Assessing Test Anxiety in Post-Pandemic Virtual English Examinations: Students’ Voices

Bushra Ahmad & M. Rizwan Khan

Abstract
The unprecedented shift to online teaching post-Covid-19 compelled educational institutes to make adaptations in teaching and assessment practices. These unfamiliar test methods amid the pandemic represent sources of test anxiety for learners. This mixed-methods study investigates online test perceptions and test anxiety among 115 undergraduate learners of English at a girls’ college. A post-examination questionnaire was administered containing the Cognitive Test Anxiety Scale-Revised and items addressing test features. CTAR scores were interpreted according to defined severity standards, and responses to open-ended items were subjected to qualitative content analysis. Twenty-eight per cent of learners reported high test anxiety, the chief causes being hesitation, perceived test bias, examiner characteristics, technical issues, and lack of feedback. Recommendations to mitigate test anxiety include assigning learners more control and making them comfortable through orientation, practice, support, and a conducive examiner approach.

Keywords: Test anxiety, online assessment, language testing, Covid-19

Introduction
The Covid-19 pandemic faced educational institutions worldwide with the imperative to adopt remote online teaching and embrace innovative pandemic pedagogies at a short notice. Due to the unplanned nature of this transition, administrators, teachers, and learners were presented with several novel challenges, one of them being devising a system to conduct valid assessments online. In India, where the digital divide
causes issues of accessibility, switching to online assessments has been rife with challenges (Idnani et al., 2021; Shakeel et al., 2021).

Burns et al. (2020, p. 7) state that the pandemic “creates a degree of uncertainty that is unprecedented”, increasing the likelihood of students experiencing distress, heightened by financial stress, trauma of losing a loved one, fear for one’s well-being, and unpredictability of academic future. The shift to online learning amid a global pandemic coupled with the unfamiliarity with online testing systems can contribute to anxiety (Idnani et al., 2021). Consequently, post-Covid online assessments can be viewed as representing “stressful evaluative stimuli and contexts”, giving rise to test anxiety (Zeidner, 2007, p. 166).

Considering the far-reaching impacts of educational transformations post-Covid, it is imperative to investigate the impact of these methods on learners. Khan and Khan (2019, p. 675) affirm that “it is vital that student views regarding changes in educational techniques be taken into serious consideration to ensure a smooth and successful transition towards technological enhancement”. While research post-Covid has explored perceptions of learners about online teaching and assessment, the researcher could not find any work examining the interaction between remote online assessments and test anxiety in language education. The findings of this study will give language educators and institutions insights into learners’ experiences with online assessments, and direct them towards adopting optimal solutions. The research questions guiding this study are:

(i) What levels of test anxiety do remote learners of English experience in post-pandemic online viva exams?

(ii) What are the potential causes of test anxiety in online examinations?

(iii) How can learners be supported in mitigating test anxiety?

Test Anxiety: The Theoretical Concept

Anxiety is a psychological construct, “an affective state...in which one perceives danger, feels oneself powerless, and experiences tension” (Aydin, 2009, p. 128). The effects of anxiety include physical and psychological manifestations that may be experienced in various aspects of life. Three major types of anxiety are distinguished, viz. trait anxiety, state anxiety, and situation-specific anxiety.
Test anxiety is classified as a type of situation-specific anxiety. It refers to “the set of phenomenological, physiological, and behavioural responses that accompany concern about possible negative consequences or failure in an evaluative situation” when a learner believes that his/her “capabilities...are...exceeded by demands stemming from the test situation” (Zeidner, 2007, p. 166). It is bi-dimensional, comprising ‘emotionality’ (physiological dimension) and ‘worry’ (cognitive dimension). Cassady and Johnson (2002) re-labelled ‘worry’ as ‘cognitive test anxiety’, viz. “learners’ internal dialogue regarding evaluative situations, in the times prior to, during, and after evaluative tasks” (p. 272). It is the cognitive dimension of anxiety that impacts performance the most (Cassady & Gridley, 2005).

