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Vision and Mission of the IJODeL

Vision

To be a leading international academic journal that publishes and disseminates new knowledge and information, and innovative best practices in open and distance e-learning.

Mission

The IJODeL shall publish and disseminate new knowledge and information based on original research, book reviews, critical analyses of ODeL projects and undertakings from various researchers and experts in the Philippines, the ASEAN Region, and the world, and concept articles with the intention of presenting new ideas and innovative approaches to interpreting and implementing best practices in open and distance e-learning as alternative delivery mechanisms for quality education.

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Table of Contents

Articles

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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Level of Social Presence, Social Interaction, Collaborative Learning, and Satisfaction in a BAMS Course Discord Server

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Abstract

The integration of Discord as a communication and collaboration platform in online learning has gained attention due to its interactive features that support real-time engagement. This study examines students' perceptions of social presence, social interaction, collaborative learning, and overall satisfaction in a Bachelor of Arts in Multimedia Studies (BAMS) course Discord server. Using survey data, activity logs, open-ended responses, and the Student Evaluation of Teaching (SET) data for the BAMS course, the study evaluates how Discord fosters a sense of community, facilitates peer interaction, and enhances the learning experience.Findings indicate a high level of social presence, with 84% of students agreeing that Discord helped them feel connected with peers and faculty-in-charge (FIC). Real-time chat, voice discussions, and multimedia sharing contributed to a stronger sense of community compared to traditional Learning Management Systems (LMSs). In terms of social interaction, 71% of students reported frequent engagement with classmates, with text chat (95%), voice discussions (60%), and direct messaging (50%) being the most utilized features. Additionally, collaborative learning was supported, with 65% of students acknowledging that Discord facilitated knowledge sharing, teamwork, and problem-solving. Students appreciated its structured organization, which helped them locate discussions and announcements efficiently.

Overall, 64% of students expressed satisfaction with Discord as a learning platform, citing benefits, such as enhanced faculty communication (86%), improved peer interaction (69%), and a relaxed yet productive learning environment (62%). However, challenges included unfamiliarity with the platform, underutilization of certain channels, and reliance on peer engagement for meaningful discussions.The study concludes that Discord serves as an effective supplementary learning tool, enhancing online learning experiences through real-time interaction and collaboration. Recommendations include onboarding tutorials, structured engagement activities, and periodic check-ins to improve student participation further and maximize the platform's potential.

Keywords: *Discord, digital platform, online community, online learning environment*

Introduction

In online education, fostering a sense of community and interaction among students is essential for enhancing engagement, learning outcomes, and overall satisfaction. Asynchronous discussion forums have traditionally served this purpose, but recent advancements in communication technologies have introduced more dynamic platforms that enable real-time interaction. One such platform is Discord, which has gained popularity in educational settings due to its versatility in supporting text, voice, and video communication.

The Bachelor of Arts in Multimedia Studies (BAMS) program at the University of the Philippines Open University (UPOU) is delivered entirely online, requiring innovative approaches to facilitate student engagement and collaboration. To address this need, a dedicated Discord server was introduced to serve as a space for students to interact, collaborate on coursework, and build a sense of community. However, the effectiveness of such platforms in fostering social presence, social interaction, and collaborative learning remains an area of interest. Understanding how students perceive these elements in an online learning environment can provide valuable insights for improving digital learning communities.

This study explores students' perceptions of social presence, social interaction, collaborative learning, and overall satisfaction in the BAMS course Discord server. Specifically, it seeks to determine whether Discord effectively facilitates meaningful interactions and collaboration among students, ultimately enhancing their learning experience. By examining these perceptions, this research aims to contribute to the broader discussion on optimizing online learning environments to promote engagement and academic success.

Objectives

This study aims to examine students' perceptions of social presence, social interaction, collaborative learning, and satisfaction in a Bachelor of Arts in Multimedia Studies (BAMS) course Discord server. Specifically, it seeks to:

1. Assess Social Presence – Evaluate the extent to which students feel a sense of community, connection, and real-time engagement with peers and instructors through the Discord server.
2. Analyze Social Interaction – Investigate the frequency, depth, and nature of student interactions within the platform.
3. Examine Collaborative Learning – Determine the extent to which the Discord server supports collaborative learning by facilitating teamwork, knowledge sharing, and academic discussions.
4. Measure Student Satisfaction – Assess students' overall satisfaction with Discord as a communication and collaboration platform in the course.
5. Identify Challenges and Opportunities – Explore potential barriers and advantages of using Discord in an online learning environment to inform future improvements in digital learning communities.

By addressing these objectives, this study aims to provide insights into the

effectiveness of Discord as a tool for fostering engagement, collaboration, and a sense of belonging in online education.

Conceptual/Theoretical Framework

This study is grounded in theories related to online learning, social presence, and collaborative learning. The framework integrates the Community of Inquiry (CoI) model (Garrison et al., 2000), Social Presence Theory (Short et al., 1976), and Collaborative Learning Theory (Bruffee, 1999; Vygotsky, 1978) to examine how Discord supports social interaction, collaborative learning, and student satisfaction in the Bachelor of Arts in Multimedia Studies (BAMS) course.

