3) hoping the cartoon will orient us towards the answers of some questions that concern the whole academic world of today. About 540 students expressed the desire to participate in our experiment. The video was livestreamed on You Tube. Some students logged in eBeam Scrapbook. Many other students just watched the livestream, but they, and not only them, were able to download slides from the lecture any time. All you have to do is to connect via eBeam Scrapbook meeting ID 352 724 420 (slides are on the cloud; ID is on the right up corner of video Figure 4.a / 3.b.). Through this experiment we retested “tiSb-Albania” in all technical terms including so-called DTSE (Daily Twice Short Exams). It was a really successful experiment. You can watch this video at: https://www.youtube.com/watch?v=PIdK-prQjpE (full version, Albanian language) or at: https://www.youtube.com/watch?v=lJyMJyy5OF4 (short version, music background). After this experiment I have personally used and continue to use the “tiSb-Albania” system. I record every lecture and upload it for the students in their respective Google Classroom. So, my students never lose the lecture even if they have not followed it in real time. I should mention that I have recorded with this system lab-courses using different software simulators.

![Figure 3. Friendly cartoon with PM and Minister of Education](image)

![Figure 4a. Daily short MCQ exam](image)

![Figure 4b. Individual Question Results](image)

3. “tiSb-Albania” LIVESTREAM IN YOUTUBE VS ZOOM PLATFORM

During pandemic time we used two different platforms for transmitting livestream, YouTube and Zoom. In both cases we used eBeam Scrapbook software for four important reasons. First eBeam Scrapbook gives us the possibility to have interactive screen-board. Second, we can use prepared slides or create and edit new ones during the lecture. Third, all these slides are downloadable for the students after the lecture via the eBeam Scrapbook meeting’s ID. Forth and most importantly, it is possible to make “short fast exams” during the lecture with MCQ (Multiple Choice Question) or essay type questions using eBeam Scrapbook. Teacher can save in a Data Base all the results of this short exam-type and use them for the final assessment. Zoom platform is very useful for video meeting but does not give you the possibility for MCQ. Zoom annotating tool also does not offer more than one slide. On the other hand, we have notice most of the students do not want to open the camera for privacy reasons. But some time they just log in Zoom meeting and go away (because no MCQ during lecture). A significate difference between streaming in YouTube and Zoom platform is the delay in time (some seconds depending on the internet speed) because of streaming. In the first case the student has the possibility to ask the teacher only via eBeam Scrapbook chat tool. Any way in both cases recording of lecture is important.
4. WHAT ABOUT EXAMS DURING SCHOOL CLOSING TIME?

Due to COVID-19 schools were closed almost all over the world. Teachers changed the way of doing lectures, via internet, without knowing when the schools would reopen. Everyone was engaged with lectures and almost forgot that the schools could have been closed even at the time when the exams would normally take place. Now all universities have a big challenge ahead: How will the exams be done. We want to share our experience by suggesting something that sounds unusual “school without traditional exams”. How is it possible? We were confident that the school would remain closed even during the exam period and doing exams in traditional form would be difficult and maybe even dangerous. So, we organize every teaching class with two “short exams” before and after the lecture. At the beginning of the lecture, there is a short, up to 10 minutes exam, with MCQ related to the previous lecture. After the lecture, we do another short exam with problems related to what we just explained in the lecture. eBeam Scrapbook application offers this option, but it can also be done using Google Form in Google Classroom. This gives the lecturer the opportunity to evaluate the student in two very important components, how much he has understood from today's lecture and how much he learned after reviewing the lecture at home. On the other hand, it is a great advantage that “forces” the student to study systematically as there is no exam at the end of the semester but only DTSE (Daily Twice Short Exams) every day in the lecture.

5. CONCLUSIONS

- We strongly believe that the recording of lectures should be done even in normal times. “tiSb-Albania” infrastructure makes it possible. For this, the system must be installed in each lecture classroom and the teacher will do nothing more than usual other than just clicking a button at the beginning and at the end of the lecture. The student should be free to choose to follow the lecture in the same room with the teacher or at home or somewhere else for as long as he is online with the teacher. The second version saves the student a lot of time and money by getting a much better service from the school. We would like to call this kind of combination “Semi-Virtual Classroom”, some students are in the class, others at home or somewhere else being involved with other tasks that do not require much commitment.

- Recording of lectures and saving them on different platforms of the departments will become a powerful mechanism for improving the quality of teaching and will increase, in a good sense, academic competition, just because of the transparency of the recorded materials.

- DTSE (Daily Twice Short Exams) every lecture day is an option for substituting some of the traditional exams even in normal situation (without pandemics).

- All of the above are our opinions and conclusions. An extensive survey with students after pandemic would be of great interest for “ACADEMIA POST COVID19”.

REFERENCES
