

# Virtual Assessment Dilemmas in English Literature Writing Courses: A Perspective of the Tertiary level Teachers in Bangladesh

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DOI: <https://doi.org/10.47772/IJRISS.2025.925ILEIID000085>

Received: 16 October 2025; Accepted: 23 October 2025; Published: 10 November 2025

## ABSTRACT

The paper based on a pilot- study aims to attempt the experiences that tertiary level teachers have confronted while conducting exams and assessing the students' performances in virtual modality especially in English Literature Writing Courses in Bangladesh during COVID-19, and which still has an impact on the students' academic performances and behavioral changes. This pilot -study explores the pros and cons, the limitations and challenges of virtual assessment that teachers have faced and how the assessment conducted virtually has triggered disparity in students' grades and behavioral attitude as a long-term effect. The research is designed qualitatively using two research tools: survey questionnaire and in-depth interviews with the aim of obtaining heterogeneous responses from tertiary level teachers at different private universities in Bangladesh. Keeping aligned with the mode of the research this study shows feasibility of larger-scale research but highlights the need for refined tools and broader sampling. The paper will also include relevant secondary sources to deepen our perception of the topic. The broad aim of this research is to investigate the impact of virtual exams, and to what extent it is effective especially at the tertiary level in Bangladesh. A particular goal is to identify the dilemmas that tertiary level teachers have confronted while conducting exams and assessing the students' performances in virtual modality. The research will lead to some potential recommendations as to how exams could be taken more creditably in virtual modality and students be assessed more veritably so that disparity be resolved and overall assessment dilemmas of teachers be overcome.

**Key Words:** Dilemma, assessment, behavioral- changes, grade disparity, pilot- study

## INTRODUCTION

The havoc of COVID-19 resulted globally in many shapes and forms. One of these forms and shapes was that Physical or Face to Face (F2F) classrooms were replaced by 'Virtual' classrooms. Teachers and students all of a sudden, had no better options but to embrace the infrastructural, strategic, pedagogical and environmental drastic changes, for moving forward in the academic arena. However, these changes not only put teachers into a dilemma, especially when assessing students' exam performances in English Literature Writing Course (as both teachers and students were not accustomed to virtual assessment previously) but also had an impact on students' behavioral attitude and grades. The teachers were also somewhat compelled to adapt with virtual modality.

Slack and Priestley (2023) noted that "where traditional learning and assessment approaches have previously been found to negatively impact on student well-being, the Covid-19 pandemic provided a novel opportunity to explore alternative online learning and assessment conditions conducive to student well-being and academic performance as part of a whole university strategy" (p. 334). Again, Alsalhi, et. al. (2022) stated, "Online assessment came to provide a vital function to the education system during the spread of the COVID-19 pandemic" (p.37).

On the contrary, Beleulmi (2020) mentions, "many studies have shown that effective online Teaching and assessment require different teaching strategies and assessment techniques than that used for traditional teaching" (p. 3813). As stated by Hassan (2019), "the evaluation and assessment framework for university students in Bangladesh is different from that in universities in developed countries. The university curriculum here (Bangladesh) is information-heavy, presenting facts to consume, and other analytic and operational tasks to



practice and master, instruction and learning remain largely rote.’ He further adds that “the curriculum does not facilitate the production of a skilled workforce, and it also does not give any directives to a course instructor in assessing student learning. The instructor sets questions just to measure what the students know about the subjects. Grade to a student for a course is assigned by the course instructor after aggregating the marks obtained in summative assessment, i.e. class tests and written examinations’ (M. M. Shahidul Hassan, 2019, p1,). This is the common scenario of performance assessment in Bangladesh.

### **Problem Statement**

Lack of clear strategies in assessing English Writing Courses in Virtual modality has created confusion and dilemmas for teachers.

### **Research Objectives**

The objectives of the pilot study are as follows:

- To explore teachers’ experiences with virtual writing assessments at the tertiary level in Bangladesh
- To identify key dilemmas faced in virtual writing assessments
- To test the feasibility of the data collection tools (survey/ interview protocol)

### **Research Questions**

Three broad research questions as follows underscores the sixteen questions in the questionnaire from which the purpose of this pilot study has been fulfilled and justified.

- (1) What methods and design did the teachers use to assess students’ exam performances virtually especially in English Literature Writing Courses?
- (2) What challenges and limitations did the teachers face in assessing students’ exam performances virtually?
- (3) Did teachers notice any significant change in the students’ grades and behavioral attitude in their virtual exam performances?

## **LITERATURE REVIEW**

According to Khan and Jawaid (2020) and Rahim (2020), “existing quantitative studies related to online assessment during the pandemic provide little insight into the students’ motivation and its importance in online assessment (Khan and Jawaid, 2020; Rahim,2020).” In the article, they discussed about ‘the implementation of technology-enhanced assessments in medical education during the COVID-19 pandemic, highlighting the benefits and challenges of online assessment methods. Rahim provides comprehensive guidelines for conducting online assessments in emergency remote teaching scenarios, focusing on maintaining assessment integrity and effectiveness during the pandemic’ (Khan and Jawaid, 2020; Rahim,2020, pp.108-110). The study is aligned with the present research topic as the findings revolves around the advantages and shortcomings of virtual assessments and the pedagogical implementation like importance of checklist, mock exams, alternative assessment and video demos for an effective assessment which are important outputs for the present study.

Arif (2020) states that “there are two types of assessment commonly used, namely formative and summative assessment”. Arend (2006) explains that “formative assessment focuses on using feedback and information to improve student learning”. (Bridget D. Arend, 2006). Meanwhile, Sewell (2010) “describes summative assessment as a formal evaluation conducted at the end of lessons, projects, or courses to assess learning achievement” (Jeanne P. Sewell, 2010, pp. 1-6). Both can apply to assess students in their learning progress. Traditionally, those two assessments are applied in class, but nowadays, the assessments are being used both in class and online. This literature is substantial to the present study on virtual assessment of students’ exam performance especially in Literature Writing Courses as it prioritizes both Formative and Summative assessment which are crucial assessment tools.

Again, Md. Rayhanul Islam (2020), in his study mentions about the key challenges in attending the online classes faced by the students. Challenges have been categorized by different aspects. The study also resulted that

network and facility related challenges, student-teacher interaction related challenges and personal & socio-psychological challenges are the prioritized challenges complained by the students.

Again, Al-Obaydi et al. (2023), mentions, Online testing provides instantaneous result and diagnostic feedback, using mobile phone and social media, interacting with virtual characters such as avatar, sophisticated online training for raters of writing or speaking test, automated rating of extended writing. Any kinds of online testing are binary choice, matching, multiple choice, filling in the blanks, short answer, performance, conferences, portfolio and self-assessment (Maley Alan and Kiss Tamas, 2018). Literature gives a meticulous insight into the procedure and ways of conducting virtual assessment and hence is significant to the present study.

According to Arif (2020), “in this digital media era, the teachers have broader opportunity to do online assessment. The benefits of online assessment for example are, for evaluating important life-skills, for improving the reliability of scoring and accordingly improving the quality of the test itself and helping to avoid the drawbacks of the traditional paper-based assessment system such as the time required for grading (Hamadah, 2017, p. 148). Besides, it also motivates students to participate, giving feedback to many students, saving marking time, providing high quality data for teachers and administrators, as well as reducing the printing cost and increasing objectivity in grading because the computer grades the exams regardless of students’ name, race, culture, etc. ((Hamadah, 2017, p. 148))”. The study provides a deep insight into the pros and cons of virtual exams and paves a way for the present study to be analyzed in connection.

Dikli (2003) discussed “Assessment is one of the crucial components of the instruction. People within the educational community, i.e. policymakers, educators, students, parents, administrators, have different ideas regarding the implementation of assessment strategies” (Dikil,2023). However, while some believe traditional assessment methods are more effective, others think that alternative assessment tools are superior. The article focuses on the traditional assessment tools and their disadvantages as well as the advantages of alternative assessment in distant learning.

