

CHALLENGES OF ONLINE EDUCATION FACED BY MATHEMATICS TEACHERS AND STUDENTS

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Abstract

Covid-19 disease has spread out to the world and its impact is observed in every field of life. Education is one of the sectors that have mostly affected by Covid-19. The teaching learning has a big revolution during covid-19 pandemic period. Teachers have only choice to deliver lecture through online mode and Students adopted e-learning. Online education changes every component of teaching and learning. Many studies have conducted to examine issue related to online teaching learning process. There are many challenges of online education. In this paper we study some of the challenges of e-learning faced by mathematics teachers and students. To overcome these challenges of online education, education institutions need to provide professional development for teachers or instructor, training for students or learners and technical support for E-content development.

Keywords: Teacher, students, online education, online learning, challenges.

INTRODUCTION

Education plays a vital role in each and every field of human life. The Education system has faced a huge challenges due to Covid-19 pandemic and it forced teaching and learning to migrate to the online mode, the education system faced an upheaval like never before. Time have dictated school closing and rapid expansion of online education. Nowadays study or learning for teacher and students going on online, many educators being asked to teach their students from home. Online education changes every component of teaching and learning in all level of education. The trend of online teaching is increasing in very high speed that may not facilitate a good control and measure for its effectiveness. Almost every educational institution has invested money in online teaching because they believe in its effectiveness and for a publicity in the eyes of education seekers.

In rural area most of the teachers are not aware of online teaching learning process as they are into traditional classroom teaching. Also there is no internet facility. Also there is lack of ICT tools usage. It is not possible to teach subject like mathematics properly in online mode For mathematics teachers it is very difficult to change their way of teaching and using ICT without any training. Proper online training should be given to teachers before online teaching. With all the benefits of online learning still there are few challenges faced by teachers and students.

CHALLENGES OF ONLINE EDUCATION FACED BY MATHEMATICS TEACHERS

- **The sudden transformation to online teaching:**

Transferring the face to face class or traditional classroom to online class is very difficult task specially for teachers working in rural sector where the infrastructure does not support this situation. The faculty is suddenly facing the challenges was not prepare for this. Most of the

teachers use typical classroom style teaching method, as they use only blackboard and book to teach mathematics. It is difficult for them to adopt new technical methods. BOS members are trying to redesigning the course for online delivery and planning for such delivery to make it more effective takes lots of work and requires practice. Teachers are planning to successfully deliver the lecture and trying the students effectively get study material and learn.

- **Handling ICT:**

There are numerous challenges faced by teachers in handling ICT. Many teachers still are digital migrant whereas the young learners are the digital natives. So that using technology comes so naturally and easily to students. In educational sector there is need for adequate availability of technology in schools which include huge costs for acquiring, installing, operating, maintaining and replacing ICT's. This is a big challenge for schools which are in rural sector. It is need of today's era to make all teachers ICT literate and effective in handling ICT tools for teaching-learning processes. Another challenge is that the teachers need to develop their own capacity to make use of different ICT's in different situations efficiently. Teachers are not comfortable in handling these modern technological devices. The challenge for educators is not only to dismiss or keep up with students' latest technological knowledge but also to create meaningful learning experiences in which students are taught how to apply their knowledge to solve real-world problems. In this scenario, teachers need to prepare students for a technology-driven world. Students need a technology-based education to survive in a technological world for which the teachers need to overcome the technological challenges.

- **Technical issues:**

Many teachers struggle with technical issues as they don't have proper connection. These are unavoidable issues which causes stress. As the teachers are allotted specific time for lecture, they cannot explain the content properly due to technical issue. Mostly in rainy season, the network problem is faced by teachers as well as students. Where nobody can do any things. If some technical errors come in the middle of online lecture or communicating with students, then they become helpless. And they are unable to complete the syllabus in time.

- **Engaging students:**

It becomes difficult for mathematics teachers to adjust to a new platform as students are moving towards online learning from traditional classroom. In online teaching, teachers are facing problem to engage students for long period. They easily get distracted and lose concentration during live session.

- **Time Commitment:**

If the course content is thought in teacher then they might not really understand the time commitment. Also it is not easy to convert those learning into effective online format. Teachers are not able to deliver the effective and sufficient content in time. To complete the syllabus in given time is very difficult task especially for mathematics teacher. It observes that some teachers complete syllabus in short time and they take less time in online teaching than traditional teaching. They didn't explain the content of the lecture properly.

- **Communications:**

Most of the teachers are given enough time for learning new method and the preparation of the e-content for their students so they don't have time to communicate with their students. Also there are many students who avoid communication with teacher during online lecture even they turn off their video. Teacher cannot communicate with them face to face. The students might misunderstand due to lack of communication and it can result in their poor performance.

