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Baha' Al-Deen Alnawas: Individual differences in writing anxiety during offline and online exams
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Individual differences in writing anxiety during offline and online exams

This study investigates how foreign language anxiety (FLA), computer anxiety (CA), and test anxiety (TA) converge in online exams, exploring potential convergence patterns that may constitute what could be termed 'Online Examination Anxiety in a Foreign Language' (OEAFI). Conducted post-COVID-19, when education shifted online, it explores English-major M.A. students' experiences in Hungary via qualitative interviews (N=12). Initial findings suggest potential patterns that may constitute OEAFI as a blend of FLA (e.g., language recall issues), CA (e.g., technical fears), and TA (e.g., time pressure), distinct from offline exam anxiety. Students employed strategies like preparatory writing and technical preparedness to cope. Unlike prior quantitative studies, this research highlights subjective experiences, suggesting OEAFI's potential for future systematic measurement. Limits include a small sample, mostly female, with specific language levels (B2–C2 proficiency). Results advocate conducting future mixed-method research to further understand OEAFI and mitigate impact of converging anxiety variables.

Keywords: Foreign Language Anxiety, online exams, computer anxiety, test anxiety, COVID-19

1. Introduction

This exploratory study investigates how foreign language anxiety (FLA), computer anxiety (CA), and test anxiety (TA) manifest and potentially converge in online versus offline examination contexts among English-major students. Conducted in the post-COVID-19 educational landscape, when institutions shifted to online education and digital assessment, this research examines whether the unique technological and environmental demands of online exams create distinct anxiety patterns that differ from traditional offline testing contexts. While previous research has established these anxiety types as separate constructs, the intersection of digital assessment with foreign language evaluation presents an under-explored context where these anxieties may interact in novel ways. This study takes an exploratory approach to understand how students experience and manage anxiety across different assessment modalities. Through qualitative interviews with 12 MA-level English majors in Hungary, this research addresses gaps in understanding digital assessment anxiety by examining: (1) how established anxiety types manifest in online foreign language examinations, (2) what coping strategies students employ across different assessment contexts, and (3) how student experiences compare between online and offline evaluation

environments. The findings suggest preliminary evidence for what might be termed 'Online Examination Anxiety in a Foreign Language' (OEAF), which represents tentative patterns warranting further investigation rather than a definitively established construct.

2. Literature Review

Understanding anxiety in language learning requires examining its chronological development and integration into different educational contexts. This literature review traces the evolution of three interconnected anxiety types – FLA, CA, and TA – and how they converge in online foreign language examination settings. It begins with language anxiety research, explores how computer and technology-related anxieties emerged as digital tools became mainstream in education, and then examines test anxiety in assessment contexts. Finally, it considers how these anxiety types potentially combine in the post-COVID-19 online learning environment, creating what the study terms as OEAF.

2.1. Language Anxiety

Research on anxiety in language learning has evolved significantly since the mid-1980s, with Horwitz et al. (1986) establishing the connection between FLA and communication apprehension, test anxiety, and fear of negative evaluation. Their Foreign Language Classroom Anxiety Scale (FLCAS) became instrumental in measuring FLA, though Horwitz (2010) later clarified that FLA is related to these components rather than composed of them.

Young (1991) identified six primary sources of language anxiety: personal and interpersonal anxieties, learner and instructor beliefs, instructor-learner interactions, classroom procedures, and language testing. This highlighted anxiety's complex nature in language learning contexts.

Research gradually shifted toward studying L2 anxiety as both situation-specific and skill-specific. Cheng et al. (1999) distinguished L2 classroom anxiety as general, while L2 writing anxiety was identified as skill-specific. MacIntyre (2007) later introduced the concept of anxiety fluctuating over time, using state-trait frameworks and situation-specific analysis. MacIntyre and Legatto's (2011) idiodynamic method demonstrated that variables like willingness to communicate, anxiety, and motivation can change moment-to-moment within the same situation.

As Gkonou et al. (2017) noted, anxiety fluctuates across various timescales—from seconds during communication to months across a language program. This dynamic nature suggests that students may experience fluctuations throughout examinations due to various factors, including technical difficulties and test-related anxiety during online assessment.

2.2. Computer Anxiety

While offline examinations typically involve pen-and-paper, online exams require a device for typing, making CA relevant. Computers have been integral to language teaching since the 1960s (Warschauer & Healey, 1998), with Computer-Assisted Language Testing (CALT) allowing scoring through computers or human assessors (Suvorov & Hegelheimer, 2013).

CA, like FLA, is multi-faceted, stemming from psychological, sociological, and operational fears (Torkzadeh & Angulo, 1992). Psychological fears include damaging the computer and losing control; sociological fears involve fear of being replaced by technology; and operational fears encompass typing inability and system complexity. In online examinations, fears of damaging computers, losing control, and typing difficulties are particularly relevant, as hardware and software unpredictability can increase anxiety.

