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Araştırma Makalesi ● Research Article

Voices Regarding Online Assessment: Students' Perceptions, Challenges, and Proposed Solutions

Çevrimiçi Değerlendirmeye İlişkin Sesler: Öğrencilerin Algıları, Karşılaştıkları Zorluklar ve Çözüm Önerileri

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Abstract: This study investigates undergraduate EFL students' perceptions of online assessment, focusing on their challenges and the solutions they propose to address them. Additionally, it examines variations in student perceptions based on key demographic variables, including self-perceived computer skill level and ownership of digital devices, using independent samples t-tests. The participants are 200 students enrolled in a language department at a university in Türkiye. Quantitative data were gathered through the Online Assessment Perception Inventory (Alsalhi et al., 2022), while qualitative data were obtained from semi-structured interviews. The quantitative analysis revealed significant differences in students' perceptions of online assessment based on their computer skill levels and device ownership. Despite an overall favourable perception of online assessment, students expressed specific concerns that highlighted areas for improvement. Qualitative findings revealed that students often associated online assessment with challenges in areas such as exam content, question design, platform functionality, individual capabilities, socio-economic factors, and the level of instructor support. Furthermore, students suggested targeted solutions such as advocating for improvements in the planning and structure of online exams, question quality, and instructor involvement. These findings underscore the importance of adapting online assessment practices to meet students' needs better and enhance their learning experiences. Finally, the study concludes by offering recommendations for optimising online assessment strategies in higher education based on students' insights and experiences.

Keywords: online assessment, perceptions, challenges, proposed solutions, EFL students

Öz: Bu çalışma, özellikle karşılaştıkları zorluklara ve bu sorunları ele almak için önerdikleri çözümlere odaklanarak, yabancı dil olarak İngilizce öğrenen lisans öğrencilerinin çevrimiçi değerlendirmeye ilişkin algılarını araştırmaktadır. Ayrıca, bu çalışmada bağımsız örneklem T-testleri kullanılarak, algılanan bilgisayar beceri düzeyi ve dijital cihaza sahip olma / olmama gibi temel demografik değişkenlere bağlı olarak öğrenci algılarındaki farklılıklar incelenmektedir. Çalışmanın örneklemi, Türkiye'deki bir devlet üniversitesinin dil bölümüne kayıtlı 200 öğrenciden oluşmaktadır. Nicel veriler Çevrimiçi Değerlendirme Algısı Envanteri (Alsalhi vd., 2022) aracılığıyla toplanırken, nitel veriler öğrencilerin algılarının yanı sıra çevrimiçi değerlendirmeyle ilgili

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deneyimlerinin derinlemesine anlaşılmasını sağlamak için yarı yapılandırılmış görüşmelerden elde edilmiştir. Nicel analiz, öğrencilerin algılanan bilgisayar beceri düzeylerine ve cihaz sahipliklerine göre çevrimiçi değerlendirme algılarında önemli farklılıklar olduğunu ortaya koymuştur. Çevrimiçi değerlendirmeye ilişkin olumlu algıya rağmen, öğrenciler iyileştirilmesi gereken alanları vurgulayan belirli endişelerini dile getirmişlerdir. Nitel bulgular, öğrencilerin çevrimiçi değerlendirmeyi genellikle sınav içeriği, soru tasarımı, platform işlevselliği, bireysel yetenekler, sosyo-ekonomik faktörler ve eğitmen desteği düzeyi gibi alanlardaki zorluklarla ilişkilendirdiğini ortaya koymuştur. Ayrıca öğrenciler, çevrimiçi sınavların planlanması ve yapısı, soru kalitesi ve öğretmen katılımı konularında iyileştirmeler yapılmasını savunarak hedefe yönelik çözümler önermiştir. Bu bulgular, çevrimiçi değerlendirme uygulamalarının öğrenci ihtiyaçlarını daha iyi karşılayacak ve öğrenme deneyimlerini geliştirecek şekilde uyarlanmasının önemini vurgulamaktadır. Son olarak çalışma, öğrencilerin içgörü ve deneyimlerine dayanarak yükseköğretimde çevrimiçi değerlendirme stratejilerinin optimize edilmesine yönelik öneriler sunarak son bulmaktadır.
Anahtar Kelimeler: çevrimiçi değerlendirme, algılar, zorluklar, çözüm önerileri, yabancı dil öğrencileri

Introduction

Assessment is integral to instruction and the engine that drives learning (Black & Wiliam, 1998). It determines whether the educational goals and standards of the lessons are being met. Also, it enables teachers to measure students' understanding of course material and identify their strengths and weaknesses. Therefore, asking students to demonstrate their knowledge of the subject matter is critical to learning. Also, a significant relationship was identified between assessment and learning practices, as well as between teaching and assessment practices (Hermes et al., 2015). Therefore, these three components of education are said to be interconnected and mutually supportive. Based on this, it can be said that effective assessment practices can enhance learning, and effective teaching practices can facilitate assessment.

As online education has become more prevalent in recent years, assessing students online has become increasingly common. This new instruction mode involves using digital tools to evaluate the learners' educational progress. In other words, online assessment has become a crucial tool for educators and institutions, particularly during COVID-19, allowing for continued learning and assessment in remote settings. Nowadays, it provides several benefits that help teachers track students' progress, identify their strengths and weaknesses, and offer feedback to both teachers and students; additionally, online assessments can be utilised to meet the needs of individual students, making learning more personalised and effective (Ashworth et al., 2021; Helfaya, 2019).

In contemporary foreign language educational settings, assessment processes have largely witnessed technological advances and, accordingly, support (Bos & Schneider, 2018; Bovill & Jordan, 2017; Huang et al., 2020; Gikandi et al., 2011; Liang et al., 2018; Wolt & Mason, 2003; Zhang et al., 2019). Due to its contribution to the learning process, learners' perceptions of online assessment have become a topic of interest among researchers (Al-Rahmi et al., 2018; Sönmez & Dündar, 2021; Yılmaz & Karadeniz, 2021), as it has the potential to affect their engagement, motivation, and learning outcomes (Kusurkar et al., 2023). Understanding students' perceptions of online assessment is crucial for enhancing educational practices. This insight enables educators to refine their assessment methods, pinpoint areas for improvement, and ultimately provide a more effective learning experience.

In light of the importance of assessment, previous studies have explored students' perceptions of online assessment, offering valuable insights. For example, a study by Stowell and Bennett (2010) examined students' perceptions of online assessment in higher education. The study found that students generally had positive attitudes towards online assessment, with 73% of participants reporting that they preferred online exams to traditional paper-based exams. The study also found that students perceived online assessment as more convenient and efficient, allowing them to take the exam from anywhere with an internet connection and receive instant feedback.

Özden (2004) found that the most prominent features of online assessment that were noted as effective in the studies include immediate feedback, randomised question order, item analysis of the questions, and obtaining scores immediately after the exam. In addition, students reported that online

assessments motivated them to learn and encouraged skill practice, broadened the range of knowledge assessed, increased feedback to students and lecturers, extended the range of assessment methods, increased objectivity and consistency, and reduced marking loads.

However, not all studies have reported positive perceptions towards online assessment. A study by Liang et al. (2018) examined students' perceptions towards online assessment in a blended learning environment. The study found that students perceived online assessment to be less reliable and less secure than traditional paper-based exams. Students also reported that online assessments were more stressful, as technical difficulties could occur during the exam.

With the shift to online learning, particularly with the sudden outbreak of COVID-19, many students have had to adapt to new modes of assessment, including online exams and assignments. That is, the outbreak of COVID-19 has contributed to the re-emergence of online testing and assessment. Despite many studies exploring students' perceptions regarding online assessment (Hussain, 2020; Soffer et al., 2017; Valdez & Maderal, 2021), to our knowledge, limited information has been available regarding the challenges faced by EFL learners during online assessment practices and suggested specific strategies for addressing these challenges. Therefore, it can be acknowledged that a study on the challenges faced by students in online assessment can provide valuable insights for educators and policymakers in improving online learning experiences. By understanding the specific challenges that students face, educators can develop effective strategies for addressing these challenges and ensuring that all students have equal opportunities for success in online learning environments.

