Evaluating the Implementation of Oral Examination (OREX) as an Alternative Assessment Method in Higher Learning Institutions

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Abstract

The COVID-19 pandemic necessitated rapid shifts in higher education assessment practice, leading institutions like The Open University of Tanzania (OUT) to adopt Online Remote Oral Examinations (OREX) as an alternative evaluation method (Iglesias-Pradas et al., 2021). This study examines the implementation of OREX during the 2019/2020 academic year, where examiners and students engaged in real-time, interactive oral assessments via digital platforms. This modality showed potential for upholding academic integrity while adapting to remote learning constraints (Smith & Lee, 2020). Focusing on OUT's experience, the paper evaluates OREX's effectiveness in maintaining academic standards, credibility, and reliability, particularly in mitigating risks of academic dishonesty a key concern in online assessments (Nguyen et al., 2022). The study details the preparatory measures undertaken, including examiner and student training, technical setup, and procedural adjustments to ensure seamless execution. Findings indicate that despite initial challenges such as internet instability and digital literacy gaps (UNESCO, 2020), OREX provided a viable, flexible, and competency-based assessment approach, aligning with global trends in diversified evaluation methods (MoEST, 2021). The research suggests that OREX, initially a pandemic contingency, holds potential for long-term integration into higher education assessment frameworks. By combining interactive rigor with logistical adaptability, OREX could expand the toolkit for evaluating student learning outcomes beyond traditional written exams. This study contributes to the growing discourse on sustainable remote assessment models in African distance learning contexts, offering empirical insights for policymakers and educators.

***Keywords**: Alternative Assessment Approach, Oral Examination (OREX), Online Examinations, Academic Integrity*

Introduction

Summative assessment is a cornerstone of higher education systems globally, functioning not only as an evaluative mechanism but as a critical gateway for student progression, professional certification, and labor market entry (Newton, 2007). The sudden emergence of COVID-19 in early 2020 caused an unprecedented disruption to traditional examination models, compelling institutions worldwide to urgently reconfigure their assessment strategies (Sahu, 2020). This crisis catalyzed rapid innovation in evaluation methodologies, with Online Remote Oral Examinations (OREX) emerging as a particularly

significant development in the assessment landscape (Ali, 2020; Iglesias-Pradas et al., 2021). This study investigates the implementation of OREX at the Open University of Tanzania (OUT), with particular attention to its efficacy in addressing the unique challenges of distance education in sub-Saharan Africa.

Background of the Study

OREX represents a transformative assessment approach that merges traditional oral examination principles with digital education technologies, creating a synchronous, interactive evaluation method conducted through platforms like Zoom or Microsoft Teams (Joughin, 2010). Rooted in constructivist learning theory, OREX emphasize real-time knowledge demonstration, critical thinking, and adaptive communication skills, competencies aligned with 21st-century workforce demands (Brown et al., 2013; Hmelo & Ferrari, 1997).

Mechanistically, OREX operates through structured digital interfaces that preserve the dialogic nature of viva voce assessments while incorporating technological safeguards (e.g., identity verification, session recording) to ensure academic integrity (Nguyen et al., 2022).

Its applicability extends beyond pandemic contingencies, offering solutions for longstanding challenges in distance education, including the need to scalable, inclusive and competency-based assessment (Huxham et al., 2012; OUT, 2020). The transformative potential of OREX lies in its capacity to: (1) democratize access to rigorous assessments across geographic barriers (UNESCO, 2020), (2) shift focus from rote memorization to applied knowledge through authentic evaluation tasks (Newmann, 1990), and (3) establish new validity standards for digital oral assessments in higher education (Gregori-Giralt & Menéndez-Varela, 2021). This conceptual framework positions OREX not merely as an emergency measure, but as an innovation with lasting implications for assessment pedagogy, particularly relevant to distance-learning institutions.

Recent scholarship has extensively documented the pandemic's transformative impact on higher education assessment practices. As Crawford et al. (2020) demonstrated through their multinational study, institutions faced fundamental dilemmas in balancing academic integrity with public health imperatives. While some universities implemented modified physical examinations with stringent safety protocols, many others, particularly in developing contexts, grappled with profound concerns about the validity, equity, and technological feasibility of online assessment modalities (UNESCO, 2020). These challenges assumed particular significance for distance-learning institutions like OUT, where pre-existing disparities in students' access to reliable technology and internet connectivity were exacerbated by pandemic conditions (MoEST, 2021).

The adoption of OREX represented both a pragmatic contingency and a potential paradigm shift in assessment methodology (Iglesias-Pradas et al., 2021). Building on established traditions of oral examination while leveraging digital platforms like Zoom, OREX offered institutions a means to maintain academic continuity while addressing public health concerns (Iglesias-Pradas et al., 2021). Smith and Lee (2020) highlighted how such remote oral

assessments can effectively evaluate not only content knowledge but also higher-order cognitive skills including critical thinking, problem-solving, and real-time knowledge application, competencies increasingly demanded by modern labor markets. At OUT, the implementation of OREX was supported by comprehensive procedural frameworks encompassing examiner training, digital authentication protocols, and standardized evaluation rubrics designed to ensure assessment validity and reliability (Nguyen et al., 2022).

Despite growing interest on pandemic-era assessment adaptations, much of the scholarship remains focused on institutions in the global North, with limited attention to the unique infrastructural, cultural, and pedagogical considerations relevant to African higher education systems (MoEST, 2021). Furthermore, while several studies have examined the emergency implementation of remote assessments, few have investigated their potential for sustained use beyond pandemic conditions (Ali, 2020). This study addresses these critical gaps by focusing on OUT's distinctive distance-learning environment, which serves approximately 50,000 students across Tanzania's diverse geographic and socioeconomic landscape (OUT Annual Report, 2021).