Research on CA shows mixed findings, though increased computer experience generally reduces anxiety (Simsek, 2011). Lower CA and higher computer self-efficacy appear important for efficient computer skill utilisation. For this study, the relevant aspect of CA is students' ability to operate computers sufficiently for online examinations, including typing capability and speed in regards to the English language.

Mannion et al. (2019) categorised technology's effect on L2 writing tasks as high, medium, or low structure. Online examinations typically involve medium to high structure tasks with specific evaluation criteria. Another distinction between online and offline exams is proctoring, which Hylton et al. (2016) found significantly affected performance, with non-proctored students taking longer but scoring higher.

2.3. Test Anxiety

TA is inherent to language learning as student performance is regularly evaluated through examinations. Sarason (1961) noted that anxiety responses are triggered by threatening environmental conditions, interfering with task performance through physiological activity (e.g., increased heart rate) and self-deprecating thoughts (e.g., "I can't pass this test").

Liebert and Morris (1967) distinguished between two key components of TA: worry (cognitive concerns about performance) and emotionality (physiological reactions to stress). Their research showed worry negatively correlates with performance – when students expect failure, their performance suffers. Building on this, Hembree (1988) described two models explaining TA's effects: the interference model (affecting information recall during exams) and the deficits model (considering how previous low scores and poor test-taking skills contribute to future performance).

Later research expanded these concepts. Cassady and Johnson (2002) introduced cognitive test anxiety, encompassing "individuals' cognitive reactions

to evaluative situations... in the times prior to, during, and after evaluative tasks” (p. 272). Their research established cognitive test anxiety as strongly linked to performance, as students ruminate on potential test results, compare themselves to peers, and question their preparation.

Naveh-Benjamin et al. (1987) proposed an information processing model, identifying two types of test-anxious students: those who organise material well but struggle with retrieval during exams, and those with poor study habits who face performance issues due to test demands exceeding their capabilities. Cassady and Johnson (2002) later validated cognitive test anxiety as a unidimensional construct that reliably predicts performance.

2.4 Online Examination Anxiety in a Foreign Language

The combination of FLA, CA, and TA may interact during online examinations, creating a unique anxiety construct. Specifically, L2 writing anxiety, typing anxiety, and cognitive test anxiety likely constitute the primary factors at play during online foreign language examinations.

In response to the COVID-19 pandemic, educational institutions worldwide shifted to online learning around March 2020. This transition introduced new anxiety dimensions related to technology use. Jiang et al. (2022) studied the effects of online learning on EFL learners during COVID-19, focusing on motivation, anxiety, and attitudes. However, their study, like many others during this period (e.g., García-Castro & O'Reilly, 2022; Liu & Yuan, 2021; Pratiwi et al., 2022), employed primarily quantitative methods and focused more on learning than assessment.

Internet anxiety, closely related to CA, involves additional concerns about online connectivity. In Valizadeh's (2021) mixed-methods study on FLA in virtual classrooms during the pandemic, Turkish EFL university students reported anxiety related to technical problems such as power outages and internet connectivity issues – factors that could significantly disrupt online examinations.

The shift to online education forced students to rely on whatever devices they had available, which, if outdated, could amplify anxiety, especially for writing tasks requiring keyboard use. While students likely experienced similar challenges during the pandemic, emotions remain highly subjective, with test anxiety levels varying across cultures (Pekrun, 2014).

Given the literature's gaps regarding the convergence of these anxiety types in online assessment contexts, particularly the lack of qualitative explorations of students' lived experiences, this study aims to provide deeper insights into how FLA, CA, and TA manifest together in online foreign language examinations. To address these knowledge gaps, the following research questions guide this investigation:

1. How do foreign language writing anxiety, test anxiety, and computer anxiety manifest in English majors' experiences during online written examinations?
2. What anxiety management techniques do English-major students employ during online written examinations?
3. How do foreign language writing anxiety and test anxiety manifest in English majors' experiences during offline written examinations?
4. What anxiety management techniques do English-major students employ during offline written examinations?
5. How do students' anxiety experiences and management strategies compare between online and offline examination contexts?

3. Methods

The investigation of anxiety in online foreign language examinations requires a methodological approach that can capture the nuanced, subjective experiences of students while maintaining research rigour. This section outlines the research design, participant selection, data collection instruments, procedures, and analysis techniques employed to explore how FLA, CA, and TA manifest in online examination contexts.

3.1. Design

This study employed a qualitative research design to explore the potential interaction between different anxiety types in OEAFL within the COVID-19 context of remote learning and evaluation. The qualitative approach was chosen to focus on “insider meaning”, which as Dörnyei (2007) notes, “is concerned with the subjective opinions, experiences and feelings of individuals (...) to explore the participants' views of the situation being studied” (29).