Zeidner (2007, p. 171) noted the negative washback effect of test anxiety and maintained that it is “a key construct in understanding sources of student distress, impaired test performance in classroom evaluative situations, and academic underachievement”. Test Anxiety can be quantified using subjective or self-reporting measures elicited from learners. Factors that can influence anxiety in language education and assessment include personal and situational characteristics (Zeidner, 2007), socio-cultural norms and expectations (Zheng & Cheng, 2018), examiner unfamiliarity, perceptions of test validity, test techniques, test format, length, time limit, testing environment, and clarity of instructions (Aydin, 2012).

**Literature Review**

After discussing the theoretical concept of Test Anxiety, this section examines studies on perceptions, challenges, and adaptations in assessments post-Covid. Burns et al. (2020) discussed the implications of Covid-19 on the mental health and well-being of students. They identified post-pandemic novel assessments as inevitable sources of student anxiety, “where students may worry that the new forms of assessment...will not truly capture their ability, especially when compared to traditional methods” (p. 6). They maintained that in the face of this increased pressure, students do not have “access to support that they would normally experience”. Tian et al. (2021, p. 2) approach Covid-19 as a critical incident that “marked a significant turning point for teachers and educational systems globally”. They employed cross-cultural teacher reflections on pandemic-valid language assessments.
Their findings highlighted challenges of institutional policy and teacher agency, class sizes, academic integrity, digital literacy, and test design. Recent research has explored the views of practitioners and learners regarding online assessments post-Covid-19 in different countries. Shakeel et al. (2021) studied the challenges in Assignment-Based Exams and Open-Book Exams in India post-Covid-19 as perceived by university students. They reported that learners experienced challenges of accessibility, time constraints, technical difficulties, lack of feedback, and teacher-learner interaction. Idnani et al. (2021) highlighted the anxiety learners experienced in online testing due to unfamiliarity with the exam technology coupled with restrictions of the medium, such as the inability to annotate and make notes along questions. Rehman et al. (2021) investigated learners’ opinions of the online assessment practices in Pakistan, with an emphasis on potential academic dishonesty. They suggested using secure LMSs and shuffling the order of questions to prevent cheating. Mirza (2021) studied the perceptions and practices of university teachers about online assessments in Lebanon. They reported that lack of guidance on online assessments led teachers to avoid using online platforms to create tests. Instead, they employed projects, oral presentations, and reflection papers as assessment tools. Tartavulea et al. (2020) studied the perceptions of professors and students in Europe in response to post-pandemic online teaching. Hatzipanagos et al. (2020) analysed the effects of shifting to online assessment on distance learners’ performance at the University of London. They noted that good assessment practices encompass “creative design of authentic assessment, moderation of marking, text matching software, [and] clear guidelines to students about expectations” (p. 61). Wahid et al. (2021), in a study spanning four countries, found that teachers and learners perceived online exams as being inferior to in-person exams. Massoud and Abdel-Latif (2021) presented a critical overview of online assessment models, including features such as security and proctoring.

Ghanbari and Nowroozi (2021) studied the perspectives and coping strategies of Iranian teachers regarding online EFL assessments. They classified the problems reported by teachers into technological barriers, pedagogical challenges, affective barriers, and institutional barriers. Abduh (2021) investigated teachers’ perceptions of the online assessment methods in a Saudi EFL context following Covid-19. He found that teachers were doubtful of e-assessment and reported obstacles in
conducting online exams. Zhang et al. (2021) examined post-pandemic changes in EFL assessment practices in China. They identified policy, local context, and teachers’ reflections and experience as factors that affected online assessment choices.

Recommendations to facilitate e-assessments included attention to teacher education and technical support (Mirza, 2021), provision of advanced and secure LMSs (Wahid et al., 2021), innovative and varied forms of continuous assessment (Tartavulea et al., 2020; Ghanbari & Nowroozi, 2021), focus on meaningful feedback and teacher-learner interaction (Khan & Khan, 2019; Ghanbari & Nowroozi, 2021), orientating learners with online assessments (Mirza, 2021), keeping students informed of new assessment protocols (Burns et al., 2020), ensuring fairness by estimating answer time and test-takers’ digital literacy (Massoud & Abdel-Latif, 2021), and providing learners with a greater degree of control (Stowell & Bennet, 2010).