Community of Inquiry (CoI) Model

The Community of Inquiry (CoI) model offers a structured framework for understanding online learning experiences through three interrelated elements: social presence, cognitive presence, and teaching presence. Social presence refers to the ability of students to project themselves socially and emotionally in an online environment, fostering a sense of community. Cognitive presence involves the extent to which learners engage in meaningful reflection and critical thinking. Teaching presence encompasses the design, facilitation, and direction of learning to ensure an engaging and effective educational experience. Together, these elements create a comprehensive learning environment that promotes deep engagement, collaboration, and knowledge construction. Social presence enables students to feel connected, reducing feelings of isolation in online settings and encouraging active participation in discussions. Cognitive presence supports the development of higher-order thinking skills by fostering inquiry, problem-solving, and meaningful dialogue among learners. Teaching presence plays a crucial role in structuring learning experiences, guiding discussions, and providing timely feedback to ensure that students remain engaged and achieve learning objectives.

This study focuses primarily on social presence and its impact on social interaction, collaborative learning, and satisfaction within the Discord platform. By assessing students' perceived social presence, the study aims to understand how it influences their interactions and learning outcomes.

Social Presence Theory

Originally proposed by Short et al. (1976) in the context of communication media, Social Presence Theory suggests that different communication technologies vary in their ability to convey a sense of human presence. The theory emphasizes that higher social presence leads to more effective communication and engagement. In this study, Discord's real-time chat, voice channels, and multimedia-sharing features are analyzed to determine their role in enhancing social presence.

Collaborative Learning Theory

Drawing from Vygotsky's (1978) Social Constructivist Theory, Collaborative

Learning Theory (Bruffee, 1999) underscores learning as a social process in which knowledge is constructed through interaction with peers and instructors. It emphasizes that learning is most effective when students work together, share knowledge, and engage in discussions.

The study applies collaborative learning principles to examine whether the Discord server facilitates collaborative learning by enabling students to engage in academic discussions, group projects, and peer-to-peer support.

Conceptual Framework Overview

Building on these theoretical foundations, the study explores the relationships among four key constructs: social presence, social interaction, collaborative learning, and satisfaction. Social presence refers to how students perceive their connection with peers and instructors within the Discord server. Social interaction examines the level and nature of student engagement and communication on the platform. Collaborative learning focuses on the extent to which students use Discord to share knowledge and work together. Finally, satisfaction reflects students' overall experience and perceived benefits of using Discord for learning. By analyzing these relationships, the study aims to provide insights into the effectiveness of Discord as a learning tool.

The study hypothesizes that higher levels of social presence lead to increased social interaction, which in turn enhances collaborative learning and ultimately contributes to higher student satisfaction.

By applying these interrelated theories, this research provides a structured approach to analyze the role of Discord in online education, offering insights that may inform future improvements in digital learning communities.

Review of Related Studies

The increasing adoption of digital communication platforms in online education has prompted numerous studies examining their impact on student engagement, social presence, collaborative learning, and satisfaction. This section reviews relevant literature on social presence, social interaction, collaborative learning, and student satisfaction in online learning environments, with a specific focus on Discord and similar platforms.

Social Presence in Online Learning

Social presence, defined as the ability of students to perceive themselves as real and connected in an online environment (Garrison et al., 2000), is a key factor in fostering meaningful learning experiences. Studies have shown that higher social presence in online learning platforms leads to greater engagement and improved learning outcomes (Richardson et al., 2017).

Lowenthal and Dunlap (2014) highlighted the role of synchronous communication tools in enhancing social presence by allowing real-time interactions. Similarly, Sung and Mayer (2012) found that multimedia-enhanced discussions, such

as those facilitated by Discord, promote stronger social connections among students compared to traditional text-based discussion forums. These findings suggest that platforms with real-time interaction capabilities, such as Discord, can significantly improve students' sense of social presence in online courses.

Social Interaction in Online Learning Environments

Effective social interaction is critical for student engagement and learning in online education. Hrastinski (2008) identified two key types of online interaction: asynchronous interactions (e.g., discussion forums and emails) that allow time for reflection and synchronous interactions (e.g., live chats and video calls) that promote real-time engagement.

Building on this distinction, Asterhan and Schwarz (2016) found that synchronous platforms foster more active participation and immediate feedback, making them effective for collaborative discussions. Additionally, Ayob et al. (2022) investigated the potential, effectiveness, and satisfaction of using Discord as a digital learning tool among higher education students during the COVID-19 pandemic. They found that Discord facilitated active social and learning engagement, providing a flexible platform for discussions and interactions between students and instructors. These findings suggest that Discord, as a synchronous and interactive platform, may facilitate higher levels of student engagement and interaction.

Collaborative Learning in Online Platforms

Collaborative learning theory emphasizes that knowledge is constructed through interaction and shared experiences (Vygotsky, 1978). Studies have shown that digital platforms that encourage teamwork and peer collaboration can enhance students' problem-solving abilities and knowledge retention (Dillenbourg, 1999).

For instance, a study by Lacher and Biehl (2018) investigated how Discord could be utilized to moderate student collaboration and teamwork. They suggested that the platform's features, such as voice channels and text chats, enable students to discuss assignments, share resources, and provide peer feedback effectively. Similarly, the study of Ari-adco et al. (2024) examined the effectiveness of Discord as an educational tool for promoting teamwork among sixth-grade students using a pre-experimental design with 35 participants. Results from the Wilcoxon test indicated significant improvements in leadership, communication, and empathy, confirming that Discord enhances student interaction and collaboration.

