



## **A STUDY ON EFFECTIVE TOOLS USED IN ON-LINE TEACHING AND E-LEARNING AND ITS EFFECT ON STUDENTS IN NAGPUR**

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### **ABSTRACT**

*The globally fast-spreading novel corona virus disease (COVID-19) is testing the talents of all countries to manage its widespread implications on teaching learning behaviour. Most of the governments round the world have initiated a typical goal to curb the unfold of this extremely contagion by imposing lockdown, social/physical distancing, avoiding face-to-face teaching-learning, and restrictions on immigration. Around 600 million school-going learners are affected across the globe due to the closing down of educational institutions. The Government has instructed a remedy over this drawback. The geographical region Higher and Technical Education Minister have asked faculty professors to begin E-teaching. As trendy technology is accessible, it ought to be used effectively and E-teaching and learning ought to be started during this lockdown period. The academics even have started on-line categories in class and faculties. But, are the scholars and academics comfy with the varied tools and software's used for teaching and learning process? So in this paper, all these problems are mentioned and challenges round-faced by under-graduate and post-graduate students of assorted faculties of Nagpur town are studied. Conjointly varied tools and software's which might effectively and expeditiously facilitate a tutor to conduct on-line teaching are going to be mentioned.*



## **INTRODUCTION**

Due to COVID-19 all colleges and schools are closed for the students from the first lockdown. Therefore changes were necessary to be introduced in our education system and specifically within the teaching-learning method. Because it isn't potential to require the standard teaching-learning method for the students, digital Learning, digital content, on-line tutorial, examination and assessment, distance learning etc. are used a lot of. These ideas are throwing challenges to the standard delivery of instruction and coaching within the ever-changing age of economic process and e-resources. The web or so ICT and all its interactive components are able to have a particularly positive impact to the training potential of students still as academics.

## **LITERATURE REVIEW**

Nowadays, the higher education system is in a continuous method. COVID-19 has modified information technologies and E-learning systems. Information technologies and E-learning systems become essential factors in winding up the activity in Education. After studying numerous literatures associated with the effective tools employed in On-line teaching and E-learning and its effect on students, few observations are taken out, that are as follows- Sue Gregory & Michelle Bannister-Tyrrell (2017) have mentioned in their paper the problems associated with e-learning tools. Their paper is predicated on analysis conducted since 2008 and also the academics' perception of how numerous ICTs (blogs, discussion boards, wikis and 3D virtual worlds) have had a control in respect to teaching and students' engagement with their learning and their digital presence. Every student's digital presence is explored through a spread of e-learning tools utilized by the students through the learning resources offered. Ravi P Bhatia (2011), in his article has thought of the emergence of e-learning within the modern instructional scene and mentioned numerous varieties of e-learning tools that are developed to cater to the requirements and backgrounds of numerous nature of learners. Numerous benefits of those tools like connectivity, flexibility, interactivity are made public. However, it's additionally known that one ought to take care within the use of those technological tools in order that learners don't feel overwhelmed by the technology of those tools. Wheeler and Jarboe (2001) added that a mix of on-line and ancient room instruction has become the popular way to use Internet teaching and learning tools. Edith Galy, Clara Downey, and Jennie Johnson (2011), have pointed toward higher content development and use of Learning Management System tools that end in a higher effort to totally interact with the students.

## **SCOPE AND LIMITATION OF THE STUDY**

The study is based on the research conducted at various colleges in Nagpur City. It aims at understanding various Tools used in On-line teaching and E-learning and its effect on students. The study is limited to colleges at Nagpur only.

### **OBJECTIVE OF THE STUDY**

To identify the learning status, mode of learning, and problems related to study during the lockdown amidst the COVID-19 pandemic.

- To help the students to cope up with the situations which arise in E-learning.
- To study the various tools used in E-learning for effective teaching.

### **RESEARCH METHODOLOGY**

Quantitative analysis is carried out. Random Sampling method is used.