As stated in Gaytan (2007), “Though educators at all levels have embraced using online technology as a teaching tool, the issue of assessment of student learning in an online course has not been thoroughly addressed. Although online instruction may be more efficient, convenient, and flexible for both students and teachers, it must be stressed that this technology should be used to facilitate teaching and promote learning. Online assessment should be viewed as a system for evaluating student academic achievement”.

Studies by Luckin et al. (2016) and Holmes et al. (2019) argue that AI enhances learning by enabling adaptive feedback, real-time analytics, and intelligent tutoring systems that support self-regulated learning. Similarly, Chen et al. (2020) highlight how AI-driven platforms analyze students’ cognitive and affective data to customize instruction and optimize engagement.

In higher education, Zawacki-Richter et al. (2019) found that AI tools have been increasingly used to support blended and online learning environments, improving efficiency in content delivery, participation monitoring, and performance tracking. These applications align with constructivist learning theories, emphasizing learner-centered and data-informed pedagogical practices.

AI’s role in educational assessment has expanded significantly in recent years. Bennett (2015) and Heffernan & Heffernan (2014) assert that AI-based assessment systems facilitate both formative and summative evaluation by automating grading, detecting plagiarism, and providing diagnostic feedback. Machine learning models can evaluate open-ended responses, essays, and even creative outputs with increasing accuracy (Shermis & Burstein, 2013).

Furthermore, Shute and Rahimi (2021) propose that AI-powered analytics can identify learning patterns and provide personalized feedback, thus reinforcing formative assessment practices. However, researchers such as Williamson & Piattoeva (2022) caution that algorithmic assessment raises ethical concerns regarding bias, data privacy, and the interpretability of automated decisions.

Within the humanities, particularly in language and literature education, AI tools have facilitated novel teaching



and assessment strategies. Godwin-Jones (2021) notes that AI-based writing assistants, chatbots, and automated grammar checkers have transformed academic writing pedagogy by enabling continuous feedback and self-correction. Studies like Xu and Warschauer (2020) show that AI-mediated language tools improve learners' writing accuracy, vocabulary acquisition, and confidence. However, as Li et al. (2023) emphasize, overreliance on AI-generated feedback can reduce critical thinking and academic integrity, underscoring the need for balanced pedagogical integration.

While AI offers efficiency and personalization, scholars warn of its ethical and pedagogical challenges. Holmes et al. (2022) and Selwyn (2019) highlight concerns about data ethics, teacher autonomy, and the risk of algorithmic bias. The need for AI literacy among educators and students is therefore increasingly emphasized (Ng, 2021). Effective AI integration requires human oversight, pedagogical awareness, and clear institutional guidelines to prevent misuse and maintain academic fairness.

## RESEARCH GAP

From the above literature reviews, we can sum up that even though some study has been done on the issue of virtual classroom teaching and other issues like benefits of virtual teaching, ways and techniques, tools, challenges and advantages etc. There is inadequate literature on 'assessment of students' virtual exam performance in English Writing courses, teachers' dilemma' and 'grade disparity. Only a handful of literature has covered the topic on the issue of assessment procedures which proves that the topic has been under researched. Despite the growing body of research on online and AI-enhanced assessments, several gaps remain. Existing studies primarily focus on the technical implementation and general benefits of online assessment, providing limited insight into students' motivation, engagement, and perceptions of assessment effectiveness. Research on subject-specific applications, particularly in humanities and literature writing courses, is scarce, leaving the effectiveness of formative and summative online assessments in these contexts largely unexplored. Additionally, while AI tools offer adaptive feedback and automation, there is insufficient investigation into their ethical implications, potential overreliance, and impact on critical thinking. Challenges such as accessibility, student-teacher interaction, and socio-psychological barriers in online assessment are documented broadly but lack detailed empirical analysis in specific educational settings. Finally, comparisons between traditional, alternative, and AI-driven assessments remain limited, highlighting the need for studies that evaluate their relative effectiveness, fairness, and pedagogical suitability in online learning environments. Hence, there is a dire need for this research to be conducted especially in the context of Bangladesh where the concept of virtual teaching and assessment is but a new disclosure.

## THEORETICAL FRAMEWORK

This research is situated within Assessment Theory. Assessment theory provides the conceptual framework for understanding how teaching, learning, and evaluation interact within educational contexts. This research, which explores teachers' experiences and challenges with virtual assessment in tertiary-level English Literature courses, aligns closely with several theoretical underpinnings of assessment particularly formative and summative assessment theory, constructive alignment, and assessment for learning (AFL).

### a. Formative and Summative Assessment

According to Black and Wiliam (1998), assessment serves two primary purposes: formative (to support learning) and summative (to evaluate learning outcomes). During the COVID-19 pandemic, these functions became blurred as teachers were compelled to adapt traditional summative methods into online formats without adequate tools or training. This often compromise reliability and validity, core principles of assessment theory (Brown & Abeywickrama, 2010).

### b. Constructive Alignment

Biggs' (1996) Constructive Alignment Theory emphasizes that effective assessment aligns learning outcomes, teaching methods, and assessment tasks. The findings of this study show that such alignment was disrupted in virtual teaching. Teachers employed diverse assessment tools for similar literature courses, resulting in inconsistency, reduced validity, and increased grade disparity.



### c. Assessment for Learning (AFL)

The Assessment for Learning framework (Black et al., 2003) promotes feedback and engagement through formative assessment. However, virtual constraints such as network failures, reduced interaction, and avoidance of face-to-face discussion limited opportunities for feedback and reflection, thereby weakening the AFL cycle.

## 2. Application to the Present Study

This research situates itself within these theoretical constructs by examining how the shift to online assessment disrupted core assessment principles. Teachers' experiences highlight challenges to validity, reliability, fairness, and feedback mechanisms. Gender-based grade differences and inequities in access to devices and connectivity further undermined fairness and equity in assessment.

## 3. Theoretical Implications

Linking teachers' experiences with assessment theory demonstrates how technological disruption distorts the foundational purposes of assessment to measure, support, and enhance learning. The study underscores the need for:

- Technological Pedagogical Content Knowledge (TPACK) among teachers to design assessments suited to digital environments.
- Reconceptualized assessment design for virtual contexts that preserves validity, reliability, and fairness.
- Institutional frameworks ensuring alignment between learning outcomes, teaching methods, and assessment tools.

Ultimately, the research contributes to assessment theory in digital pedagogy by exposing the real-world tensions between theoretical ideals and emergency remote teaching practices.

## RESEARCH DESIGN, METHODOLOGY AND TOOLS

The research is qualitative in nature. As mentioned by Kotari and Garg (2016), Qualitative research is 'a method of study rather than breadth. The pilot study focused on virtual assessment dilemmas in English Literature Writing courses and hence have used two types of instruments. The qualitative interviews (descriptive responses from tertiary level teachers) to establish credibility, dependability, confirmability and transferability rather than Cronbach's alpha for statistical purposes. Secondly, the semi-structured, open-ended questionnaire through 'Google Form' was also descriptive in nature and not based on Likert -Scale. Therefore, the statistical quantitative data was optional in this pilot study. However, the pilot study questionnaire consisted of sixteen questions and the rationality of preparing a questionnaire of sixteen (16) questions was to elicit sufficient answers on the research topic. The sample size, though small 22 out of 30 teachers, signifies a ratio of 80% response which undoubtedly ensures validity and reliability of the methodological tools and approach used for the research. But, had a Likert Scale questionnaire be used the quantitative components of this qualitative research could have been measured more credibly. Nevertheless, this research maintained the proper data collection method through video recording for approximately 45/60 minutes per session which ensures credibility and reliability. The data were then transcribed and coded manually to prepare a thematic analysis.