This purely qualitative approach is particularly appropriate for this exploratory investigation for several reasons. First, existing anxiety research in online foreign language assessment contexts has predominantly employed quantitative scales (e.g., García-Castro & O'Reilly, 2022; Liu & Yuan, 2021), creating a gap in understanding the subjective experiences that characterise anxiety as an emotional phenomenon. Second, the potential convergence of multiple anxiety types in digital assessment represents an under-researched area requiring initial qualitative exploration before quantitative validation can be meaningfully pursued. As MacIntyre and Gregersen (2012) emphasise, anxiety experiences are highly subjective and contextually dependent, making in-depth interviews essential for capturing the complexity of students' lived experiences. Third, this study serves as necessary groundwork for future mixed-methods or quantitative investigations by identifying key themes and patterns that can inform the development of context-specific measurement instruments. The exploratory nature of this research prioritises depth of understanding over generalisability, positioning it as a

foundational step in a broader research program examining digital assessment anxiety.

Furthermore, the qualitative approach proved particularly valuable for this research topic because it allowed participants to describe anxiety experiences that might not have been captured in standardised anxiety scales. For example, various participants revealed indirect connections between their physical environment during online exams and their levels of anxiety; something not often addressed in quantitative studies and instruments. Moreover, semi-structured interviews enabled exploring the temporal dynamics of anxiety, which revealed how participants' anxiety fluctuated throughout different phases of the examination process and between the first experience and subsequent ones.

3.2. Participants

The study included 12 MA-level English-major students from two Hungarian universities, comprising 11 females and one male aged between 22 and 28. Participants' English proficiency ranged from B2 to C2 according to standardised tests (IELTS, TOEFL, ECL, Hungarian national exam) or degree qualifications, interpreted based on the Common European Framework of Reference for Languages (Council of Europe, 2001). Specialisations were under the umbrellas of Applied Linguistics and Literature Studies, with participants representing diverse nationalities (Hungarian, Turkish, Algerian, Chinese, Jordanian, and Russian).

To preserve anonymity, participants received pseudonyms unrelated to their actual names but reflecting their gender identity. Purposive sampling strategies were employed, specifically typical sampling as all participants were English majors at Hungarian universities and criterion sampling as all had experienced both written online and offline exams (Dörnyei, 2007). While the sample size limits generalizability, it aligns with established qualitative research principles for exploratory studies seeking to understand lived experiences rather than establish statistical relationships. The analysis process followed multiple iterations until data saturation was reached as prominent themes emerged with consistent patterns across participants, supporting the adequacy of the sample size for this exploratory investigation (the characteristics of the participants are broken down further in Appendix A).

3.3. Instrument

Data collection was carried out using a semi-structured interview guide comprising 17 main open-ended questions with 19 sub-questions (see Appendix B). The questions explored participants' experiences in written online exams, such as the method of administering them; whether they were supervised or not; the kinds of devices used to sit for the online exams; the feelings associated with both online and offline exams (in terms of language use, the testing process and

technology for the online mode); preparation methods; and strategies employed to reduce overall anxiety.

The semi-structured format allowed for asking follow-up questions to elicit more explanations for specific situations, some hypothetical scenarios, and the participants' personal reflections. The instrument was piloted with two participants who matched the sample criteria and revised accordingly to ensure comprehensive data collection.

3.4. Data Collection Procedure

Interviews were conducted in March 2023 via Microsoft Teams with MA-level English-major students who had experienced both online and offline examinations. Participants provided informed consent for recording and transcription, knowing they could withdraw at any time. The 12 interviews lasted between 15 and 48 minutes (most averaging 30 minutes), with most participants providing detailed accounts of their emotional states and experiences, while one participant offered briefer responses even when prompted for elaboration, but their answers were still utilised as they had insights that fit into the emerging themes.

3.5. Data Analysis

The analysis followed open, axial, and selective coding methods (Corbin & Strauss, 1990) to extract initial codes, categorise them into themes, and reanalyse the data to uncover multiple interpretations. The process maintained the dynamic and flexible nature of qualitative analysis as described by Corbin and Strauss (2008), who note that analysis “should be relaxed, flexible, and driven by insight gained through interaction with the data rather than being overly structured and based only on procedures” (28).

Data was organised and thoroughly read and re-read with sufficient intervals to create intra-coder reliability (Miles & Huberman, 1994) and ensure comprehensive analysis. The analysis followed a systematic three-stage process (Corbin & Strauss, 1990, 2008):

Open coding: Initial codes were developed inductively from the data. For example, when participants mentioned concerns about internet connectivity, this was coded as “technical anxiety”, whilst statements about spelling errors were coded as “language accuracy concerns”.