These studies indicate that Discord's interactive features may facilitate a more engaging collaborative learning environment compared to traditional LMSs.

Student Satisfaction in Online Learning Platforms

Student satisfaction is a key indicator of the effectiveness of an online learning platform. According to Moore and Kearsley (2012), students are more satisfied with online courses that offer interactive and socially engaging environments.

Gray and DiLoreto (2016) found that higher levels of social presence and collaborative learning correlate with increased student satisfaction in online courses. Similarly, a recent study by Obionwu et al. (2024) found that using Discord in online Computer Science classes significantly improved student satisfaction, with 87% of participants reporting an enhanced sense of belonging. These findings suggest that Discord has the potential to enhance student satisfaction by providing an interactive and socially engaging learning environment.

Summary of Related Studies

The reviewed literature collectively underscores the significance of social presence, interaction, and collaboration in online learning, emphasizing that synchronous platforms like Discord can enhance these aspects. Research suggests that higher social presence is associated with increased engagement and improved learning outcomes (Richardson et al., 2017; Sung & Mayer, 2012). Synchronous communication tools facilitate real-time interactions and encourage active participation, making them valuable for online learning environments (Asterhan & Schwarz, 2016; Hrastinski, 2008). Additionally, Discord's interactive features have been found to support collaborative learning and peer engagement (Ari-adco et al., 2024; Lacher & Biehl, 2018;). Furthermore, student satisfaction tends to improve on platforms that foster social engagement and real-time collaboration, creating a more dynamic and engaging learning experience (Gray & DiLoreto, 2016; Obionwu et al., 2024).

These studies provide a strong foundation for examining how BAMS students perceive social presence, social interaction, collaborative learning, and satisfaction in a Discord server. By building on these insights, this research aims to contribute to the growing body of knowledge on the effectiveness of Discord as a learning tool in online education.

Methodology

This study examines students' perceptions of social presence, social interaction, collaborative learning, and satisfaction in a Bachelor of Arts in Multimedia Studies (BAMS) course Discord server. The methodology outlines the research design, participants, data collection methods, and data analysis procedures used in the study. By employing this methodology, the study aims to provide a comprehensive understanding of how Discord facilitates social presence, interaction, and collaborative learning, ultimately shaping students' satisfaction in an online learning environment.

Research Design

A descriptive research design employing a mixed-methods approach is used to provide a comprehensive understanding of student experiences. The study combines both quantitative and qualitative data. Quantitative data are collected through structured survey instruments while qualitative insights are drawn from open-ended responses, activity logs, and SET data of a BAMS course. This

approach allows for triangulation, enhancing the validity and depth of findings.

Participants

The participants of this study are 238 BAMS students who have actively used the Discord server for course-related discussions, collaboration, and interaction. A purposive sampling technique is used to select students enrolled in the course during a specific term. Participation is voluntary, and informed consent is obtained before data collection.

Data Collection Methods

This study employs multiple data collection methods to gather insights into students' experiences with Discord as a learning platform. A structured survey questionnaire is designed to assess key aspects such as social presence (feeling connected with peers and instructors), social interaction (frequency and quality of engagement), collaborative learning (teamwork and knowledge sharing), and overall satisfaction with Discord for learning. The survey consists of Likert-scale questions, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), along with open-ended questions to capture qualitative insights. With participants' consent, anonymized Discord server activity data, such as message frequency and types of interactions, are analyzed to support the survey findings. This data provides additional insights into engagement patterns, communication dynamics, and the overall level of interaction within the server while ensuring participant privacy and confidentiality. Additionally, the study also incorporates Student Evaluation of Teaching (SET) data, which provides descriptive feedback on faculty teaching performance within the course.

Data Analysis

Quantitative data from the Likert-scale survey responses are analyzed using descriptive statistics, such as mean, standard deviation, and frequency distributions. For the qualitative data, thematic analysis is conducted on open-ended survey responses and SET data to identify recurring themes related to students' experiences with social presence, interaction, and collaboration. To enhance the validity of the study, triangulation is employed by comparing findings from the survey, server activity logs, and SET results ensuring a comprehensive understanding of the data.

Ethical Considerations

Participation is voluntary, and all responses are kept confidential and anonymous. Data collection is conducted only after obtaining informed consent from participants. Students are assured that their participation (or non-participation) will have no impact on their academic standing or course grades.

Limitations

The study is limited to students enrolled in a specific BAMS course using a Discord server, and findings may not be generalizable to all courses, disciplines,

or online learning platforms. Additionally, the reliance on self-reported data introduces the potential for response bias, as students' perceptions may be influenced by individual experiences, motivations, or expectations.

Results and Discussion

This section presents and interprets the findings on students' perceptions of social presence, social interaction, collaborative learning, and satisfaction in the Bachelor of Arts in Multimedia Studies (BAMS) course Discord server. The results are based on survey responses, server activity data, and SET data. The discussion interprets these findings about existing literature and the study's theoretical framework, primarily the CoI model and Social Presence Theory.

