

Letter to the Editor

## Pandemic coerces the use of online resources for dental education

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Received 4 June 2022; accepted 11 June 2022; Available online 25 June 2022

### Problem

Most sectors of the economy were affected by the COVID–19 pandemic, and the dental education sector was no exception.<sup>1</sup> The pandemic compelled the Government of Pakistan to issue stay-at-home directives by mid of March 2020. This was in line with the global implementation of social distancing and other preventive protocols.<sup>2</sup>

Jinnah Sindh Medical University had to closed down with cessation of face to face education. This brought about multiple challenges in terms of achieving continued optimal delivery of the dental undergraduate curriculum.

### Solution

The beginning of March 2020 marked the preparations for setting up 100% online teaching modalities in the university. Formal remote learning efforts were launched to facilitate online teaching and learning by the mid of March. The university chose to implement mostly the asynchronous e-learning model, using Google Classroom. Google Classroom was also used for conducting assessments, assignments, and feedback gathering sessions to ensure quality and continuity of the student engagement process while learning from home (Figure 1).

First year undergraduate students undertaking Oral Biology and Tooth morphology course also utilized a pre-existing YouTube channel, “Dental Education Hub”

(Figure 2) during this time. An additional resource (Instagram account @dentaleduhub) (Figure 3) was also created for sharing multiple choice questions, flashcards, and images to boost engagement levels with the taught material. Occasional synchronous feedback sessions and meetings with students were organized. Additionally, queries of an urgent nature were addressed in the class WhatsApp group using text and voice message functions.

### Results

#### *What went well?*

The online learning initiatives were welcomed and swiftly adopted by most of the students and faculty members; especially given the limited time frame for preparation and subsequent implementation of work from home (WFH) teaching strategies. The uploaded and embedded asynchronous lecture series on the Google Classroom allowed students to learn at their own pace. Time restricted tasks and tests were assigned to different groups of students. Discussion forums, feedback on performance, and grades were all available under the umbrella of Google classroom moderated by the subject faculty.

#### *What did not go so well?*

Given certain logistical barriers, some practical aspects of teaching tooth morphology such as tooth carving on wax blocks could not be adequately replicated. In some instances, timely assessments and the subsequent dissemination of results and feedback proved challenging for the incumbents. There were some issues regarding intrinsic motivation, logistics, and internet availability for some passive students (and faculty).<sup>3</sup>

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Peer review under responsibility of Taibah University.