Axial coding: Related codes were grouped into categories. For instance, “technical anxiety”, “device familiarity”, and “platform difficulties” were grouped under the broader category of “technology-related experiences”.

Selective coding: Categories were organised into overarching themes. The aforementioned technology-related codes, combined with emotional responses and coping strategies, formed the theme “Feelings Associated with Technology Use in Online Exams”.

Finally, each data segment was colour-coded to identify meanings, relationships, and preliminary conclusions (see Appendix C for the coding process with representative examples).

4. Results

The coding process revealed several themes and subthemes representing participants' experiences with language use, technology, and perceptions of online and offline exams, along with anxiety-alleviating strategies. These themes (detailed in Appendix D) encompass feelings associated with language use, strategies for language anxiety, technology use in online exams, comparisons with offline exams, technology-related anxieties, general perceptions of exams, feelings about proctoring, and anxiety reduction techniques.

The participants reflected on both general experiences with online exams and specific examination situations they encountered. These exam situations generally involved medium (open-ended questions) to high (long essays) task structures, as defined by Mannion et al. (2019).

4.1. Feelings Associated with Language Use

This theme captured participants' emotions regarding English language use in both online and offline exams. Responses varied considerably, with five participants expressing concerns about using English in online exams and six mentioning concerns for offline exams. Most participants demonstrated greater confidence using English during online exams compared to offline settings.

Amy noted that daily English use reduced her pressure in both settings but indicated potential anxiety if forgetting essential course terminology. Bonnie reported using shorter sentences to avoid mistakes, explicitly expressing anxiety levels of "six or seven" on a ten-point scale, mainly from linguistic aspects. Diana expressed confidence in writing English but worried about typos in online exams, while Joy shared similar spelling concerns for offline exams.

Fiona stated her English was "great" in online exams but deteriorated in classroom settings due to anxiety, noting that while thoughts came to her in English during offline exams, stress made her writing less proficient than in comfortable online environments. Grace and Harry felt comfortable using English regardless of exam type, with some participants like Kira preferring English over their mother tongue. Irene displayed significant confidence in English writing during both exam types but mentioned physical discomfort (arm pain) during longer offline essays.

The sources of language anxiety in either mode included: time constraints, terminology recall difficulties, spelling and typing concerns, handwriting legibility issues, and articulation challenges in offline settings.

4.1.1. Strategies to Alleviate Language-Related Anxieties

Participants who expressed language anxiety shared various coping strategies. Bonnie mentioned writing anticipatory essays and reading relevant articles to reduce stress. Elaine emphasised extensive reading of English academic texts to recall structures and spelling, recommending jotting down key points before they are forgotten and checking spelling when time permits.

Lara described using reading techniques during COVID-era online exams, practicing deep breathing before questions, and self-reassurance about making mistakes. However, she admitted, “personally, I don't think I was able to fully overcome the anxiety surrounding exams”, noting she would use the same techniques for offline exams but would find comfort in seeing classmates sharing similar struggles.

4.2. Feelings Associated with Technology Use in Online Exams

This theme explored participants' feelings about using devices (laptops, tablets, phones) for online exams and how computer anxiety influenced their experience.

Four students described device use as “fast” for typing answers, while seven associated device usage with positive feelings. Bonnie noted becoming “more comfortable” using her laptop for typing notes after starting her MA program. Claire said, “It was very well actually, because I am used to my laptop and my keyboard, so it was very easy”, while Diana noted, “it was okay, it was fine. I type all the time so it was okay”.

Ten participants described using laptops for exams using positive terms like “safe”, “easy”, “familiar”, “under my control”, “smoother”, and “comfortable”. Joy was the only participant describing her experience negatively, citing unfamiliarity with using her laptop for exams. Lara used an iPad but noted discomfort with the lack of tablet-optimised platform views, though this did not impede her examination process.

4.2.1. Comparisons and Contrasts Made with Offline Exams

Most participants expressed positive associations with typing compared to handwriting, citing faster speed, better spelling checking, and reduced fatigue. Negative associations with typing stemmed from slower typing speed and the belief that handwriting better facilitated information recall.

Two participants mentioned keyboard layout differences (Hungarian keyboards) causing typing mistakes even when software settings were changed to English. For handwriting, several students mentioned needing extra paper for drafting before copying to answer sheets, which they found more time-consuming than typing.

Overall, participants associated more negative feelings with offline exams. Even those confident in their English expressed more issues with offline exams that, while not directly language-related, could impact performance.

4.2.2. Technology-Related Anxieties and Strategies Utilised to Alleviate Them

Only two participants experienced technical difficulties during exams, but all mentioned fears about potential technical problems. Computer anxiety manifested primarily in concerns about internet connectivity, power outages, laptop shutdowns, platform crashes, site performance issues, and display problems with questions or answer boxes.