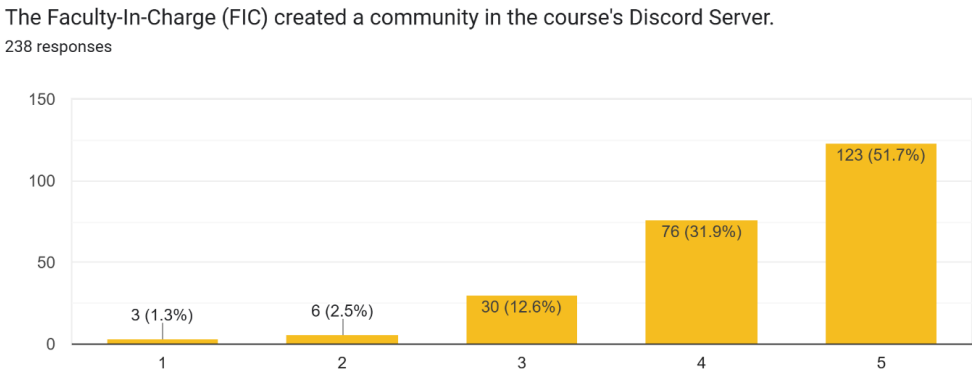
Social Presence in the Discord Server

Based on Figure 1, survey responses indicate a high level of social presence among students, with 84% agreeing that they felt a sense of community with their peers and instructors in the Discord server. Many students reported that real-time chat, voice, and multimedia sharing enhanced their sense of community compared to traditional learning management systems (LMSs).

Responses to the open-ended survey questions further expressed students' appreciation for Discord as a learning and communication platform in the course. They found it engaging, interactive, and effective in fostering communication between students and the FIC. Several students highlighted that the weekly Q&A sessions were beneficial in addressing concerns and providing real-time feedback, which they found lacking in other courses. Additionally, many students acknowledged the efforts of the FIC, particularly in actively communicating, encouraging participation, and fostering a welcoming learning environment. They found the FIC to be approachable, patient, and responsive, which contributed to a positive learning experience. Some students also mentioned that using Discord helped them make new friends, stay updated on course matters, and feel more connected despite the online learning setup.

Figure 1

Faculty-In-Charge's Role in Community Building and Discussion Facilitation on Discord



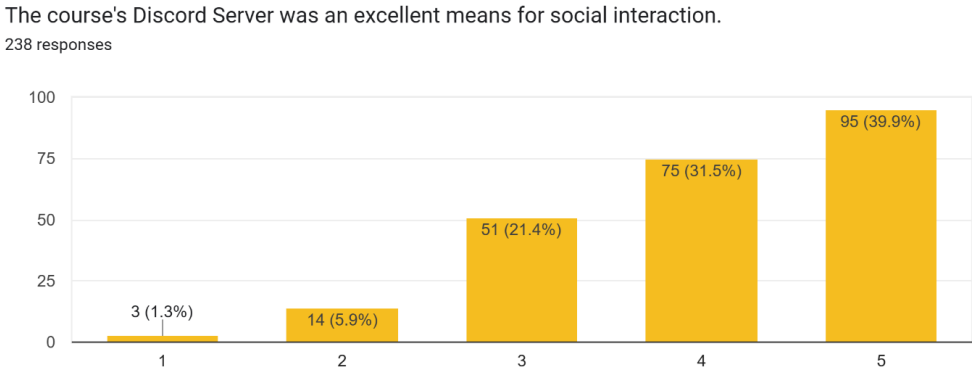
These findings align with the Social Presence Theory (Short et al., 1976), which suggests that communication platforms with richer interaction features enhance perceived presence. The Community of Inquiry (CoI) model (Garrison et al., 2000) also emphasizes the importance of social presence in fostering engagement. The results support previous studies (e.g., Richardson et al., 2017) showing that synchronous communication tools contribute to stronger social connections in online learning.

Social Interaction Among Students

As shown in Figure 2, the majority of participants (71%) reported that they engaged in frequent interactions with classmates through text chat (95%), voice discussions (60%), and direct messaging (50%). Activity logs support these responses with a high volume of student-led discussions, particularly in channels dedicated to general discussions, questions, concerns, and group assignments.

Figure 2

Student Perceptions of the Course's Discord Server as a Tool for Social Interaction



The findings are consistent with Hrastinski's (2008) model of online interaction, which differentiates between asynchronous (e.g., forum-based) and synchronous (e.g., chat-based) interactions. Discord's synchronous nature appears to promote immediate feedback and dynamic conversations, enhancing student engagement (Asterhan & Schwarz, 2016). The ability to communicate in real-time may explain why students perceive Discord as a more interactive learning environment compared to traditional LMS discussion boards.