- **Assessment and feedback:**

Assessment is most important part of online education for mathematics students as well as teachers. Due to lack of communication between students and teachers during online teaching the teachers face lots of questions from the students at the time of submission of assignment or projects. Students experience less homework, less assignments or lack of examination at the times. Also during online examination there is more chance of cheating. Due to which teachers face many problems in actual assessment of their students.

Every student needs feedback from teacher for their performance for improvement. Since most of the class have strength more than 50, it is difficult for teacher to give feedback to each student individually during online teaching. If students are not given proper feedback it affects their study which lead poor performance. Teachers are failing to find a proper method of providing feedback to all students. Also teachers are unable to pay attention on every student during online teaching. One of the challenges faced by teacher is that they cannot provide personalized guidance to all students.

CHALLENGES FACED BY MATHEMATICS STUDENTS

- **Adaptability:**

Due to covid-19 pandemic the education system is totally changed. There is only option for teachers and students to adopt online mode for teaching and learning purpose. Traditional classroom is s convert into virtual classroom. Due to sudden change, It is difficult for mathematics students to adapt an online learning environment immediately after traditional classroom learning. Students who have been always studying in traditional classroom, their mindset are not able to focus on online lecture. They need some time to accept the new learning environment. It is important for them to accept and adopt new e-learning method with an open mind.

As many students have learned in the traditional classroom, they have to adapt different style of learning. Some students can adapt this style quickly but many students need time to adapt new learning style. Such students face many problems like lack concentration, inability to understand the live classes, difficulty in crating projects and assignment using technology.

- **Technical problems and computer knowledge:**

Many students don't have android mobile or smart phone and computer at home. Also most of the students who have these facilities, are not well equipped with high internet connection that is required for online learning. Due to network issues, they face a lot of issues when bringing virtual learning and other platforms that require internet connection online. Internet connection plays an important role in attending live session or lecture and submitting assignment in time. Due to poor connectivity they cannot download big files and videos related to subject College students face many network problems and technical issues

at the time of university examination and it cause stress, as there is specific time for paper submission.

Lack of the computer education is a big challenge of online learning faced by students and learners in today's world. Many students still cannot use basic computers with MS Word and PowerPoint. And whenever any technical issues arise, they struggle to fix the problem in this scenario. They face difficulties with live lectures, using appropriate icons, MS Office, communication related applications and websites, browsing study materials, etc. Sometimes they do not know about tech skills like getting online, giving live lectures, creating and submitting jobs, communicating with teachers and friends.

- **Distraction and Time Management:**

Learning at home is an amazing experience. Students can expect things around them to look like a school campus. But at home things are different because there are no big classrooms, parks, playgrounds, canteens and friends, teachers around the students to guide and learn. But with online learning, students have to manage everything in one room with their parents. Also students can be easily distracted by small problem faced at home. Once students find difficulty in online learning they start losing hope. It takes motivation to involve students in their learning and to accomplish the task.

Many students use their parents mobile to attend live lecture hence they find difficulty in adjusting their time with online learning. Now online learning is not new for students but in this situation they become helpless. Due to financial problem parents cannot buy new mobile for their child. Online learning provides more flexible time than traditional classroom. But students face difficulties in managing with time required for online learning.

- **Communication and Feedback:**

Teachers give assignments for improving reading and writing skills but it may happen that they might not be able to write so convincingly that educator or teachers understand the concept behind their assignments. Also some students feel shy to communicate with their teachers and friends due to the new learning method. It might happen because of lack of interest, poor technological skills with apps and video calls or unable to express themselves via live chats, emails or text messages.

During the learning process every student's needs feedback from teachers for their performance so that they can improve their learning abilities. When teachers give feedback then the students hardly visit their assignments to check their comment and suggestions. The online feedback model will be difficult for students to understand and implementation.

CONCLUSION

Covid-19 disease has changed whole system of education. The teaching learning has a big revolution during covid-19 pandemic period. Teachers have only choice to deliver lecture through online mode and Students adopted e-learning. There are number of positive impact of

online education on teachers as well as students. With all the benefits of online teaching learning process still there are few challenges faced by teachers and students. This paper explained the online teaching challenges faced by mathematics teachers and online learning challenges faced by mathematics students. Handling ICT and engaging students are a big challenges for teachers in online teaching. Teachers should change their traditional method and try to engage students by making their lecture more interesting and interactive. There are some common challenges like handling ICT, technical issues, computer knowledge, communication and feedback faced by both mathematics teachers and students. To overcome these challenges of online education, education institutions need to provide professional development for teachers or instructor, training for students or learners and technical support for E-content development.

There is need to fill the void that being created between teacher and students due to online education. It is fact that technology cannot replace teachers though the teacher's role needs a number of transitions with ICT. Teacher should guide students to manage abundant information, to develop discriminatory power between right and wrong, to make them capable so as to solve the real life problems and deal effectively with the real life challenges. All this can be possible if teachers have the determination, will power and the positive approach towards becoming techno-friendly themselves. Fair use of ICT would create better teaching and learning environment in society.

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