One of the studies on the effects of the shift to online assessment is that of Ali and Dmour (2021). The study explored the challenges faced in online assessment and the strategies implemented by university instructors in the United Arab Emirates. The findings of this mixed-design study indicated that students benefited from online assessment.

El-Otmani and El-Otmani (2022) also conducted a comparative study of Moroccan EFL learners' perceptions towards online and traditional assessment. They found that while learners generally had positive perceptions towards both types of assessment, they preferred online assessment due to its flexibility and convenience.

Therefore, the significance of the present study lies in its potential to improve the quality of online assessment and promote more effective online learning practices. A study focusing on students' challenges in online assessment can provide valuable insights into improving online learning experiences. It can help identify specific areas where students struggle and develop effective strategies for addressing these challenges. For example, the study can focus on the most challenging assessments for students, such as online exams or group projects. Additionally, the study can identify the barriers students face when completing online assessments, such as technical difficulties or time management.

Considering all the relevant points, this study also aims to shed light on the proposed solutions provided by the learners to the problems they experienced in online assessment practices during the pandemic period. A study focusing on students' proposed solutions to their problems in online assessment can have significant implications for educators and policymakers alike. The proposed solutions by students in this study can help educators and policymakers develop effective strategies to mitigate the negative impact of electronic media on students' learning. The study's findings can also inform the design and implementation of online assessments that better align with students' needs and preferences. The study can, additionally, pave the way for further research in online assessment and virtual learning, particularly from a student-centred perspective. The study's findings can be used to inform future research on how to improve online learning and assessment experiences for students. In summary, a study focusing on students' proposed solutions to their problems in online assessment can significantly contribute to new knowledge, impact students' academic achievement, and potentially inform future research and policy decisions.

Taking all these into consideration, the current study revolves around the following research questions:

RQ1. How do participants perceive online assessment?

RQ2. Do the participants' perceptions vary according to whether they have a personal computer or tablet or self-perceived computer usage skills?

RQ3. What challenges do participants experience during online assessments? What solutions, if any, do they propose to address these difficulties?

Method

This study employed an explanatory sequential mixed-methods research design, combining quantitative and qualitative approaches to comprehensively understand students' perceptions of online assessment.

Research Design

A key component of the research process is research design, which establishes the general approach taken to conduct the study and provides empirical data to address research questions. In other words, a research design is a well-organized plan that specifies the steps involved in collecting, analysing, and interpreting data.

The current study was planned and carried out in accordance with the principles of mixed methods research design. The mixed methods research design involves collecting quantitative and qualitative data. It combines the advantages of both methodologies, resulting in a more thorough knowledge of the topic under examination (Plano-Clark, 2017).

It is crucial to keep in mind that mixed methods research involves more than just having both forms of data accessible; instead, it involves effectively integrating data collection, analysis, and reporting the results (Fetters et al., 2013). Considering this, this current study adopts an explanatory sequential mixed-methods research design, one of the types of mixed-methods research designs (Subedi, 2016).

In this design, quantitative data are gathered to give an overall preliminary view of the issue under scrutiny. These data are then investigated to reveal patterns, trends, or relationships. Next, qualitative data are gathered to supplement or explain the quantitative results. The qualitative data can help enhance the initial quantitative findings (Ivankova et al., 2006).

Specifically, this study measured participants' perceptions of online assessment using a validated scale. Based on the quantitative results obtained, semi-structured interview protocols were prepared. Then, individual semi-structured interview sessions were held with the volunteer students to reveal their perceptions of online assessment in detail. Additionally, the difficulties students faced in the online assessment process and their proposed solutions were identified through semi-structured interviews.

Participants

The research participants are 200 students studying at a state university in eastern Türkiye. The participants are comprised of 155 females and 45 males. None of the participants had been exposed to online assessment before the outbreak of COVID-19. They were first introduced to online assessment through distance education applications that emerged as a result of the COVID-19 outbreak. The participants were selected using the convenience sampling (Dörnyei, 2007). Convenience sampling is a non-probability sampling technique that selects the sample based on the researcher's convenience (Creswell, 2012). Participants for the current study were chosen based on their convenience and agreement to engage in the study.

Data Collection Tools

First, a 22-item scale developed by Alsalhi et al. (2022) was employed in this study. This Likert-type scale was used to determine students' perceptions concerning the online assessment practices applied to them during the COVID-19 pandemic. Its Cronbach's alpha coefficient value was found to be 0.852, showing that it has a high level of internal consistency. Furthermore, to assess the scale's validity, nine faculty members who are specialists in the field of education were asked to examine the comprehensiveness of the items. They concluded that the questionnaire items were valid for uncovering students' perceptions of online assessment (Alsalhi et al., 2022). Therefore, these findings demonstrated the validity and reliability of the questionnaire in assessing university students' perceptions of online assessment.

Second, semi-structured interviews were held to gain a deeper understanding of the quantitative results and to identify the challenges students faced during the online assessment process, along with their proposed solutions. This approach is efficient in qualitative research, providing rich, detailed data that captures participants' experiences, thoughts, and perspectives (Kallio et al., 2016).

Procedure

Due to the COVID-19 epidemic, universities conducted their education and assessment practices online for three semesters**.** This study started when universities turned to in-person education, in other words, after completing students' online assessment experiences. Data were collected in the spring semester of the 2021-2022 academic year. The scale, which aims to measure students' perceptions of online assessment, was sent to the students via Google Forms after obtaining permission from the ethics committee. Then, individual face-to-face interviews were conducted with the volunteer participants. Each interview was held in the researchers' office and recorded with the participant's consent. The data collection process took an average of two months, and then the preparation for analysis began.

Data Analysis

Regarding data analysis, descriptive statistics were used to analyse the quantitative data. The questionnaire's mean score (MS) and standard deviation (SD) calculations provided insight into the students' opinions on online assessment. An independent sample t-test was computed to see if there was a significant difference between the students' perceptions of online assessment based on their assessments of their computer usage skills and possession of a tablet or personal computer. As for the qualitative data, inductive content analysis was utilised. Inductive content analysis is a research method that employs qualitative data, such as textual or visual content, to analyse it without relying on a pre-existing theoretical framework (Cohen et al., 2017). The researcher uses this method to build codes and categories depending on the data, allowing unique ideas to arise. For the data analysis of the current study, the researcher read and re-read the data to identify patterns and themes and then created a coding scheme to categorise the data based on these themes systematically. The researcher also continually refined and updated the coding scheme as new patterns and themes emerged from the data.

Ethical Considerations

Throughout the study, each stage was meticulously planned, and ethical issues were considered since it is critical to ensure that ethical concerns are in place to protect human participants who are participating in the study. First, permission was obtained from the Bingöl University (Turkey) 's ethics committee (Ethics Committee Approval Number: E-92042961-108.01-141104) before starting the study. In addition, the participants were informed about the purpose of the study, research questions, potential risks as well as benefits, data collection tools, participants' rights to withdraw from the study at any time they want, and especially those who participated in semi-structured interview sessions, were asked to sign an informed consent form (Arifin, 2018). Also, the participants were guaranteed anonymity and confidentiality by removing personal identifiers and using pseudonyms for participants' names. During the qualitative data collection process, namely during the semi-structured interviews, interviews were recorded with participants' consent, and it was ensured that the questions asked were not intrusive

or offensive (Nevman et al., 2021). To guarantee the authenticity and credibility of the study, the researchers approached the qualitative data obtained from interview transcriptions with objectivity, and students were contacted about their replies when necessary. Consequently, it might be said that the participants' welfare was protected, and the research was conducted reliably and credibly.

Findings

Findings of Quantitative Data

In this section, the quantitative findings are presented. Within the scope of quantitative data analysis, the comparison was made among participants concerning their perception of online assessment based on having personal computers/tablets and their self-perceived computer usage skill variables, which are displayed in the following tables.