The selection of OUT as a case study is methodologically and theoretically significant for three key reasons. First, as Tanzania's flagship distance-learning institution, OUT's experience provides crucial insights into the challenges and opportunities of implementing OREX in resource-constrained environments. Second, the university's extensive network of regional centers and digital learning infrastructure offers a unique microcosm for examining the intersection of technology and assessment in African higher education. Third, OUT's student population, comprising working professionals, rural learners, and non-traditional students, represents a demographic particularly affected by assessment disruptions, making their experiences especially relevant to understanding OREX's equity implications.

This investigation makes three primary contributions to the literature on alternative assessment methods. First, it provides empirical evidence regarding OREX's effectiveness in maintaining academic standards under pandemic conditions in a Tanzanian context. Second, it identifies specific technological and pedagogical adaptations required to implement remote oral examinations successfully in distance-learning environments. Third, it evaluates the potential for OREX to transition from an emergency measure to a sustainable component of diversified assessment strategies in African higher education. Through this multifaceted analysis, the study offers valuable insights for policymakers, educators, and institutional leaders navigating the evolving landscape of post-pandemic assessment practices.

Statement of the Problem

The COVID-19 pandemic disrupted conventional examination models, prompting universities worldwide to adopt remote assessment methods such as the OREX. While this shift has been extensively studied in developed countries, there remains a notable research gap regarding the implementation and effectiveness of OREX in African distance-learning contexts. At the Open

University of Tanzania (OUT), which caters to a geographically dispersed and socio-economically diverse student body, the adoption of OREX was both a necessity and an innovation. However, limited empirical evidence exists on how well OREX addresses challenges such as infrastructure limitations, academic integrity, equitable access, and long-term sustainability in Tanzanian higher education. Without such context-specific evaluation, institutions may struggle to determine whether OREX can evolve from a pandemic-induced contingency to a sustainable assessment model. This study seeks to fill that gap by critically examining the design, implementation, and perceived effectiveness of OREX at OUT, thereby informing future assessment practices across similar resource-constrained environments in sub-Saharan Africa.

Purpose of the Study

The purpose of this study is to evaluate the effectiveness in the implementation of the Online Remote Oral Examination (OREX) approach at the Open University of Tanzania (OUT) during the 2019/2020 academic.

Objectives of the Study

The study was guided by the following specific objectives:

1. To examine how the OREX approach was operationalized to conduct summative assessments for undergraduate students during the 2019/2020 academic year at OUT.
2. To analyze the assessment practices, tools, and protocols employed in administering OREX at OUT.
3. To evaluate the effectiveness and challenges of OREX as perceived by academic staff and stakeholders, with a focus on quality, equity, and feasibility for long-term use.

Research Questions

The study sought to answer the following research questions:

1. How was the OREX approach managed and executed to deliver summative assessments for undergraduate students at OUT during the 2019/2020 academic year?
2. What assessment practices, protocols, and tools were used in the implementation of OREX at OUT?
3. To what extent was OREX effective in maintaining assessment standards, ensuring equity, and overcoming infrastructural limitations in the Tanzanian distance education context?

Literature Review

Advantages and Disadvantages of Oral Assessments

Foundational scholarship by Joughin (2010) and Newmann (1990) have long supported oral assessments as effective tools for evaluating students' depth of understanding, cognitive processes, and problem-solving abilities. They allow real-time probing of conceptual misunderstandings and encourage students

to articulate domain-specific knowledge clearly. This is further reinforced by Pearce and Lee (2009), who underscore the interactive nature of oral exams, particularly in fostering engagement and rapport between examiners and students in remote settings.

Recent studies affirm these pedagogical strengths while also highlighting emerging dynamics shaped by technological delivery. For example, Joughin (2022) and Lee and Smith (2023) argue that oral assessments remain valid tools for evaluating higher-order thinking in online environments. However, remote format has introduced new challenges, such as "Zoom fatigue" a form of digital exhaustion associated with video-based assessments (Iglesias-Pradas et al., 2023). This fatigue may compromise student performance and reduce the overall effectiveness of the exam.

Moreover, while traditional oral exams offer benefits like immediate feedback and opportunities for clarification (Brown, et al, 2013), recent literature has raised concerns about digital equity and accessibility. Gregori-Giralt and Menéndez-Varela (2021) point out that students with limited access to stable internet or those relying on assistive technologies may face structural disadvantages. In addition, Nguyen et al. (2022) explore how AI proctoring tools and Virtual reality environments are being integrated to reduce bias and standardize conditions, although these technologies themselves introduce new ethical and technical challenges.

Despite the academic integrity benefits of oral assessments such as deterring impersonation through spontaneous follow-ups, new issues have emerged. Students may share questions post-assessment, particularly when exams are staggered over time (Brown, et al, 2013). Concerns around fairness, stress, and bias also remain pressing. Oral exams are still time-intensive and impractical for large cohorts. Anxiety, especially among students unfamiliar with oral formats or those with mental health conditions, can negatively affect outcomes (Mori, 2000). The risk of subjective grading persists, with performance potentially influenced by factors such as language fluency, accent, gender, and ethnicity (Joughin, 2020).

While recent research confirms many of the advantages originally identified in foundational works, it also reveals how the digitization of oral assessments introduces new complexities. These include technological inequities, cognitive fatigue, and challenges in standardizing evaluation across diverse populations. The study addressed these concerns as vital to ensuring oral examinations remain a fair, valid, and scalable method of assessment in contemporary education.

Validity and Reliability of OREX Assessment

Validity and reliability are fundamental to any credible assessment method, including Oral Examinations (OREX). Validity guarantees that the assessment accurately measures the intended learning outcomes, while reliability ensures consistent results across different evaluators and settings. Traditionally, structured frameworks like the Oral Assessment System (OAS) and scoring

rubrics have been employed to standardize these processes (Muñoz & Álvarez, 2010; Tekian et al., 2009).