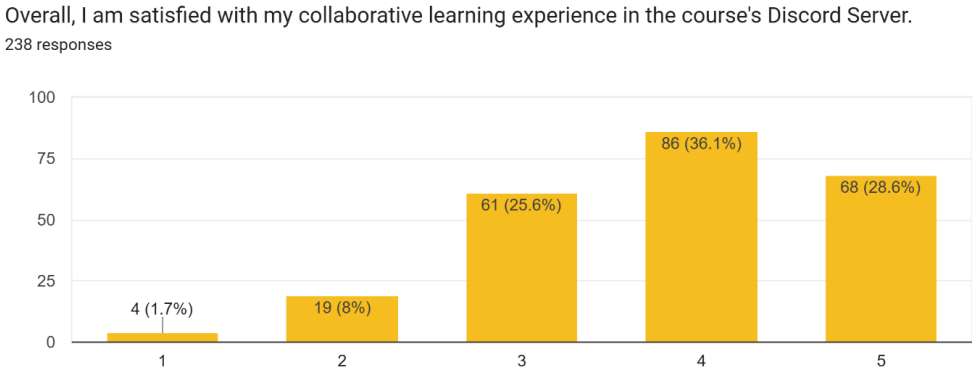
Collaborative Learning in the Discord Server

About 65% of students agreed that Discord supported collaborative learning, as can be seen in Figure 3. Specific collaborative activities reported by students included skills and knowledge acquisition (50%) and the development of problem-solving skills (47%). These activities highlight the role of the Discord server in facilitating peer learning, knowledge sharing, and critical thinking through collaborative discussions and interactions.

Students also appreciated the organized structure of Discord, which helped them easily locate discussions and announcements. Some noted that it provided an alternative to traditional forums and social media platforms, making it a valuable tool for collaborative learning and interaction. Others recognized Discord's potential for enhancing online education, suggesting that more courses should adopt its features to improve student engagement.

Figure 3

Student Satisfaction with Collaborative Learning in the Course's Discord Server



These findings align with Collaborative Learning Theory (Dillenbourg, 1999: Vygotsky, 1978), which emphasizes that social interaction plays a crucial role in knowledge construction. Studies such as Lacher and Biehl (2018) and Ari-adco et al. (2024) have shown that Discord's interactive features facilitate teamwork and resource-sharing, leading to a more engaging learning experience. However, challenges such as lack of participation from students made the server feel inactive or underutilized. Some students pointed out that the effectiveness of the platform depended heavily on peer engagement, and since many students were unfamiliar with Discord or chose not to participate, meaningful discussions were limited.

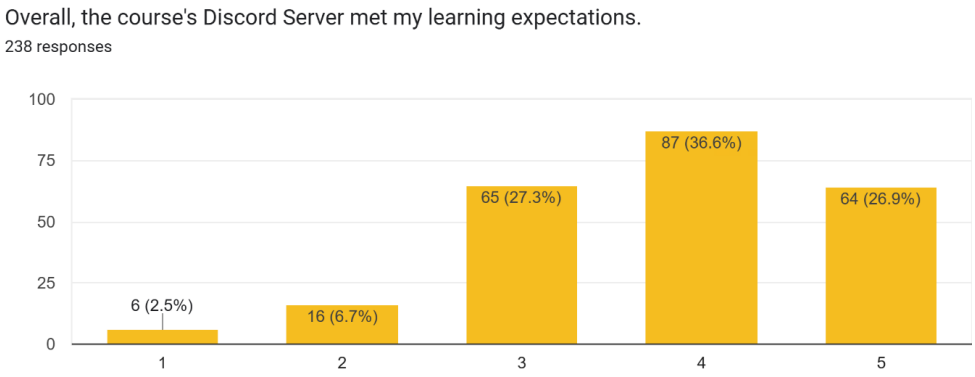
Student Satisfaction with Discord as a Learning Platform

A significant 64% of the students reported being satisfied with using Discord for course-related communication and collaboration, as shown in Figure 4. The most frequently cited benefits of using Discord in the course were its enhanced communication with the FIC (86%), with weekly Q&A sessions and prompt responses from the FIC helping address student concerns efficiently, fostering a more interactive learning experience. Additionally, 69% of the students highlighted that Discord provided improved peer interaction and support, with students appreciating having a space to engage with classmates outside the LMS, allowing for better collaboration and discussion. Furthermore, 62% of the respondents found that the platform created a relaxed yet productive space for learning, making the experience more immersive and interactive.

However, from the course SET results, the issues that were experienced by some students were they either did not use Discord often or preferred other communication methods. Also, some students mentioned that certain channels, like the "off-topic" and "study lounge" channels, were underutilized and could have helped create a more engaging environment.

Figure 4

Student Perceptions on Whether the Course's Discord Server Met Their Learning Expectations



These results support previous studies from Gray and DiLoreto (2016) and Obionwu et al. (2024) indicating that student satisfaction increases when online platforms provide opportunities for interaction and community building. The findings also reinforce Moore and Kearsley's (2012) theory that student satisfaction is influenced by the level of engagement and interaction in an online course. However, the identified challenges suggest a possible limitation of Discord, as its effectiveness largely relied on active peer participation. Since many students were either unfamiliar with the platform or opted not to engage, the depth and frequency of meaningful discussions were restricted.

Challenges and Areas for Improvement

While most students expressed positive perceptions of Discord, some challenges were identified based on open-ended responses and the course SET results. Several students were unfamiliar with Discord and preferred using other platforms, such as MyPortal or Facebook Messenger for course-related discussions. Additionally, while Discord was recognized as a useful tool for academic interactions, some students felt that it did not fully provide a social experience or foster a sense of camaraderie among classmates. The off-topic and study lounge channels, which could have contributed to a more engaging and interactive learning community, were also underutilized.