Table 1. Independent Samples T-test Results Concerning Participants' Perceptions of Online Assessment Based on Having a Personal Computer/Tablet

	Do you have a personal computer or tablet?	N	x̄	SD	P
Q1 Online assessment limits cheating attempts.	Yes	141	2.77	1.437	.016
	No	58	2.26	1.292	
Q3 Online assessment is more environmentally friendly than paper exams.	Yes	141	4.32	1.197	.004
	No	58	3.71	1.389	
Q4 The design of the online assessment test interface is appropriate.	Yes	141	3.44	1.203	.045
	No	58	3.05	1.234	
Q9 Online assessment is suitable for assessing students in any course.	Yes	141	2.82	1.611	.088
	No	58	2.43	1.352	
Q10 Students do not need external help when using the computer.	Yes	141	3.22	1.394	.001
	No	58	2.47	1 404	
Q15 Online assessment helps raise the efficiency of student achievement.	Yes	140	2.91	1.429	.904
	No	58	2.88	1.488	
Q18 Online assessment enables me to show better academic achievement.	Yes	141	2.90	1.494	.801
	No	58	2.84	1.387	
Q22 The online assessment facilitates the extraction of results quickly and effectively.	Yes	141	4.06	1.214	.003
	No	58	3.45	1.340	

To answer the first research question, independent samples t-test analyses were conducted to compare students' perceptions of online assessment based on whether they own a personal computer/tablet. Table 1 presents the results of the independent samples t-test. Certain selected items from the questionnaire are presented in Table 1 since their results were significant, allowing researchers to interpret the findings more straightforwardly and emphasising the most impactful variables related to the research questions.

As illustrated in Table 1, there is a difference in participants' perceptions of online assessment based on the having personal computer/tablet variable in certain aspects. The results indicate significant differences in perceptions between those with a personal computer or tablet and those without.

First, regarding whether online assessment limits cheating attempts, participants with personal devices ($M = 2.77$, $SD = 1.437$) perceived this statement more favourably than those without ($M = 2.26$, $SD = 1.292$), with a statistically significant difference ($p = .016$). Additionally, the perception that online assessments are more environmentally friendly than paper exams showed a notable difference, with

users reporting a higher mean score (M = 4.32, SD = 1.197) compared to non-users (M = 3.71, SD = 1.389), with a significant p-value of .004.

Moreover, regarding the appropriateness of the online assessment interface design, those with personal devices had a higher mean score (M = 3.44, SD = 1.203) than those without (M = 3.05, SD = 1.234), which was significant (p = .045). However, when evaluating the suitability of online assessment for any course, no significant difference was found between the two groups (M = 2.82, SD = 1.611 for users vs. M = 2.43, SD = 1.352 for non-users, p = .088).

Furthermore, perceptions of needing external help when using computers revealed a substantial difference, as those with personal devices scored higher (M = 3.22, SD = 1.394) compared to non-users (M = 2.47, SD = 1.404), with a highly significant p-value of .001. In contrast, the items concerning the impact of online assessment on student achievement and efficiency showed no significant differences, with both groups reporting similar perceptions (Q15: p = .904; Q18: p = .801).

Lastly, concerning the efficiency of online assessments in facilitating the extraction of results, users again rated this aspect higher (M = 4.06, SD = 1.214) than non-users (M = 3.45, SD = 1.340), achieving a significant p-value of .003. These results suggest that personal computer or tablet ownership significantly influences participants' perceptions of various aspects of online assessments.

Table 2. Independent Samples T-test Results Concerning Participants' Perceptions of Online Assessment Based on their Self-perceived Computer usage Skills

	How do you rate your computer skills?	N	x̄	SD	*p*
Q4 The design of the online assessment test interface is appropriate.	Low	O	3.04	1.503	.002
	Excellent	16	4.31	1.014	
Q7 The number of online assessment questions is sufficient.	Low	28	2.89	1.548	.000
	Excellent	16	4.44	.814	
Q8 Online assessment times are appropriate for students.	Low	28	2.00	1.361	.001
	Excellent	16	3.56	1.459	
Q9 Online assessment is suitable for assessing students in any course.	Low	28	2.18	1.492	.002
	Excellent	16	3.81	1.515	
Q10 Students do not need external help when using the computer.	Low	28	2.46	1.427	.000
	Excellent	16	4.31	1.138	
Q11 The online assessment system is clear and specific.	Low	28	2.93	1.245	.000
	Excellent	16	4.50	1.033	
Q12 I prefer taking a paper-based exam to assess my knowledge more than an online assessment.	Low	28	2.96	1.710	.007
	Excellent	16	1.63	1.360	
Q13 Taking the online assessment requires less time than taking the paper-based exam.	Low	28	3.46	1.453	.703
	Excellent	16	3.63	1.258	
Q14 Online assessment makes me feel less stressed than paper-based exams.	Low	28	3.43	1.643	.103
	Excellent	16	4.19	1.328	
Q15 Online assessment helps raise the efficiency of student achievement.	Low	28	3.00	1.515	.111
	Excellent	15	3.80	1.521	
Q16 Online assessment regulations are clear and easy to understand.	Low	28	2.79	1.397	.000
	Excellent	16	4.38	.957	
Q17 Online assessment serves as a flexible assessment method.	Low	27	3.15	1.406	.008
	Excellent	16	4.25	1.125	
Q19 Generally, I prefer taking online assessment more than taking paper-based exam.	Low	28	3.04	1.710	.010
	Excellent	16	4.31	1.352	
Q20 The online assessment log-in interface is clear and easy to operate.	Low	28	3.04	1.319	.005
	Excellent	16	4.13	1.088	

Table 2 presents the results of an independent samples t-test analysing participants' perceptions of online assessment based on their self-rated computer usage skills. The participants were divided into two groups according to their perceived computer usage proficiency: those rated their skills "Low" and those rated "Excellent." Table 2 shows significant differences in participants' perception of online assessment between "Excellent" computer users and "Low" ones. The independent t-test compares the means of two independent groups to see if there is a statistically significant difference in their perceptions of online assessment.

Concerning the appropriateness of the online assessment test interface design, individuals with excellent computer usage skills rated this aspect significantly higher (M = 4.31, SD = 1.014) compared to those who rated themselves as having low computer usage skills (M = 3.04, SD = 1.503), with a p-value of .002. Similarly, the perception of the sufficiency of online assessment questions was notably higher among those with excellent skills (M = 4.44, SD = .814) versus low-rated participants (M = 2.89, SD = 1.548), with a highly significant difference (p = .000).

Furthermore, regarding the appropriateness of online assessment times, those with excellent skills reported a mean score of 3.56 (SD = 1.459), significantly higher than the low-skilled group, which scored an average of 2.00 (SD = 1.361), achieving a p-value of .001. The perception of online assessment suitability for various courses also reflected a significant difference; participants with excellent skills rated it higher (M = 3.81, SD = 1.515) compared to low-skilled participants (M = 2.18, SD = 1.492), with a p-value of .002.

Moreover, the item assessing the need for external help while using computers revealed a stark contrast, with those rating their computer usage skills as excellent scoring an average of 4.31 (SD = 1.138), while those with low computer usage skills rated it significantly lower (M = 2.46, SD = 1.427), and the difference was highly significant (p = .000). In terms of clarity and specificity of the online assessment system, those with excellent skills rated it even higher (M = 4.50, SD = 1.033) compared to low-skilled users (M = 2.93, SD = 1.245), with a p-value of .000.

Meanwhile, perceptions of preference for paper-based exams showed a significant difference (M = 1.63, SD = 1.360 for excellent users vs. M = 2.96, SD = 1.710 for low users, p = .007). For instance, items such as the time required for online assessments (p = .703) and stress levels compared to paper exams (p = .103) did not show significant differences. However, several items regarding clarity of online assessment regulations, perceived flexibility, and a general preference for online assessments over paper exams all demonstrated significant differences, reinforcing the notion that higher self-perceived computer usage skills correlate with more favourable perceptions of online assessments. These results indicate a strong relationship between participants' self-rated computer skills and their perceptions of various aspects of online assessments.

To summarise, Table 2 shows that participants with "Excellent" computer usage skills mostly perceive online assessments more favourably, particularly regarding the system's usability and clarity. At the same time, "Low" users reveal a tendency towards traditional paper-based assessments. These results suggest that computer usage skill level influences perceptions of online assessment effectiveness.