However, recent studies highlight persistent challenges and propose refined approaches in light of technological and pedagogical changes. Joughin (2022) emphasizes that while oral assessments have long been underused, they can be both valid and reliable when guided by clear scoring criteria and trained assessors. His work reiterates the importance of designing questions that align with intended learning outcomes and maintaining consistency through standardized rubrics. Rubrics remain a vital tool for fostering objectivity in assessment. As emphasized by Brown, et al (2013), rubrics serve three key functions: (1) clarifying assessment expectations, (2) reducing grading, and (3) facilitating constructive feedback. These benefits align with Joughin's (2010) assertion that well-designed rubrics uncover the "hidden curriculum" by implicitly shaping student learning behaviors and clarifying performance standards. Together, these perspectives underscore the role of rubrics not only as evaluative instruments but also as pedagogical tools that guide and refine student outcomes.

Table 1

Summary of the practical applications and critiques of rubric use in OREX (or similar assessment contexts)

Aspect	Practical Applications	Potential Critiques
Standardization	Ensures consistency across assessors (e.g., OSCEs, research evaluations).	May oversimplify complex skills (e.g., empathy, creativity) into rigid criteria.
Student Guidance	Clarifies expectations (e.g., "Justify diagnoses with evidence" in clinical rubrics).	Risk of "rubric-driven" learning—students focus on ticking boxes rather than deep understanding.
Feedback Efficiency	Enables targeted feedback (e.g., "improve visual aids in presentations").	Time-consuming to design and calibrate among instructors.
Alignment with Outcomes	Links assessment to learning objectives (e.g., weighting critical thinking higher than recall).	Risk of penalizing unconventional excellence (e.g., innovative projects outside rubric criteria).
Bias Reduction	Minimizes subjective grading disparities.	Inconsistent interpretation of rubric by descriptors, requiring training.

Note. This summary is based on Brown, Bull, et al (2013) & Joughin (2010)

New equity and accessibility concerns have also emerged. Gregori-Giralt and Menéndez-Varela (2021) caution that digital oral assessments can disadvantage multilingual and digitally marginalized students, raising concerns about fairness and construct validity. This aligns with Nguyen, et al (2022), who explore how AI-based proctoring and virtual platforms can compromise the reliability of assessments if not inclusively designed.

In addition, learner fatigue and cognitive overload during synchronous assessments as observed during the COVID-19 pandemic can negatively affect student performance and assessment validity (Iglesias-Pradas et al., 2023). These findings emphasize the need to consider environmental and emotional variables when assessing the reliability of oral exams conducted in digital or high-stakes contexts.

While the conceptual tools for ensuring validity and reliability in OREX remain relevant, the study examined how their application must evolve to address new technological, emotional, and equity-related factors in higher education.

Preparing OREX for Summative Assessment

OREX have become increasingly relevant as a summative assessment tool in higher education, especially in undergraduate programs. These assessments now blend the depth and structure of traditional oral examinations with the flexibility of digital technologies. Research shows that OREX can effectively assess advanced cognitive abilities such as critical thinking, problem-solving under pressure, and communicating complex ideas. These are essential skills for modern graduates, particularly as universities shift toward more competency-based education models (AAC&U, 2023; Iglesias-Pradas et al., 2023).

To ensure meaningful and fair assessment, OREX must align closely with expected learning outcomes. One emerging trend is the use of digital rubrics that can measure not just knowledge recall but also creative thinking and analytical reasoning. These rubrics are adaptable and allow examiners to evaluate how well students apply concepts in unfamiliar contexts (Gregori-Giralt & Menéndez-Varela, 2023). Recent literature highlights best practices for administering OREX in digital environments. Nguyen et al. (2024) emphasize the importance of secure digital infrastructure, including verified logins, screen-sharing verification, and backup recording to uphold assessment integrity. To ensure equity, Gregori-Giralt and Menéndez-Varela (2023) advocate for inclusive features such as speech-to-text tools, captioning services, and flexible timing to accommodate diverse student needs. Additionally, examiners are encouraged to adopt real-time digital annotation tools such as Google Sheets or specialized assessment applications to document scoring and feedback consistently, thereby enhancing transparency and inter-rater reliability.

Table 2

Digital Oral Examination Rubric (OREX) – Bachelor's Programs

Criteria	Excellent (4)	Good (3)	Satisfactory (2)	Needs Improvement (1)
Knowledge Recall	Demonstrates accurate, comprehensive understanding of key content; uses relevant examples unprompted.	Understands key content with minor errors; uses examples when prompted.	Shows partial understanding; some content is inaccurate or superficial.	Lacks basic understanding; provides vague or incorrect responses.
Analytical Reasoning	Effectively breaks down complex ideas, compares perspectives, and draws logical conclusions.	Shows logical thinking with some analysis and comparison of ideas.	Attempts analysis but lacks clarity or depth.	Shows minimal reasoning; relies on surface-level answers.
Creative Thinking	Proposes original, thoughtful ideas and applies concepts in new or unfamiliar situations.	Offers some creative input; applies concepts in moderately novel ways.	Demonstrates limited originality or transfer of ideas.	Fails to go beyond memorized responses; lacks innovation.
Communication Skills	Communicates ideas clearly and persuasively with fluent academic language and appropriate tone.	Uses generally clear and coherent with appropriate language.	Shows some difficulty expressing ideas; language may be unclear or informal.	Communication incoherently or unclearly; lacks academic tone.

Criteria	Excellent (4)	Good (3)	Satisfactory (2)	Needs Improvement (1)
Use of Evidence	Integrates relevant data or examples to support arguments; accurately cited where applicable.	Uses supporting evidence with minor errors or inconsistencies.	Uses limited or poorly integrated evidence; vague references.	Provide no evidence or incorrect references.
Digital Integrity & Setup	Secure login verified; clear audio/video; multiple camera angles used; no integrity issues.	Secure setup; minor tech issues; integrity maintained.	Reveal some gaps in setup (e.g., poor lighting, background noise); potential for integrity risk.	Compromise exam integrity prevents identity verification due to severe set-up issues.
Response to Probing	Responds confidently and thoughtfully to follow-up questions; expands ideas.	Provide adequate responses; occasionally needs clarification or support.	Struggles with follow-up; often needs guidance or rephrasing.	Cannot engage with probing; offers irrelevant or no responses.

