Chapter 1
Introduction

1.1 Introduction

COVID-19 (Corona Virus Disease of 2019) was slowly realised by the whole World during February/March 2020. As soon as the cases started increasing in India, the government circulated the order that all the schools and colleges should stop their physical classes till the situation is under control. At first, it was closed for a very few days but when the situation worsen and India realised that it is not going to end soon, then some schools and colleges started thinking about some alternative for education, and there it all started – The Online Teaching for all.

It was very difficult to handle a big population of learners and teachers to make them deal with the online education. The factors involved in Online Education were – devices, internet and contacts (email ids/numbers of each other). Various schools and colleges started collecting the email-ids from all the learners and teachers. Also they tried to find out the best Tools/Applications that can be used by the teachers for teaching online, so that the tools/applications are easy to use for each and every subject teacher, as well as the best tool/application for learners, so that every student is able to access that particular tool/application. Many schools and colleges started taking classes online on Zoom/Cisco Webex initially as these were providing a lot of features which were very useful for online class, e.g. mute button (the host can mute the participants), chat box (for asking doubts), whiteboard facility (participants can also annotate along with the host with due permission), etc., then Microsoft Teams and Google Meet became popular, and then there were many more applications. All these applications have Video conferencing ability and white boards to doodle and many more features. And for other features like assessment, they were using many different tools/applications.

Soon the schools selected the most user friendly tools/applications for fulfilling their purpose completely and they purchased the packages for schools. Google Suite for Google made tools, Microsoft Teams for Microsoft made tools, etc. These packages provided the platforms for video conferencing, Assessment, Assignments (to assign and collect both), taking Quizzes, etc.

The teachers started using the packages that were bought by the schools, but also for their ease, they used various other tools/applications for different purposes. For example – School bought Google Suite and it had Google Classroom for sending the content to the learners, but teacher

formed a WhatsApp group and found it easier to reach and provide content to learners. Hence various other tools/applications were in use for different purposes. This is how the education of the learners was continued and experiments with different tools/applications continued by the teachers, for the whole session of 2020-2021 for Schools and Colleges.

1.2 Need and Significance of the study

It was all new for the teachers as well as for the learners, even for the parents to digest that the teaching is going on Online. Those teachers, who never ever used even WhatsApp or a Smartphone due to Technophobia, had to learn and teach online. They had to speak in front of a device screen with no nodding heads or sparkling eyes in front of them. It was really very difficult especially for the teachers who were near to their retirement age!

Indeed, it was too difficult for them, but "Teachers are always learners and they tend to learn and adapt new things faster than others, for spreading their knowledge to everyone they can." Hence, almost every teacher in India tried their best to learn the technology and worked really hard for their learners. Even today, the teachers are attending different workshops online and working harder to learn different updates in various tools/applications that are used in Online Education, just because of the thought of the future Citizens of India.

E-Learning is electronic learning through which the learning materials can be accessed online. But E-Learning tools/applications can also be considered during offline teaching. Here we are going to consider the e-learning tools/applications while teaching online due to COVID-19 lockdown.

According to Poonam Gaur (2015), "It has been observed that complex e-learning tools led to lesser use. Simpler and user friendly e-learning tools can attract more users. E-learning tools should be designed according to the learner's profile."

In India, it is not possible for every family to afford a device for each member of the family. The digital divide can be seen very easily in India. Some rich families can afford it but on the other hand, poor families can hardly afford a single device for whole family, which might not be even a Smartphone with enough memory to download different tools. More the tools/applications used by the teachers, more of these were to be downloaded by the learners. But also it gave more exposure to the learners and teachers to explore different features of the tools/applications. Still the Online classes were somehow managed

during lockdown with a lot of concerns. And with the often use of a tool/application, it becomes user friendly on its own!

1.3 Statement of the problem

User Friendliness of E-Learning Tools/Applications in teaching Mathematics Online: A Study.

1.4 Objectives

The Objectives of the study can be formulated as -

- To know the tools/applications mostly used by the teachers for teaching mathematics online
- To analyse the user friendliness of the different e-learning tools/applications in teaching mathematics online

1.5 Operational Definition

- **User Friendliness** – The ease in use of the features of a particular tool/application, whenever needed.
- **E-learning tool/application** – It is an integrated set of interactive online services that provide teachers and learners the information and resources to support and enhance education delivery and management. It enables the user to deliver courses and instructions electronically via the Internet.

1.6 Delimitation

The study is subjected to the following limitations-

- The study was confined to the COVID-19 pandemic 1st year of online teaching experience in Schools (2020-2021)
- The study was conducted on 40 Mathematics Teachers only

1.7 Conclusion

In this chapter, the research scholar has discussed about the problem, its theoretical background, the need of the study and the operational definitions of the terms. The objectives of the study have been formulated and presented. The delimitations of the study have also been mentioned.