Table 3. Descriptive Analysis of the Participants' Perceptions of Online Assessment Based on Gender

		N	$\bar{x}$
Gender	Female	155	3.80
	Male	45	4.20
	Total	200	4.00

This study also used descriptive statistics to identify the general perception of online assessment by focusing on gender distribution. The findings show that out of 200, 155 (77.5%) respondents are female. Table 3 shows the descriptive statistical values obtained by university students from the online assessment perception scale. Female and male participants rated online assessment items high in most dimensions based on the mean scores. Table 3 illustrates that most participants favour online assessment with a mean score of $\bar{x} = 4.00$, which is accepted as high (Bohrnstedt & Knoke, 1988).

In conclusion, the findings of this study highlight significant differences in university students' perceptions of online assessment based on their computer usage proficiency and ownership of personal devices. The descriptive analysis indicates a generally favourable attitude toward online assessments among female and male participants, with a notable preference for online formats among proficient computer users. Conversely, those who consider themselves less skilled in technology tend to favour traditional paper-based exams. Additionally, students with personal computers or tablets demonstrate greater confidence in navigating online assessments and view these tools as environmentally friendly and efficient in delivering results. However, certain aspects showed no significant differences, suggesting that perceptions of online assessment are multifaceted and influenced by various factors.

Findings of Qualitative Data

Semi-structured interviews were conducted to gain deeper information about students' perceptions of online assessment, to reveal the challenges they experienced during online assessment, and to determine the solutions they offered to these problems. The interviews were held voluntarily with 25 students (out of 200). Followingly, the interviews were transcribed verbatim, and the qualitative raw data were analysed using a qualitative data analysis software based on inductive content analysis.

As a result of the analysis of the semi-structured interviews conducted within the scope of the research, a total of 767 codes emerged, 126 of which were different from each other. Then, the initial codes were categorised and classified under 14 different categories. Two of these categories are students' perceptions of online assessment, six are the difficulties they experience in this process, and the remaining six are the categories that present the results of the solution suggestions that students produce regarding the challenges they encounter in online assessment.

Table 4. Overall Qualitative Findings

Perceptions of Online Assessment (n=222)	Challenges Encountered During Online Assessment (n=371)	Suggested Solutions to Challenges Encountered During Online Assessment (n=174)
Favorable Perceptions (n=33)	Exam Content, Administration and Question-Related Challenges (n=161)	Proposed Solutions that should be Considered in Online Exam Administration (n=55)
Unfavourable Perceptions (n=189)	Challenges Concerning OA Platform and Infrastructure (n=80)	Proposed Solutions for Planing Online Exams (n=61)
	Challenges Caused by Student Themselves during Online Assessment (n=59)	Proposed Solutions for Exam Questions (n=33)
		Proposed Solutions for the Technical Issues (n=11)
	Challenges Arising from Socio-Economic Factors (n=30)	Proposed Solutions for Students (n=6)
	Challenges Related to Teachers (n=32)	Other Suggested Solutions Concerning Online Assessment (n=8)
	Challenges Based on Assessment Results (n=9)	

In the following section, the findings that shed light first on the participants' perceptions of online assessment, then on the difficulties they experienced in this process, and finally on the solutions proposed by the students against these difficulties will be presented.

Foreign Language Learners' Perceptions of Online Assessment

Inductive content analysis yielded 222 codes revealing students' perceptions of online assessment. These codes were then classified into students' favourable perceptions (n=33) and unfavourable perceptions (n=189). Based on this, it can be said that foreign language students have a negative mindset about online assessment.

Favorable Perceptions

The analysis revealed that students' favourable perceptions of online assessment are relatively more limited than their unfavourable ones. When these were analysed, it was found that they were generally related to the impact on the students' mood, affordability and comfort zone. The frequently cited codes regarding students' favourable perceptions of online assessment are given in the following Figure 1.

Figure 1. Students' Favourable Perceptions of Online Assessment

To elaborate further, online assessment is economical for students in terms of time cost and comfort because it takes place in the students' comfort zone. As a result, it is a stress-free way of assessment. The following statements support this finding as follows:

"One of the biggest advantages is taking online exams wherever we want. The exams take place in our comfort zone, relaxed and stress-free. I am more productive in a relaxed and stress-free environment" (Participant 9).

"*Online assessment is advantageous for teachers and students in terms of time because you take the exams at home and do not spend much time. It is also advantageous financially. You do not spend money to take the exams, and there is no paper waste" (Participant 1).*

Unfavourable Perceptions

According to the analysis, students have a mostly negative opinion about online assessment. The main codes referring to these negative perceptions are presented in the following Figure 2.

Figure 2. Students' Unfavourable Perceptions of Online Assessment

First, the students stated that online assessment did not positively or negatively impact their foreign language learning or their learning of other department courses. To elaborate further, the participants stated that they did not learn anything new through the exams, and since they have yet to receive any feedback after the exams, they could not change how they learned. The following excerpt exemplifies this result:

"*The online exams had a low impact. I mean, I only focused on completing the exam on time by acting quickly. I could not organise my studying according to the exams. I understood that I needed to be fast. I could not understand what I was lacking and what I needed to focus on more by looking at the exams. I could not organise myself by getting feedback from the exams" (Participant 18).*

Secondly, students think there are better assessment methods than online assessment. Believing that there is inequality of opportunity in online education, they argue that hardworking and knowledgeable students are unable to take the exam as they should due to impossibilities, while academically poor students somehow perform well in the exam, either by cheating or by cooperating in groups and utilising artificial intelligence, and therefore the results are unfair. The following quote supports this conclusion.

"*In exams where I studied a lot or my knowledge was sufficient, some of my friends cheated or took the exam collectively. I got a lower grade than them even though I was more knowledgeable, so I do not think online assessment is fair" (Participant 2).*

Also related to this result, participants believe that online exams are too complex to prevent students from cheating, and in addition, since cheating cannot be prevented in the exams, the discrimination of the exams is low; that is, they cannot effectively distinguish between those who know and those who do not know.

"*In my opinion, online exams do not distinguish between those who work and learn and those who do not work and do not know. In this case, it is unfair to those who work and know. Those who do not know somehow pass exams they would not normally pass. Sometimes, the exams are so difficult that no one can perform well. In short, exams were not an effective determinant" (Participant 4).*

In addition, participant students believe that online exams are often cheated on or that some students are replaced by people who are more knowledgeable and experienced than them, which leads to errors in the exam results. As a result, they believe this way of assessment could be more reliable. The following quote exemplifies this result.

"*In online exams, the student can get help from someone else, someone else can take the exam instead of the student, and the student can cheat. In other words, the student can take and*

pass the exam without studying or knowing the subject. Because the exam result is high" (Participant 10).

Last but not least, the results revealed that the students' online exams were invalid; that is, the behaviour to be measured was inconsistent with the measurement method, as seen in the excerpt below, and therefore the results did not reflect the construct to be measured.

"*There were courses where exams were held just for making exams; for example, in the speaking course, we were subjected to an exam unrelated to speaking skills. Does the assessment result reflect the level of our speaking skills now? We did not speak in the exam. Therefore, I do not find online exams realistic"(Participant 1).*

1. Foreign Language Learners' Challenges in Online Assessment

As a result of the analysis, 371 codes referring to the difficulties experienced by students during the online assessment process emerged. These were classified under six categories such as Exam Content, Administration and Question Related Challenges (n=161), Challenges Concerning Online Assessment Platform and Infrastructure (n=80), Challenges Caused by Students Themselves during Online Assessment (n=59), Challenges Arising from Socio-Economic Factors (n=30), Challenges Related to Teachers (n=32), Challenges Based on Assessment Results (n=9).