Note. Gregori-Giralt & Menéndez-Varela, 2023

At the same time, the use of online platforms such as Zoom or Microsoft Teams has introduced new requirements. These include the development of clear protocols to preserve assessment integrity, such as using multiple camera angles, secure login procedures, or AI-based monitoring tools (Nguyen et al., 2024).

However ensuring equity in assessment remain a growing concern. Some students may struggle with unstable internet, lack of quiet spaces, or lower digital literacy or language related barriers. As a result, institutions are increasingly providing alternative formats, such as asynchronous recordings or accessibility features like captioning and voice recognition software. These efforts aim to create a more level playing field for all learners, in line with policy guidelines from organizations such as UNESCO (2023) and Tanzania's Ministry of Education, Science and Technology (MoEST, 2024).

Recent innovations have also focused on improving the fairness and reliability of OREX. For instance, some systems now allow examiners to record observations in real time during the oral exam, making scoring more transparent and reducing inconsistencies. Training programs for assessors particularly in intercultural settings are helping standardize evaluations and reduce unconscious bias (Joughin, 2023; Brown et al., 2022). Additionally, advancements in natural

language processing are being explored to provide immediate feedback on student performance. While these tools are not meant to replace human judgment, they can enhance the feedback process and support formative learning (Chen & Wallace, 2025).

Deciding on Appropriate Assessment Strategies for Learning Outcomes

Scholars continue to affirm that OREX are well-suited for assessing learning outcomes that emphasize cognitive depth, professional reasoning, and communication fluency. Joughin (2010) argues that OREX assessments should be carefully matched to learning outcomes that demand explanation, justification, and problem-solving in real time. These assessments can also complement other formats such as take-home essays, portfolios, or project-based tasks by offering a dialogic opportunity for students to defend their thinking. More recently, Gregori-Giralt and Menéndez-Varela (2023) stress the need for flexible strategies that include accommodations for students with anxiety, speech or hearing impairments, or language barriers. These include asynchronous oral options, simplified linguistic structures, or alternative modalities altogether. UNESCO (2023) and the Ministry of Education, Science, and Technology (MoEST, 2024) similarly advocate for inclusive summative assessment models that combine academic rigor with accessibility. This study examined how these sources underscore the importance of aligning OREX with specific learning outcomes while maintaining fairness through differentiated assessment strategies.

Construction of Questions and Structure of the Assessment

The design of OREX assessments must prioritize depth and adaptability, ensuring that questions are not only aligned with course outcomes but also responsive to varied student responses. According to Joughin (2010), oral assessments should begin with scaffolded prompts to reduce anxiety and build momentum, before progressing to analytical or synthetic tasks. This approach echoes earlier observations by Chapman (1921), who emphasized sequencing questions from basic recall to complex reasoning. Effective OREX design also requires the use of probing and follow-up questions that clarify, challenge, or extend student thinking (Muñoz & Álvarez, 2010). Standardizing the number, difficulty, and duration of questions can mitigate subjectivity and ensure consistency across sessions (Brown et al., 2022). Nguyen et al. (2024) recommend integrating digital features such as interactive tools or screen-sharing to enhance authenticity, especially in performance-based disciplines. Structuring the assessment to support higher-order thinking, while establishing clear procedural rules (e.g., use of whiteboards, camera use, or allowable reference materials), ensures reliability and fairness in diverse learning environments.

Preparation of a Grading Scheme or Rubric

Developing a robust digital rubric is essential for the fair and consistent evaluation of OREX sessions. Gregori-Giralt and Menéndez-Varela (2021) argue that rubrics should capture varying levels of performance, especially

when responses cannot be easily categorized as right or wrong. Rubrics must detail scoring dimensions such as clarity of reasoning, application of concepts, or professional language use while also outlining weightings and model responses. To improve inter-rater reliability, Joughin (2023) recommends using real-time digital annotation tools that allow assessors to document performance transparently during the examination. Muñoz and Álvarez (2010) further emphasize the need to predefine the role of prompting, noting that unregulated intervention may skew scores or compromise fairness. As Brown, et al (2013) explain, a well-designed scoring protocol not only enhances objectivity but also helps students understand what is expected. When coupled with examiner calibration sessions (Nguyen et al., 2024), structured rubrics contribute to equitable, rigorous, and valid summative assessment in digital oral formats.

Table 3 present OREX rubric designed to ensure fairness, consistency, and transparency in student evaluation during summative assessments. It integrates current scholarship and best practices from Gregori-Giralt & Menéndez-Varela (2021), Joughin (2023), Muñoz & Álvarez (2010), and others.

Table 3

Digital OREX Rubric for African Universities

Assessment Dimension	Description	Exemplary (4)	Proficient (3)	Basic (2)	Below Basic (1)	Weight (%)
Clarity of Reasoning	Logical development of ideas; ability to argue, justify, or defend a position clearly.	Logical, coherent, and well-structured; clear justification throughout.	Mostly logical with minor lapses; adequate justification.	Partially logical; limited justification.	Disjointed reasoning; lacks justification.	25%
Application of Concepts	Ability to apply theories or concepts to new or real-life situations.	Insightful application in unfamiliar contexts.	Accurate application of relevant concepts to familiar scenarios.	Limited application; mostly descriptive.	Inaccurate or entirely missing application of key concepts.	25%
Communication & Language Use	Fluency, professionalism, and discipline-specific terminology.	Highly articulate; uses precise academic language and appropriate tone.	Communicates clearly with occasional lapses in vocabulary or tone.	Communicates basic ideas but lacks fluency or professional language.	Unclear or inappropriate communication.	20%

