Educational Response to COVID- 19: Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka (FMAS, RUSL)

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Abstract

It is vital that the higher education institutes maintain their ability to train undergraduates during the COVID-19 pandemic. Several novel measures were incorporated. The purpose of this article is to share the systematic approach that was taken by FMAS, RUSL during this pandemic. We used a systematic approach for teaching/learning, assessment and faculty development under main categories of

1. Leadership/Management of MBBS curriculum: Headed by the Dean of the faculty with support from the Medical Education Unit plays a pivotal role for planning, maintaining and evaluating online education.
2. Teaching/learning: An online teaching guide was developed taking into account the best evidences and contextual constrains. LMS was updated more student friendly
3. Assessment: emphasis on formative assessments
4. Physical and human resources: Focused on competence in using LMS by the staff, online instructional design and providing physical resources.

All activities were implemented through a team effort and ongoing evaluations are being done to assess usefulness of these measures. We hope this approach would be a useful reference for similar crisis events in the future.

Keywords: COVID-19 pandemic, online teaching learning, online assessment, quality assurance, mentoring

Introduction

In response to the COVID-19, the Faculty of Medicine and Allied Sciences, RUSL has quickly transformed the curriculum to online formats, which include contents in the basic sciences, behavioural sciences, and in the clinical sciences.

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Several novel measures were incorporated to educate our students since literature is lacking in managing higher education institutes during a pandemic.

The purpose of this article is to share the systematic approach that was taken by FMAS, RUSL during the COVID-19 pandemic.

1. *Development of Brief Guide on Online Teaching / Learning Activities*

A brief guide was developed as an introduction to the online teaching /learning activities. Instructions were given with regard to the tasks and responsibilities among the department members, identifying objectives and course

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content suitable for the online teaching-learning, guide on student engagement and formative assessments and providing feedback for students.

2. *Student Readiness Assessment for Online Learning*

Understanding the readiness of the students and the availability of resources which would determine the effectiveness of e-learning. A Readiness survey was conducted aiming to obtain information on "availability of technology", "competence in using Learning Management System (LMS)", "self-confidence", "acceptance levels" and "training needs" of the medical students. Context related questions were included in the questionnaire. The survey was conducted using Google form. The link to the Google form was displayed on our Website.

The readiness survey helped us to appreciate the issues of the students and to plan and implement a quality online programme. Hence, several measures were taken to alleviate the issues related to the online environment. 1. Staff were advised to conduct only asynchronous online teaching/ learning activities 2. Student support mechanisms were established to provide internet facilities, financial facilities to students 3. Student network systems were commenced via WhatsApp 4. Meetings with the student representatives and student union were held every 2 weekly by the Dean and Head/Medical Education Unit (MEU) 5. Students were trained on LMS based on their requests.

3. *Staff Readiness for Online Teaching-Learning*

The readiness of the staff for online teaching / learning was assessed through zoom meetings and via emails. The staff was requested to comment on the acceptability and further training on the online teaching-learning activities. The response of the staff was excellent and almost all the staff members agreed to conduct online teaching / learning activities. They agreed to use LMS, Facebook and WhatsApp platforms for online teaching.

4. *Commencement of Continuing Professional Development (CPD) Portal for Staff*

CPD portal for the staff was commenced via our own LMS to provide more faculty development activities. Videos, recent journal articles, guides related to online teaching /learning and assessment were provided through the CPD portal. Further, need-based educational materials were uploaded to the CPD portal. The CPD portal was monitored and regularly updated by the Medical Education Unit.

5. *Updating LMS / Designing of LMS as teacher /student friendly manner*

The faculty LMS was updated as a teacher-student friendly way. Several measures were done to commence staff/ student-friendly LMS. 1. LMS Home page was updated with an attractive way 2. Courses were organized as Categories 3. Separate Categories were organized for the students and staff 4. Student categories were developed based on the batches. 5. All the unnecessary courses were removed. 6. Every course was developed in an attractive way to both students and staff 7. Separate categories were developed to display online time tables and evaluations. 8. A separate Section was designed for e-resources de– eBooks, journals.

6. *Conducting online teaching/ learning activities*

Guidelines and tips for effective teaching / learning were provided based on current educational theories and evidence online education. Academics were guided for online teaching/learning mainly considering the theory of "Community of Inquiry". Academics were instructed to design online activities considering the following three aspects of the Community of Inquiry theory (Bektashi, 2018).

a. Teacher presence

Teacher presence describes how teachers are going to present teachers' presence to the students, the ways teachers can use to engage with the students. This is applicable for both

asynchronous teaching and synchronous teaching. Ex: discussion forum, chat.

b. Social presence

Social presences describe the social interactions among students during online education. Teachers were instructed to add activities that encourage social interactions among the students. Ex: student group presentations, debates can be done via online, Zoom breakout rooms, polling in Zoom.

c. Cognitive presence

Cognitive presence describes how students construct knowledge with the given material. The construction of knowledge can be assessed via formative assessments. Therefore, teachers were encouraged to develop formative assessments for each and every online teaching activity.

