# Validity of Online Exams in Indian Universities During COVID-19 Pandemic: A Case Study of M.A Students at Bamu University

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*Abstract—* This paper tries to evaluate online exams at BAMU in the English Department among MA students. It aims to reveal validity of online exams conducted in the English department at the main campus. The researchers follow validity criteria commonly used in educational and psychological measurement. The researchers conducted a qualitative study. The data was collected using a close-ended questionnaire being administered to 57 students doing their master degree at BAMU University, English department, main campus. The gathered data was analyzed with SPSS software. Google forms were utilized in this study and the forms were distributed online. Results revealed that online exam conducted at BAMU has high validity in regard of exam's time, exam's directions, and coverage of syllabus. The finding also indicates that online exam conducted at BAMU has moderate validity in regard of easiness of online exam's questions. Multiple logging in and logging out, technical problems, and limited malpractice lowered the validity of online exams. Unethical behavior and malpractice are due to the limited monitored nature of the online exams. The primary concern of supervisors and proctors is how to conduct online exams smoothly without technical problems and the secondary concern is how to proctor students. The drawback of online exams is the malpractice of some examinees and this problem is now global. Further research is recommended to compare the validity of online and offline exams during the pandemic so that a wider angle of this matter can be revealed more plainly.

*Keywords—* BAMU University, COVID-19, Indian Universities, Online exams, Online teaching, Validity.

## I. INTRODUCTION

In March 2020, everything began to change dramatically in the world because of the COVID-19 pandemic. Whether we accept it or not, there have been so many alterations in our life due to the pandemic. Publics are caged at homes and they started to adapt to this new era. One area which has undoubtedly seen significant modifications as an effect of COVID-19 is the education sector especially teaching and conducting exams. Higher education institutions had to change to online education without prior planning. Indian universities started to conduct lectures online, but the biggest challenge was how to evaluate and assess students. Online exams have become a crucial necessity rather than a choice.

The novel coronavirus sickness 2019 (COVID-19) expanded at the end of December 2019 in Wuhan city of China and has since expanded in the world extensively. As of 13 January 2022, more than 317,289,446 cases have been appeared in 192 countries, resulting in more than 5,515,204 deaths. More than 137,951,084 have recovered, and only 50.3% of the population of the world has been vaccinated ("GitHub -

CSSEGISandData/COVID-19: Novel Coronavirus (COVID-19) Cases, provided by JHU CSSE", 2021).

The inaugural cases of COVID-19 in India were testified in Kerala on January 27, 2020. As of 13 January 2022, the Indian Ministry of Health and Family Welfare has verified a total of 36,070,510 cases and total death of 485,035. India struggles against COVID-19. The outbreak of COVID-19 has caused a big challenge to India's economic, medical, and public health infrastructure. India is in an emergency now and fights daily by distributing vaccines and raising awareness among Indians. Maharashtra district is the most affected state by the infection of COVID-19. Most daily new positive cases of COVID-19 are recorded in Maharashtra state. India faces a tsunami of daily new recorded cases now and Omicron variant has become the dominant strain of the virus.

Universities, schools and all educational institutions have been locked in India since 16th March and since then the central government of India has broadcasted a countrywide lockdown as one of the measures to attack and contain the outbreak of the virus. As a result, The University Grants Commission issued guidelines on examinations and academic calendars for the

universities in view of the COVID-19 pandemic and since April 2020, lectures, academic programmers, and exams are all conducted online across the country using various ICT tools.

Dr. Babasaheb Ambedkar Marathwada University (BAMU) is a governmental university and it was previously named Marathwada University. It is located in Aurangabad, the historical tourism city of Maharashtra India. Established on 23 August 1958, the university was named after Babasaheb Ambedkar who was an economist, politician, and social reformer, and he is also considered as the draftsman of the constitution of India. 456 colleges are affiliated to BAMU and those colleges are located in Maharashtra state in different districts like Aurangabad, Osmanabad, Beed, and Jalna. BAMU is reaccredited with A grade and it is ranked 69 by the National Institutional Ranking Framework (NIRF).

Like all the other Indian universities, BAMU starts to conduct lectures, seminars, conferences, and exams online. So this paper tries to measure BAMU's students' perception of the online exams system. This study is limited and is only related to students of M.A of the English department at the main campus.

The value of this paper lies in the fact that it is one of the very few studies conducted on the students of M.A of the English department at BAMU. It may fill the gap in the literature. This research paper's finding may help administrators to evaluate and improve the quality and integrity of online exams. The current research paper tries to conduct a reliable investigation on the validity of online exams via measuring students' perceptions of online exams in general. Since the beginning of the pandemic, students of BAMU have been evaluated online. Students of M.A of the English department are also examined online and they are evaluated by MCQ exams.