Assessment Dimension	Description	Exemplary (4)	Proficient (3)	Basic (2)	Below Basic (1)	Weight (%)
Engagement with Questions	Response to examiner prompts; flexibility in reasoning and ability to clarify/elaborate.	Confident and extended engagement with prompts.	Accurate and appropriate engagement with prompts.	Limited and hesitant engagement; relies on examiner support.	Minimal or ineffective engagement with prompts.	15%
Response to Prompting	Incorporation of examiner feedback or clarification during the session.	Seamlessly integration of prompts to enhance response.	Appropriate incorporation of prompts.	Minimal or inconsistent integration of prompts; relies on examiner cues.	Lack of incorporation or misunderstanding of prompts.	10%
Total Score						**100%**

Scoring Guidelines:

- Examiner Prompting: All prompting must be noted in the real-time annotation tool (e.g., Google Sheets, Feedback Fruits, or other LMS-integrated rubrics). Prompting should be limited and standardized across candidates.
- Use of Digital Tools: Examiners must use shared digital rubrics with comment features during the session to ensure transparency and enable moderation if needed.
- Calibration Sessions: Prior to administering OREX, all examiners should attend an orientation session to align scoring standards and discuss sample responses (Nguyen et al., 2024).
- Accessibility Note: Students with disabilities or anxiety should be offered alternatives or accommodations per institutional equity policies.

Preparing Students and Creating Practice Opportunities

Students should receive comprehensive information about the content, process, and structure of the OREX assessment (Joughin, 2010). This includes guidance on the materials they are allowed to have during OREX sessions and a clear understanding of the grading criteria. It is important to provide students with opportunities to ask questions about the assessment to clarify any uncertainties (Chapman, 1921).

To help students prepare, they should be encouraged to practice or rehearse before the actual OREX session. Many students may not be accustomed to articulating their knowledge orally, so informal speaking opportunities in class, as well as short presentation activities followed by discussion and feedback, can help reduce anxiety and build confidence (Gregori-Giralt & Menéndez-Varela, 2021). Additionally, students could benefit from watching recorded

videos demonstrating typical oral assessments, which include model questions.

Conceptual Framework

This study is grounded in the Constructive Alignment Theory (Biggs, 1996), which asserts that assessment tasks must align with intended learning outcomes and teaching methods. In context of OUT, the use of oral examinations, reflects a shift towards performance-based, student-centered assessment strategies.

Key constructs underpinning this study include: Assessment Validity: Ensuring that oral assessments accurately measure targeted competencies (Newton, 2007). Digital Adaptability: Using ICT in delivering real-time oral exams remotely (Ali, 2020). Academic Integrity: Employing rigorous rubrics and authentication procedures to uphold credibility (Sahu, 2020). By integrating these principles, OREX serves not just as a pandemic-response tool but as a long-term alternative assessment model for flexible learning institutions like OUT.

Methodology

Data Collection Methodology

This study employed a qualitative document analysis approach to explore the application of Oral Examinations (OREX) as an alternative assessment method at the Open University of Tanzania (OUT) during the COVID-19 pandemic. Document analysis was selected for its ability to provide rich, contextual insights using authentic, institutional records (Bowen, 2009; Bretschneider et al., 2017). The method allowed for the extraction of systematic information relevant to the preparation, administration, and evaluation of online OREX sessions.

Data Sources

Primary data were collected from source-oriented institutional records obtained from OUT headquarters. These included:

1. OREX information spreadsheets documenting candidates and sessions
2. Attendance records for student and examiner training on OREX procedures
3. Official meeting minutes from OREX coordination sessions
4. Evaluation reports and training feedback forms
5. Internal guidelines and assessment protocols

These documents were selected for their direct relevance to the research objectives and their ability to provide longitudinal and comparative data regarding OREX implementation.

Sampling and Selection Criteria

A purposive sampling strategy was used to identify documents that reflected different stages of the OREX process: planning, implementation, and evaluation. Documents were selected based on their authorship (official OUT departments), date (from March 2020 to December 2021), and relevance to the study themes

(student assessment, online examination, examiner training).

Data Collection and Analysis Protocol

Data were gathered over a three-month period. Documents were retrieved electronically from OUT's internal repository with formal clearance. A standardized document review matrix was developed to ensure consistent data extraction across all sources. This matrix included predefined codes aligned with research questions, such as “OREX training process,” “rubric implementation,” and “evaluation feedback.”

Content analysis was used to identify recurring themes, assess policy alignment, and map practices against OREX evaluation goals. To ensure transparency and reproducibility, the document analysis followed a five-step model: skimming, reading, interpreting, thematic coding, and synthesis (Bowen, 2009; Nowell et al., 2017). This methodological approach provided a reliable, non-intrusive, and contextually grounded framework for understanding the operationalization of online OREX within OUT’s digital assessment ecosystem.

Use of Rubric in Oral Examination (OREX)

Rubric Design

Given the exploratory nature of online OREX implementation, a standardized digital rubric was developed and used as the core assessment tool during the examination process. The design and application of this rubric were grounded in current best practices for oral assessment in virtual environments (Gregori-Giralt & Menéndez-Varela, 2021; Joughin, 2023).

The rubric was structured around five core assessment dimensions:

1. Content Accuracy – correctness and completeness of response.
2. Argument Coherence – logical structuring and reasoning.
3. Application of Concepts – ability to contextualize and apply theoretical knowledge.
4. Language and Communication – clarity, fluency, and appropriate academic language.
5. Engagement with Prompting – responsiveness to follow-up questions and clarifications.

Each dimension was scored on a four-point scale (1 = Inadequate, 2 = Basic, 3 = Proficient, 4 = Advanced), with descriptors aligned to expected performance levels. The rubric was validated through expert review and piloted in a mock OREX session prior to implementation.

Scoring and Implementation

During each OREX session, examiners used a real-time digital scoring tool, allowing them to annotate and assign scores as the session progressed. The digital platform facilitated instant recordkeeping and reduced subjectivity (Joughin, 2023). Prior to administration, all examiners received a standardized

orientation on how to use the rubric, supported by exemplars and calibration exercises to ensure inter-rater consistency (Nguyen et al., 2024). Prompting guidelines were also predefined. Examiners were permitted to ask clarifying questions, but all prompts were documented, and over-prompting was flagged for review to prevent unintentional coaching or bias (Muñoz & Álvarez, 2010).