## RESEARCH POPULATION

As mentioned by Hossan, Dato' Mansor, and Jaharuddin (2023, "population refers to the complete set of individuals (subject or events) having common characteristics in which the researcher is interested". In this pilot study thirty (30) teachers were approximated as the target population or control group through a purposeful sampling and twenty-four (24) teachers participated through 'Google Form' and in-depth interviews. The faculty members who participated as respondents were from Chittagong Independent University (CIU), East Delta University (EDU), Bangladesh Army University of Science & Technology BAIUST), Cumilla and International Islamic University Chittagong (IIUC), University of Science and Technology Chittagong and Premier University in Chittagong. The rationale for choosing different universities aimed to obtain heterogeneous responses from tertiary level teachers on virtual assessment and its outcome. As teachers are responsible for the assessment of



students therefore, it stands logical for the teachers to be considered as the target population of the research.

## VALIDITY AND RELIABILITY

In this qualitative and descriptive research, based on semi- structured in- depth interviews and survey through ‘Goggle Form’ open-ended questionnaire, the traditional statistic tests such as Cronbach’s alpha were not applicable. Instead thrust worthiness criteria were followed (Lincoln and Guba, 1985). Credibility was addressed through triangulation of data sources and member checking. Confirmability was ensured through reflexive researcher notes and transferability was supported by providing through descriptions of participants and their teaching contexts. As mentioned earlier, being solely qualitative in nature this pilot research abides by descriptive responses from tertiary level teachers to establish credibility, dependability, confirmability and transferability. Together these measures establish the methodological rigor of the study.

## RATIONAL OF THE PILOT STUDY

According to Thabane et.al 2010, a pilot study can be defined as a ‘small study often done to assist the preparation of a large, more comprehensive study’. Hence, this pilot study stands rational as it demonstrates feasibility of a new approach in a context (Bangladesh) where research on the topic of ‘virtual assessment dilemmas of teachers at the tertiary level and grade disparity on students’ exam performance’ has hardly been implemented. Pilot study is used as an eye –opener and helps the researcher to understand the pros and cons of the and limitations of a larger or main study. It also enables the researcher with options to edit and omit irrelevant issues and topics, over statements, exaggerations of the interviewee or respondents (which at times occur absent mindedly by the respondents) that the researcher comes across while conducting interviews. A Pilot Study sharpens the researcher’s understanding of the topic of study and thus enables him/her to be more focused. It is a sort of Pre-testing for the researcher on his/her research topic. Hence, this Pilot study served as a cardinal tool of the researcher.

## FINDINGS AND DATA ANALYSIS ON ‘GOOGLE FORM’

In the first phase of data collection of the pilot study, a questionnaire consisting of 16 questions were sent out through ‘Google Form’ to ten (10) teachers at different private universities in Bangladesh and only nine participants responded within the stipulated time. The data obtained from the questionnaire is analyzed in relation to the overarching research questions. To ensure anonymity, no attempt is made to identify the name of the respondents but some of the direct quotes have been mentioned in italics in the findings and data analysis. The demographic chart of the participants through ‘Google Form’ has been projected below:

Respondent	Age	Gender	Designation	Location of University
1.	40-45	Male	Asst. Professor	Bangladesh Army International University of Science and Technology (BAUST), Cumilla
2.	-do-	Male	Asst. Professor	Bangladesh Army International University of Science and Technology (BAUST), Cumilla
3.	-do-	Male	Asst. Professor	International Islamic University Chittagong
4.	35- 38	Male	Lecturer	Chittagong Independent University
5.	40-45	Female	Asst. Professor	Chittagong Independent University
6.	35- 38	Female	Lecturer	Chittagong Independent University
7.	35- 38	Female	Lecturer	University of Science and Technology Chittagong
8.	32-38	Female	Lecturer	East Delta University Chittagong
9.	32-38	Female	Lecturer	International Islamic University Chittagong

**Figure 1: Demographic Information on ‘Google Form’ (Teachers)**

The above figure exhibits the ratio of the participants as follows:

$N = \text{response} / \text{population size } 90\% = (N= 9 / 10).$

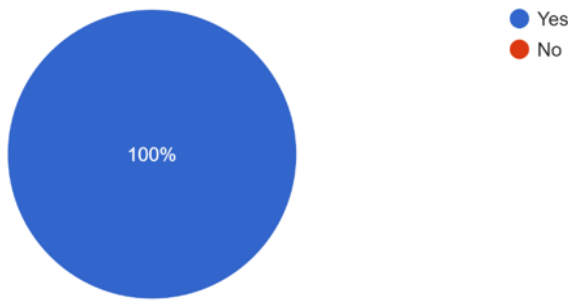
The Findings from the survey questionnaire can be grouped into the following:

**a. Teaching experience at the tertiary level:**

The study was conducted on sixteen (16) questions. The first question that had been posed to the respondents were to share their English teaching experience at the tertiary level. Figure 2 below shows the teachers’ opinions of the virtual examination. In response teachers shared them opinions like - good, mixed and a few said that teaching English is always challenging. It is worth mentioning here that most of the teachers (respondents) have been teaching at the tertiary level for several years (4- 20 years) which ensures that they are quite experienced and that most of them have taken virtual exams too.

Have you taken exams virtually ?

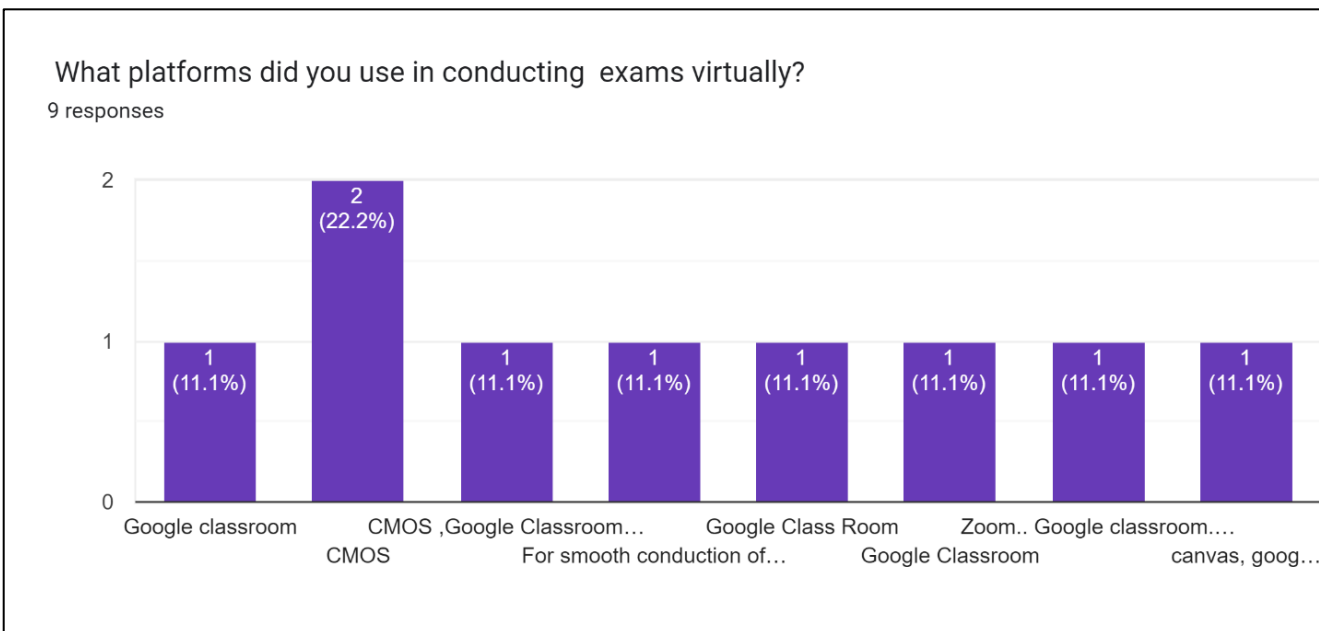
9 responses



**Figure 2: Responses of Virtual Examination**

**b. Virtual exam platform, infrastructure, training and workshops:**

In a query , to which platforms the teachers used for taking virtual exams, they replied Google Classroom, Zoom, Google Doc. Google Meet, CMOS (Course operating Management system), Canvas, Google forms/ sheet. The bar chart below shows that the most common platform used by teachers was Google classroom while some conducted exams and classes through CMOS, ZOOM, Canvas etc.