Concerning the core problem of the study, it is significant for any measuring instrument whatsoever to fulfill some conditions and qualities for example validity, reliability, objectivity, adequacy, usability, and discrimination (Dandekar, 1971). This paper is limited to measure the validity of online exams conducted during COVID-19 at the English department in BAMU. It tries to measure the validity of online exams. Therefore, this paper is prearranged to find answers to the main five research questions

1. Is the time given to students during exams enough?

2. Are the directions given to students during the exam clear?
3. Are the questions given to students too easy or too difficult?
4. Are the questions given to students from the syllabus or out of the syllabus?
5. Are the questions given to students cover all the topics in the syllabus?

From answers to those questions, validy of exams can be measured.

## II. LITERATURE REVIEW

Online teaching proved to be beneficial and it has come to continue. It is tomorrow's and future education. Even after the pandemic, which no one knows its end, online teaching will continue. The concern of education institutions globally is the validity and reliability of online exams, especially in third-world countries. The education sector is getting digitalized and this might be the only benefit of the pandemic. The educational establishments are compelled to find pioneering online teachings plans as well as remote protected exams. On the other hand, there are still big challenges of implementation of online learning, teaching, and examining. Those challenges are like internet connectivity especially in rural and remote areas and online exams security which might be the biggest challenge.

There are some papers that discuss online teaching, learning, and examining during the COVID-19 pandemic. Students of Indian universities of different levels are in favor of online learning. In this regard, (T, S, Aditya & Jha, 2020) researched to investigate "students' perception and preference for online education in India during COVID -19 pandemic". They concentrated on agricultural students and distributed an online survey to 307 participants and the outcomes exposed that the majority of students are ready to opt for online learning. However, some fields of studies like agricultural and medical studies cannot be taught fully online because such studies are practical oriented and cannot be shifted completely to online mode, so it is preferable to use hybrid mode. Furthermore, the lack of services like technical tools and internet access makes lots of Indian university students prefer the old method of teaching and conducting exams, especially in remote and rural areas. (Lakshman Naik, Deshpande, Shivananda, Ajey & Manjunath Patel, 2021) assumed that more than 60% of their survey students are not ready for online learning due to the lack of high-speed internet access, power supply, and limited internet data per a day.

As a matter of fact, the conversion from face-to-face education to virtual education was overnight. This scenario was unexpected at all. Supervisors and proctors had also to adapt to online exams. This causes a lot of debates as, according to many students, supervisors and proctors are more concerned about how to conduct online exams smoothly, than preventing students from cheating or measuring students learning. Deception, dishonesty, and malpractice during online exams are linked to their unmonitored nature where examinees are appeared to have a chance to utilized unauthorized resources during the online assessment. One of the critical issues during an online exam is integrity and security. (Bilen & Matros, 2020) suggested a camera that monitors the screen of a computer and whole room while taking the exam and to give students less time but simpler questions. However, itt may be difficult to make a whole room under surveillance and privacy of examinee and their families should be taken into consideration.

Unethical behavior is the main challenge of online exams, in this matter (Amzalag, Shapira & Dolev, 2021) researched the unethical behaviors of students; their sample for research were 81 students and 50 lecturers from different Israeli colleges and universities and the findings indicated that younger students tend to cheat during online exams. Sometimes, students may use file-sharing websites live during an exam. For example, Chegg is a website that offers homework assistance and academic facilities to students. In this regard, (Lancaster & Cotarlan, 2021) analyzed the use of Chegg website used by students in five subjects namely Chemistry, Mechanical Engineering, Physics, Computer Science, and Electrical Engineering and the results indicated that students use Chegg to demand exam-like questions. The demand can be put live and answered during the same time of the exam. (García-Alberti, Suárez, Chiyón & Mosquera Feijoo, 2021) searched "challenges of online evaluation in courses of civil engineering during the lockdown" and the result indicated that distant assessment methods still raise methodological, functional, and ontological disputes that need to be addressed and enhanced. On the other hand, medical students always have frequent exams, especially at undergraduate levels and this leads to "anxiety due to frequent exams" especially during the pandemic. (Mastour, Ghalibaf & Niroumand, 2021), searched "remote online exams anxiety during the COVID-19 crisis" among medical students and they recommended officials of medical colleges to take procedures to decrease students' anxiety by providing students support in the recent pandemic.