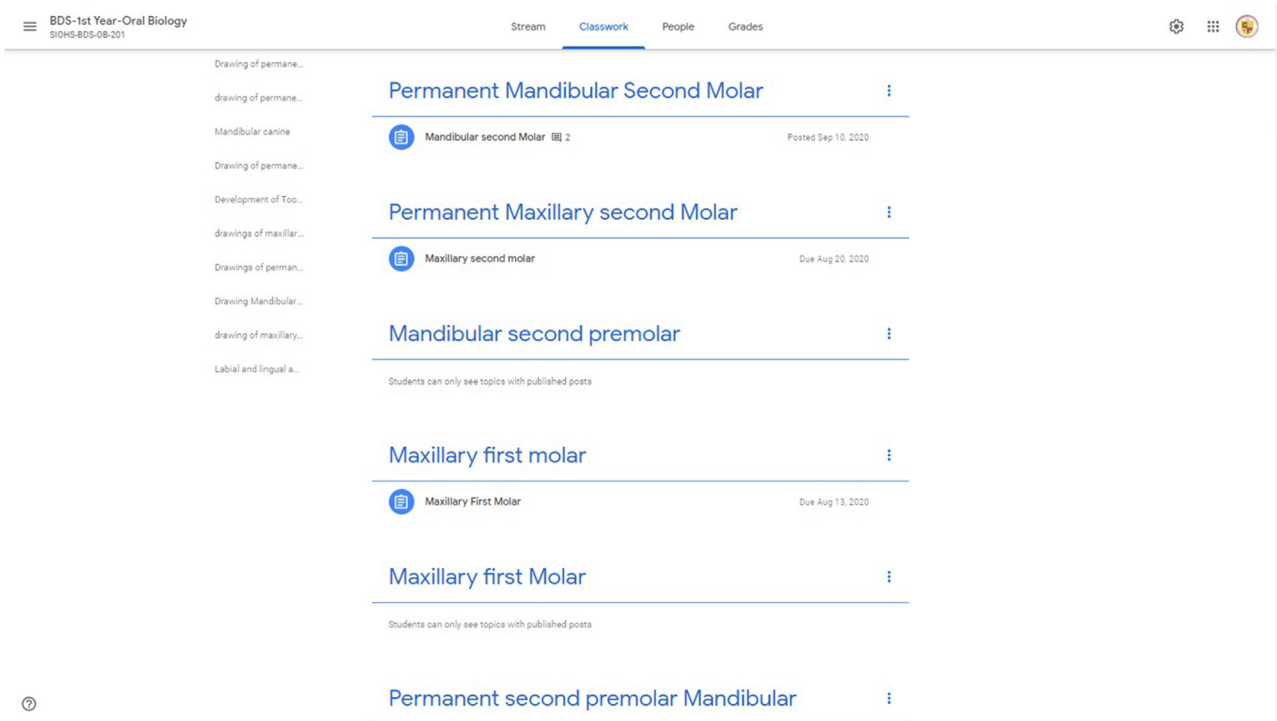


Figure 1: Screen shot of Google Classroom assignment section.

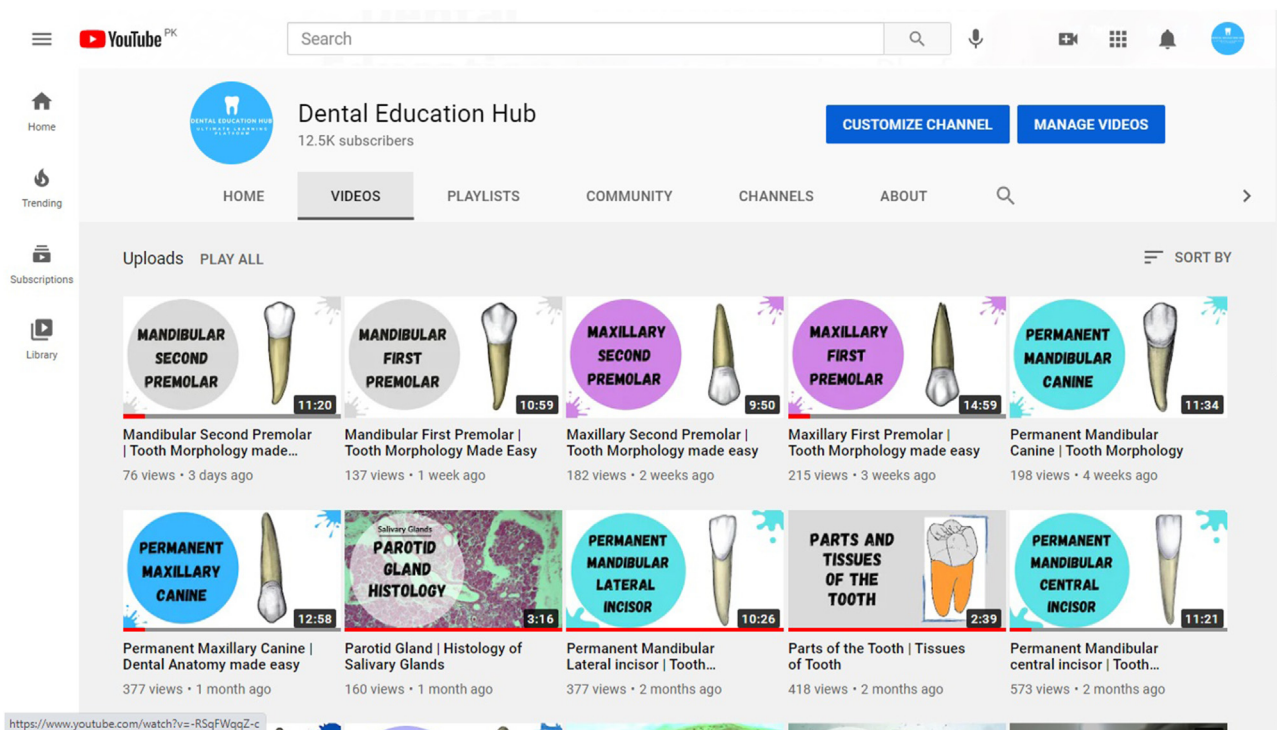


Figure 2: Screen shot of Dental Education Hub YouTube channel.