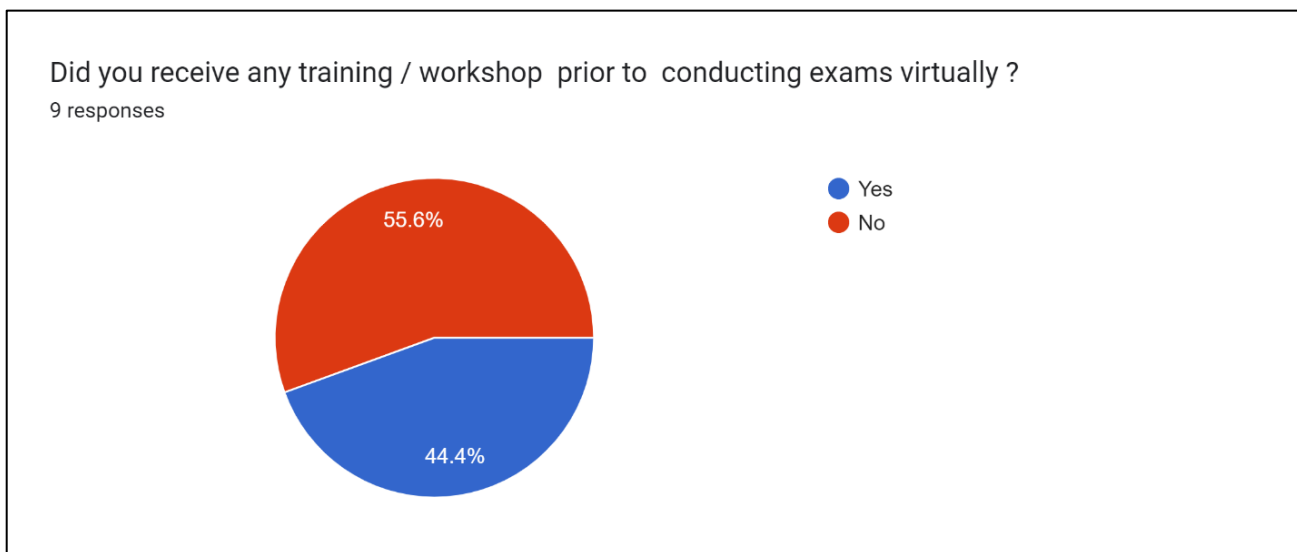
**Figure 3: Responses to Virtual Platforms**

This statistic of the bar chart gives an idea that no particular or designated platform was selected by the institution for conducting exams and therefore, teachers administered the exams according to their own jurisdictions instead of having uniformity in using the online platforms. In my opinion, this could to some extent create disparity in

the exam procedure and assessment system as teachers followed their own whims and ways of not only conducting exams but also assessing students in the virtual modality.

However, there were mixed opinions which dealt with the type of infrastructure support provided to the teachers while conducting virtual exams. Among nine respondents (9), four of the teachers stated that they have received some support for conducting virtual exams like - Bd. Ren, Zoom meeting, CMOS (a software) personal computer, webcam, headphones and a secure and strong internet connection. The other four responded that they had to manage things themselves. No support was given but I had to watch some videos regarding grading and conducting virtual exams. So, the ratio of their opinion was 50% positive and 50% negative. However, one respondent didn't answer this question. The responses reflect that the infrastructure support provided to the teachers while conducting virtual exams was quite appreciative but limited. According to UNESCO, 47% of the population in developing countries are connected to the internet in contrast to only 19% in the least developed countries (Broom,2020). The percentage of individuals using the internet in Bangladesh is as low as 13 (The World Bank, 2019). Those residing in cities and urban areas have better access to the internet than those living in the regions (Islam et al.,2020). Such discrepancies in access to the internet result in what is termed the 'digital divide' (Rakhmanov & Ulasbekov, 2021). The digital divide concerns the existence of inequality or disparity among individuals, groups, communities and nations in accessing, distributing and using information and communication technologies (Castells, 2002; Norris,2001; Van Dijk, 2006; Wilson, 2006).

On the fifth question, if the teachers received any training / workshop prior to conducting exams virtually, the pie chart below shows that 55.6% of the teachers (respondents) were not affirmative while only 44.4% of them have responded affirmatively regarding receiving training / workshop prior to conducting exams virtually. This ratio is not very positive with regards to exams and assessment taken in a new modality for the first time in a country (Bangladesh). Do



**Figure 4: Virtual Training / Workshop**

The above ratio mentioned in the pie chart is not positive with regards to conducting exams and assessment taken in a new modality for the first time in Bangladesh. From the representation in the pie chart, we can predict that teachers were not trained before using the new modality which has created a negative impact in the overall exam system from procedure to grade disparity which is one of the crucial focuses of this research. As mentioned by Bashir et al. (2021), to ensure the quality and effectiveness of online assessment, a variety of assessment techniques (e.g. portfolios) are needed which require teacher and learner training (Gaytan & McEwen, 2007). Biggs and Tang (2007) commented that student learning is affected by what students think about assessment and the way they are assessed. Online assessment is therefore not a challenge for teachers only; it is also a matter of concern for students. Any fears that students might have about alternative modes of assessment should be identified and addressed. Considering the ratio of the pie chart it can be stated that sufficient training and workshops were not conducted using the new online modality.



### c. Type of assessment design & its necessity:

The response on the type of assessment, designed for assessing students' exam performances virtually in English Literature Writing Courses also varied amongst the respondents. The responses stated that the teachers utilized diverse assessment criteria, such as MCQ, essay writing, term paper, explanation, formative and summative assessment, quizzes, assignments and short tutorial. One of the teachers took online written exams and a few teachers took academic paper via an online portal (CMOS) where the duration of exam was technically fixed.

On query to as to why did the teachers design different assessments for virtual exams, teachers answered that they had to do it for several reasons.

#### 1. Test Validity:

Some teachers opined that they could make the exam interesting and convenient for the students and for testing the examinee's authenticity and credibility they had to design different assessment criteria for virtual/online exam. They added that students had much time to answer quizzes.

#### 2. Exam Ease:

Another reason was that 'students fell at ease in virtual tests rather than in test in person'. To add more, as there was no chance and way of giving strict invigilation in the virtual classroom. Security and convenience were also a reason to design different assessment for virtual exams in English literature writing courses compared to face-to-face exams.

#### 3. Network Issues:

There was no steady network. Some students also faced device issues (probably affordability of smart phones); some students were not used to taking virtual exams too. One of the teachers also opined that "in virtual classes, network issue is a big concern. So, I think, writing an exam online is more convenient compared to online presentation.

However, these responses of the teachers were not much convincing to the query of 'why were different design used for virtual exam in English Literature Writing Courses.'

### d. Differences in assessment methods:

In response to the above the responses were mixed. Some of the teachers stated that almost similar assessment methods were designed for virtual exams in English Literature Writing courses. They had to provide less time and a smaller number of questions in virtual exams unlike face-to-face exams. Other teachers opined that the students got the marks instantly through an auto-correction system. The assessment gave a bit of relaxation to the teachers. A few of the teachers opined that the methods differed in the sense as the assessments were conducted online instead of on paper. So, students received feedback online instead of in person. One of the teachers mentioned that "Manifesting their (students) understanding immediately after every lecture (formative) through class test and quizzes, presentation (summative)." and that he preferred written exam virtually. Rubric for grading was also used by a teacher. Another teacher also mentioned "I gave those questions which answers were available online as books were not available to students.'