Setting
The General English course is a mandatory course taught to all I-IV semester undergraduate students at AMU. For post-pandemic online assessments, the 100 marks for the course were divided into 70 and 30 respectively for formative assessments and end-semester exams. In each semester, there were 3 internal assessments in the form of written assignments, presentations, or quizzes. For the end semester examination, online vivas were conducted via video-conferencing using platforms like Google Meet, WebEx, and Zoom. Since the groups had strengths up to 100, 4-6 students were asked to simultaneously join the meeting for their viva in the interest of using time effectively. Students were notified of the time slots and sequence of the viva on the class WhatsApp groups.

The aspects of this exam setting, viz. computer-based, oral, and summative have been identified in the literature as anxiety-inducing (Yingzi, 2020; Andujar & Cruz-Martinez, 2020; Cassady & Gridley, 2005).

Method
This is a mixed-methods survey-based research, involving 115 female undergraduate students of Women’s College, AMU. At the time of the
study, the students had given two online end-semester exams of their VI Semester degree.

A post-examination survey was created on Google Forms and administered online to assess learners’ experiences of online English examinations. The survey contained 3 sections; the first section collected participants’ demographic information; the second section comprised the Cognitive Test Anxiety Scale-Revised (CTAR) by Thomas et al. (2017); the third section contained 2 open-ended questions, followed by an item that asked learners to select the features of online exams that caused them anxiety. The CTAR is a self-report instrument to assess students’ anxiety regarding testing and has a high internal consistency (0.96). It contains 24 items, measured on a 4-point scale, with responses ranging from ‘not at all typical of me’ (1 point) to ‘very typical of me’ (4 points). Severity standards to interpret CTAR scores were defined by Thomas et al. (2017). Zeidner (2007, p. 168) noted that self-report inventories of test anxiety “provide the most direct access to a person’s subjective experiential states...possess good psychometric properties...are simple to administer, score, and interpret”. For answers to the open-ended questions, qualitative content analysis was used to identify recurring themes.

**Results**

This section converges data from sections 2 and 3 of the questionnaire to examine the levels and potential causes of test anxiety. Table 1 illustrates learners’ test anxiety scores categorized according to severity standards proposed by Thomas et al. (2017).

**Table 1: Cognitive Test Anxiety Scores**

<table>
<thead>
<tr>
<th>CTAR Score Range</th>
<th>N (/115)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>24-43 (Low CTA)</td>
<td>29</td>
<td>25.2%</td>
</tr>
<tr>
<td>44-66 (Moderate CTA)</td>
<td>54</td>
<td>46.9%</td>
</tr>
<tr>
<td>67 and above (High CTA)</td>
<td>32</td>
<td>27.8%</td>
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**Figure 1**

*Graphical Representation of CTAR Score Distribution (Mean = 55, Maximum Score = 90, Minimum Score = 28)*
An analysis of the open-ended questions and learners’ perceptions of anxiety-evoking factors sheds light on the potential causes of test anxiety.

**Content Analysis of Open-Ended Questions**

1. Do you find online English exams more stressful than paper-based exams? Why/Why not?

While a few learners answered ‘No’, stating reasons such as convenience of remote exams, well-preparedness, proficiency in English, and personality traits that enable them to perform better on oral tests; the majority of respondents wrote ‘yes’. The factors to which learners attributed their test anxiety have been categorized into the following themes, with some excerpts to illustrate each theme.

<table>
<thead>
<tr>
<th>Test bias</th>
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<tbody>
<tr>
<td>“The teacher cannot give deserving marks to students in an online exam as mostly marks are given to students who speak confidently.”</td>
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<tr>
<td>“My knowledge and ability is not being judged the way it should be.”</td>
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<td>“The hard work that goes into preparing doesn’t exactly show in the result.”</td>
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<td>“One or two questions determine our grades.”</td>
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<tr>
<td>“It really depends upon luck as in what question a student is asked...everybody has different questions.”</td>
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<tr>
<td>“We are asked limited questions and if we’re unable to answer we lose our marks.”</td>
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</tbody>
</table>
“In offline exams all students are given an equal amount of time and the same question paper.”
“Those 5-6 minutes are not enough to judge what I have studied in 2-3 months which feels quite unfair.”
“My full potential cannot be seen in a 5-10 minute viva.”