To reduce these anxieties, all participants suggested ensuring working WiFi and fully charged or plugged-in devices before exams. Irene, who described herself as “an anxious person”, offered elaborate contingency methods, including using online document services to ensure answers remained saved elsewhere if a device failed, connecting Bluetooth keyboards to mobile phones, or borrowing alternative devices.

4.3. Feelings and General Perceptions Associated with Online and Offline Exams

Seven of twelve participants expressed stress, frustration, nervousness, or anxiety during the online exam they described. Anxiety related to time limits, the novelty of the experience, and perceived educational disparities. However, two participants reported becoming more accustomed after multiple online exams.

Students who viewed online exams as “open-book” generally expressed less anxiety than those who considered using notes as cheating. Nine participants noted they would feel more anxious if the same exam was administered offline, while one preferred online but said the difference would not be substantial. Another expressed more nervousness about offline exams generally but felt a pen-and-paper format would feel “more natural” with the professor present for guidance.

Regarding preparation, participants typically reported reading notes, reviewing class materials, watching pre-recorded lectures, summarising key points, and sometimes memorising information, but indicated they would invest more time and effort for offline exams.

Two participants, Irene and Lara, expressed high anxiety levels even regarding preparation. Irene described an intensive multi-day process of lecture review, note-taking, diagram creation, and supplementary research. Lara found assigned readings overwhelming and unclear regarding assessment focus, noting cultural differences in exam orientation.

4.3.1. Feelings Associated with Online Exam Proctoring

Only one participant experienced a proctored online exam, while the other eleven had unmonitored exams without camera or microphone requirements. Nine participants associated anxiety with proctoring, regardless of whether they intended to use notes, with discomfort stemming from being watched through

cameras. Grace, the only participant with a proctored exam, described it as a “normal” experience.

Irene illustrated potential discomfort with monitoring: “I look at the screen so closely, I thought like when I was writing the exam 'what if I look stupid?' and 'what if I look ridiculous?'... it made me very uncomfortable”.

4.3.2. Strategies Utilised to Alleviate General Test Anxiety Before Exams

Participants shared various anxiety-reduction techniques, including personal preferences (hydration, nutrition, adequate sleep, caffeine, watching favourite shows, exercise), studying techniques (writing practice essays, reviewing materials with peers), and emotional regulation (focusing on the exam rather than negative outcomes).

Most participants would follow similar techniques for offline exams, though some noted setting-specific concerns. Irene mentioned trying to find comfortable seating in classrooms, away from distractions like noise or fidgeting classmates – problems absent in online settings.

The findings reveal the multifaceted nature of anxiety experienced by English-major students during both online and offline examinations. Participants' accounts demonstrate that while general preferences lean toward online exams, both settings trigger distinct anxiety patterns influenced by language use, technology factors (online), and testing conditions. These results provide valuable insights into how the three anxiety constructs converge in examination contexts, which are interpreted in the following section in relation to the research questions and existing literature.

5. Discussion

The findings provide tentative answers to the research questions posed at the outset of this study. Regarding the first research question on what characterises English majors' emotional experiences in online written examinations, the results demonstrate preliminary evidence that participants simultaneously experienced aspects of FLA, CA, and TA.

Language-related anxiety manifested through participants' concerns about their English proficiency, spelling errors, and terminology recall difficulties. While some expressed confidence in their English writing abilities during online exams, they still noted concerns about typing speed or keyboard layout-induced errors. This finding aligns with research on L2 writing anxiety as both skill-specific and situation-specific (Cheng et al., 1999).

Computer anxiety, contrary to expectations, did not primarily manifest in device usage itself. This supports Simsek's (2011) observation that increased computer experience reduces anxiety, explaining why participants who had prior online exam experience reported greater comfort than those new to the format.

Instead, CA emerged through concerns about potential technical disruptions (internet problems, power outages, hardware malfunctions) – aligning with Torkzadeh and Angulo's (1992) dimensions of computer-related fears, particularly “fear of damaging the computer” and “loss of control”.

Exam proctoring emerged as another anxiety factor, with most participants reporting that camera monitoring would increase their discomfort, regardless of whether they intended to use notes. This substantiates findings from Sinha and Yadav (2020) as well as Gudiño Paredes et al. (2021), showing increased anxiety and stress among remotely monitored students, with concerns about privacy and judgment.

Test anxiety in online exams related to time constraints, subject matter comprehension, and the novelty of the experience. Interestingly, while participants reported more relaxed preparation for online exams (knowing they could access notes), this did not eliminate test anxiety – supporting Hembree's (1988) finding that TA negatively impacts college students' performance and well-being across testing contexts.

