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## REMOTE LEARNING TOOL AS METHOD OF STUDENTS' ASSESMENT IN DISCIPLINE "DERMATOLOGY. VENEREOLOGY"

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### Abstract

In recent months, medical education has changed dramatically and many medical educational institutions all over the world have been started to expand modern training methods, for the coronavirus disease 2019 (COVID-19) pandemic. Purpose of the research was to evaluate the foreign students' knowledge of the medical faculty №3, in fourth year education and prepare them for taking successfully the final module control in the discipline "Dermatology. Venereology" in the Bukovinian State Medical University (Chernivtsi, Ukraine) by using the contemporary learning tool Classmarker.

**Keywords:** medical education; Classmarker; discipline "Dermatology. Venereology".

**Introduction.** Since society has faced with the novel coronavirus disease 2019 (COVID-19), new technologies into learning process have been implemented with the aim of boosting education, the prevention of morbidity increase [7, 9]. Many universities have been closed during the COVID - 19 pandemic [11]. Following the decision of Ministry of Education and Science of Ukraine, our university presented a range of different measures to limit the spread of the COVID-19 virus such as quarantine [2]. Social distancing forbids classical lectures, seminars, and bedside teaching [11]. Therefore in recent months, the usage of modern techniques was inevitable and actively engage the students in the education process [3, 7]. Also, education in dermatology for students will not be temporarily possible in the classical settings [8, 11]. So, Dermatovenereology Department of Bukovinian State Medical University (Chernivtsi, Ukraine) has developed a program in concordance with approved curriculum to continue the uninterrupted study [1, 10] for their students, including foreign students of the medical faculty №3, in fourth year education in the discipline "Dermatology. Venereology" within the coronavirus disease 2019 (COVID-19) quarantine conditions. But one of the most urgent issues facing the teaching teams since the announcement of remote learning on 16 March was how to conduct effective assessments in fourth-year students' [4] of the medical faculty №3 in the discipline "Dermatology. Venereology".

**Purpose of the research** was to determine the relevance of the remote learning tool 'Classmarker' usage to knowledge assessment the foreign students of the medical faculty №3 in fourth year education in the discipline "Dermatology. Venereology".

**Materials and methods.** This research included 125 foreign students of the medical faculty №3, in fourth year education in the discipline "Dermatology. Venereology" of Bukovinian State Medical University in 2020 during their Dermatovenereology course. After reviewing the subject matter with Google Hangouts [5], students also took the tests that were previously created owing to ClassMarker upon registering [12]. We produced direct links to the Tests and restrict access. Obviously, tutor added time limits, test availability dates, quantity of attempts. Subject test was computer-based so the administrator required students to have two devices preferably. They then had to answer 20 questions in twenty minutes, meaning they had 1 minute to answer each one. Students were solving them accordingly to theme at the beginning and end of the class for 4 consecutive practical training. Each question contained five options that was assessed with Classmarker automatically in percentage ratio (0-100%).The final scores of two-time session were compared by viewing users details as

score, selected points. Then tutor analyzed statistics answers. In the end, to assess students' knowledge and problem-solving ability regarding management of patients every student got the final score ranged from 0 to 10 and were converted into grades from 0-5.

**The results of the research.** Due to applying up-to-date innovative communication technologies, such as an instant messaging and video chat platform Google Hangouts Meet [5], we could continue educating students. To optimize distance learning classes were conducted in the form of pair discussions, which involve all logged on online students. First, obligatory the topic of the lesson scrupulously considers, with covering of the current dermatoses course peculiarities, the modern methods of diagnostics and treatment by the lecture-based method, the teacher presented a lecture by the support of PowerPoint slides. For augmenting medical student training online we were demonstrating video cases as learning materials to help make up for at least some portion of what was missed [7]. To practise to diagnose a patient's condition undergraduates were presented with a virtual patients and given their history, findings from clinical examination and data from investigations as a clinical case according to the topic of the class. During the following session, students were discussing about the problematic issues of the case and joined in a supervised discussion. Finally, the tutor completed and concluded the discussions. So, all participants had got online, interactive experiences through Google Hangouts [5]. All participants fully fill in and unwittingly turned the questionnaires (response rate = 100%) when the time was up. Among all students, 60.8 percent were men and 39.2 percent were female. Evaluation the target subjects taken a 20-assessment questions test according to the topic of practical training demonstrate the most challenging option (average 30%). Analyzing every set of questions and answers was based on a 4 processed themes we disclosed too complicated and intricating questions (taken one with another 10%). That made it possible to assess the initial level of knowledge respectively. In the end of the class quiz was repeated. The mean percentage of correct answers was calculated and compared using two-time results of tests. The contrast between them was significant:  $45 \pm 5,4$  versus  $85 \pm 5,8$

As a matter of fact, we could get these outcome promptly and study out of the problematic issues therefore a group of participants got instant feedback which will be able to enhance their learning experience. Students who were taking tests from home had a seamless and secure Testing experience. Besides, with ClassMarker's remote learning tool, there are no downloads. Well, the thing is that ClassMarker is web-based, which means students can take Tests on any device, using any operating system, from any modern browser. Moreover, ClassMarker takes security and privacy very seriously [12]. Regardless the NBME's guidance

on remote proctoring does acknowledge concerns about exam security, having the test taken remotely [6], we think that it is not necessarily because it wasn't possible to answer questions that require putting all this information together due to the fact that time is strictly regulated. Students cannot see other student's data; the only person who can access a student's data is themselves or the account administrator/instructor who set their Test. All student data can be edited or removed from ClassMarker [12] at any time by the only account tutor. The good things about this remote learning tool is possibility to upload images, files or videos in Questions. We are convinced that this will allow students to observe the rash which is an integral part of putting, at least, the preliminary diagnosis. Also, students can get certificates and email test results very quickly after finishing it. In order to prevent an unfair advantage to cheat on the exam, we accentuated their responsibility for their future patients. We remind them regularly that their future profession is chiefly connected with potentially harming for treatment results and prognosis for patients' recovery and very often with life and death consequences on the other end. Finally, the average grades achieved by students were  $4.34 \pm 1.15$  whereas at the outset -  $3.44 \pm 1.16$ . Interestingly that we did not identified any gender difference. The evaluation of the final output in comparison with the onset of class demonstrate us efficient upshot of our common efforts. Consequently, new remote learning tools presenting in the discipline "Dermatology. Venereology" led to the student satisfaction and provided additional learning opportunities.

Overall, modern digital technology for both safe and gapless teaching of students offers great potential here [1, 9]. Having studied a topic before whether during the class on the condition that undergraduates worked at all materials, including recordings of the live class sessions or leveraging preexisting self-study [5, 9, 10] makes it easier to pass the test. Of note, Classmarker [12] allow for formative feedback therefore tutors save their own time and no chances to make a mistake.

### **Conclusion:**

1. To sum up, making an efficient learning environment is one of the main challenges of medical education particularly during pandemic. In short, the remote testing experience shows that it might have hold over the video-conference platform Google Hangouts Meet provided undergraduates have two device. On the other hand, students need not to do the test by being supervised through a camera due to remote learning tool Classmarker. In other words, it makes a remote exam less nerve-wracking.

2. The investments in digital technology and remote learning tools help tutors to provide high quality teaching and trully assessment of medical students, for example, by using Classmarker.

3. Consequently, interesting and engrossing ways of absorbtion the new and huge amount of information lead to increase passing the final module control, stimulate students rich the highest grades and encourage them for future achivments in discipline "Dermatology. Venereology".

The author declare that she has no conflict of interest.

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