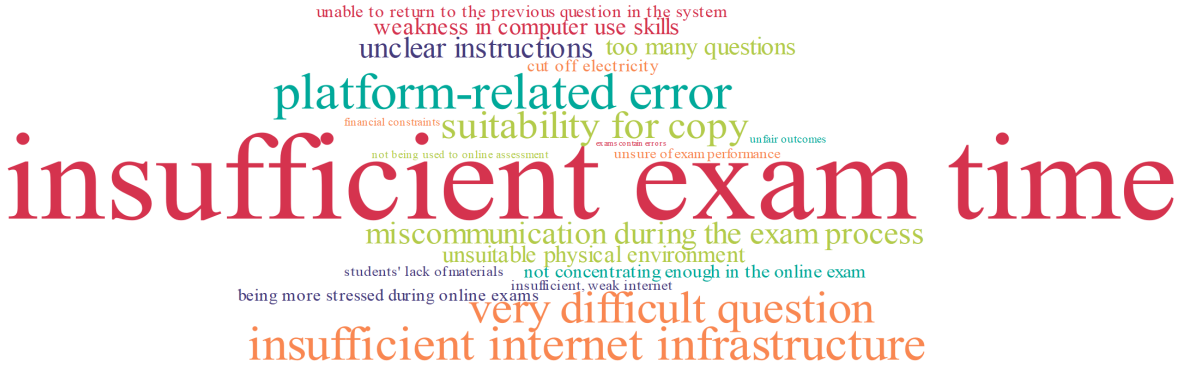

Figure 3. Overall Challenges Experienced by Students during Online Assessment

First, students frequently reported needing help with the exams and how they were administered during the online assessment. According to the frequency of citation, the most commonly mentioned codes related to this category are that the exam questions are quite tricky, the number of questions included in the exam is too high, the exam time is not enough, the instructions in the exams are not clear enough, and they experience confusion. The students stated that during the online assessment process, they encountered questions that were too difficult and too many to distinguish between those who knew and those who did not know. Despite these questions, the time allocated to them could have been more extensive, and this was a problem they frequently experienced during online assessments, as exemplified in the following excerpt.

"*It was a period when I felt very stressed. The questions were quite specific and difficult. I sometimes encountered incomprehensible expressions; I did not know what the question wanted from me. Despite all these difficult questions, the time was also very insufficient. The exam time was too short for the number of questions. When I think about it now, I think of those exams when my back and shoulder hurt at the computer" (Participant 11).*

Secondly, students stated they experienced difficulties due to the platform and internet infrastructure on which online exams were conducted. It was revealed that students' need for sufficient and strong internet during the exams prevented them from performing well. In addition, the fact that the platform on which the exam was conducted provided students with restrictions, such as not being able to start from the question they wanted in the exam and not being able to go back to check the previous questions they had completed, which caused students to experience difficulties in online assessment. The following excerpts illustrate this result.

"My internet package was insufficient, and I had much trouble taking the exams because of the internet shortage. Some of my friends live in the village. Their villages have no cell phone signal,

so they go to internet cafes in the city to take the exams. Well, those who live in the city also go to internet cafes because sometimes, suddenly, there is no internet, and we get kicked out of the exam. To be on the safe side" (Participant 22)

"*For example, I could not see the next question and organise myself; therefore, I had a shortage of time. I did it quickly because I feared the time would be insufficient. If I had the chance to see the next question, I would do the question that I could do and be sure of it immediately. I would give the rest of my time to other questions. Sometimes, I could not return to the previous question when my time increased. If I had such a chance, I could add what I thought of later to my answers" (Participant 10).*

In addition, students also expressed that they experienced difficulties caused by them during the online assessment. According to the students, the main challenges they caused were not being used to online evaluations, weakness in writing with digital tools, not taking online exams as seriously as face-to-face exams and feeling more stress than usual during the exam. Students stated that since they were mainly used to face-to-face exams, paper and pencil exams, and were not experienced enough in online exams, they could not perform as they wanted in online exams, they could not type correctly and quickly with the keyboard, and this made them feel worried about getting a low score or not meeting the deadline. This result is exemplified in the following excerpt.

"We had a big problem because we were not used to taking the exam on the keyboard before, and some of us did not have the habit of typing fast on the keyboard" (Participant 11).

"I had many problems in the first exams. I had never taken an online exam until then because it was a form of exam that we were not familiar with. Since I was completely unfamiliar with it, I constantly felt like I was doing something wrong, and this caused me stress; I was very nervous" (Participant 8).

Moreover, some socio-economic factors also contributed to students' problems with online exams. The main socio-economic issues cited by the students were: unsuitable physical environment for online exams, financial constraints, lack of digital tools to use in online exams and problems among family members.

Based on the students' statements, to perform effectively in online assessment, it is necessary to have a certain level of financial comfort. Students could not find a suitable exam environment during the online assessment. They could not obtain sufficient equipment, such as computers and phones, so they had exam problems. The following quote illustrates this finding.

"Not everyone has internet or technological devices at home. I did, but my close friend did not have a computer. She always had to take the exams on her phone. It is not easy to type long answer questions on the phone. Online exams are impossible with a phone, a computer is a must, and almost half of the class did not have a computer, so we had a big problem" (Participant 5).

"Since we were at home, situations at home could also affect the exams. For example, guests come, and you have to do the exam, but some noises and noises can distract you, or it is more difficult for those who do not have a separate room. Many people could not find that comfort zone" (Participant 1).

Last but not least, according to the students, their teachers also determine the difficulties they experience in the online assessment process. First, students stated that their teachers needed knowledge and experience in online assessment. They also reported that their teachers treated each student harshly, as if they were cheating, did not communicate with them during the exam, and did not give them feedback after the exam. According to the students, the purpose of their teachers is not to measure knowledge but to prevent students from cheating. The quotes below explain these results.

"Also, I think our teachers should improve their online assessment competence. I do not want to denigrate our teachers, but I would like to say that some of my teachers need more knowledge about online education and online assessment" (Participant 21).

"*I would like to say that after the exams, we learn lessons for ourselves, we get feedback from our friends and professors, and thus we learn something new. This does not happen in online exams" (Participant 10).*

"*In addition, sometimes, in face-to-face exams, we can contact the lecturer with questions we do not understand or are confused about, but this is impossible in these online exams. There is no communication. The lecturers are nervous" (Participant 12).*

Solution Suggestions for the Difficulties Encountered in Online Assessment

From the answers to the semi-structured interview questions, 174 codes referring to students' proposed solutions for the difficulties they encountered in online assessment emerged, which were then grouped under six categories. These categories are as follows according to the frequency of citation: proposed solutions that should be considered in online exam administration (n=55), solutions for planning online exams (n=61), proposed solutions for exam questions (n=33), proposed solutions for the technical issues (n=11), proposed solutions for students (n=6), other proposed solutions concerning online assessment (n=8).