Reliability and Validity Measures

To enhance the reliability of scoring, inter-rater reliability was assessed through double marking of 15% of the OREX sessions. Weekly calibration meetings were held to discuss scoring anomalies and standardize interpretations. Feedback from both students and examiners was collected post-assessment to refine rubric criteria. These measures ensured the rubric's alignment with academic integrity, fairness, and transparency, reinforcing the credibility of OREX as an alternative, summative assessment tool during and beyond the COVID-19 disruption (Brown, et al, 2013; Sahu, 2020).

Results and Discussion

This section presents findings derived from document analysis of OUT's institutional records, aligned with the study's three research objectives. The results integrate quantitative data (e.g., attendance records, session logs) and qualitative insights (e.g., meeting minutes, feedback forms) to evaluate OREX implementation during the 2019/2020 academic year. Primary sources, including OREX spreadsheets, training records, and assessment protocols were triangulated with secondary literature on rubric design (Gregori-Giralt & Menéndez-Varela, 2021; Joughin, 2023) and validation frameworks (Bowen, 2009; Nguyen et al., 2024). A purposive sampling strategy ensured focus on OUT-authored documents from March 2020–December 2021, while digital rubrics and real-time scoring tools enhanced reliability. Together, these sources provided a robust evidence base to assess OREX's effectiveness, challenges, and comparative performance.

Implementation and Management of OREX at OUT

The first objective of the study was to examine how the OREX approach was operationalized to conduct summative assessments for undergraduate students. The findings indicate that OUT adopted a structured and systematic approach in the management and execution of OREX. Preparations included three major online training sessions held via Zoom, specifically designed to prepare academic staff for administering online oral examinations. The training sessions focused on the design and management of online examinations, Zoom operation protocols, examiner roles, risk mitigation strategies, and the application of rubric-based scoring.

Attendance data from OUT internal records (2020) provide quantitative evidence of strong institutional engagement. Of the 312 academic staff invited to the first training session on July 15, 2020, a total of 286 participated, representing a 91.9% attendance rate. Subsequent sessions on July 22 and July 29 recorded attendance rates of 91.4% and 92.1%, respectively. Table 4 summarizes the

training participation rates.

Table 4

Academic Staff Attendance for OREX Training Sessions (2020)

Training Date	Total Invited	Attended	Attendance Rate
15 July 2020	312	286	91.9%
22 July 2020	278	254	91.4%
29 July 2020	290	267	92.1%

Note. Attendance data is from OUT internal records (2020).

Table 4 present a high level of staff readiness and institutional commitment, which significantly contributed to the successful rollout of the OREX platform. Compared to training implementation benchmarks from similar digital interventions in East African universities where attendance often averages around 70–80% (UNESCO, 2020). OUT's engagement levels were notably above average. OUT demonstrated high levels of institutional preparedness, with over 91% training participation among academic staff. Furthermore, 86% of examination sessions were completed without any major disruptions. Standardized rubrics and pre-uploaded model answers ensured objective grading across courses. The system was generally effective, but digital access inequality and technical infrastructure limitations remain barriers to full equity.

Assessment Practices, Tools, and Protocols in OREX Implementation

The second objective was to analyze the assessment practices, tools, and protocols used during OREX. The examination sessions were administered using Zoom, integrated with the university's e-learning platform. Examination questions were uploaded in advance, and students accessed them prior to the scheduled oral session. Rubrics and model answers were embedded into the OREX system, enabling uniform evaluation and minimizing subjectivity in scoring.

To maintain academic integrity, a role-based system was instituted. Each examination involved a Chief Examiner, a Second Examiner, an Examination Observer, and the student. Candidate identity was verified using a dual-authentication system: the OREX Visa Card (OVC) and a national identity document. Additionally, only students with access to internet-enabled smart devices were permitted to participate.

These measures helped standardize the assessment experience across candidates. Based on internal monitoring data from OUT during the 2019/2020 academic year, the implementation of the OREX approach demonstrated a high success rate. Specifically, 86% of the examination sessions were conducted smoothly without any disruptions. Minor disruptions, such as login delays, accounted for 10% of the sessions, while major disruptions, including rescheduling due to network failures, constituted only 4%. This low disruption rate is strong indicator of the reliability and stability of the OREX infrastructure.

When compared to similar remote examination models implemented during the COVID-19 pandemic in neighboring countries, the OUT performance demonstrates notable advantages. Research shows that institutions like Makerere University in Uganda encountered substantial difficulties in transitioning to online assessments, particularly due to widespread technological access barriers that prevented many students from fully participating in digital learning (Osabwa, 2022).

Similarly, Kenyan universities such as the University of Nairobi faced significant challenges, including student protests from economically disadvantaged populations who lacked adequate resources for online education, further exposing the region's digital divide (Chiroma, et al, 2021). These comparative cases highlight how Tanzania's OUT achieved more successful implementation of remote examinations despite the shared regional constraints of infrastructure limitations and unequal access to technology that characterized higher education across East Africa during the pandemic period.

Table 5

OREX Session Outcomes at OUT (2019/2020) vs. Regional Comparators

Category	OUT (Tanzania)	Kenya/Uganda (Makerere, 2021)	Key Factors
Smoothly Conducted	86%	70–80%*	Rigorous staff training; OREX Visa system.
Minor Disruptions	10%	15–20%	Pre-uploaded materials; Zoom protocols.
Major Disruptions	4%	20–30%	Limited rural internet infrastructure.

Note. Smoothly conducted sessions in Kenya/Uganda were derived from reported 20–30% disruption rates (100% - 30% = 70%). Percentages are approximate and may not sum to exactly 100% due to rounding.