### **DATA SOURCE**

Both primary and secondary data is used in the study. Data is gathered directly from the respondents through questionnaire and also information is collected from reports, internet, journals etc. An online survey was conducted from 3<sup>rd</sup> April to 10<sup>th</sup> April 2021 to collect the information. A structural questionnaire link using 'Google form' was sent to students' through WhatsApp group and E-mail during the even semester of the 2020–2021 academic year. Participants were provided full consent before participation in the online survey. A total of 427 students provided complete information regarding the survey.

### **SAMPLE UNIT**

The students of undergraduate and postgraduate colleges of Nagpur City are taken as sample unit.

### **SAMPLE SIZE**

427 respondents are taken from undergraduate and postgraduate colleges.

### **HYPOTHESIS**

- Students are satisfied with tools used for E-Learning and On-line teaching.
- Students are aware of the various tools used for E-Learning.
- Students find the tools used for E-learning and On-line teaching effective.



## **TOOLS AND THEIR GROWTH DURING COVID-19**

Several colleges are attempting to have their students attend regular classes. Some are providing students with an interactive classroom expertise via completely different web-based video conferencing tools. They are operating to continue live interactions between teachers and students as on-line instruction is adopted, as well as collaborative interactions among students with on-line educational programmes. Colleges are presently using many different on-line platforms to deliver lectures and meet curriculum benchmarks. Teachers have the pliability to make a decision however they value more highly to pass around on-line learning.

### **Zoom**

Because of coronavirus and nationwide lockdowns, Zoom surpassed three hundred million daily Zoom meeting participants. On Zoom, Screen sharing is each super convenient and funky. There are such a lot of choices once it involves sharing your devices' content. Zoom offers you the varied sharing choices like Entire desktop or phone screen, a little of your screen, Content from a second camera, Whiteboard, Device audio, iPhone/iPad screen once it involves content sharing.

### **Google Meet**

Amid the pandemic, Google Meet surpassed fifty million downloads. In keeping with Google, Meet's peak daily usage has mature by thirty times since January 2020. And now, this video conferencing app hosts three billion minutes of video conferences each day.

Google meet is one of the foremost secure video conferencing tools concerning its coding measures. Google Meet's interface is easy and clear. Users will begin, join, or set up conferences through the proper panel of the screen, and therefore the interface as clear buttons that may be used for adjusting the audio, video, and different general settings. There are restricted choices on the beginning screen and therefore the different choices are situated at completely different (but simple to find places). The clean interface makes Meet terribly simple to use as compared to different video conferencing tools. On Google Meet, users will share their whole screen or a selected window, or chrome tab throughout the meeting. Through screen sharing, one will share documents, spreadsheets, shows, and more. Once you share a chrome tab, it shares the tab's audio by default.

### **Cisco Webex Meeting**

Cisco Webex offers one amongst the foremost secure video conferencing platforms on the market, creating it a awfully appealing video conferencing answer. When the corona virus-led lockdowns forced staff to figure from home, Webex registered a record 324 million attendees in March. Like Google Meet, the Cisco Webex platform conjointly protects user information by encrypting hold on and shared content throughout conferences. Cisco' Webex contains a terribly intuitive interface that appears just like different services throughout a telephony. There's a transparent dashboard wherever you selected to start out, join, or set up a gathering. On the right side of the screen, there are choices to schedule conferences and review antecedently regular conferences. With Cisco Webex Meeting, one will simply share their device screen with meeting participants. There is associate choice to choose from sharing the entire screen to a selected app or document like Powerpoint or MS word.

## **E-LEARNING AND ONLINE EDUCATION**

E-learning refers to transferring information and education by utilizing varied electronic devices. E-learning and on-line education provides a chance to students to extend their content during a versatile atmosphere. In colleges in Nagpur, on-line tools will facilitate students come through effective and various education by incorporating varied themes in several areas of interest. The net platforms are slowly gaining quality because of improvement in style, visuals, easy navigation and quality content.