### e. Significant Differences in Students' Behavioral Attitude and Grades:

In response to the significant differences that were noticeable between face to face (F2F) and virtual exam performances of students with regards to their behavioral attitude and grades the teachers had mixed opinions. Some of these opinions are as below:

*"Overall, performance of the students' behavioral attitudes and grades was reduced, as it was hard for teachers to monitor all the key issues faced by students. Surprisingly, some of the students cut a good figure in the virtual exams, whereas in face-to- exams they did not achieve this result. Their attitude towards exams and classes became relaxed—a bit less motivated." (respondent 1)*



*“In virtual exam, they got good marks/grades beyond their abilities as the video cameras were not on. Moreover, they could take help from various sources, could talk to their classmates over phones.” (respondent 2)*

*“Online exams give the students a leeway to adopt dishonest means during the exams and attain higher grades than what they would have attained via F2F. It leads to unfair grading as teachers cannot fully testify whether a student has cheated.” (respondent 3)*

*“In virtual classes students are more passive compared to F2F class. Grades are affected negatively in virtual class as students find this exam system difficult.” (respondent 4)*

*“A bit higher grade online.” (respondent 5)*

*“They got good marks which sometimes they did not deserve. We had to give marks generously considering the critical situations in their lives, families. Moreover, they could copy from internet sources.” (respondent 6)*

Some other teachers also opined that tech- phobia, casual and lethargic attitude were also significant differences that were noticeable between face to face (F2F) and virtual exam performances of students.

The descriptive data stated above undoubtedly delineates the students’ drastic change of behavioral attitude which had an impact on the grades. White (2020), reported that ‘students hold complex perceptions around their attitudes towards academic integrity and rationalizations of misconduct. The above detailed findings, however, give an overall answer to the query of the third research question ‘as to what significant changes in the behavioral attitude of students were noticeable in taking exams in virtual modality.

#### **f. Differences in grades between male and female students:**

On the query of significant differences in grades between male and female students in the exam performance held virtually the responses were mixed which are as below:

*“Like face- to- face exams, female students’ grades were better than those of males in the virtual exams”.* (respondent 1)

*“Not remarkable...female students work hard in both offline and online.so females are basically doing good.”* (respondent 2)

*“The change in grades were noticeable which they did not get in face-to-face exams.”* (respondent 3)

*“Females are always ahead.”* (respondent 4)

*“I did not find any significant differences between the grades of male and female students.”*

(respondent 5)

*“No difference but same problems as late submission of scripts, turning videos off.”* (respondent 6 & 8)

*“Though I don't appreciate such kind of differences, but I think, female students are more serious in virtual class.”* (respondent 9)

*“Didn't survey.”* (respondent 8)

*“Noticeable change in grades. Their grades increased.”* (respondent 7& 9)

*“Overall, performance of the students' behavioral attitudes and grades was reduced, as it was really hard for teachers to monitor all the key issues faced by students. Surprisingly, some of the students cut a good figure in the virtual exams, whereas in face-to- exams they did not achieve this result. Their attitude towards exams and classes became relaxed—a bit less motivated.”* (respondent 1)



*“In virtual exam, they got good marks/grades beyond their abilities as the video cameras were not on. Moreover, they could take help from various sources, could talk to their classmates over phones.” (respondent 2)*

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*“In virtual classes students are more passive compared to F2F class. Grades are affected negatively in virtual class as students find this exam system difficult.” (respondent 4)*

*“A bit higher grade online.” (respondent 5)*

*“They got good marks which sometimes they did not deserve. We had to give marks generously considering the critical situations in their lives, families. Moreover, they could copy from internet sources.” (respondent 6)*

Some other teachers also opined that tech-phobia, casual and lethargic attitude were also significant differences that were noticeable between face to face (F2F) and virtual exam performances of students. The Findings state that female students' grades were better as they work hard and were more serious than their male counterparts. While a few opined that they didn't notice any significant change nor surveyed the issue. But agreed that grades changed in virtual modality. Female students are more attentive and put in more effort to obtain a good grade while the male students are often seen less devoted to studies and this could be one of the reasons for falling behind to earn a better grade in exams.

As mentioned in Bashir, A., Uddin, M. E., Basu, B. L., Khan, R. (2021) “Cheating has been reported to be a common problem in traditional face-to-face examinations in the context of Bangladesh. White (2020), reported that ‘students hold complex perceptions around their attitudes towards academic integrity and rationalizations of misconduct. In my opinion, students did not only abide by unfair means in virtual exams but also became reluctant in learning: they are quite at home in using their devices for multi-purpose in their day-to-day life but refrained from attending Virtual classes and exams regularly and formally. Because of being provided with readymade answers from the internet they also couldn't prove their cognitive skill. Furthermore, as they didn't have to attend Face to Face exams their attitude was casual and lethargic.

#### **g. Advantages and Disadvantages of Virtual exams:**

On the advantages and disadvantages of virtual exams the teachers (respondents) state that they could get instant MCQ results which saved time and paper as well as it was easier to store all the copies. Lots of items could be tested out, students could be reached out at any time of the day results could be processed quickly, students could attend these exams within the comfort of their homes if they had strong internet connection. Teachers could experience innovation in testing systems, to save time of invigilation. Students also felt at home and didn't get nervous in virtual exams. Students can sit for the exam staying inside their houses. Some married students who had babies were tension-free as they could give the examinations while their kids/ babies were around.

In my opinion, the responses of the teachers regarding the advantages of virtual exam are quite justified but also challenging while implementing because all teachers would not give the effort to bring innovation in testing system, give instant feedback to students etc. Also, there could be a breakdown or crash in the device where the results of the students of virtual exam is stored. So, technical hazards and risk cannot be overlooked or undermined.

In sharing their opinions on the disadvantages, most of the teachers stated that ‘cheating / coping’ from net or relevant sources was the most significant disadvantage in virtual exam. Other disadvantages were enlisted as poor network, disconnection, poor question paper or test tools, power outage, other technical difficulties causing disruptions during the exams. late submission and inability to give feedback, exam could not be thoroughly monitored/ invigilated, classmates could exchange their answer scripts through devices etc. There were also negative remarks by teachers who stated that “it has no advantages.” and “there is no positive output.”

The above responses from the perspective of the teacher's project that there were more advantages in taking



virtual exams. However, the negative responses should also not be overlooked considering the real scenario of a country like Bangladesh where the practice of face-to-face classes and exams are generally held and not online classes. In my opinion, the responses of the teachers regarding the advantages of virtual exam are quite justified but also challenging while implementing because all teachers would not give the effort to bring innovation in testing system, give instant feedback to students etc. Also, there could be a breakdown or crash in the device where the results of the students of virtual exam are stored. So, technical hazards and risk cannot be overlooked or undermined. In my opinion, the responses of the teachers regarding the advantages of virtual exam are quite justified but also challenging while implementing because all teachers would not give the effort to bring innovation in testing system, give instant feedback to students etc. Also, there could be a breakdown or crash in the device where the results of the students of virtual exam are stored. So, technical hazards and risk cannot be overlooked or undermined. Virtual exam has both boons and banes, and the banes far surpass the boons which rationally speaking, had an impact on the students' exam performances and was a great challenge for the tertiary level teachers who were introduced to this new modality for the first time in Bangladesh.

#### **h. Difficulties/Challenges faced by the Teachers during Virtual exams:**

1. **Identifying Real Copies:** Identifying real copies was a big challenge as a good number of copies of students were similar. Even a weak student wrote a lot. Authenticity was an issue.
2. **Monitoring & Test Validity:** It was difficult to monitor students to ensure fair exams and grading. Teachers also opined that written tests are less secured online and that the teacher was compelled to give good marks as they managed their answers from internet directly. One of the teachers opined that Google classroom was more useful in assessing students virtually.
3. **Network & Other issues:** In query on the significant challenges and limitations, the teachers opine were identifying the real copies, monitoring & test validity, Ineffective time management, handling technology, network disturbance and plagiarism. According to (Tarannum & Azran, 2020) "the risk of cheating is perceived to be higher in online tests as student 'examination behavior cannot be proctored by teachers in person.'" Again, (Selwyn et. al, 2021), states that "Online exams surveillance technology has been introduced in contexts such as Australia but in the context of Bangladesh the application of such technologies may not be feasible as internet connections are unstable." These challenges mentioned above are instrumental in causing dilemmas at the teachers' end in assessing virtual exam performances of students veritably.