The findings in Table 5 presents a comparative analysis of examination results between OUT (2019/2020) and regional peers (Kenya/Uganda, 2021), showing OUT achieved 86% smoothly conducted sessions compared to 75% regionally, with only 4% major disruptions versus 25% elsewhere. While OUT's high success rate (86% smooth sessions) demonstrates effective institutional preparedness through robust training and systems, the persistent 4% major disruptions - though significantly lower than regional averages - underscore remaining equity challenges in Tanzania's distance education infrastructure, particularly in underserved areas. This contrast between OUT's relative operational success (10% minor disruptions vs. 18% regionally) and ongoing accessibility gaps highlights both the model's strengths and areas needing improvement for more inclusive implementation. This data underscores OUT's effective management and execution of the OREX approach, highlighting its potential as a sustainable

model for remote assessments in the African higher education context.

Effectiveness and Challenges of OREX

The third objective was to evaluate the effectiveness and challenges of the OREX system in terms quality assurance, equity, and long-term feasibility. The findings show that OREX was largely effective in achieving these goals. The structured assessment design, staff training, and technological setup contributed to a reliable and valid assessment environment. The use of model answers and rubrics ensured consistency and fairness in grading, supporting academic integrity.

Furthermore, qualitative feedback from examiners (as per internal memos) indicated high levels of satisfaction with the system's efficiency, clarity of roles, and fairness in student evaluation. Students also reported that the oral format allowed for direct interaction and immediate clarification, making the process more transparent than written-only assessments. However, some challenges were also observed. Digital inequity emerged as a notable concern, particularly for students in rural or low-connectivity areas. Although the majority of students were able to access the examinations successfully, around 14% of sessions experienced disruptions due to unstable internet connections or lack of appropriate devices. This finding aligns with broader research on digital access in Tanzania, which indicates persistent disparities in device ownership and broadband availability (TCRA, 2020). Table 6 present the challenges identified in the OREX system implementation, categorized by assessment quality, equity, and feasibility.

Table 6

Challenges on OREX system implementation

Category	Challenges Identified	Supporting Evidence
Digital Inequity	Poor connectivity; limited device ownership in rural areas. Limited device ownership among disadvantaged students.	14% of sessions disrupted TCRA (2020) data on Tanzania's digital disparities).
Authentication	Dual-authentication (ID + OREX Visa Card) excluded some students.	Logistical hurdles in obtaining documentation affected participation.
Technical Issues	Unstable internet caused minor (10%) or major (4%) disruptions.	86% smooth sessions, but 14% faced technical problems.

Category	Challenges Identified	Supporting Evidence
Inclusivity Gaps	No clear alternatives for students unable to meet tech/documentation requirements.	Risk of excluding marginalized learners despite system efficiency.
Long-Term Viability	Sustainability concerns due to Tanzania's uneven infrastructure development.	Ongoing investment needed in rural ICT infrastructure.

Note. Field Data, 2020.

The findings revealed key successes including high examiner satisfaction due to structured rubrics and clear roles, along with student preference for the oral interaction format; however, persistent gaps remain as while 86% of sessions were successful, the 14% failure rate highlights systemic digital access inequities, prompting recommendations to develop low-bandwidth alternatives (such as phone-based exams) and simplify identity verification processes for undocumented students to improve inclusivity as in Table 6.

The dual-authentication model, while effective in verifying identity, was difficult to implement for students lacking access to national ID documentation or who faced logistical constraints in obtaining their OREX Visa Card. These issues underscore the need for more inclusive strategies to ensure full participation in future iterations of OREX.

Discussion of Findings

This section interprets the findings in relation to the three research objectives, relevant empirical literature, and the Task-Technology Fit (TTF) theoretical framework, which emphasizes the alignment between technological capabilities and task requirements to achieve performance impact (Goodhue & Thompson, 1995). The findings confirm that the OREX model, as implemented by the OUT during the 2019/2020 academic year, demonstrated notable success in supporting summative assessment delivery under emergency and evolving digital education contexts.

Operationalization of OREX Administration at OUT

The first objective examined how OREX was managed and operationalized to deliver summative assessments for undergraduate students. Evidence shows a 91.9% training attendance rate among academic staff during the key preparatory session held on 15 July 2020. This high engagement rate signals institutional readiness and aligns with Bennett et al. (2020), who argue that well-trained staff are critical to the success of online assessment frameworks. Furthermore, the structure of OREX sessions comprising role assignment (Chief Examiner, Second Examiner, Observer), advanced sharing of Zoom links, and rigorous identity verification resonates with Joughin (2010), who emphasized the importance of structured, informed, and well-communicated assessment

procedures.

Compared to OUT's 2018 face-to-face assessments model, where only 74% staff participation in preparatory activities, the OREX implementation represents improved administrative coordination. This advancement also supports the TTF framework, indicating a strong match between the OREX technology features (e.g., Zoom integration, examiner dashboards) and the pedagogical task of remote oral assessment delivery.

Assessment Practices, Tools, and Protocols

The second objective focused on the practices, protocols, and tools employed during OREX implementation.

Table 7

Comparison of Assessment Practice Before and During OREX

Practice Element	2018 Paper-Based Exams	2020 OREX Online
Rubric Use	Inconsistent	Standardized
Examiner Role Clarity	Moderate	Clearly Defined
Session Monitoring	Manual	Live via Zoom + Observer
Student Orientation Rate	60%	92%

Note. Field Data

Effectiveness and Perceived Impact of OREX

The third objective evaluated the perceived effectiveness and challenges of OREX with regard to quality, equity, and feasibility for long-term application. The use of standardized questions, embedded rubrics, and examiner dashboards promoted fairness and reduced grading subjectivity. This aligns with Tekian et al. (2009), who advocate for structured frameworks to enhance assessment reliability. Additionally, the integration of feedback mechanisms encouraged formative learning during the oral exam process, transforming the experience from mere evaluation to a teaching opportunity.

Internal monitoring data revealed that 86% of OREX sessions were conducted without major irregularities, while only 4% experienced significant disruptions requiring rescheduling. These outcomes are visually represented and compared with disruption rates from Makerere University (2021) and Kenyan institutions, where remote assessments saw 20–30% disruption rates. OUT's relatively smooth implementation underscores strong alignment between technology and educational goals.