## **E-LEARNING TOOLS**

**RoofHub** is a extraordinary collaboration tool which might be employed by eLearning groups to collaborate and communicate seamlessly. We can also conjointly use the mobile app to initiate discussions, schedule conferences, set project milestones, and keep connected along with your team members. All in all, it's an easy tool which might assist you keep organized and up-to-date.

**Camtasia** may be used for eLearning in a very ton of the way. Instructors will use it for recording videos which might later be seen by learners at their convenience. With Camtasia's animations and quizzes, you'll produce a extremely participating video course content.

**iSpring Suite** – Desktop PowerPoint-based tool that's a good choice for novice learning designers World Health Organization don't have to be compelled to worry regarding change content often.

**SmartBuilder** - This tool is incredibly simple to use if we tend to have an interest in making your own on-line course.



**ClickClass** – It is Associated in Nursing e-learning tool created to assist users deliver and manage on-line learning content. It is one in all the quickest e-learning tools. We are able to embody interactive quizzes, video content, discussion board, audio comment to have interaction with the scholars.

**ezTalks conferences** - It's one in all the best on-line education tools. It's a high-quality video conferencing tool and a high-definition camera so an instructor will feel additional engaged along with his student. This interactive tool permits face-to-face communication. Also, this innovative on-line tool encompasses a whiteboard that permits you to draw a number of your concepts by employing a pencil, highlighter or implement.

**Articulate Studio** - With this tool, we are able to remodel our PowerPoint presentation into an internet course. It's simple to use and permits to form just about any interaction we are able to imagine. An instructor will produce a module so as to assist his students higher perceive the core material or give extra data on some areas they're fighting.

**Prezi** - Prezi is that the next generation of on-line shows. It's a virtual whiteboard which will remodel any presentation, thus students will higher see, perceive and keep in mind some concepts.

**Google Classroom** modify teaching and learning. It permits to feature students directly, or share a code or link that the whole category will be part of. It establish a class in minutes and build class work that seem on students' calendars. Teachers can simply communicate with guardians and automatically send them updates. It permits to look at grades simply and mark assignments.

**OBS** (Open Broadcaster Software) is free and open source software system for video recording and live streaming.

## IMPORTANCE OF E-LEARNING FOR STUDENTS

It is vital for educators and directors to be told additional regarding effective e-learning tools. E-Learning makes learning easier, easier, and more practical. A first-rate advantage of learning on-line is that it makes certain that you just are in synchronization with fashionable learners. This allows the learner to access updated content whenever they require it. Learners will outline their own speed of learning rather than following the speed of the total cluster. It saves time as a student doesn't have to be compelled to travel the coaching venue. Students will favour to study specific and relevant spaces of the training material while not specializing in every and each area. The audio-visual methodology of teaching results in a disciplined learning surroundings. There's no want for papers like ancient learning. Thus, we

will save the surroundings through this. E-learning will facilitate create understanding of collaborative and interactive content. The e-learning platforms provide students flexibility and empowers students by permitting them to be told at their own pace and schedule. A student can select the time and day they need to learn or consume the content provided on these numerous platforms.

## CHALLENGES TO E-LEARNING

**Lack of classroom-like teacher presence** - In on-line school rooms, there would possibly arise things when the students would possibly find themselves feeling isolated, and showing emotion disconnect.

**Lack of Trust** - The beauty of communication is found within the meaning that's solely felt in face-to-face conversations. Within the on-line learning world, students fail to develop a connect with the e-Learning Course, due to the absence of a personality's figure ahead of them. They could also end up doubting the authenticity and end result of an e-Learning course.

**Lack of awareness** - One among the key challenges of eLearning is that the learners are unaware of effectiveness of eLearning. They could feel that eLearning isn't as effective as room coaching which the trainees would miss the chance of face-to-face interaction.

**Technological Barriers** - Barriers of technology embrace lack of motivation because of poor social skills, poor PC skills and a scarcity of convenience of access.

## DATA ANALYSIS AND INTERPRETATION

### Student Satisfaction Survey

Student satisfaction survey was conducted in Nagpur region, which mainly includes the students of Prerna College of Commerce. Survey was conducted in the light of understanding the student attitude, their perception and their acceptance towards the E-Learning tools and On-line Teaching.