These findings suggest potential evidence for anxiety convergence patterns in online foreign language assessment contexts. While participants experienced elements of FLA, CA, and TA simultaneously, further research is needed to determine whether this represents a distinct construct or contextual intensification of existing anxiety types. It is possible to tentatively term this as OEAFLL to facilitate future investigation, whilst acknowledging that validation of any new construct requires systematic psychometric development beyond the scope of this exploratory study. Future quantitative measurement of OEAFLL may be able to integrate elements from established measures like the FLCAS (Horwitz et al., 1986), alongside components addressing technical difficulties, cognitive test anxiety (Cassady & Johnson, 2002), and the information processing model (Naveh-Benjamin et al., 1987).

This conceptualisation of OEAFLL as a potentially distinct construct could contribute to existing theoretical frameworks in language learning anxiety in several important ways. First, it considers the development of anxiety-related constructs with technological and educational advancements. This indicates that traditional anxiety theories need to be adapted and modified to fit in online contexts. Second, it highlights the combination of cognitive, linguistic, and technological factors that trigger anxiety, suggesting that an isolated understanding of these anxiety types is insufficient to capture a holistic and dynamic view. Moreover, OEAFLL could integrate the temporal dimension of anxiety, which recognises that different constructs of anxiety (e.g., language, computer, test) may take hold at any of the different stages of the examination process; from start to finish. This multidimensional and dynamic understanding of anxiety aligns with MacIntyre's (2007) understanding of anxiety as fluctuating rather than a fixed construct, which provides a more nuanced framework for

understanding assessment anxiety in online foreign language contexts.

In terms of the second research question, which addresses techniques to reduce anxiety during online exams, participants reported employing studying strategies (writing practice essays, reading academic articles), emotional regulation techniques (deep breathing, positive self-talk), and personal habits (stress balls, consuming sweets). These findings align with Pekrun et al.'s (2007) observation that students perceiving limited control over testing situations employ emotion-focused coping mechanisms. Davis et al. (2008) similarly noted that students employ various strategies during test-related anxiety, explaining that they have their own individual ways of coping methods.

The cultural diversity among participants (representing Hungarian, Turkish, Algerian, Chinese, Jordanian, and Russian backgrounds) presents both a strength and limitation of this study. While this diversity captures varied experiences across different educational and cultural contexts, the current study did not examine cultural background as a variable influencing anxiety experiences. Cultural factors may influence both anxiety expression and coping strategies in academic assessment contexts, but this exploratory study focused on identifying general patterns rather than culture-specific manifestations. Future research could explicitly examine how cultural factors moderate anxiety patterns in digital assessment environments and consider culture-specific approaches to understanding online examination anxiety from this angle.

For CA, participants described preventative measures like ensuring reliable internet connections, using cloud document services, and preparing backup devices – strategies that address the technical concerns identified by Valizadeh (2021) among Turkish EFL learners.

Concerning the third research question on offline examination experiences, FLA in traditional settings manifested through terminology recall difficulties, environment-induced stress affecting English writing, and uncorrectable spelling errors. A prominent concern unique to offline exams was handwriting legibility, with several participants expressing anxiety about professors being unable to read their writing. Physical fatigue during extended writing periods also emerged as a distinctive offline exam concern.

These findings reflect Whithaus et al.'s (2008) research showing college students' preference for typing over handwriting due to speed, familiarity, legibility, and editing convenience. Interestingly, some participants believed handwriting facilitated better information recall, supporting Smoker et al.'s (2009) finding that handwritten formats yielded significantly better memory recall performance than typed formats among undergraduates.

Test anxiety in offline exams manifested through concerns about increased study requirements (without note access), mandatory proctoring, and logistical issues like commuting. This explains the post-COVID research focus on preventing “cheating” in non-proctored online settings (e.g., Bilen & Matros,

2021; Noorbehbahani et al., 2022), as students perceive offline exams as requiring more rigorous preparation.

The fourth research question regarding offline exam anxiety-reduction techniques revealed strategies largely similar to those used for online exams, with no significant differences reported by participants.

Finally, addressing the fifth research question on comparing individual experiences, while most participants expressed confidence in English writing across both exam modes, half reported various concerns specific to either or both formats. Sources of FLA included terminology recall issues, spelling mistakes, and time constraints – findings that align with Aydin's (2020) qualitative study showing how test anxiety negatively impacts concentration and answer recall among EFL students.

Overall, participants associated more negative feelings with offline exams, particularly regarding handwriting versus typing, lack of access to notes, classroom proctoring, and environmental factors. These comparisons support previous research on student preferences for digital versus traditional assessment formats (e.g., Smoker et al., 2009; Whithaus et al., 2008).

6. Conclusion, Limitations, and Future Research

This study examined how the shift to online education during and after the COVID-19 pandemic influenced anxiety in examination contexts. Through interviews with 12 English-major students, it explored the potential connections between FLA, TA, and CA, proposing tentative patterns that emerge as OEAFLL.