During the 2019/2020 academic year at OUT, the implementation of OREX demonstrated high operational effectiveness, with 86% of examination sessions

conducted smoothly without interruptions. Approximately 10% of sessions experienced minor disruptions, such as login delays, while only 4% faced major disruptions requiring rescheduling, primarily due to network failures. These figures reflect the overall success and stability of the OREX model during its rollout.

Table 8

Key Metrics from OREX Implementation

Metric	Result (2020)
Total Sessions Conducted	1,240
Sessions Without Irregularities	1,068 (86%)
Candidate Attendance Rate	95.3%
Technical Failures Reported	4.1%

Note. The data reflect outcomes from the 2020 OREX implementation cycle.

The OREX initiative at OUT illustrates a compelling case of adaptive innovation in assessment within an African open and distance learning context. The alignment between task demands (oral summative assessment) and technological functionalities (Zoom, digital rubrics, dashboards) exemplifies the Task-Technology Fit theory in practice. Furthermore, the findings, supported by empirical literature and comparative regional data, affirm OREX's potential as a scalable, equitable, and effective model for future digital assessment in higher education.

Conclusion

The implementation of the OREX system by the OUT in 2020, in response to the COVID-19 pandemic, demonstrated the institution's capability to adapt to crisis-induced disruptions while maintaining academic continuity. This study, structured around three key objectives: (1) to examine the management of OREX administration, (2) to assess the tools and practices used in OREX, and (3) to evaluate its overall effectiveness found that OREX was not only operationally successful but also pedagogically valuable.

Quantitative and qualitative data revealed strong institutional readiness and performance. The system recorded 91.9% participation in staff training, effective use of rubrics, and a 95.3% student attendance rate across 1,240 sessions, with 86% of sessions conducted fewer disruption. These outcomes align closely with literature emphasizing the importance of structured online assessments (Bennett et al., 2020; Muñoz & Álvarez, 2010) and validate the theoretical underpinnings of the Task-Technology Fit framework, which posits that performance improves when technology capabilities match the task requirements.

OREX enhanced administrative coordination, increased clarity in examiner roles, and improved assessment consistency through the use of digital tools

and live monitoring. Compared to traditional paper-based assessments, which often faced logistical inefficiencies and subjective grading, OREX offered a standardized, transparent, and data-driven alternative. The system also promoted higher-order thinking through well-structured questions and real-time feedback mechanisms, aligning with pedagogical recommendations by Wanner and Palmer (2015) and Tekian et al. (2009). Although minor disruptions occurred (10% due to login delays and 4% due to technical failures), these were significantly lower than those experienced in similar models implemented in Kenya and Uganda during the same period, highlighting OUT's relative success.

Despite these positive outcomes, the study acknowledges that challenges such as internet stability, system security, and academic integrity must be continually addressed. The integration of proctoring technologies, clear academic honesty policies, and regular system audits can mitigate these risks. As OUT continues to refine its digital assessment strategy, future research should investigate the long-term learning outcomes and engagement levels associated with OREX, as well as stakeholder perceptions to inform continuous improvement.

Recommendations

The implementation of OREX at OUT provided a timely and effective alternative to traditional assessments, especially during the COVID-19 pandemic. However, for OREX to transition from a reactive measure into a sustainable and scalable solution, it is imperative to establish a comprehensive framework that strengthens digital capacity, supports inclusivity, and enhances institutional readiness. The following recommendations are proposed to guide higher learning institutions in maximizing the long-term benefits of digital oral assessments.

1. Policy Development. Develop and institutionalize comprehensive digital assessment policies that outline ethical standards, operational procedures, and clear contingency plans for addressing technological disruptions. These policies should also address issues related to academic integrity and privacy.
2. Capacity Building for Stakeholders. Strengthen ongoing training programs in digital literacy and online assessment tools for both academic staff and students. Enhancing familiarity and confidence with remote platforms is essential for improving engagement, reducing anxiety, and increasing assessment quality.
3. Investment in Digital Infrastructure. Improve institutional digital infrastructure, with specific focus on upgrading internet bandwidth, server capacity, and secure examination platforms. Robust infrastructure minimizes technical interruptions and supports a smooth examination process.
4. Monitoring and Evaluation Systems. Establish robust monitoring and evaluation mechanisms using learning analytics to track system performance, ensure assessment integrity, and generate insights on student outcomes. These data should inform periodic improvements and decision-making.
5. Scalability and Program Integration. Expand the OREX model to cover

postgraduate, diploma, and professional development programs. This broad integration increases efficiency and consistency in remote assessment delivery across different academic levels.

6. Equity and Inclusion. Ensure inclusive access to OREX for all learners, particularly those with disabilities or residing in low-connectivity regions. This may include alternative access modes, flexible scheduling, and assistive technologies tailored to diverse student needs.
7. User Support and Helpdesk Services. Establish a responsive technical support system available before, during, and after examinations. Timely assistance builds user trust and reduces the negative impact of unexpected technical issues on student performance.
8. Collaboration with Regulatory Bodies. Align OREX practices with national quality assurance and accreditation standards through collaboration with bodies such as Tanzania Commission to Universities (TCU) and National Council for Technical and Vocational Education and Training (NACTEVET). This alignment enhances the credibility and recognition of OREX outcomes.
9. Integration with Learning Management Systems (LMS). Link OREX platforms with institutional LMS to streamline student registration, scheduling, feedback provision, and results documentation. Integration fosters a seamless user experience and strengthens digital learning ecosystems.
10. Research and Innovation. Promote ongoing research into digital assessment methods, including studies on student satisfaction, examiner reliability, and cognitive validity of oral examinations. Continuous innovation ensures OREX remains responsive to pedagogical and technological trends.

Implementation of these strategic recommendations, universities such as OUT can consolidate the gains made during the emergency adoption of OREX and position themselves for long-term success in delivering high-quality, equitable, and resilient digital assessments.

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