#### 1. Students Satisfied with online lectures

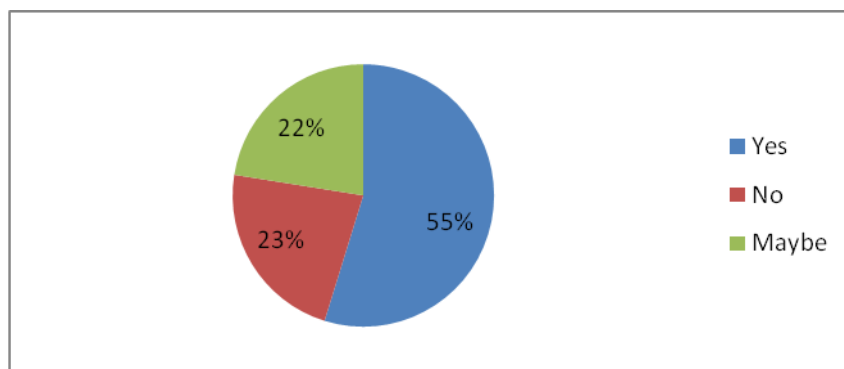
#### Table No. 1

#### Students Satisfied with online lectures

Yes	No	Maybe
234	97	96
55%	23%	22%

**Chart No. 1**

**Students Satisfied with online lectures**



**2. Students having any network issue during online lectures**

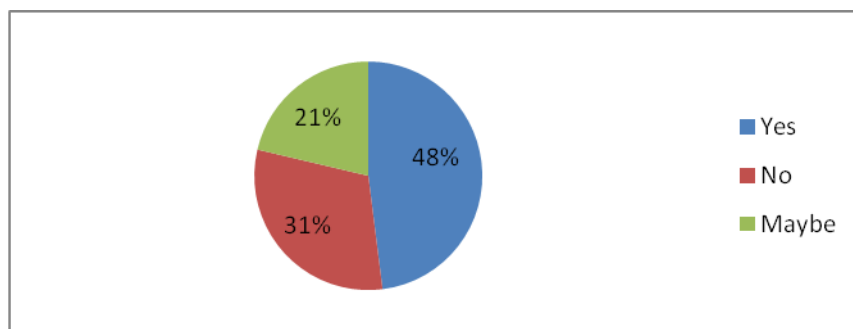
**Table No. 2**

**Students having network issue during online lectures**

Yes	No	Maybe
205	131	91
48%	30.7%	21.3%

**Chart No. 2**

**Students having network issue during online lectures**





**3. Students satisfied with the duration of lectures**

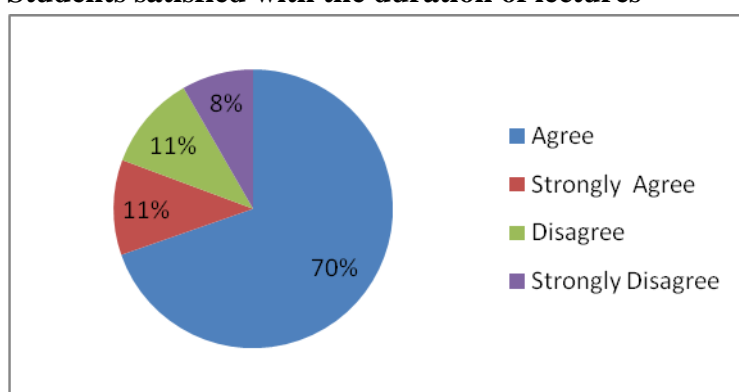
**Table No. 3**

**Students satisfied with the duration of lectures**

Agree	Strongly Agree	Disagree	Strongly Disagree	Neutral
209	33	33	25	127
69.6%	11%	11%	8.4%	69.7%