These issues can be addressed by offering on boarding support such as short tutorial or guide on how to navigate Discord for students unfamiliar with it, encouraging the use of off-topic and study lounge channels for casual interaction, and implementing periodic "kamustahan" (wellness check-ins) to foster community engagement could enhance Discord's effectiveness as a learning tool.

Table 1

Summary of Key Findings

Key Area	Findings	Challenges
Social Presence	• 84% of the students felt a sense of community in the Discord server. • Real-time chat, voice, and multimedia sharing enhanced social presence.	• Some students were unfamiliar with Discord and preferred other platforms (e.g., MyPortal and Facebook Messenger).
Social Interaction	• 71% of students engaged frequently with classmates. • 95% used text chat, 60% participated in voice discussions, and 50% used direct messaging.	• Some students felt Discord did not fully foster camaraderie. • The effectiveness of interactions depended on peer participation.
Collaborative Learning	• 65% agreed that Discord supported collaborative learning. • Students engaged in knowledge-sharing and problem-solving activities.	• Some channels (e.g., "off-topic" and "study lounge") were underutilized. • Lack of participation from some students affected engagement.
Student Satisfaction	• 64% were satisfied with Discord as a learning platform. • 86% cited enhanced communication with faculty. • 69% valued peer interaction and support.	• Some students rarely used Discord or preferred other platforms. • The platform's effectiveness depended on student engagement.

Conclusion

The study assessed the effectiveness of Discord as a learning and communication platform, aligning with the five key objectives. The findings indicate that Discord contributed positively to social presence, social interaction, collaborative learning, and student satisfaction.

Key conclusions include:

1. The high level of social presence (84%) suggests that Discord effectively fostered a sense of community. Features such as real-time chat, voice, and multimedia sharing enhanced interaction, allowing students to feel more connected to their peers and instructors. Faculty engagement played a crucial role in maintaining a welcoming and interactive learning environment.
2. Social interaction was robust, with the majority of students (71%) actively engaging via text (95%), voice (60%), and direct messaging (50%). The findings indicate that Discord promoted real-time communication, which enhanced engagement compared to traditional LMS discussion boards. However, some students felt that the platform did not fully foster camaraderie, and its effectiveness depended on peer participation.
3. Collaborative learning was supported, with about 65% of students recognizing Discord's role in knowledge sharing (50%) and problem-solving (47%). Structured discussions, organized channels, and real-time interactions facilitated teamwork and critical thinking. However, the underutilization of certain channels and limited participation from some students hindered its full potential.
4. Student satisfaction with Discord was notable, with 64% expressing satisfaction and 86% valuing enhanced communication with the faculty. Many students appreciated the interactive and engaging nature of the platform. However, some students either preferred alternative communication tools or did not actively participate, affecting their overall experience.
5. Some students were unfamiliar with Discord and found it less intuitive than other platforms. The lack of participation in non-academic channels (e.g., "off-topic" and "study lounge") limited opportunities for informal interactions. Future improvements could include offering an orientation for new users, encouraging casual discussions, and integrating periodic wellness check-ins to foster a stronger sense of community.

Overall, the study highlights the potential of Discord as an effective tool for online learning. While it successfully enhanced communication and engagement, its effectiveness depended on active student participation. Addressing identified challenges could further optimize Discord's role in fostering a collaborative and socially connected learning environment.

Recommendations

Based on the findings, the following recommendations aim to enhance the effectiveness of Discord as a learning and communication platform, addressing social presence, interaction, collaboration, satisfaction, and challenges.

1. Implement student-led discussion sessions, allowing learners to moderate or initiate topic discussions and foster a stronger sense of community.
2. Encourage students to use voice channels more frequently by hosting informal study sessions, discussion groups, or co-working sessions to

increase engagement and foster real-time collaboration.

3. Offer a brief tutorial or onboarding session at the start of the course, especially foe students unfamiliar with Discord.
4. Actively promote the off-topic and study lounge channels to encourage casual interaction and strengthen peer relationships.
5. Schedule "Kamustahan" (wellness check-ins) or informal discussions to help foster a more engaging community.

By implementing these recommendations, Discord can become a more engaging, collaborative, and supportive learning environment, addressing both its strengths and areas for improvement.

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Instructional Supervision Needs of Private Higher Education Institutions: Towards a Distinct Distance Learning Management Framework

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Abstract

This study examined the instructional supervision needs of private higher education institutions engaged in online distance learning to develop a unique framework for managing online distance learning effectively. Employing a sequential explanatory mixed-methods design, quantitative data were collected from 301 teachers via surveys, followed by qualitative insights from five purposively selected school leaders through focus group discussion. Thematic analysis of qualitative data involved coding, theme development, and cross-referencing with existing literature to identify key supervisory practices. Results indicated that teachers demonstrated strong competencies in management, institutional, social, and communication skills, while pedagogical, design, and content skills were adequate. Technological skills, however, were the weakest and required focused improvement. In response, school leaders implemented tailored instructional supervision strategies addressing these needs. Based on these findings, the study proposes a distinct distance learning management framework comprising initiatives across six categories: pedagogical, technological, management and institutional, social and communication, design, and content. This framework provides a valuable tool for school leaders to effectively support and manage online teaching, particularly during crises or unexpected disruptions.