Students sometimes justify their malpractice and e-cheating during online exams. (Abdelrahim, 2021) assumed, on a study conducted on 23 Bangladeshi undergraduate university students that anxiety and high level of stress because of quarantine are the causes that prompted e-cheat during online exams. Stress and anxiety were the excuses given by students for their malpractice during online exams. The research also mentioned other factors that contributed to the students' malpractice during online exams like social peer, and academic pressure, the desire for high grades, and most importantly no software programs that monitor e-cheating. Social media can be utilized for learning, teaching, and at the same time for evaluating students' progress. In this regard, (Altam, 2020) researched the influence of social media on 120 Yemeni students in Indian universities during the COVID-19 pandemic and his findings revealed that participants used social media for learning the English language and they improved their listening skills as well as acquiring new vocabularies. Learning new languages is now accessible via different platforms and mobile applications especially the English language. During the pandemic and due to leisure time of lots of people, some people focused their attention on learning the English langauge (Altam, 2021) highlited "The world now shares a global identity because of the English language. The phenomena of using the English language in almost all aspects of life resulted in globalization and internationalization in almost all walks of life".

## III. METHOD

The sudden closure of classrooms necessitated abrupt alterations to new asynchronous teaching and learning methods so that syllabus and ongoing curriculums could be finished. Teachers, lecturers, and proctors had to adapt to the new era of online teaching, learning, and assessing. This sudden and unexpected change leads to a variety in digital competence among teaching staff of different educational institutions in the world. Assessment and evaluation are the most important part of any educational program. Assessment is the thing that motivates students to study hard and creates competition among them to achieve their learning goals. BAMU adopted this kind of learning, teaching, and assessing, and there is a total transformation to online education at BAMU. BAMU also used a software to examine students. Exam time is 4 hours in those 4 hours a student can use only one hour to attempt 30 MCQ questions. Those 4 hours are given in case there is a power cut or problem in connectivity to the internet. Examinees can log in and log out to the exam system during the time given to the exam. When a student logs out, time stops counting. Therefore, the researchers felt a need to

evaluate the validity of online exams in BAMU during the COVID-19 Pandemic. The researchs employed a quantitative methodology in order to reveal the students' perception of online exams using an online questionnaire. The questionnaire was used to explore students' attitudes and perceptions of online exams so that the researchers can evaluate the validity of online exams conducted at BAMU. Validity is a matter of degree and it may be high, moderate, or low. The questionnaire was distributed online through WhatsApp by sending the questionnaire to 57 students privately. All the students interacted entirely with the questionnaire sent to them. Google forms also were utilized in this study. The questionnaire included seven items and all the seven items were included with a two-point Likert Scale of "agree or disagree" The respondents were required to respond to the questionnaire items through reference to the final exam

of the first semester May 2021 which had been the first semester in which students had studied online and examined online also. The study utilized the software (SPSS) to evaluate the collected data.

## IV. DISCUSSION

Participants were 57 students from the first and second year of the English department BAMU university main campus. The demographic information was not involved in the study because demographic information like age and gender make no difference in the results obtained from the questionnaire as far as the current study is concerned. Participants were not also requested to say their identities. The results depicted underneath are the students' replies to the questionnaire planned to respond to the study's questions. The following table shows the questionnaire along with data gathered by Google forms and interpreted and analyzed by the software SPSS.

*Table 1: shows the frequency, percentage, mean, and deviation of the participants.*

| Questions | | Frequency | Percent | Mean | Std. Deviation |
|---|---|---|---|---|---|
| *1- Online exam time is enough to attempt all questions.* | Disagree | 15 | 26.3 | 1.74 | .444 |
| | Agree | 42 | 73.7 | | |
| *2- In online exam, directions given to answer questions are clear.* | Disagree | 15 | 26.3 | 1.74 | .444 |
| | Agree | 42 | 73.7 | | |
| *3- Online exam questions are easy.* | Disagree | 40 | 70.2 | 1.30 | .462 |
| | Agree | 17 | 29.8 | | |
| *4- Online exam questions are all from syllabus.* | Disagree | 15 | 26.3 | 1.74 | .444 |
| | Agree | 42 | 73.7 | | |
| *5- Malpractice during online exam is easy.* | Disagree | 32 | 56.1 | 1.44 | .501 |
| | Agree | 25 | 43.9 | | |
| *6- I faced technical problem during the online exam.* | Disagree | 17 | 29.8 | 1.70 | .462 |
| | Agree | 40 | 70.2 | | |
| *7- Multiple logging in and logging out are permissible during the online exam.* | Disagree | 39 | 68.4 | 1.32 | .469 |
| | Agree | 18 | 31.6 | | |

### 1. Online exam's time:

The first item of the questionnaire is (Online exam's time is enough to attempt all questions) and the participants were given only two choices to agree or disagree with this item. 42 out of 57 agreed and only 15 disagreed with this item. The mean for this item is (1.74) which indicates that participants hold a positive opinion about the time given to attempt all questions. According to studies conducted by (Hanson, Creswell, Clark, Petska & Creswell, 2005) the mean score of agreement ranges from 1.50 to 2 is interpreted as a high mean score and those under 1.50 are interpreted as a low mean score. Accordingly, we can say that time given to students during the online exam is enough. So, in terms of time, we can say that the online exam given at BAMU University has high validity.