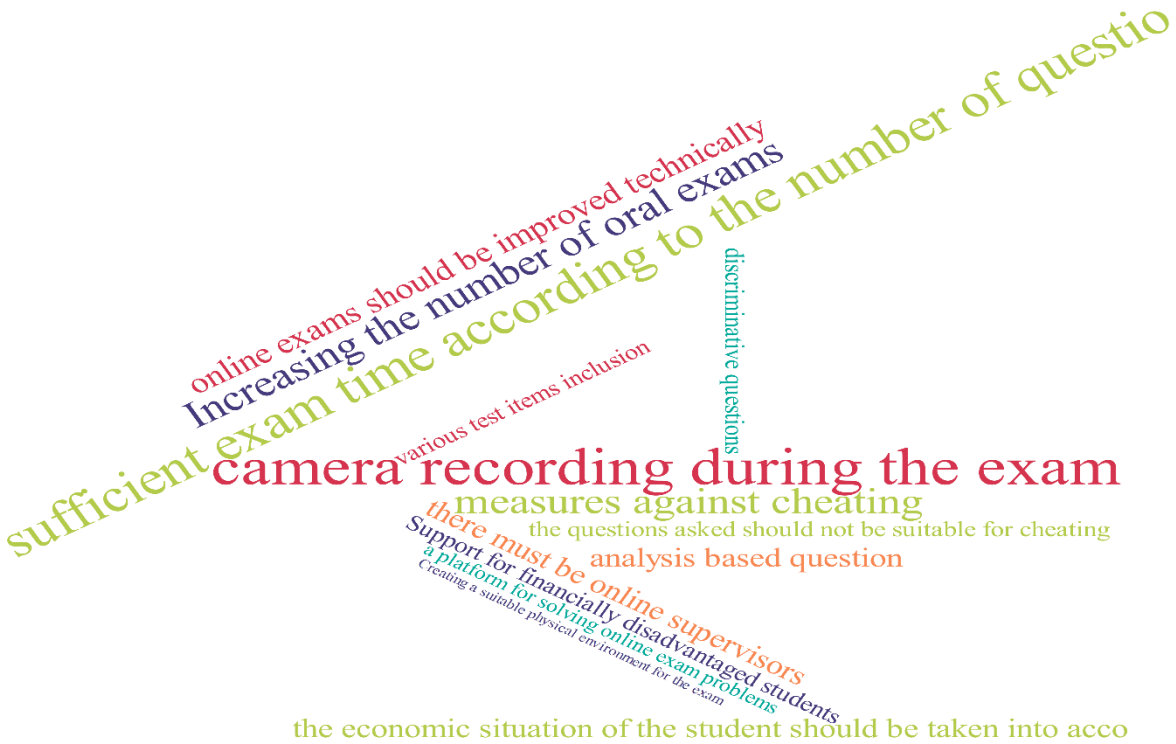

Figure 4. Proposed Solutions to Challenges Experienced by Students during Online Assessment

First, students suggested solutions related to the format of online exams and how the exams are administered. When the students' solutions related to the way the exams are administered are analysed, it is understood that they are solutions to prevent cheating. For example, students suggested that the exams should be synchronous, that each student should open a camera during the exam, that online synchronous exam proctors should observe the students during the exam, and that the exam should be cancelled when a screenshot is taken during the exam or when the exam is moved to another page. The following quotations further clarify this result.

"*When a screenshot of the exam page is taken, the relevant person should be informed, and the instructor should cancel the exam for those people. Also, the exam should be cancelled when they leave the exam screen. It would be more effective with a camera and at least three invigilators. Because if the camera was on, the invigilators could check. There would be no cheating" (Participant 17).*

Secondly, students suggested solutions for the planning and preparation of online exams. In connection with the problems mentioned by the students, the students indicated that the exams should

be planned and prepared so that students can see all the questions simultaneously, start from the questions they want and return to the questions they have completed. The following quote exemplifies this conclusion.

"*If there is a possibility that the exam will be in the form of a single page, we may have the chance to see all the questions and start from the question we want. We can use our time effectively. We can add what we want in the remaining time to the previous questions. For this, we need to have the right to return to previous questions. In this way, we can save time and give healthy answers" (Participant 10).*

In addition, students frequently mentioned that time should be considered when planning online exams. They suggested that students should be given enough exam time by adjusting the questions' number, type and difficulty level. This result is exemplified in the following excerpt.

"*On the other hand, there were too many questions in the online exams; the questions take time to answer, especially the open-ended ones. It is not a test. Since the time was limited, we could not finish the exam. More time can be given to solve this problem. The time should be adjusted according to the questions. For difficult and open-ended questions, more or more time should be given" (Participant 12).*

In addition, students suggested solutions to the questions in online exams. The students indicated that the number of exam questions should not be too many and should not be aimed at measuring knowledge. Instead, they should be questions that the student should answer using higher-order thinking skills, as can be understood from the quote below.

> "*Rather than asking tough questions, teachers can ask questions so that we can make inferences, make comments, and produce ourselves by using information rather than knowledge. In this way, the correct answer will still depend on the student's production, even if they find the information online. I think teachers can ask such questions" (Participant 1).*

The students also demanded that the questions be comprehensible, include various question types, and distinguish between those who know and those who do not know rather than being overly complicated.

> *"I think moderate, clearly stated questions should be asked, not to force the student. Questions should not be asked just to be complicated; they should distinguish between those who know and those who do not (Participant 21).*
>
> *The variety of questions can be increased. For example, the type of questions can be adjusted according to the formats of the courses, and there should be a variety of questions so that online exams will become more effective" (Participant 12).*

Moreover, students also suggested solutions by putting themselves at the centre. The participants, who had previously expressed the problems they experienced due to economic reasons, suggested that to solve them, in other words, to perform more effectively in online exams, students should be supported with internet and mobile devices such as computers, tablets or phones. This is expressed in the following excerpt.

"If online exams are to be held, disadvantaged students should be provided opportunities. In terms of equipment, physical environment, internet... At least students with poor economic conditions can be supported with computers or tablets. Or support can be provided for internet access" (Participant 2).

The frequently mentioned results from the remaining two categories highlight that students have suggested that teachers administering online exams should also receive in-service training support in preparing, administering, grading, and evaluating the results of online exams. In this way, foreign language teachers will improve their assessment competency and conduct more professional evaluations. The following quote further clarifies this situation.

"Our teachers should also improve their competency in online language assessment.

I do not want to criticise our teachers, but I would like to say that some of our teachers need to learn about online education and online assessment" (Participant 21).

Last but not least, students suggested that the platform on which online exams are conducted should be technically improved to become more user-friendly, more systematic, and significantly more secure to prevent cheating.

> *"The online exam system could be improved to prevent technical issues because many students were negatively affected by these problems. The system crashed in the middle of the test in one exam, and I panicked. I had to re-enter the exam from my phone, but my hands trembled from the stress. The exams could have been conducted with a better system. Some friends failed the exam because the text box did not open. So, the XXX system could be improved" (Participant 20).*
>
> *"There could be measures to ensure that students do not leave the exam screen during online exams. To prevent students from looking at the exam questions in another tab, they should not be able to leave the exam screen. This way, cheating could be partially prevented" (Participant 9)*

The qualitative findings highlight students' significant challenges during online assessments, including technical issues, personal difficulties, and inadequate physical environments. Participants voiced concerns about unequal opportunities due to disparities in technology access and internet reliability, leading to feelings of unfairness. Concentration problems and heightened anxiety further hindered their performance, while unsuitable exam settings exacerbated these issues. Students proposed practical solutions, such as adjusting question difficulty, improving teachers' technological skills, and providing better institutional support for internet access and devices. Addressing these concerns is crucial for creating a fair and effective assessment environment that allows all students to showcase their true abilities.

Discussion and Conclusion

The present study examined university students' perceptions of online assessment, their challenges in this process, and their proposed solutions to address these difficulties. The findings from the quantitative study reveal critical insights into how personal technology ownership and self-perceived computer skills influence participants' perceptions of online assessments. The data illustrate that both factors significantly shape attitudes towards online assessment, highlighting the role of technology access and computer literacy in the educational experience.

The quantitative findings revealed that individuals who own personal computers or tablets feel more secure about the integrity of online assessments, as shown by the differing perceptions on cheating prevention. This discovery supports the study of Pan (2020) with 332 undergraduate college English students, which found that learning motivation and attitude were affected by factors such as technology acceptance and technological self-efficacy. Being familiar with technology can boost confidence in its efficiency. This may indicate that schools can promote positive student outcomes in a digital educational landscape by addressing technology access disparities and offering training on technological skills to create a more equitable and effective learning environment.

Moreover, as the quantitative findings have shown, participants' favourable view of online assessments' being eco-friendly may indicate a growing concern for sustainability and a deliberate effort to cut down on paper consumption in education. Among similar findings, Brenner and Hartl (2021), from a distinct perspective, revealed that perceptions of ecological and economic sustainability are influenced by the degree of digitalisation. The implication of this finding for policymakers is significant as they might consider implementing strategies that both provide access to digital tools and resources and actively serve the environmental benefits of reducing paper usage through digital assessments.

Additionally, the quantitative data analysis indicated that students have positive perceptions regarding the online assessment because of its convenience, as they can have internet access regardless

of physical location and time, which might provide time saving and management. This may allow students to work on their schedules. This finding is parallel to that of Cengizhan (2021), who examined the effect of online practices of EFL learners on time management, and that of Zhang et al. (2021), who found that online assessment is practical for intermediate-level English language learners in a Chinese context. Despite the online assessment having the potential to be practical in time management, its practicality may depend on various factors. It, therefore, should be considered in the context of the specific assessment and learner population. Institutions and instructors should consider the benefits and drawbacks of online assessment and provide adequate support to ensure its effective implementation.