#### **i. Factors Affecting Virtual Exam:**

In mentioning two factors that affect virtual exams both positive and negatively, the teachers (respondents) mostly opined on the negative factors like network problems and plagiarism. Some teachers opined on students' attitude, ethical issue, invigilation problem, not effective as face-to-face exam etc. The positive factors however were saving papers, quick feedback, saving time etc.

The above opinions from the respondents point out the negative factors over the positive ones. The negative factors are crucial as they far surpass the positive ones. These factors become instrumental, especially when assessing students' exam performances virtually. Hence, we need to address the negative factors for a better and more acceptability of virtual exams both from the teachers and students' side.

#### **j. Acceptability of Virtual Assessment:**

Finally, the teachers shared their views as to how virtual assessment could be more suitable to the needs of teachers which is as below:

##### **a. Logistic and Technological Support:**

The teachers (respondents) opined that the university should provide more technological support. Cameras must be open during exams. Apart from free assessment tools, paid versions of assessment tools should be purchased. Upgrading and customizing testing software as per institutional needs were also suggested by the teachers.

**b. Training Teachers:**

Teacher training in using different technological tools is a must before conducting classes and exams in a new modality.

**c. Ethical Issue:**

Ethical code of conduct must be maintained by students to avoid plagiarism.

**d. Availability of Devices:**

Other suggestions and opinions from teachers were to secure learning devices of each learner.

**e. University Grants Commission and Government Facilitation:**

It was also announced that if the government or any other third parties come forward with technological, financial and with all kinds of logistics support then teachers will feel motivated both in teaching and testing virtually.

Assessment policy could be changed and adjusted according to the situation. Here, alternative assessments can be arranged for students facing technical difficulties especially when students provide evidence (screenshot of technical problems) to avoid dishonesty.

## **ANALYTICAL DISCUSSIONS ON THE FINDINGS OF VIRTUAL ASSESSMENTS THROUGH GOOGLE FORM**

The above responses give us an idea that no particular or designated assessment was pre-designed by teachers at the tertiary level to assess the students in English Literature Writing Courses. The teachers certainly lacked uniformity, and collaboration amongst colleagues in setting the assessment criteria. Thus, diverse assessment criteria and design ensure the probability in creating disparity in the grades of students. In my opinion, MCQ questions on assessing Literature Writing Courses is not appropriate as this doesn't give the examiner (teacher) a concrete idea about the student's cognitive level. The students can also tend to cheat or guess the answers. For the Writing courses short or broad answers are preferable as these types of answers need brainstorming or cognitive effort. It seems the teachers didn't delve much into the assessment criteria and question format of English Literature Writing Courses. As virtual modality was a new platform for the teachers they should have perhaps collaborated and prepared a particular design for Literature Course/s. Perhaps, a uniformed course design could have reduced teachers' anxiety and dilemma of assessment.

Some of the teachers stated that almost similar assessment methods were designed for virtual exams in English Literature Writing courses. They had to provide less time and a smaller number of questions in virtual exams unlike face-to-face exams. Other teachers opined that the students got the marks instantly through an auto-correction system. The assessment gave a bit of relaxation to the teachers. A few of the teachers opined that the methods differed in the sense as the assessments were conducted online instead of on paper. So, students received feedback online instead of in person. One of the teachers mentioned that "Manifesting their (students) understanding immediately after every lecture (formative) through class test and quizzes, presentation (summative)." and that he preferred written exam virtually. Rubric for grading was also used by a teacher. Another teacher also mentioned "I gave those questions which answers were available online as books were not available to students."

In analyzing the findings mentioned above it shows that teachers felt somewhat convenient in taking online exams for various reasons withstanding the assessment criteria. The responses of the sixth, seventh and eight questions put into juxtaposition gives us an overall picture as to how the exam of English Literature Writing Courses were conducted, designed and assessed by the teachers which had but a lot of pros and cons. For instance, the teachers were not quite sure about how to design for online exam assessment, some of them mixed-up Formative, Summative, Diagnostic etc. No proper brainstorming was done in preparing a proper design for assessment nor were they trained or given any uniform method or design to follow in virtual assessment which undoubtedly has created grade disparity.



## IN-DEPTH INTERVIEWS OF TEACHERS

As mentioned earlier, in this pilot study in- dept -interviews too played a crucial role in having a more precise understanding of the research topic. The one-to-one interviews from fifteen teachers were conducted very intensively, which provided much of the qualitative data that was used for the analysis of the study. The demographic chart of the participants of in-depth interviews has been projected below:

Respondents	Gender	Age Range	Designation	Location of University
1.	Male	40-45	Asst. Professor	Bangladesh Army International University of Science and Technology (BAUST), Cumilla
2.	Male	-do-	Asst. Professor	Bangladesh Army International University of Science and Technology (BAUST), Cumilla
3.	Male	-do-	Asst. Professor	International Islamic University, Chittagong
4.	Male	-do-	Asst. Professor	Chittagong Independent University
5.	Female	-do-	Asst. Professor	Chittagong Independent University
6.	Female	-do-	Asst. Professor	Chittagong Independent University
7.	Female	35-38	Lecturer	Chittagong Independent University
8.	Female	-do-	Lecturer	Chittagong Independent University
9.	Female	-do-	Lecturer	Chittagong Independent University
10.	Female	-do-	Lecturer	University of Science and Technology
11.	Female	-do-	Lecturer	University of Science and Technology Chittagong
12.	Female	-do-	Lecturer	Premier University
13.	Female	38	Asst. Professor	Premier University

**Figure 5: Demographic Information on In-depth Interviews**

## CODES AND THEMES BASED ON INDEPTH- INTERVIEWS OF TEACHERS

After the transcription of the interviews, all the transcripts were organized and analyzed.

Once the interviews were completed, transcription was done. The accuracy of the transcriptions was checked by listening to the audio recordings at least twice. It took me approximately three /five hours to transcribe, edit and check the accuracy of the recordings. Gradually, after a thorough skimming of the in-depth interviews from teachers and members checking Codes and themes were generated which are as follows:

## CODING PROCEDURE AND THEMATIC ANALYSIS

### 1. Data Collection and Preparation

In this qualitative study, data were collected through in-depth interviews with tertiary-level teachers from private universities. The interviews focused on their experiences of teaching and assessing students in virtual settings during the COVID-19 pandemic. All interviews were transcribed verbatim and carefully reviewed multiple times to ensure accuracy and familiarity with the data.



## 2. Coding Approach

The study adopted a data-driven (inductive) coding approach as suggested by Gibbs (2007), meaning that codes were not pre-determined but rather emerged from the data itself. Each transcript was read several times to identify meaningful units of information, which were then labeled with short phrases or “codes” that represented their key ideas.

## 3. Initial Coding

During the initial phase of coding, descriptive codes were assigned to relevant text segments based on teachers’ responses. Examples of initial codes include:

- *Year/Duration of Teaching Experience*
- *Positive/Negative Feedback on Teaching*
- *Use of Virtual Platforms (Google Classroom, CMOS, BDREN, Zoom)*
- *Behavioral Attitude of Students*
- *Gender Difference in Grades*
- *Power Cut / Network Disruption*
- *Flexibility of Time and Space*
- *Plagiarism / Academic Dishonesty*
- *Typographical and Spelling Mistakes*

These codes captured both the practical challenges and perceptual changes teachers experienced during online teaching and assessment.

## 4. Categorization and Theme Development

After initial coding, similar codes were grouped into broader categories, which were then refined into themes representing underlying patterns across the data.