### 2. Online Exam's directions:

The second item of the questionnaire is (In the online exam, directions given to answer questions are clear) 42 out of 57 agreed that the directions given to them during the online exam are clear and 15 out of 57 disagreed. The mean for this item is (1.74) which indicates that participants hold a positive opinion about directions given during the online exam. So in terms of directions, we can say that online exam conducted at BAMU University has high validity. If instructions do not undoubtedly indicate how to answer exam items, the validity of an exam is reduced.

### 3. Easiness of questions:

The third item of the questionnaire is (Online exam's questions are too easy). 40 participants out 57 agreed

that online exams are not easy and 17 disagreed. The mean for this item is (1.30) which indicates that participants hold a negative opinion about the easiness of online exams. So in terms of difficulty, we can say that online exam conducted at BAMU has low validity. Questions that are too easy or too challenging will not supply dependable discriminations among examinees and will accordingly poorer the validity of an exam whether it was online or offline.

### 4. Questions from the syllabus:

The fourth item of the questionnaire is (Online exam's questions are all from syllabus). 42 participants out of 57 agreed that online exams are from the syllabus and 15 participants disagreed. The mean for this item is (1.74) which indicates that participants hold a positive opinion about questions being asked from the syllabus. So in terms of coverage of the syllabus, the online exam of BAMU has a high level of validity. Exams should always contain an enormous portion of the content. Insufficient sampling lowers validity

### 5. Malpractice:

The fifth item of the questionnaire is (Malpractice during online exam is easy). 25 out of 57 agreed that malpractice during the online exam is easy and 32 disagreed. The mean for this item is (1.44) which indicates that there is a limited malpractice during online exams. Cheating lowers the validity of online exams to a great extent. The online exam should be 100% proctored using different software that traces malpractice.

### 6. Technical problem:

The sixth item of the questioner is (I faced a technical problem during the online exam). 40 out of 57 said that they faced technical problems during the online exam and 17 said that they did not face technical problems during the online exam. The mean for this item is (1.70) which indicates that participants have anxiety during the online exam due to technical problems. Technical problems are one of the most challenging problems of online exams. Technical problems always happen due to poor connectivity, power failure, and poor designed exam software.

### 7. Logging in and logging out:

The last item of the questionnaire is (Multiple logging in and logging out are permissible during the online exam). 18 out of 57 agreed that multiple logging in and out is permissible during the online exam and 39 disagreed. It means that it is permissible to log in and out during the online exam. This multiple logging in and out lowers the validity, reliability, and adequacy of the online exam

conducted. It is known that when logging out, examinees tend to search for answers from the internet and logging in again ready with answers.

### V. CONCLUSION

From this study of the validity of online exams during covid-19 pandemic conducted on 57 participants from Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, it looks clear and obvious that online exams conducted at BAMU University are of moderate to high validity. In terms of time, syllabus, and instructions, online exam conducted at BAMU has high validity. However, limited malpractice, technical problems, the difficulty of questions, and multiple logging in and out, lower the validity of online exams. Security of exam is the most challenging problem of online exams. Some of students find it easy to look for answers from the internet same time while taking the online exams conducted in many universities worldwide and this is because examiners tend sometimes to copy questions from the internet and paste them into the exam system. This encourage some examinees to look for answers from the internet. Another possibility of malpractice during the online exams is the multiple logging in and out. Some examinees may log in and copy all questions then log out and answer all questions while logging out then log in again with answers ready for all MCQ questions. In order to minimize malpractice, the exam should be at the same time for all examinees, and after the stipulated time examinees should not be able to log in. The exam should be also fully proctored given only for example 30 seconds to each question then the next button works automatically and moves to the next questions without giving any choice for going back to previous questions. This strictness during the online exam may be implemented in the future especially if COVID-19 will last for more years. Right now the main concern of educational institutions worlidwide is how to run exams smoothly and not to deprive any examinee. Eductionists and academicians are taking into account that teacing and lectures were conducted online. Further research is recommended to compare and contrast the validity of online and offline exam during the pandemic so that a wider and more plain perspective of this controversial issue can be revealed.

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