**Chart No. 3**

**Students satisfied with the duration of lectures**



**4. Students aware of the various tools used for online lectures**

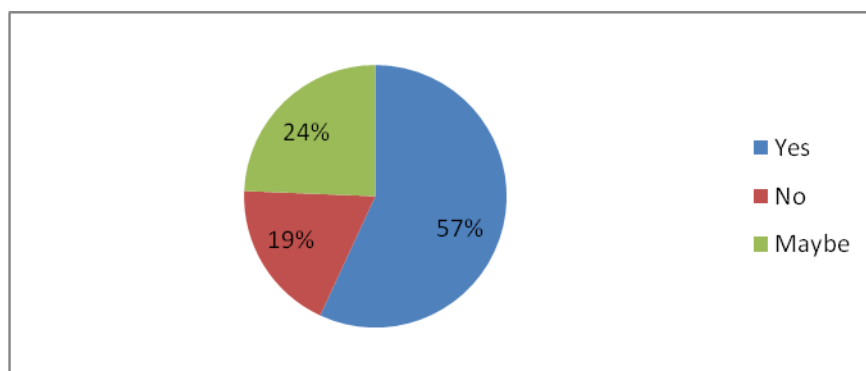
**Table No. 4**

**Students aware of the various tools used for online lectures**

Yes	No	Maybe
243	80	104
56.90%	18.73%	24.35%

**Chart No. 4**

**Students aware of the various tools used for online lectures**



**5. Students preferring tool for online classes**

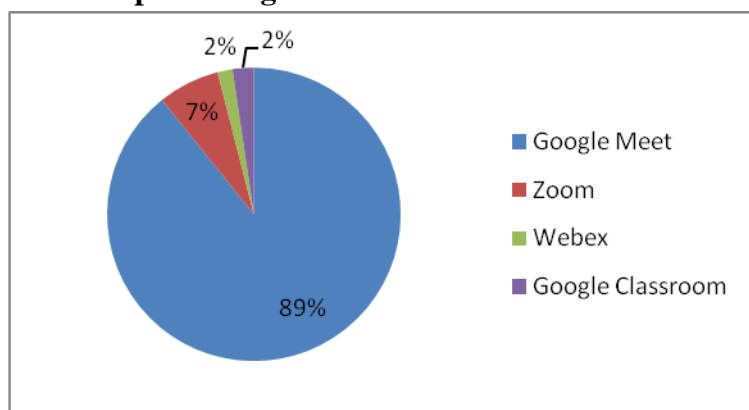
**Table No. 5**

**Students preferring the tool for online classes**

Google Meet	Zoom	Webex	Google Classroom
381	29	7	10
89%	7%	2%	2%

**Chart No. 5**

**Students preferring the tool for online classes**



**6. Students preferring mode for learning**

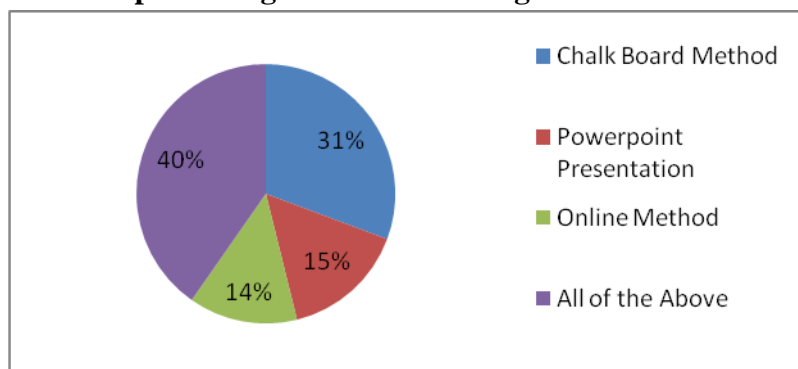
**Table No. 6**

**Students preferring mode for learning**

Chalk Board Method	Powerpoint Presentation	Online Method	All of the Above
131	66	58	172
30.67915691	15.45667447	13.58313817	40.2810304