The following table summarizes the codes and corresponding themes:

Codes	Themes
Year/Duration; Feedback on teaching (positive/negative)	Teaching Experience of Teachers at the Tertiary Level
Google Classroom; CMOS; BDREN; Zoom	Virtual Platforms for Conducting Exams
Behavioral Attitude; Grades; Perspective	Changes in Virtual Platforms and Student Performance
Male; Female	Gender-wise Grade Difference
Power cut; Unaffordability of smart device; Remote area; Network disruption; Time factor	Challenges Faced by Students During Virtual Exams
Power cut; Unavailability of students in remote areas; Network disruption	Challenges Faced by Teachers During Virtual Exams
Flexibility of time and space; Plagiarism; Avoiding viva/discussion; Less effort but better scores	Advantages of Students During Virtual Exams
Flexibility of time and space; Easier to check scripts; Flexibility	Advantages of Teachers During Virtual Exams

Codes	Themes
Keyboarding swiftly; Typo and spelling mistakes; Submission delay due to time limits	Disadvantages of Students During Virtual Exams
Positive: site accessibility, flexibility, ease of conducting exams; Negative: slow internet, power cuts	Factors Influencing Virtual Modality

### 5. Thematic Description

Each theme was analyzed in-depth to understand its implications:

- Teaching Experience: Most teachers had over five years of teaching experience. Some expressed dissatisfaction with students’ declining engagement and academic quality during virtual classes.
- Virtual Platforms: Common platforms included Google Classroom, CMOS, BDREN, and Zoom, which were used to deliver lectures and conduct exams.
- Changes in Student Behavior: Teachers noticed shifts in students’ attitudes, grades, and seriousness often attributing better grades to easier conditions rather than improved learning.
- Gender Differences: Female students were generally perceived as more attentive and consistent, often earning higher grades.
- Challenges (Students and Teachers): Shared obstacles included frequent power cuts, poor internet connectivity, remote locations, and time management difficulties.
- Advantages (Students and Teachers): Flexibility in time and space benefited both groups. However, teachers observed that students exploited technical excuses to avoid viva voce or discussions.
- Disadvantages: Students made frequent typing and spelling errors and often struggled to submit work on time. Teachers found it difficult to assess genuine cognitive and language skills.
- Virtual Modality Factors: While virtual exams were convenient and accessible, issues like slow internet, plagiarism, and lack of technical training made assessment unreliable.

### 6. Triangulation of Findings

To ensure credibility and validity, triangulation was conducted between survey questionnaire results and interview findings. Both data sources revealed similar trends:

- Teachers lacked awareness of the need for revised, course-appropriate virtual assessment designs.
- There was no uniform assessment criterion across similar literature courses.
- Assessment types varied widely MCQs, essays, term papers, quizzes, and tutorials without standardization.
- Plagiarism and lack of reliable assessment tools were key concerns.
- Teachers had to adapt under compulsion, with limited technical training, leading to grade disparity and assessment dilemmas.

### 7. Conclusion of Coding and Thematic Analysis

The coding and thematic analysis revealed that while virtual exams provided flexibility, they also introduced major pedagogical and ethical challenges. Teachers faced constraints in technology, time, and assessment design, leading to difficulties in fair evaluation and authentic skill measurement. Overall, the findings



underscored the urgent need for structured, technologically supported, and uniform assessment frameworks in virtual learning environments.

## RECOMMENDATIONS

From the above Findings and elaborate discussion on this pilot study some suggestions and recommendations have been put forward for teachers to overcome the challenges, in other words ‘assessment dilemmas in virtual exams. Firstly, teachers should be well-trained to be sound enough in using technology. If they lack confidence in using technology, obviously, students will not benefit at all. As mentioned by Annamalai et al. (2020), it is through assessment design that educators create a healthy learning milieu’. Therefore, it is true that teachers learn to prepare a proper assessment design considering the courses to be taught and assessed by them. They must put in more effort to brainstorm for preparing a design and methodology relevant to the course/s. Video demos on how assessment will be conducted should be created to guide students. The video may increase students’ acceptance of online assessments as they would be accustomed to the format and thus gain confidence in the system. The teachers should conduct Mock test and assessment for making students aware of the exam procedure before the actual exam. As all students are not capable of using technology smoothly therefore, alternative assessments can be arranged for students facing technical difficulties, especially when students provide evidence (screen shot of technical problems) to avoid dishonesty. e.g., the students could be taken a viva-voce in addition to his/her written exam (if he/she fails to submit it properly due to technical difficulty). Blended assessment could also be adopted if the teachers were provided with necessary knowledge and training on it. Apart from free assessment tools, paid versions of assessment tools should be purchased and upgrading and customizing testing software as per institutional needs must be provided. UGC and Govt. facilitation would also help the teachers to become trained users of technology, and their confidence level would enhance to overcome their dilemmas.

## CONCLUSION

Winding up the above findings, discussions and literature reviews of this pilot study, we can precisely justify and draw the conclusion that despite dilemmas, disadvantages and challenges, in this modern world of digitalization, virtual modality is a well-timed and a smart approach. Khairil and MokShein, (2018) mention that the online assessment offers some unique challenge for assessment and opportunities for positive ongoing assessment. Online assessment has greater potential to measure complex learning skills, provide immediate feedback and scoring, decrease the time and cost to input data manually. Therefore, by implementing well-time measures as recommended above exam assessment dilemmas could be overcome and thus the virtual modality would prove fruitful, more valid, credible and acceptable in future especially in developing countries like Bangladesh.

A pilot study includes assessing feasibility, identifying logistical issues, refining methods, collecting preliminary data for sample size calculations, and training staff, all of which reduce risks and improve reliability and validity of the main study. This pilot study undoubtedly has paved a way to further research on the topic of “assessment dilemmas on virtual modality” and has also been able to identify recurring patterns, differences and unique insights.

## REFERENCES

1. Al-Obaydi, H. L., et al. (2023). *The Computer-Assisted Language Learning Electronic Journal (CALL-EJ)*, 24(2).
2. Alsalhi, N. R., Qusef, A. D., Al-Qatawneh, S. S., & Eltahir, M. E. (2022). Students’ perspective on online assessment during the COVID-19 pandemic in higher education institutions. *Information Sciences Letters*, 11(1), 37–46.
3. Almeida, F., & Monteiro, J. (2021). The challenges of assessing and evaluating the students at distance. *Journal of Online Higher Education*, 5(1), 4–14. \*
4. Annamalai, M., Sathya, K., & Sivagami, T. (2020). Assessment design for effective learning in an online environment. *Journal of Educational Technology & Society*, 23(2), 78–85. <https://doi.org/10.1109/JETS.2020.00032>