Keywords: *instructional supervision, online distance learning, online teaching skills*

Introduction

Quality education is a key priority of the United Nations' Sustainable Development Goals, aiming to equip individuals with the knowledge and skills necessary for a rapidly changing world. However, schools and universities face significant challenges in delivering consistent, relevant education due to disruptions caused by natural disasters, health crises, and environmental hazards. Events such as extreme weather, power outages, and pandemics as exemplified by the COVID-19 global lockdown have forced educational institutions worldwide to adopt distance learning as a critical strategy to maintain instructional continuity.

Local government units often suspended classes or implemented alternative learning modalities during such disruptions. According to Hebebci (2023), distance learning remains the most effective means to ensure education during such emergencies. Supporting this claim, the IAU Global Survey (Marinoni et al., 2020) reported that 67% of higher education institutions across multiple continents shifted from traditional classroom teaching to remote learning, highlighting the rapid adaptation of institutions to sustain education amid global challenges.

Numerous studies have identified challenges teachers faced in transitioning to online learning during the pandemic, including limited technological skills, difficulties in facilitating engagement, communication barriers, and struggles in creating effective virtual learning environments (Rosalina et al., 2020). Habaragoda (2020) reported that most educators lacked prior online teaching experience and received insufficient training. In the Philippines, many higher education faculty struggled with both unfamiliarity with online platforms and unreliable internet access (Toquero, 2020). Private institutions further noted issues with teacher proficiency in digital tools, inconsistent connectivity, inadequate learning materials, assessment challenges, and reduced social interaction, as well as personal difficulties among students, particularly in engineering programs (Fabito et al., 2020; Wenceslao & Felisa, 2021).

Teachers faced unexpected challenges adapting to virtual teaching, while school leaders struggled to supervise online instruction. This study aims to identify teachers' supervision needs and document leaders' adjustments to maintain quality distance learning, providing insights relevant beyond the pandemic.

Objectives

The main objective of the study was to propose a distinct distance learning management framework intended to assist school leaders in private HEIs in providing better support and guidance for teachers delivering online instruction. The specific objectives were:

1. To identify the instructional supervision needs of teachers by assessing the skills and competencies of teachers in online teaching;
2. To describe the instructional supervision practices implemented by school leaders to address the needs of teachers; and
3. To propose a distinct distance learning management framework.

Review of Related Studies

Natural disasters like earthquakes and floods disrupt schooling by damaging facilities and causing class interruptions. Distance learning has emerged as the most effective way to maintain educational continuity during such crises (Hebebci, 2023). Traditionally employing media such as television and print, distance learning has evolved significantly with the advent of web-based learning, offering greater convenience and functionality (Bozkurt, 2019; Sadeghi, 2019). Distance learning requires distinct pedagogical strategies from face-to-face instruction, reflecting a fundamental shift in teaching practice (Schneider & Council, 2021). Notably, during emergencies, distance learning assumes a

modified form compared to routine implementation.

Many teachers and institutions were unprepared for the rapid shift to online instruction during the pandemic, facing challenges documented across studies. These included adjusting their pedagogical approaches (Rosalina et al., 2020), developing technological proficiency (Akram et al., 2021), managing online classrooms despite unreliable internet access (Lapitan Jr. et al., 2021; Paudel, 2021), facilitating effective communication, and designing engaging activities (Wenceslao & Felisa, 2021). Additional obstacles involved insufficient technical, psychological, and academic support (Que, 2021), academic integrity concerns (Paudel, 2021), and inadequate teaching preparation (Bailey & Lee, 2020).

School leaders also faced significant challenges in instructional supervision, which is viewed as a supportive coaching process aimed at enhancing teaching effectiveness through technical assistance and fostering instructional improvement rather than mere oversight (Fitria et al., 2021; Rusdiana et al., 2020). Recognized globally as a core leadership role, supervisors support teachers in overcoming instructional challenges, preparing materials, and adopting innovative methods (Omorobi, 2021; Peter, 2021). During the pandemic, school leaders adapted their supervisory roles to address teacher concerns and maintain quality education.

To ensure effective supervision in virtual settings, school leaders must adopt innovative strategies tailored to teacher's specific needs (Brock et al., 2021). A systematic needs assessment is essential before intervention development, as it identifies gaps between current and desired states and their causes (Garira, 2020), helping educators prioritize critical needs for better outcomes (Cuiccio & Husby-Slater, 2018). Findings should guide actionable strategies and targeted interventions to address challenges in distance education delivery during crises.

Selected HEIs have taken proactive steps to continue education despite closures during the pandemic in response to the demands of almost 3.5 million tertiary students across 2,400 HEIs. (Joaquin et al., 2020). The Commission on Higher Education (CHED) promoted flexible instruction and alternative delivery methods (CHED, 2020). However, many HEIs were unprepared, with faculty lacking online teaching experience and reliable internet access (Fabito et al., 2020; Lapitan Jr. et al., 2021; Toquero, 2020).

