



Teaching-Learning Process Adopted For Biological Science at A School in Hyderabad During Covid-19 Pandemic

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ABSTRACT

Education is the process of facilitating the acquisition of knowledge, skills, attitudes, values and others. Education is important because the learners are being prepared to face the real world and challenges of life. There must be continuity in the process. If the process will stop, then the interest of students would also be lost. Biological science education involves formal training in the field of life sciences and the syllabus is designed so as to combine the learning with theoretical and practical work with a mixture of lectures, discussions-cum-demonstrations and laboratory works. The COVID-19 pandemic has left no space untouched. It has shown its impact all around the globe. COVID-19 pandemic has disrupted teaching in a variety of institutions. The shutting down of educational institutes has accelerated the adoption of digital platform to maintain continuity in the teaching-learning process. This study is aimed at finding out the different methods that has been adopted for the teaching and learning of Biological science at a school in Hyderabad. For collecting the data, the questionnaire was distributed among the students and the faculty while they were provided the instructions to fill in the interview forms accordingly. It was found that during the pandemic phase different methods of learning were adopted by different teachers according to the needs and interests of the students. Most of the teachers used the discussion method along with presentation method while few of them shared videos. The teachers used more than one app for online teaching. The COVID-19 pandemic had brought many challenges and also paved way for new ideas and innovations which lead to new methods of learning in the field of science.

Key Word- COVID-19, Biological Science, Teaching-Learning

Introduction

Education is the process of facilitating the acquisition of knowledge, skills, attitudes, values and others. In this process the young minds are trained and educated. Education is important because the learners are being prepared to face the real world and challenges of life. Education is the process of educating the students and imparting good values to them. Education holds an important place in the functioning of the society and is an inseparable part of the human civilisation. Due to its importance and usefulness to everyone, especially to the learner's life, education must not be interfered even in situations of crisis such as COVID-19 pandemic. There must be continuity in the process. This is important because if the education will stop, then learners would bear a great loss. Their interest for learning and studying would fade away gradually.

The COVID-19 pandemic has left no space untouched. It has shown its impact all around the globe. Certainly the pandemic has left a remarkable impact in the field of education. By the end of March 2020, most of the schools, colleges and universities in India were closed (Pothula, 2021). Online learning has become the main method of instruction during the pandemic all over the world. Online learning has been carried out to avoid face to face contact in this emergency time.

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Need of The Study

Educational institutes all over the country are facing challenges of mass closure due to COVID-19. Since March 2020 almost all the schools, colleges and universities have been closed in order to avoid face to face contact and social gathering resulting in a paradigm shift from the conventional classroom mode. Therefore, this study is aimed at finding out the different methods that has been adopted for the teaching and learning of Biological science at a school in Hyderabad.

Statement of The Problem :-

“Teaching-learning process adopted for biological science at a school in Hyderabad during the covid-19 pandemic”

Objectives of The Study

- To study the methods adopted for biological science during COVID-19 pandemic.
- To study the experience of biology teachers during lockdown.
- To assess the satisfaction level among students amid COVID-19 pandemic.

Method and design of the study:-

The study was carried out in descriptive survey method to study the method employed for the teaching and learning of Biological science during COVID-19 pandemic with a view to assess the satisfaction level of the students regarding the teaching-learning process of Biological science adopted during the pandemic. In addition to this, the experience of teachers during the lockdown was also studied.

Population of The Study

The Biology teachers and students having Biology as one of their subjects in a School of Hyderabad constituted the population for the study. Population of Biology students and teachers of the School was 380 and 4 respectively. All the students having Biology as a subject and Biology teachers constituted the population of the study.

Sample and Sampling:-

Random Sampling was done to choose the sample of the study. One-fifth of the population was randomly selected as the sample of the study, which made up to 76 students and 4 teachers. The selected sample was interviewed using the questionnaire prepared.

Limitations of the Study

Limitations of the study were:- The study was limited to Biological science subject in Mount Carmel School of Hyderabad. It was also limited to class 6th to 10th of CBSE board.

Data Collection Tool :-

For the survey, tool was developed with reference to the objectives of the study. The interview form prepared by the researcher was used to collect the data. Both Open-ended and few closed-ended questions were used in the tool developed for collecting the data. The researcher moved to the school for collecting the data. For collecting the data, the questionnaire was distributed among the students and the faculty while they were provided the instructions to fill in the interview forms accordingly. Responses were collected separately from students as well as teachers. Then the responses were recorded in separate sheets. The data was tabulated. The purpose of the study was clearly stated to the faculty members while interacting with them.

Data Collection Procedure

For collecting the data, the questionnaire was distributed among the students and the faculty while they were provided the instructions to fill in the interview forms accordingly. In the introduction part, the teachers and students were informed about the purpose of the study. In addition, as required their voluntary consent was taken.