**Chart No. 6**

**Students preferring mode for learning**



### 7. Students choice for online examination

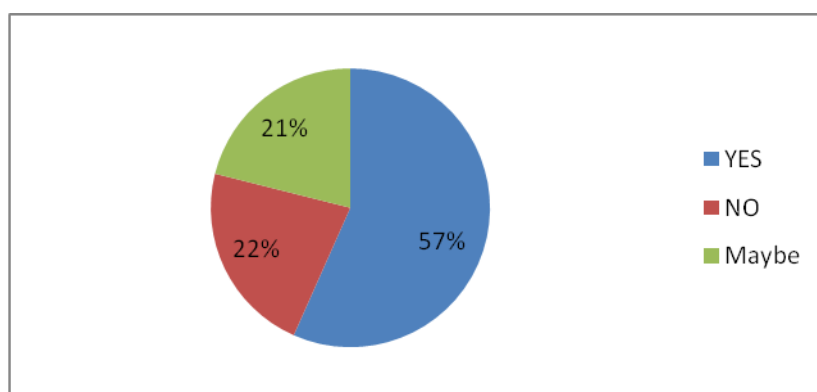
**Table No. 7**

Students choice for online examination

YES	NO	Maybe
242	95	90
56.67447307	22.24824356	21.07728337

**Chart No. 7**

Students choice for online examination



### 8. Students acceptance regarding use of e-learning tools to learn new things in education system

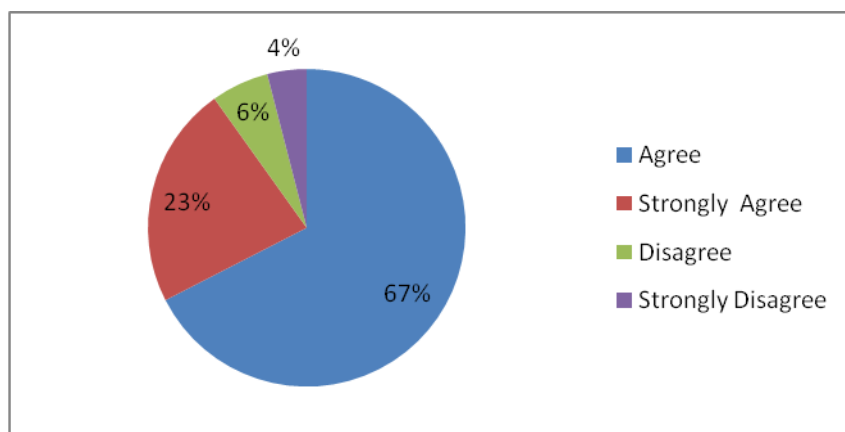
**Table No. 8**

Students acceptance regarding use of e-learning tools to learn new things in education system

Agree	Strongly Agree	Disagree	Strongly Disagree	Neutral
218	73	19	13	104
51.05386417	17.09601874	4.449648712	3.04449649	24.35597

**Chart No. 8**

Students acceptance regarding use of e-learning tools to learn new things in education system



**9. Students satisfaction regarding the tools/ app used by RTMNU for On-line examination**

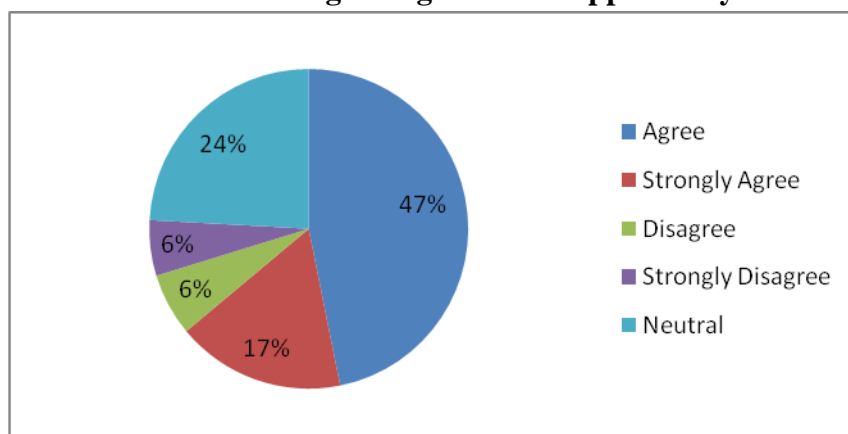
**Table No. 9**

Students satisfaction regarding the tools/ app used by RTMNU for On-line examination

