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Ways of Engaging Students Through Zoom™ and Avoiding Zoom™ Fatigue

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Abstract

Medical and dental education during the COVID-19 pandemic has transitioned from face-to-face classroom learning into an online environment. While this transition has many learning opportunities, it has its fair share of drawbacks. Most universities worldwide have adopted Zoom™, a video conferencing platform for teaching students in an online environment. The silver lining of online learning is that most of what was taught physically could be taught effectively online. However, a frequent complaint by faculty and teachers using zoom is a lack of interaction with students. Twenty practical tips have been proposed that will make teaching and learning through Zoom a conducive learning environment. Most of the course content in medical and dental education can be effectively delivered through the zoom platform. The key to success is interaction through breakout rooms and the use of pre-test, post-test, and polling that will not only engage students but will result in worthwhile learning.

Introduction

Medical and dental education during the COVID-19 pandemic has turned from a face-to-face classroom into an online environment. This sudden unplanned transition has created many learning opportunities, and it has its fair share of troubles including stress and pandemic learning loss (1, 2). The faculty is also experiencing occupational stress due to online education (3). Most universities globally started using Zoom™, a video conferencing platform for teaching students in an online environment. The silver lining of online learning is that most of what was taught physically on campuses could be taught effectively online. However, a frequent complaint by faculty and teachers using zoom, for example, a lack of interaction with students, is one of them.

This paper addresses the most commonly seen issues while teaching through Zoom. These recommendations are based on Zoom best practices in teaching and learning (4), and based on the experiences and feedback of students and teachers.

This paper's recommendations may benefit the faculty members using Zoom and help them make a conducive learning environment and online teaching and learning an effective learning experience for their students. Following are the twenty recommendations:

Zoom settings for optimal learning

1. Create a single Zoom™ course link for the entire academic year so that students can access it easily. Most of the universities have paid Zoom accounts and the IT administrator can easily set this up.
2. Easing course access by avoiding the waiting room, passwords, or a specific email extension for logging into their zoom classes saves time. It avoids frustration if internet connectivity is lost and students have to reconnect.
3. All formal teaching and learning activities should be recorded on the computer or uploaded on "cloud" and students should be given access for viewing and record-keeping purposes. All those teachers who think that video recordings of Zoom™ classes should not

be shared with students should be aware that students can easily download any free screen recorder software and record the whole zoom class with ease.

4. Ground rules should be simpler to follow. In a large classroom format, students' webcams may be turned off, and adherence to dress code could be relaxed, but in breakout rooms and small groups, students should be asked to follow the dress code by wearing formal clothes, and their webcams should be open. Students should not be wearing any masks as there is no COVID-19 risk involved. No pajamas should be allowed as video recordings are made. Students should be asked to make Id's so that their full name is visible along with their roll numbers so that it is easy to take their attendance. This will discourage zoom bombers from joining, and they will easily be picked up by the administrators and thrown out of the Zoom™ class.
5. For group assignments give students meeting rooms on Zoom™ so that they may interact with each other especially for group assignments and group presentations.

Engagement activities through Zoom & use of breakout rooms

6. Every zoom session should have separate learning objectives, a lesson plan, a pre-test, and a post-test with a take-home message at the end. The pre-test can be taken through the built-in polling option in Zoom™. Most of the faculty members are not using the polling option. The polling option provides an opportunity to check student comprehension and encourages student engagement. Gamification software such as Kahoot or Mentimeter are all free softwares and are compatible with Zoom™ (5).
7. For engagement purposes, students should be placed in breakout rooms and should be allowed to share their screens with group members. Students feel a sense of community in breakout rooms, and they do not feel that they are left alone. The teacher by the gallery view can view every person in the breakroom. Videos, presentations, demonstrations, and websites can easily be shared through Zoom™ screens.
8. If a large group is divided into groups in breakout rooms, the faculty can randomly join the breakout rooms to check on the student's work and just silently lurk around (6). Up to fifty breakout rooms can be created with a single paid zoom account. The length of time students engage in breakout rooms can be determined by faculty. Forgetting to set this will return students to the main room at the wrong time.
9. Students usually complain that teachers don't check their chat boxes and don't reply to their questions promptly (7). Teachers should make a habit of checking messages in the zoom chat box routinely.
10. Most teachers face difficulties in recording the attendance of students. A pull-down menu that lists participants can be used for easy roll taking that can be exported to word or excel.
11. All small group teaching and learning strategies can be adopted in breakout rooms such as think-pair-share, scaffolding, gallery walk, demonstrations, group projects, and group presentations (8).
12. Adequate breaks should be made in between the session to avoid cognitive overload.