One of the findings consistently reflected in the quantitative and qualitative analyses is that students in the present study hold positive perceptions of online assessment, particularly regarding its practicality in providing access to feedback. The participants stated that they had the results of their exams or feedback in a faster way depending on the context, particularly when compared to traditional paper-and-pencil tests, which aligns with the study of Wang and Gao (2019). This means that a faster grading system enables students to extract the results and feedback in a certain and instant way, which may be a factor that enhances motivation as they will identify the points immediately they need to improve.

Additionally, a literature review using the keywords "problems in online language assessment and solution suggestions" reveals that current research primarily emphasises teachers' challenges in online language assessment, with relatively limited attention to students' perspectives. This study addresses this gap by examining foreign language learners' experiences in online assessment contexts. The findings align with previous studies in highlighting persistent technical challenges, academic integrity concerns, emotional stress, inequities in resource access, and, importantly, issues with the reliability and validity of online assessments. These shared challenges and potential solutions are discussed in detail below.

Technical Challenges and Infrastructure Limitations

The technical issues students encounter during online assessments align closely with findings from Mahfoodh (2021) and Korkmaz (2022). Both studies reported significant disruptions due to poor internet connectivity, inadequate access to reliable technological resources, and technical difficulties that compromised the smooth conduct of online assessments. Such technical barriers were similarly prominent in our findings, as students faced heightened stress and impaired performance due to unreliable digital infrastructure. These obstacles underscore the need for enhanced technical support and infrastructural improvements to minimise disruptions and create a more stable online assessment environment. Solutions such as standardised proctoring tools, strengthened IT support, and digital literacy training are recommended to reduce these barriers and support fair assessment practices.

Reliability and Validity Concerns in Online Assessments

Our study, like those of Amirian et al. (2023) and Monyani et al. (2022), found that students frequently questioned the reliability and validity of online assessments. Specifically, technical issues, inconsistent internet access, and perceived ease of academic dishonesty compromised students' confidence in these assessments' ability to accurately measure their knowledge and skills. Similar to Amirian et al. (2023), our findings highlight that students doubted the fairness of online exams and perceived them as less reliable than traditional assessments due to the potential for compromised conditions. To address these concerns, institutions must adopt various assessment formats, including project-based and formative assessments, which may better capture students' competencies and enhance perceived fairness.

Academic Integrity Challenges

Concerns regarding academic integrity in online assessments were noteworthy in our study and previous work by Mahfoodh (2021) and Korkmaz (2022). These studies reported students' perceptions that the online format increases opportunities for cheating, thus undermining the credibility of the

assessment process. This feeling was similarly evident in our findings, with students expressing doubts about the integrity of online assessments and the effectiveness of current proctoring measures. Addressing these academic integrity concerns requires comprehensive proctoring solutions and more transparent communication about academic honesty. Additionally, diversifying assessment approaches, such as using open-book assessments, may mitigate some integrity issues by aligning assessments more closely with real-world problem-solving skills.

Equity and Resource Access Issues

The current study and prior research, such as that by Korkmaz (2022), highlight persistent inequities in access to technological resources, which create unequal learning conditions and hinder students' performance. The findings reveal that disparities in internet connectivity and digital tools contribute to students' stress and detract from a fair assessment experience. This digital divide, which worsens during online assessments, limits opportunities for students lacking reliable access, suggesting a critical need for institutional policies prioritising digital equity. Enhanced technical support, equitable access to resources, and financial assistance for needy students can help mitigate these issues and create a more inclusive assessment environment.

Emotional and Psychological Challenges

In addition to technical and integrity challenges, our findings align with those of Hossain and Haque (2022), highlighting the emotional harms of online assessments. Many students reported heightened anxiety and stress, often due to technical disruptions and the pressure of adapting to digital formats. This emotional strain was further compounded by doubts about the reliability and validity of online assessments, which left students questioning whether their true capabilities were being accurately measured. Like Hossain and Haque (2022), our findings indicate that fostering more apparent communication channels, improving feedback processes, and offering technological and psychological support are crucial to alleviate these stressors.

Implications for English Language Teaching and Online Language Assessment

The implications of this study are relevant for both English language teaching as a foreign language (EFL) and language assessment practices, particularly in online contexts. Given the common technical, emotional, and ethical challenges identified, EFL instructors and educational institutions must adapt their assessment approaches to better meet the demands of online learning environments.

For EFL teaching, these findings suggest that online assessments should incorporate more formative assessment methods that reduce pressure and allow students to demonstrate language proficiency in various ways. Additionally, incorporating peer assessments and reflective tasks could help students engage in self-assessment and minimise dependency on one-time assessments that only partially capture language skills in a digital context.

In terms of language assessment, this study highlights the importance of developing standardised and fair assessment frameworks that account for students' diverse technological backgrounds and internet access. Validity and reliability concerns suggest that institutions should consider combining multiple assessment formats—such as project-based assessments, oral examinations, and interactive tasks—within online platforms to offer a more comprehensive picture of students' language abilities. Furthermore, training teachers and students on digital tools and assessment platforms is essential to improve familiarity and reduce anxiety associated with online language testing.

Additionally, academic integrity remains a crucial concern in online EFL assessments. Institutions may need to invest in robust proctoring technologies and emphasise the ethical dimensions of language assessment, fostering trust and fairness. Clear guidelines on online academic honesty, alongside more transparent assessment practices, can help reinforce integrity in digital assessments.

Recommendations for Online Assessment Practices

Our findings, in line with those from Monyani et al. (2022) and Amirian et al. (2023), support several critical recommendations for improving online assessment practices. Enhanced digital infrastructure, expanded proctoring options, and digital literacy training for students and educators can be crucial steps to improve reliability and validity. Furthermore, adopting varied assessment formats—such as project-based tasks, formative assessments, and interactive activities—may reduce opportunities for academic dishonesty while providing a more comprehensive measure of students' knowledge and skills. This approach could better address students' needs, improve the perceived fairness of assessments, and strengthen the integrity of online assessment processes.

In conclusion, this study contributes to the literature by highlighting EFL learners' unique challenges in online assessments, adding new insights to a field that has thus far prioritised teachers' perspectives. The findings underscore the pressing need for systemic improvements in online assessments' design, implementation, and support. Addressing technical limitations, reliability and validity concerns, academic integrity issues, and equity gaps can foster a more inclusive, fair, and supportive online assessment environment. By adopting evidence-based recommendations, educational institutions can enhance online assessments' quality, relevance, and acceptance, particularly for foreign language learners.

Disclosure Statements

1. Contribution rate statement of researchers: First author 50 %, second author 50.

2. The authors reported no potential conflict of interest.

3. Ethical permission of the study was obtained from the Bingöl University (Turkey) 's ethics committee (Ethics Committee Approval Number: E-92042961-108.01-141104)

References

Al-Ghatrifi, Y. (2016). *The professional development of teachers in higher education in Oman: A case study of English teachers in the colleges of applied sciences* (Doctoral dissertation, University of Reading).

Ali, L., & Dmour, N. A. H. H. A. (2021). The shift to online assessment due to COVID-19: An empirical study of university students' behaviour and performance in the region of UAE. *International Journal of Information and Education Technology, 11*(5), 220-228.

Al-Rahmi, W. M., Alias, N., Othman, M. S., Marin, V. I., & Tur, G. (2018). A model of factors affecting learning performance through the use of social media in Malaysian higher education.*Computer & Education, 121*, https://doi.org/10.1016/j.compedu.2018.02.010

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.

Arifin, S. R. M. (2018). Ethical considerations in qualitative study. *International Journal of Care Scholars, 1*(2), 30-33.

Ashworth, M., Palikara, O., Burchell, E., Purser, H., Nikolla, D. and Van Herwegen, J. (2021), "Online and face-to-face performance on two cognitive tasks in children with Williams syndrome", *Frontiers in Psychology, Vol. 11*, p. 4053

Black, P., & Wiliam, D. (1998). Assessment and classroom learning. *Assessment in Education: Principles, Policy & Practice, 5*(1), 7-74.