Agree	Strongly Agree	Disagree	Strongly Disagree	Neutral
200	73	27	24	103
46.83840749	17.09601874	6.32318501	5.620609	24.12178

**Chart No. 9**

Students satisfaction regarding the tools/ app used by RTMNU for On-line examination



**10. E-learning tools are beneficial to the related course**

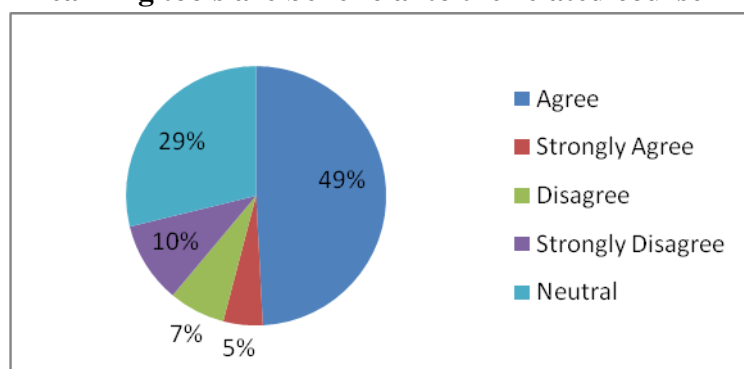
**Table No. 10**

**E-learning tools are beneficial to the related course**

Agree	Strongly Agree	Disagree	Strongly Disagree	Neutral
210	21	30	43	123
49	5	7	10	29

**Chart No. 10**

**E-learning tools are beneficial to the related course**



**After the analysis of the data following interpretations were drawn :**

55% students are satisfied with On-line lectures. 48% students are having network issue during the on-line classes. 69% students are satisfied with the duration of On-line classes. 57% Students are aware of the various tools used for online lectures. 89% Students prefer Google Meet app for online classes. Even though the E-learning platform meets the basic conditions in order for students to turn their preference towards it, (ease of use, usefulness), students still prefer other platforms because of the small number of technical issues they had while using them. 40% Students prefer all types mode like chalk-mode, powerpoint presentation and online mode for learning. As during the session 2020-21 students had online teaching, 57% Students preferred for online examination. 51% students accepted that e-learning tools is helping them to learn new things in education system and is becoming more effective. Due to various experiences in the University Online examination, only 47% Students are satisfied with the tools/ app used by RTMNU for On-line examination. 49% students agreed that E-learning tools are beneficial to the related course.

**CONCLUSIONS**

The on-line categories helped to continue the teaching learning activities throughout restrictions owing to COVID-19 pandemic. on-line learning modalities encourage student-centered learning and that they area unit simply manageable throughout this imprisonment

scenario. Several E-learning platforms like Moodle, Google schoolroom area unit developed for educators/learners to enlighten their information through a robust, integrated and secure system for personalised learning home ground.

There is a requirement for concrete actions so as to enhance and optimize the method of on-line teaching and learning, such as: up teachers' technical skills, developing coaching programs meant to assist lecturers transform and adapt their teaching vogue and also the means they act with students, to the net setting.

Technical problems area unit still the problems most troublesome to resolve, thanks to the capability of the servers in hand by university. Surely, university have created efforts so as to resolve these issues and improve the thanks to handle the on-line exams with success.

Students' technical issues like poor web connections, signal loss, lack of adequate digital devices, particularly for college kids living in rural areas or students from families with low incomes is that the main issue in On-line categories. These students cannot take the good thing about the E-learning tools thanks to such reasons.

It is potential that once a extended amount of adaptation and experience of scholars and lecturers with the net setting, the standard of the academic method can improve, which students' perception relating to on-line learning and varied E-learning tools are a lot of positive.

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