Findings of the Study

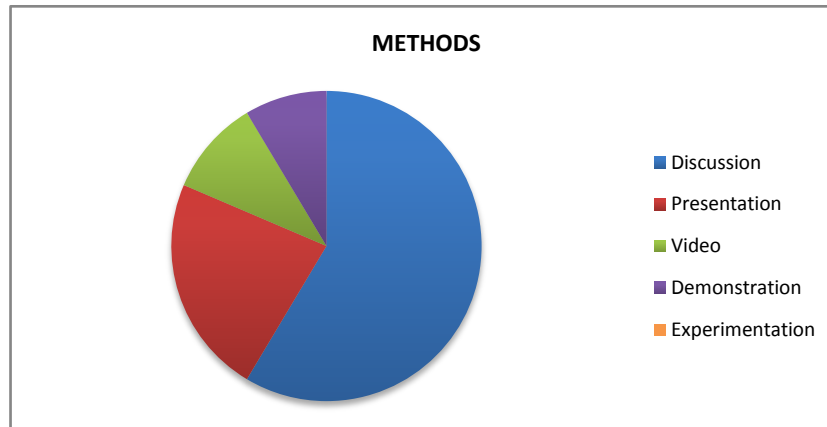


Fig : Methods used for Biological science during COVID-19 pandemic

It was found that Biological science classes were conducted online where the teachers would use different methods such as Discussion method, which was used by 100% of the faculties whereas some of them preferred to use the Demonstration-cum-discussion method and presentation method, both of which was used by 50% of the teachers. This made the lessons interesting and easy for the students to understand.

On the other hand, only 50% of the practical classes were being conducted and for doing this, 25% of teachers used demonstration method while displaying the videos was a more common practice among the teachers for the teaching- learning process of Biological science during the COVID-19 pandemic. There are some teachers who used more than one methods for online teaching.

It was concluded that students found it interesting to learn Biology in online mode as majority of teachers, about 83% used to show pictures, diagrams and models while teaching Biology. Also 58% agreed that the practical classes were conducted regularly. It was found that more than half of the teachers used to share and display pictures and models during online classes.

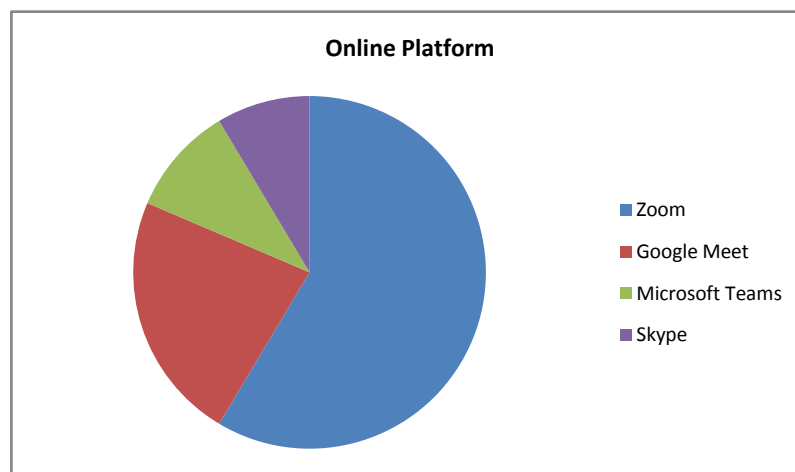


Fig : Platform used for online teaching – learning of Biological science

It could be concluded that only 50% of the teachers had the prior experience of teaching online and all of them had received the training for online teaching. Different teachers used different online platforms for online classes, half of them used zoom while more than half of the faculty used Google meet and only 25% of them Skype and Microsoft teams. However, there are a few teachers, who used more than one app.

It was also found that around 82% of the students had sufficient equipments and facilities to attend online classes while the rest 18% did not have the facilities. More than half of the students agreed on receiving guidelines for online classes. It can be further concluded that the online tools were easy to use.

About 76% of the students mentioned that the teacher would clear their doubts and answered their questions. However, 59% of the students could connect to teachers after online classes. Also, 85.5% students had a home environment suitable to attend the Biological science online classes as compared to the remaining 14.5% who would get distracted from family members during online class. Most of the students gained new experience of learning.

Discussion and Conclusion

During the pandemic phase different methods of learning were adopted by different teachers according to the needs and interests of the students. Most of the teachers used the discussion method along with presentation method. While few of them shared videos to make the topic easy to understand and interesting. Also the most used online platforms were Google meet and about half of them preferred to use zoom app for conducting online classes. However, some teachers used more than one app for the teaching – learning process to be an effective one. These apps provided tools to facilitate the process.

The COVID-19 pandemic had brought many challenges and also paved way for new ideas and innovations which lead to new methods of learning in the field of science. This phase had also lead to numerous changes in the teaching and learning process of Biological science, specially there was a paradigm shift to the online mode of learning. The education system was taken online platform. Remote learning gained much importance in this pandemic period.

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