Bohrnstedt, G. W., & Knoke, D. (1988). *Statistics for social data analysis.* F.E. Peacock Publishers.

Bos, N., & Schneider, M. (2018). Online assessment in business education: Impact on learning outcomes. *Journal of Education for Business, 93*(7), 326-333.

Bovill, C., & Jordan, L. (2017). Using online peer assessment in higher education: A case study. *Innovations in Education and Teaching International, 54*(1), 50-59.

Brenner, B., & Hartl, B. (2021). The perceived relationship between digitalization and ecological, economic, and social sustainability. *Journal of Cleaner Production, 315*, Article 128128. https://doi.org/10.1016/j.jclepro.2021.128128

Cengizhan, S. (2021). The effects of COVID-19 process on time management of foreign language teacher candidates. *Educational Policy Analysis and Strategic Research, 16*(2), 295-307.

Cohen, L., Manion, L., & Morrison, K. (2017). *Coding and content analysis. In Research methods in education* (pp. 668-685). Routledge.

Cooper, S., & Sahota, P. (2019). Academic integrity in online assessments: A technological solution. *Journal of Learning Design, 12*(2), 47-58.

Creswell, J. W. (2012). *Educational research*. Pearson.

Creswell, J. W., & Plano-Clark, V. L. (2011). *Designing and conducting mixed method research* (2nd ed.). Sage Publications Ltd.

Dörnyei, Z. (2007). *Research methods in applied linguistics*. Oxford University Press.

El Otmani, M., & El Otmani, L. (2022). Comparing Moroccan EFL learners' perceptions of traditional and online assessment. *Journal of Language and Linguistics Studies, 18*(1), 78-96.

Fetters, M. D., Curry, L. A., & Creswell, J. W. (2013). Achieving integration in mixed methods designs—principles and practices. Health services research, 48(6pt2), 2134-2156.

Figaredo, D., & Gil-Jaurena, I. (2024). Effects of familiarity with digital assessment in online education. *Distance Education, 1*-16.

Fitriyah, I., & Jannah, M. (2021). Online assessment effect in EFL classroom: An investigation on students and teachers' perceptions. *Indonesian Journal of English Language Teaching and Applied Linguistics, 5*(2), [page range]. https://www.ijeltal.org

Flores, M. A., Veiga Simão, A. M., Ferreira, P. C., Pereira, D., Barros, A., Flores, P., & Costa, L. (2024). Online learning, perceived difficulty and the role of feedback in COVID-19 times. *Research in Post-Compulsory Education, 29*(2), 324-344. https://doi.org/10.1080/13596748.2024.2330784

Gikandi, J. W., Morrow, D., & Davis, N. E. (2011). Online formative assessment in higher education: A review of the literature. *Computers & Education, 57*(4), 2333-2351.

Haasio, A., & Kannasto, E. (2024). Motivational factors of online learning in higher education. *European Journal of Applied Sciences, 12*(1), 405-419. https://doi.org/10.14738/aivp.121.16497

Helfaya, A. (2019), "Assessing the use of computer-based assessment-feedback in teaching digital accountants", Accounting Education, *Taylor & Francis, Vol. 28* No. 1, pp. 69- 99.

Herman, J., Osmundson, E., Dai, Y., Ringstaff, C., & Timms, M. (2015). Investigating the dynamics of formative assessment: Relationships between teacher knowledge, assessment practice, and learning. *Assessment in Education: Principles, Policy & Practice, 22*(3), 344-367.

Huang, X., Wei, Y., & Zhou, Y. (2020). Online quizzes as a form of formative assessment in English language learning: *A case study in China. Journal of Educational Computing Research, 58*(3), 598-617. https://doi.org/10.1177/0735633119882254

Hussain, S. Daoud, H. Alrabaiah and A. K. Owais, "Students' Perception of Online Assessment During the COVID-19 Pandemic: The Case of Undergraduate Students in the UAE," *2020 21st International Arab Conference on Information Technology (ACIT)*, Giza, Egypt, 2020, pp. 1-6, doi: 10.1109/ACIT50332.2020.9300099.

Ivankova, N. V., Creswell, J. W., & Stick, S. L. (2006). Using mixed-methods sequential explanatory design: From theory to practice. Field methods, 18(1), 3-20.

Kallio, H., Pietilä, A. M., Johnson, M., & Kangasniemi, M. (2016). Systematic methodological review: Developing a framework for a qualitative semi-structured interview guide. *Journal of Advanced Nursing, 72*(12), 2954-2965.

Kusurkar, R. A., Orsini, C., Somra, S., Artino, A. R., Daelmans, H. E., Schoonmade, L. J., & van der Vleuten, C. (2023). *The effect of assessments on student motivation for learning and its outcomes in health professions education: A review and realist synthesis*. GW Authored Works. Paper 2946.

Li, L.-Y., & Lee, L.-Y. (2016). Computer literacy and online learning attitude toward GSOE students in distance education programs. *Higher Education Studies, 6*(3), 147. https://doi.org/10.5539/hes.v6n3p147

Liang, X., Yin, H., & Zhang, Y. (2018). Online formative assessment in Chinese as a foreign language learning: *Effects on achievement, motivation, and autonomous learning. Journal of Educational Technology & Society, 21*(2), 150-162.

Newman, P. A., Guta, A., & Black, T. (2021). Ethical considerations for qualitative research methods during the COVID-19 pandemic and other emergency situations: Navigating the virtual field. *International Journal of Qualitative Methods, 20*, 16094069211047823.

Özden, M. Y. (2004). Students' perceptions of online assessment: A case study. International *Journal of E-Learning & Distance Education/Revue International du E-Learning et la Formation à Distance, 19*(2), 77-92.

Pala, Ş. M., & Başıbüyük, A. (2023). The predictive effect of digital literacy, self-control, and motivation on academic achievement in the science, technology, and society learning area. *Technology, Knowledge and Learning, 28*, 369-385. https://doi.org/10.1007/s10758-021-09538-x

Pan, X. (2020). Technology acceptance, technological self-efficacy, and attitude toward technology-based self-directed learning: Learning motivation as a mediator. *Frontiers in Psychology, 11*, Article 564294. https://doi.org/10.3389/fpsyg.2020.564294

Plano Clark, V. L. (2017). Mixed methods research. *The Journal of Positive Psychology, 12*(3), 305-306.

Soffer, T., Kahan, T. and Livne, E. (2017). "E-assessment of online academic courses via students' activities and perceptions", *Studies in Educational Evaluation, Vol. 54*, pp. 83-93.

Sönmez, V., & Dündar, S. (2021). Learners' perceptions of online assessment: A comparative analysis of L1 and L2 writing. *Journal of Language and Linguistic Studies, 17*(1), 53- 65.

Stowell, J. R., & Bennett, D. (2010). Effects of online testing on student exam performance and test anxiety. *Journal of Educational Computing Research, 42*(2), 161-171.

Subedi, D. (2016). Explanatory sequential mixed method design as the third research community of knowledge claim. *American Journal of Educational Research, 4*(7), 570- 577.

Wang, C., & Gao, Q. (2019). A systematic review of research on the use of online summative assessment in higher education. *Assessment & Evaluation in Higher Education, 44*(5), 714-731. https://doi.org/10.1080/02602938.2018.1539237

Wolt, J. D., & Mason, R. A. (2003). Online assessment: Is it ready for prime time? *TechTrends, 47*(5), 23-28. https://doi.org/10.1007/BF02763449

Valdez, M. T. C. C., and Maderal, L. D., 2021. An Analysis of Students' Perception of Online Assessments and its Relation to Motivation Towards Mathematics Learning. *The Electronic Journal of e-Learning, 19*(5), pp. 416-431,

Yilmaz, R., & Karadeniz, S. (2021). EFL teachers' perceptions of online assessment practices during the COVID-19 pandemic. *Education and Information Technologies, 26*(5), 6143 - 6158.

Zhang, Y., Cui, G., & Hu, G. (2019). Online peer assessment in a Chinese as a foreign language classroom: Its impact on writing performance and metacognitive awareness. *System, 84*, 1-11. https://doi.org/10.1016/j.system.2019.04.007