<table>
<thead>
<tr>
<th>Hesitation/Inability to speak</th>
<th>“Because of nervousness we forget everything we have to say.”</th>
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<tbody>
<tr>
<td></td>
<td>“There are times I know the answer, but cannot deliver it.”</td>
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<td></td>
<td>“Forget to give highlights on the topic due to consciousness on a video call and regret it after the exam.”</td>
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<td></td>
<td>“Get flustered because of performance anxiety.”</td>
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<td></td>
<td>“Constant hesitation due to the camera.”</td>
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<tr>
<td></td>
<td>“Get nervous and unable to give my answers clearly which shows that I haven’t studied at all.”</td>
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<tr>
<td></td>
<td>“Lack of confidence of speaking fluently.”</td>
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<td></td>
<td>“Get blank most of the times.”</td>
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<tr>
<td></td>
<td>“Feel too hesitant to speak...it’s like an anxiety attack right when the viva starts.”</td>
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<td></td>
<td>“Due to the camera I end up giving wrong answers to even those questions that I know.”</td>
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<td></td>
<td>“We experience low esteem and feel so nervous for the next exam and results.”</td>
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<table>
<thead>
<tr>
<th>Insufficient time</th>
<th>“I cannot give the best answers not only because of hesitation or anxiety but also because of less time.”</th>
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<tr>
<td></td>
<td>“I don’t get any time to recollect forgotten answers as in paper-based.”</td>
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<td></td>
<td>“A moment of hesitation or pause makes teachers change their question. We know the answers, we just need a little time.”</td>
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<td></td>
<td>“The duration of online exams are not sufficient to show how well we know about any topic.”</td>
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<td></td>
<td>“We have just seconds to showcase all the knowledge and efforts.”</td>
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<td></td>
<td>“Sometimes the teacher doesn’t listen to your answers properly and skims through the questions quickly.”</td>
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</table>
Low degree of control

“I’m unable to perform my best.”
“I don’t feel satisfied as I keep thinking I could have answered more accurately.”
“I can’t tell if I have done well.”
“I find it difficult to know the length of my answer.”
“If I don’t know an answer I can’t skip and come back to it later.”
“I cannot recheck my answers.”
“Stressed and anxious about covering the whole syllabus.”
“Questions have no choices.”

Personality traits

“I’m not very good at speaking and vivas.”
“Taking oral exams is not my thing.”
“I’m very nervous in spoken exams so I prefer a written version.”
“I personally am not expressive in online mode.”
“I express far better in paper-based exams.”

Technical issues

“Due to connectivity issues there’s always fear that something could go wrong.”
“Technical problems are major causes for stress.”

Unfamiliarity

“The study we’ve experienced till now has been pen-paper based.”
“Online exams are totally new to us.”

Lack of sense of community

“I would love to go back to paper-based exams as getting nervous in the presence of other exam-givers makes me feel like...we’re all in the same boat.”

2. What changes would help you feel more comfortable in online English exams?

Responses to this question can be categorized under the following themes, excluding those which reiterated additional time.

Examiner’s characteristics

“Teacher being friendly, calm and helpful.”
“Teacher’s mood ... If I see a smiling face then I calm down.”
“When the teacher has a polite conversation before starting the viva we feel comfortable and a bit confident.”
“Teachers’ support is the only thing that would help.”
“If we get some feedback after the viva it will put stress of marks aside.”
“Examiners should be understanding of technical issues.”
“The examiner [can] avoid eye contact for a while so that we can feel less pressured.”
“If the students don’t have the answer the teacher can be patient.”
“Teachers should give us 2 minutes to gather our thoughts before starting.”
“Familiar examiner.”