The experiences shared by participants revealed a general preference for online over offline exams, though technology-related uncertainties remained a concern. The findings demonstrate how students employ various strategies to cope with anxiety in both examination formats. These insights provide an opportunity for instructors and students to collaborate on assessment approaches that accurately measure subject knowledge rather than focusing primarily on timed performance without access to resources.

This research focused on MA-level English-major students who engage with English more extensively than students in other disciplines, which presents a limitation for transferability. The findings may not transfer directly to studies involving students in fields like natural sciences, though the research instrument could be adapted for such contexts. Another limitation is the gender imbalance among participants (11 female, 1 male), which restricted potential exploration of possible gender differences in anxiety experiences.

Several participants demonstrated clear evidence of higher baseline anxiety that likely influenced their examination experiences regardless of modality. For instance, Irene described herself as “an anxious person” and provided the most elaborate contingency planning for technical difficulties, while Lara admitted she was unable to “fully overcome the anxiety surrounding exams”. These individual

differences highlight how trait anxiety – general predisposition toward anxiety across situations – likely interacted with situational factors in both online and offline contexts. This observation aligns with Spielberger et al.'s (1983) distinction between state and trait anxiety, where trait-anxious individuals would likely experience heightened state anxiety during evaluative situations regardless of format. Future research should incorporate validated trait anxiety measures to distinguish between anxiety arising from specific assessment contexts versus general anxiety predispositions. However, measuring trait anxiety was beyond the scope of this exploratory investigation. Thus, the future research suggestion could provide a deeper understanding of how individual differences interact with situational factors in digital assessment environments.

Future research could explore anxiety patterns among students with lower proficiency levels (below B2), include secondary and undergraduate participants across various disciplines, and investigate the emerging influence of AI tools like ChatGPT on educational assessment.

Methodologically, mixed-methods approaches might prove particularly fruitful for further exploration of OEAFLL, combining the depth of qualitative inquiry with broader quantitative measurement. Longitudinal studies tracking anxiety levels across multiple online examinations could reveal how OEAFLL evolves with increased exposure to digital assessment environments. Cross-cultural studies could also examine how educational traditions and cultural attitudes toward technology influence OEAFLL manifestations across different contexts. Additionally, experimental studies comparing anxiety levels in different online examination formats (synchronous vs. asynchronous, proctored vs. non-proctored) could provide valuable insights for assessment design. Finally, as AI increasingly enters the educational sphere, research might explore how AI-enhanced assessment tools (automated feedback mechanisms, for example) influence student anxiety in language testing environments. As technology continues to transform examination practices, understanding the psychological dimensions of online assessment becomes increasingly important for creating effective and equitable evaluation experiences.

For educational practitioners, this research suggests several concrete approaches to mitigate OEAFLL. First, instructors might consider implementing low-stakes practice sessions with online examination platforms before formal assessments, allowing students to familiarise themselves with the technical environment and reduce computer anxiety. Second, providing clear instructions about contingency plans for technical failures (extending submission deadlines in case of connectivity issues, for example) could alleviate anticipatory anxiety related to technology. Third, assessment design might incorporate more flexible time limits that account for variation in typing speed and potential technical disruptions. Finally, explicit instruction in anxiety management strategies—particularly the effective approaches identified by participants such as

anticipatory essay writing and emotional regulation techniques—could be integrated into language curricula to better prepare students for online assessment environments. By addressing these multiple dimensions of OEAFI simultaneously, educators can create more equitable and less anxiety-inducing assessment experiences. Thus, the exploratory findings regarding potential OEAFI patterns may inform future research into anxiety factors in online language assessment contexts. By recognising the distinct yet interconnected nature of language, technology, and testing anxieties, educators can develop more supportive assessment environments that accurately measure students' knowledge while minimising unnecessary anxiety-inducing factors.

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Appendix A: Characteristics of the Participants*Relevant Information about the Participants*

Pseudonym	Age	Gender	Proficiency level
Amy	23	Female	C1
Bonnie	28	Female	B2
Claire	22	Female	C1
Diana	23	Female	C1
Elaine	24	Female	C1
Fiona	22	Female	C1
Grace	23	Female	C1
Harry	25	Male	B2
Irene	26	Female	C1
Joy	23	Female	B2
Kira	27	Female	C2
Lara	24	Female	C1