Teaching clinical subjects through Zoom

13. Virtual patient scenarios can be given in breakout rooms. Students then teach each of the students in the new group about their patient and patient care.
14. Live demonstrations can be performed easily on Zoom™ such as history-taking skills, counselling, different suturing techniques, and other tasks such as dental wax carving (4). Students then demonstrate the suturing method, dental wax carving, or any other clinical task to the entire class or a group of students.
15. Individual students can be assigned different periodontal lesions. They create mixed media to explain the disease process for the lesion. Students then present on Zoom, either to the entire class or to a group (9).
16. Activities can be assigned to be completed outside of class and then discussed in groups or with the entire class. These tasks could include taking a medical or dental history from smokers, diabetic patients, or patients consuming betel nuts and pan or gutka.

Taking exams through Zoom

17. Objective Structured Clinical Examination (OSCE) can be performed through zoom (10). The instructor sets up the different lab stations and then moves between the stations while on Zoom™. The students watch each station and answer the questions which are submitted as an assignment or exam.

Avoiding Zoom fatigue

18. Long zoom sessions result in loss of focus and fatigue, commonly known as "zoom fatigue' especially in work-from-home situations (11). To avoid zoom fatigue, short sessions are encouraged rather than long grueling sessions; breaks should be incorporated into sessions, and multitasking should be avoided (12).
19. Plain backgrounds are less distracting, and Zoom™ offers a wide collection of personalized backgrounds.
20. For large group formats, where there is little or no interaction possible, it is advisable to record a solo zoom video lecture and send the link to students and use the live session for interactive quizzes or MCQs on Kahoot. This is known as flipping the digital classroom, and it reduces fatigue (13).

Conclusion

Most of the course content in medical and dental education can be effectively delivered through the zoom platform. Faculty development workshops for the less tech-savy faculty can help institutions in improving the delivery of online education. The key to success is interaction through breakout rooms and the use of pre-test, post-test, and polling that will not engage students but will result in worthwhile learning.

References:

1. Baig QA, Zaidi SJA, Alam BF. Perceptions of dental faculty and students of E-learning and its application in a public sector Dental College in Karachi, Pakistan. JPMA. 2019.
2. Khalid A, Akhtar C, Naveed S, Mukarram S. A Novel Experience of Online Education in Public Sector Universities: Challenges and Lessons Learnt from Pakistan. Ilkogretim Online. 2021;20(4).
3. Batool SB, Cheema BA, Siddiqui S. Online teaching during Covid 19: Prevalence of occupational stress among University Faculty in Pakistan. Journal of Research. 2020;14(2):194-210.
4. Shehata MH, Kumar AP, Arekat MR, Atwa H, Ahmed SA, Deifalla AH. Twelve tips to successfully conducting virtual clinical assessment using Zoom™ Lessons learned from COVID-19 pandemic. 2020.
5. Kalleny NK. Advantages of Kahoot! Game-based Formative Assessments along with Methods of Its Use and Application during the COVID-19 Pandemic in Various Live Learning Sessions. J Microsc Ultrastruct. 2020;8(4):175-85.
6. Rucker J, Steele S, Zumwalt J, Bray N. Utilizing Zoom Breakout Rooms to Expose Preclerkship Medical Students to TeleMedicine Encounters. Med Sci Educ. 2020:1-2.
7. Beason-Abmayr B, Caprette DR, Gopalan C. Flipped teaching eased the transition from face-to-face teaching to online instruction during the COVID-19 pandemic. Adv Physiol Educ. 2021;45(2):384-9.
8. Majewska AA, Vereen E. Fostering Student-Student Interactions in a First-Year Experience Course Taught Online during the COVID-19 Pandemic. J Microbiol Biol Educ. 2021;22(1).
9. Darici D, Reissner C, Brockhaus J, Missler M. Implementation of a fully digital histology course in the anatomical teaching curriculum during COVID-19 pandemic. Ann Anat. 2021;236:151718.
10. Hannan TA, Umar SY, Rob Z, Choudhury RR. Designing and running an online Objective Structured Clinical Examination (OSCE) on Zoom: A peer-led example. Med Teach. 2021:1-7.
11. Wiederhold BK. Connecting Through Technology During the Coronavirus Disease 2019 Pandemic: Avoiding "Zoom Fatigue". Cyberpsychol Behav Soc Netw. 2020;23(7):437-8.
12. Peiris CL, O'Donoghue G, Rippon L, Meyers D, Hahne A, De Noronha M, et al. Classroom Movement Breaks Reduce Sedentary Behavior and Increase Concentration, Alertness and Enjoyment during University Classes: A Mixed-Methods Feasibility Study. Int J Environ Res Public Health. 2021;18(11).
13. Balzotti JM, McCool LB. Using digital learning platforms to extend the flipped classroom. Business and Professional Communication Quarterly. 2016;79(1):68-80.