### Lessons learned

The COVID-19 pandemic has transformed the face of delivery of dental education permanently. These virtual platforms can serve as a freely accessible repository of

educational content and can be strongly integrated in a blended learning model with traditional in person teaching for future teaching and research.<sup>4</sup> There exists a niche for the development of an integrated mechanism based on institutional feedback in case of online learning that would

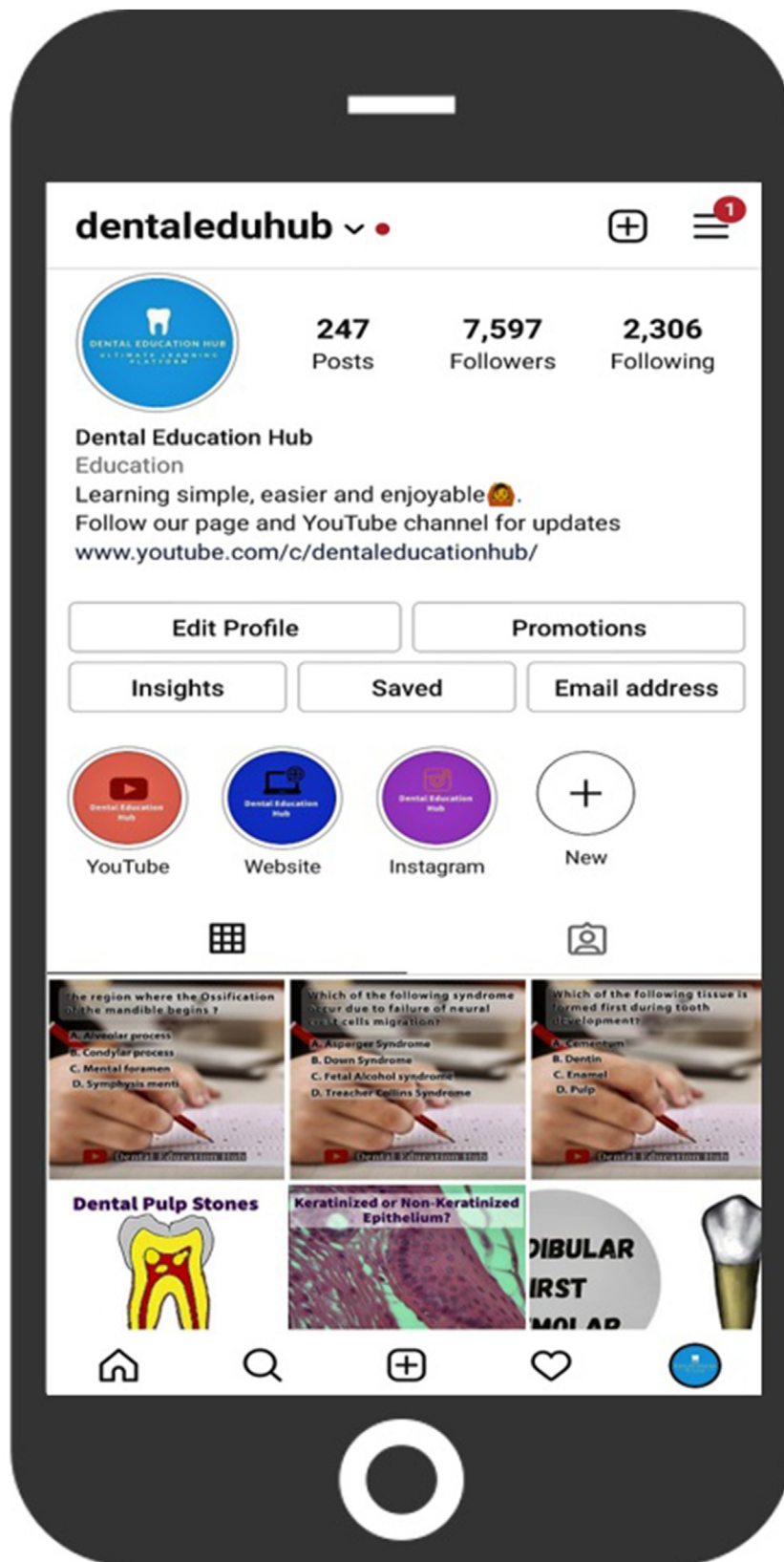


Figure 3: Screenshot of Dental Education Hub Instagram page.

hopefully contribute towards overcoming the passivity of both faculty and students.

**Website**

[www.youtube.com/dentaeducationhub](http://www.youtube.com/dentaeducationhub)

**Source of funding**

This research did not receive any specific grant from funding agencies in the public, commercial, or not for-profit sectors.

**Conflict of interest**

The authors have no conflict of interest to declare.

**Ethical approval**

No ethical approval required.

**Authors contributions**

RU: Conception, literature search, design and organized the work, and final approval. SH: Conception and design of the work, Revisions, and final approval. MSZ: Writing, Critical review of final draft, and final approval. All authors

have critically reviewed and approved the final draft and are responsible for the content and similarity index of the manuscript.

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**How to cite this article:** Ullah R, Husain S, Zafar MS. Pandemic coerces the use of online resources for dental education. *J Taibah Univ Med Sc* 2022;17(6):1083–1086.