Appendix B: Interview Questions

Data Collection Instrument

- 1) How old are you?**
- 2) What is your gender?**
- 3) What is your major of study and the study year?**
- 4) What is your proficiency level in English according to a proficiency exam?**
- 5) Can you describe a situation in your study programme where you sat for an online exam that involved typing at least one paragraph in English?**
 - 6a) Can you describe briefly how the test was administered?
 - 6b) What kind of interface was used?
 - 6c) Was there a time limit? If yes, how long?
 - 6d) What was the method of typing your answers?
- 6) Was the exam monitored by a proctor?**
 - 7a) (If yes) How did that make you feel?
 - 7a) (If no) How would you feel if the exam was proctored?
- 7) Can you describe how you felt in that situation (i.e., where you sat for an online exam that involved typing at least one paragraph in English)?**
- 8) Please describe how you feel about typing in your answers on a device during online exams?**
- 9) Please describe how you feel about writing your answers on paper during offline exams?**
- 10) Can you describe how you feel about using English to answer questions in online exams?**
- 11) Can you describe how you feel about using English to answer questions in offline exams?**
 - 11a) (if the interviewee expresses anxiety about writing in English in online exams) What strategies do you use or know others use to overcome anxiety when writing in English in an online exam? Can you elaborate on them?
 - 11b) (if the interviewee expresses anxiety about writing in English in offline exams) What strategies do you use or know others use to overcome anxiety when writing in English in an offline exam? Can you elaborate on them?
- 12) What did the preparation for the online exam you described earlier involve?**
 - 12a) How long did it take you to prepare for the exam?
 - 12b) What does preparation for the same exam involve had it been administered offline?
 - 12c) How long would it take to prepare for the offline version of the exam?

13) What kind of device did you use to sit for the online exam?

13a) How did you feel about having had to use the (*device's name*)? Why do you think you felt the way you did?

13b) Would using a different device help make you feel more comfortable about the test?

13c) Did you face any technical difficulties while sitting for the online exam? (If yes), can you please elaborate on them?

13d) (Apart from the ones you mentioned)/(Even though you have not faced any difficulties), are there any technical difficulties you were or are afraid of facing while sitting for an online exam?

13e) (If they expressed anxiety and difficulties), what strategies can you think of, that either you or others use, to overcome the anxiety from using the (*device's name*) and the possible technical difficulties?

14) Please describe the place where you sat for the exam and the environment around you?

14a) Would you prefer to have been somewhere else? Can you elaborate?

15) Please describe how you felt when you found out about having had to sit for an online exam?

15a) Had the same exam been offline, how do you imagine you would have felt?

16) What techniques or methods do you use or know others use to reduce anxiety before taking a written online exam? Can you elaborate on them?

16a) Would you say you follow the same techniques and methods for a written offline exam?

17) Is there anything you would like to add? If not, thank you very much for your participation.

Appendix C: Examples of the Coding Process

Raw Data Quote	Initial Code	Category	Final Theme
"I was worried about the internet connection"	Technical anxiety	Technology concerns	Feelings Associated with Technology Use
"I use shorter sentences to avoid mistakes"	Language avoidance strategy	Language coping	Strategies to Alleviate Language-Related Anxieties
"I type faster than I write by hand"	Typing preference	Modality comparison	Comparisons with Offline Exams
"I felt pressure from the time limit"	Time pressure anxiety	General test stress	General Perceptions of Exams

Appendix D: Overarching Themes

Prominent Emerging Themes and Subthemes

Themes/Subthemes	Topics
Feelings associated with language use	<ul style="list-style-type: none"> Negative feelings/anxiety associated with online/offline exams Positive feelings/confidence associated with online/offline exams Source/s of anxiety/confidence
Strategies to alleviate language-related anxieties	<ul style="list-style-type: none"> Studying strategies (Reading techniques, preparatory essays, etc.) Physical techniques for emotional regulation Personal preferences or habits
Feelings associated with technology use in online exams	<ul style="list-style-type: none"> Type of device used Positive feelings associated with the device and their source/s Negative feelings associated with the device and their source/s
Comparisons and contrasts made with offline exams	<ul style="list-style-type: none"> Positive and negative feelings associated with typing on keyboard Positive and negative feelings associated with writing on paper Source/s of either positive and negative feelings for either mode
Technology-related anxieties and strategies utilised to alleviate them	<ul style="list-style-type: none"> Difficulties faced during online exams Anxieties about possible technical difficulties that may arise during online exams Strategies utilised to alleviate technology-related anxieties/ Reducing the possibility of experiencing technical difficulties
Feelings and general perceptions associated with online and offline exams	<ul style="list-style-type: none"> Feelings associated with a specific online exam situation Feelings associated with finding out about the exam being online General feelings associated with offline exams in comparison with online exams Preparations made for the specific online exam in comparison with the hypothetical offline version
Feelings associated with online exam proctoring	<ul style="list-style-type: none"> Feelings associated with experiencing monitored online exams If not experienced, participants described how they would have felt if the exams they described were monitored
Strategies utilised to alleviate general test anxiety before exams	<ul style="list-style-type: none"> Personal techniques or methods participants follow to alleviate anxiety before either online or offline exams