Hence, a systematic online teaching programme was planned and implemented from the very beginning of the pandemic. One credit of teaching/ learning activities planned for a week for each and every batch.

Teachers were asked to select objectives/ content which can be done online easily. Online time tables were uploaded to the LMS weekly (on Sunday) by the Medical Education Unit. Teachers were encouraged in conducting Audio/ video recorded lectures. Social interactions among students, staff encouraged through adding student presentations, seminars, debates etc. Teachers were instructed to select a few regular functioning technologies for teaching; ex - either LMS or FB, etc. Hence, it is easy for students to select the platform with their goals. Besides, teachers were encouraged to provide students time duration for responding to their questions/ assignments. As a clinical training strategy, online Case-Based Discussions (CBD) sessions were commenced via Zoom simulating the traditional ward classes. These CBDs conducted aiming to support clinical decision-making and clinical reasoning.

7. Monitoring of Online Teaching/Learning activities

A template for monitoring of online teaching/ learning activities was developed by the Medical Education Unit. Monitored was initiated from the first week of online teaching by the Medical Education Unit and Internal Quality Assurance Unit of the faculty. Weekly monitoring was done in order to assess teaching/learning activities, interactivity of T/L activities, assess the platform, and assess type formative assessments and feedback method. The report was discussed with the dean of the faculty and feedback was provided to each department accordingly.

8. Evaluation of online teaching/ learning activities

We found that a sudden transition from face to face teaching to online teaching leads both faculty and students to face various challenges. Therefore, a variety of formative and summative evaluation strategies were implemented to improve both teaching and learning. Results of evaluation studies were communicated to relevant parties and remedial measures were taken to facilitate both teaching and learning of the academic staff and students.

Types of student evaluations carried out

1. Evaluation of student online behavior
2. Assessment of emotional wellbeing of students
3. Reassessment of availability of resources of the students

8.1. Evaluation of student online behavior

Evaluation of the student online learning behaviour was conducted in two phases.

- Phase 1- to explore the students' login details of the LMS.
- Phase 2 – to evaluate of students online learning process

During phase 1, students' names were extracted who have not login to the LMS. During phase 2, a Google form was sent to

students via LMS to evaluate students' online learning process on the following aspects;

- Metacognitive skill
- Time management
- Persistence
- Environmental Structuring
- Help-seeking
- LMS /Zoom interactivity
- Preferred learning methods

These evaluations helped us to figure out an idea regarding the student participation for our online program and to identify the students who do not perform well in their online activities. Further, this eventually helped us to adjust our pedagogical strategies accordingly.

8.2. Assessment of emotional wellbeing of students

Emotional status of the students was evaluated after 7 weeks of online activities using Google form. They felt isolated, unhappy, and worried. Hence, the online mentoring system was started to support cognitively, emotionally, and socially.

8.3. Reassessment of availability of resources of the students

Following, 7 weeks, we re-evaluated the available student resources for online learning in order to further strengthen online learning.

8.4. Teacher evaluations

Teacher evaluation tools were developed as Google forms by the Medical Education Unit to assess the effectiveness of Zoom lectures both by students and teachers. Following evaluation tools were developed by the MEU.

- Teacher perception of online teaching
- Teacher perception on online case-based discussions
- Zoom lectures evaluations – by students
- Zoom lectures evaluations – by peers
- Student perception on Zoom case based discussions

9. Follow-up Measures

Following remedial measures were taken after the evaluations.

a. Training of pre-intern doctors on LMS functions

All the pre-intern doctors were trained on LMS functions through zoom sessions and inform them to monitor student login details.

b. Assisting repeat students of 2nd MBBS by starting peer-assisted learning course

"Supervised Peer Assisted Learning Course" to facilitate peer-assisted learning for the repeat students. Students were given teacher access to that course and all the uploaded materials were supervised through relevant departments.

c. Online mentoring system

Learner's ability to self-regulate their learning becomes a crucial factor in online learning. Hence, the academic support system is essential. The academic online mentoring programme was planned based on the evaluations conducted on the student's emotional status.

A novel online mentoring programme was planned and developed via LMS guarding the confidentiality of each mentee. This novel programme was planned and monitored by head/ MEU. Mentor Guide was developed by the senor student counsellor.

Conclusion

Our faculty used a systematic sequential approach for teaching/learning, assessment and the staff development during COVID 19 by defining the best practices under following categories:

1. Leadership/Management of the MBBS curriculum
2. Teaching/learning
3. Assessment
4. Physical and human resources
5. Student support

All the mentioned best practices were implemented through a team-effort and ongoing evaluations are being done to assess the usefulness of these measures. We hope that this approach would be a useful reference for any similar crisis in the future.

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