5. Arend, B. D. (2006). *Teaching for student learning: A conceptual framework for assessment*. Educational Research Press.
6. Arif, Z. (2020). *Online assessment implemented by English teachers at SMA Al-Islam 1 Surakarta during pandemic COVID-19* (Undergraduate thesis). State Islamic Institute of Surakarta. <https://eprints.iain-surakarta.ac.id/138/1/FINAL%20Thesis%20of%20Zulvan%20Arif%20153221230.pdf>
7. Baleni, Z. G. (2015). Online formative assessment in higher education: Its pros and cons. *Electronic Journal of e-Learning*, 13(4), 228–236.
8. Bashir, A., Uddin, M. E., Basu, B. L., & Khan, R. (2021). Cheating and academic integrity in online exams: A comparative study. *Journal of Higher Education Studies*, 7(3), 22–29. <https://doi.org/10.1016/JHES.2021.05.009>
9. Beleulmi, E. (2020). Challenges in online assessment for higher education. *Education and Information Technologies*, 25(4), 3811–3835. <https://doi.org/10.1007/s10639-020-10435-3>
10. Bennett, R. E. (2015). The changing nature of educational assessment. *Review of Research in Education*, 39(1), 370–407. <https://doi.org/10.3102/0091732X14554179>
11. Biggs, J., & Tang, C. (2007). *Teaching for quality learning at university* (3rd ed.). McGraw-Hill Education.
12. Broom, C. (2020). Internet connectivity in developing countries: A comparative analysis. *Global Digital Media Journal*, 8(3), 35–50. <https://doi.org/10.1016/GDMJ.2020.03.007>
13. Castells, M. (2002). *The Internet galaxy: Reflections on the Internet, business, and society*. Oxford University Press.
14. CESSDA Data Management Expert Guide. (n.d.). <https://dmeg.CESSDA.edu>
15. Chauhan, S. S. (2012). Research methodology: Design, method, and techniques. In *Research Methods in Educational Research*. Academia.edu.
16. Chen, X., Xie, H., Zou, D., & Hwang, G.-J. (2020). Application and theory gaps during the rise of artificial intelligence in education. *Computers and Education: Artificial Intelligence*, 1, 100002. <https://doi.org/10.1016/j.caeai.2020.100002>
17. Dikli, S. (2003). The development of an assessment rubric for evaluating online courses. *The Turkish Online Journal of Educational Technology - TOJET*, 2(3), Article 2. <https://www.tojet.net/articles/v2i3/239.pdf>
18. Gaytan, J., & McEwen, B. C. (2007). Effective online teaching: Strategies for student success. *The Journal of Educators Online*, 4(1), 1–16. <https://doi.org/10.9743/JEO.2007.1.7>
19. Gibbs, G. R. (2007). *Analyzing qualitative data*. SAGE Publications.
20. Godwin-Jones, R. (2021). Emerging technologies: AI tools for language learning. *Language Learning & Technology*, 25(3), 1–7. <https://doi.org/10.10125/73400>
21. Hassan, M. M. S. (2019, December 11). Assessment in university courses must be innovative, realistic and relevant. *The Daily Star*. <https://www.thedailystar.net/opinion/education/news/assessment-university-courses-must-be-innovative-realistic-and-relevant-1838530>
22. Heffernan, N. T., & Heffernan, C. L. (2014). The ASSISTments ecosystem: Building a platform that brings scientists and teachers together for minimally invasive research on human learning and teaching. *International Journal of Artificial Intelligence in Education*, 24(4), 470–497. <https://doi.org/10.1007/s40593-014-0024-x>
23. Holmes, W., Bialik, M., & Fadel, C. (2019). *Artificial intelligence in education: Promises and implications for teaching and learning*. Center for Curriculum Redesign.
24. Holmes, W., Porayska-Pomsta, K., & Holstein, K. (2022). Ethics of AI in education: Towards a community-wide framework. *British Journal of Educational Technology*, 53(3), 331–348. <https://doi.org/10.1111/bjet.13272>
25. Hossan, D., Dato' Mansor, Z., & Jaharuddin, N. S. (2023). Research population and sampling in quantitative study. *International Journal of Business and Technopreneurship*, 13(3), 209–222. <https://doi.org/10.58915/ijbt.v13i3.263>
26. Islam, D. M. (2020, June 1). Online classes for university students in Bangladesh during the Covid-19 pandemic—Is it feasible? *The Business Standard*. <https://tbsnews.net/thoughts/online-classes-university-students-bangladesh-during-covid-19-pandemic-it-feasible-87454>
27. Islam, M. R. (2020). Perception towards the online classes: A study on the tertiary level students of Bangladesh. *Academy of Strategic Management Journal*, 19(S1), 1–8.
28. Khairil, H., & Mokshein, N. (2018). Opportunities and challenges of online assessment in higher education. *International Journal of Education and Learning*, 15(2), 122–137. <https://doi.org/10.1016/IJEL.2018.02.014>



29. Khan, R. A., & Jawaid, M. (2020). Technology enhanced assessment (TEA) in COVID-19 pandemic. *Pakistan Journal of Medical Sciences*, 36(COVID19-S4), S108–S110. <https://doi.org/10.12669/pjms.36.COVID19-S4.2795>
30. Kotari, C. R., & Garg, G. (2016). *Research methodology: Methods and techniques* (3rd ed.). New Age International.
31. Li, J., Wang, Y., & Zhang, L. (2023). AI-assisted academic writing: Benefits, challenges, and pedagogical implications. *Journal of Educational Computing Research*, 61(2), 340–360. <https://doi.org/10.1177/07356331221101256>
32. Luckin, R., Holmes, W., Griffiths, M., & Forcier, L. B. (2016). *Intelligence unleashed: An argument for AI in education*. Pearson.
33. Maley, A., & Kiss, T. (2018). *Creativity and English language teaching: From inspiration to implementation*. Palgrave Macmillan.
34. Ng, W. (2021). Fostering AI literacy in K–12 classrooms: Challenges and opportunities. *Computers & Education*, 168, 104211. <https://doi.org/10.1016/j.compedu.2021.104211>
35. Norris, P. (2001). *Digital divide: Civic engagement, information poverty, and the Internet worldwide*. Cambridge University Press.
36. Rahim, A. F. A. (2020). Guidelines for online assessment in emergency remote teaching during the COVID-19 pandemic. *Education in Medicine Journal*, 12(2), 59–68. <https://doi.org/10.21315/eimj2020.12.2.6>
37. Rakhmanov, I., & Ulasbekov, T. (2021). The digital divide in Central Asia: Internet access and educational disparities. *Asian Journal of Digital Literacy*, 7(1), 56–63. <https://doi.org/10.1109/AJDL.2021.01123>
38. Selwyn, N. (2019). *Should robots replace teachers? AI and the future of education*. Polity Press.
39. Selwyn, N., Gorard, S., & Furlong, J. (2021). *Education and technology: Key issues and debates*. Routledge.
40. Sewell, J. P. (2010). Assessing student learning in online courses. *Journal of Online Learning and Teaching*, 6(3), 1–10.
41. Shermis, M. D., & Burstein, J. (Eds.). (2013). *Handbook of automated essay evaluation: Current applications and new directions*. Routledge.
42. Shute, V. J., & Rahimi, S. (2021). Review of computer-based assessment for learning in the 21st century. *Educational Assessment, Evaluation and Accountability*, 33(1), 1–30. <https://doi.org/10.1007/s11092-021-09345-7>
43. Slack, H. R., & Priestley, M. (2023). Online learning and assessment during the Covid-19 pandemic: Exploring the impact on undergraduate student well-being. *Assessment & Evaluation in Higher Education*, 48(3), 333–349. <https://doi.org/10.1080/02602938.2022.2076804>
44. Tarannum, N., & Azran, M. (2020). Cheating in online examinations during COVID-19: A growing concern. *Journal of Educational Integrity*, 16(1), 23–38. <https://doi.org/10.1007/s40940-020-00131-2>
45. Totaro, M., Tanner, J., Noser, T., Fitzgerald, G., & Birch, D. (2005). Business school administrators' and faculty perceptions of online learning: A comparative study. *Proceedings of the Allied Academies International Conference*, 138.
46. Van Dijk, J. A. G. M. (2006). *The network society: Social aspects of new media* (2nd ed.). Sage Publications.
47. White, H. (2020). Perceptions of academic integrity in online learning environments. *Journal of Higher Education Policy and Management*, 42(3), 274–285. <https://doi.org/10.1080/1360080X.2020.1713873>
48. Williamson, B., & Piattoeva, N. (2022). Education governance and datafication: Shifting roles and ethical challenges of AI-based assessment. *Learning, Media and Technology*, 47(1), 1–15. <https://doi.org/10.1080/17439884.2021.1990133>
49. Wilson, P. (2006). Bridging the digital divide: A social justice perspective. *International Review of Education*, 52(4), 477–493. <https://doi.org/10.1007/s11159-006-9040-7>
50. Xu, Y., & Warschauer, M. (2020). Integrating AI writing tools in the ESL classroom: Opportunities and concerns. *TESOL Quarterly*, 54(4), 1090–1115. <https://doi.org/10.1002/tesq.584>
51. Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2019). Systematic review of research on artificial intelligence applications in higher education—Where are the educators? *International Journal of Educational Technology in Higher Education*, 16(1), 39. <https://doi.org/10.1186/s41239-019-0171-0>