Practice
“More viva sessions and activities to overcome our fear of failing and self-consciousness.”
“An orientation before exams with our cameras on will help us get more familiar and comfortable with each other so that we don’t hesitate during the exam.”
“During the online class, everyone should turn on their cameras and participate...then it wouldn’t be difficult to face the teacher in exams.”
“Interactive exams, familiarizing students with question types before.”

Nature of questions
“A topic that anyone can speak on.”
“Group activities.”
“All students be asked questions from every section of the syllabus...to be fair for everybody.”
“Having choice in questions.”

Group viva
“One-on-one vivas are way more comfortable.”
“I feel judged by the other members on my performance...it makes me uncomfortable.”
“Pressure of being in a group in front of other students.”

Examiners’ video
“If our examiners would also turn on their cameras as facial cues enable us to comprehend if our answers are satisfactory.”

Limited syllabus
“Limiting the portion for viva, remembering all of it for an oral exam is really hard.”
“Topics for the exam should be specified beforehand.”

Written exams
“Written online exam through Google forms.”
“Written exam or MCQs with camera on.”
Discussion and Conclusion

The results demonstrate that almost 30 per cent of respondents reported high levels of cognitive test anxiety, which significantly lowers confidence, restricts potential, and impedes test performance (Andujar & Cruz-Martinez, 2020; Cassady & Johnson, 2002; Cassady & Gridley, 2005; Zheng & Cheng, 2018). The majority of respondents (47 per cent) lie in the ‘moderate anxiety’ range with the average score being 55. It is notable that the highest score obtained was 90. Most learners reported that they experienced elevated stress levels in online exams compared to conventional paper-based exams, stemming from both the oral and technology-mediated nature of the exam. Hesitation in speaking i.e., lack of confidence was identified as the chief cause of test anxiety, further amplified by being tested in a group and switching on their cameras. Moreover, shortage of time, perceived test bias, possibility of technical issues, and lack of sufficient feedback and control contributed to learners’ anxiety. Perceived lack of fairness and the belief that a test does not accurately measure their potential makes learners question its validity. It has also been seen that “speeded timed conditions” (Zeidner, 2007, p. 171) and poor face validity (Aydin, 2012) are detrimental to test-anxious students. Examiners’ mood, approach, and familiarity were also highlighted by learners as determinants of their test anxiety.

Educators must recognize that online testing represents an unfamiliar situation and impacts learners’ academic self-concept and well-being. Examiners can provide reassurance and individualized feedback to test-anxious learners as scaffolds to encourage them. After identifying highly test-anxious learners, the next step is to devise and validate
individualized or universal intervention strategies (Thomas et al., 2017). Respondents suggested that participating in video interactions during online classes would help ease their test anxiety. Moreover, it could help in increasing their confidence and instilling a sense of community among remote learners. Cassady and Gridley (2005) also recommended using formative assessments as practice opportunities for final exams to address learners’ anxiety. Additionally, it must be ensured that learners are informed of new assessment procedures and provided with clear instructions and choice in questions to enhance their sense of preparedness and control. Moreover, possibility of disruptions due to technical issues also caused anxiety among learners, an inevitable aspect of technology-mediated learning in India due to the digital divide. This can be addressed to some extent by devising and informing learners of mitigation strategies in case of potential technical problems.

Personality also emerged as a variable in the way students perceived the new testing situation, resulting from individual differences in anxiety proneness, i.e. ‘trait anxiety’. In unfamiliar test settings, learners’ academic self-concept is defined by the interaction of personality traits with situational variables. Some learners reported that preparedness was more important for them regardless of the exam modality, while many noted that they felt they performed better in written exams. Learners can be supported through a conducive test atmosphere and provision of support and well-being services. Some learners suggested shifting to proctored written exams and reducing the summative exam syllabus; however, such changes are subject to practical considerations.

This study is limited as it addresses students’ perceptions and experiences at one girls’ college. Future studies can expand the scope, and examine specific interventions for test-anxious remote learners. This research highlights issues that need the attention of educators to ensure student well-being in uncertain times.

References


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