In terms of instructional supervision, Andal (2024) highlighted challenges in classroom management, time allocation, pedagogical strategies, and feedback responsiveness, recommending approaches to enhance professional development and teaching effectiveness. Concepcion and Labitad (2024) found a positive correlation between teachers' performance and master teachers' supervisory skills, leading to the development of a school supervisory plan. Gaviño (2021) highlighted the importance of direct support, collaboration, curriculum development, and professional growth in enhancing teacher performance and satisfaction in distance learning. Boholano (2023) identified challenges faced by school administrators, including emotional and managerial challenges, addressed through communication, technology, and student assistance. Naguit (2024) emphasized that effective instructional leadership—

marked by classroom observation, strategic intervention, and constructive feedback—is crucial for educational excellence.

Overall, instructional supervision is vital for improving teaching and learning by providing guidance, ongoing training, and monitoring. In the Philippines, there remains a strong need for institutional support and new supervisory methods tailored to online education. The shift to distance learning during the health crisis exposed gaps not only in teacher unpreparedness but also in leadership approaches, which persist in the face of frequent disruptions like extreme weather events.

This study addresses these challenges by identifying teachers' instructional supervision needs and supervision practices of school leaders in online teaching, proposing a tailored distance learning framework to support institutions and minimize disruptions during future emergencies. This framework can also serve as a contingency plan to minimize educational disruptions during future emergencies.

Methodology

This study employed a sequential explanatory mixed-methods design to examine teachers' instructional supervision needs in online teaching. The design consisted of two phases: an initial quantitative phase followed by a qualitative phase to explain and deepen the survey findings.

In the quantitative phase, data were collected from 301 teachers from private higher education institutions using a survey instrument adapted from Albrahim (2020) to assess their skills and competencies across six domains: pedagogical, content knowledge, instructional design, technological, management and institutional, and social and communication skills.

The subsequent phase employed a qualitative approach through a focus group discussion aimed at exploring the instructional supervision practices implemented by school leaders to address the identified needs of teachers. It employed interview guide questions centered on the essential skills within the same domains evaluated quantitatively. The researcher conducted a systematic thematic analysis, beginning with repeated review of focus group transcripts to gain deep familiarity and document initial insights. Codes were generated and grouped into categories to identify and refine themes that accurately reflected the data. Themes were clearly defined, and the analysis was contextualized within existing literature. This process ensured data saturation and revealed specific supervisory practices. The combined findings from both quantitative and qualitative phases guided the development of the Distinct Distance Learning Management Framework.

Discussion

To ensure effective online instruction, it is essential to assess teachers' instructional competencies and identify areas where supervision and support are most needed.

Skills and Competencies in Online Teaching

Table 1 summarizes the evaluation of respondents' skills and competencies in online teaching. The results indicate that respondents have superior online teaching skills, with an overall mean of 3.26. This suggests a high level of proficiency, demonstrating exemplary performance. Among the six categories assessed, their greatest strengths are social and communication (3.41) and management and institutional skills (3.27). Meanwhile competencies in pedagogical, content, design, and technological skills are deemed satisfactory, with technological skills rated lowest (3.18).

Table 1

Grand Mean on the Respondents' Online Teaching Skills

Online Teaching Skills and Competencies	Mean	SD	Verbal Interpretation
Pedagogical skills	3.24	0.57	Satisfactory
Content skills	3.22	0.58	Satisfactory
Design skills	3.23	0.59	Satisfactory
Technological skills	3.18	0.59	Satisfactory
Management and Institutional skills	3.27	0.58	Superior
Social and Communication skills	3.41	0.63	Superior
Grand Mean	**3.26**	**0.59**	**Superior**

These findings align with the competency framework proposed by Mehrotra et al. (2022), which identifies six essential competencies for effective online teaching: instructional ability, subject expertise, innovation, technical proficiency, organizational skills, and communication. The categories assessed in this study, which include pedagogical, content, design, technological, management, and social, reflect a similar structure. The respondents rated social and communication skills highest, followed by management and pedagogical skills, mirroring findings by Adi Badiozaman et al. (2022) in Malaysian HEIs. In contrast, Paliwal and Singh (2021) found that Indian educators demonstrated strong technical skills but lacked proficiency in course design, communication abilities, and effective time management. In contrast, Paliwal and Singh (2021) found that Indian educators demonstrated strong technical skills but lacked proficiency in course design, communication abilities, and effective time management. The study also noted high self-reported confidence, consistent with Suryanti et al. (2021), linking confidence to greater optimism and openness to support. Collectively, these findings emphasize the necessity of continuous professional development across all online teaching competencies.

The shift to online teaching highlights the critical need for teachers to develop skills distinct from traditional classrooms. Teachers must possess key competencies that can accommodate diverse learning styles and needs like

digital literacy, mastery of online tools, ability to design interactive and inclusive virtual environments, and skills in student engagement. Additionally, strong communication, adaptability, problem-solving, online classroom management, and effective use of digital assessments are essential. A solid understanding of online pedagogy ensures teaching strategies meet diverse learning needs. Ultimately, teachers' ability to adapt and thrive in the digital space is vital to delivering high-quality education regardless of the medium through which it is delivered.

Instructional Supervision Practices in Online Teaching

This study examined instructional supervision practices employed by school leaders in online teaching during the pandemic. Focus group discussions with purposively selected participants revealed key themes related to online teaching competencies.

Pedagogical Skills

Effective online pedagogy demands mastery of the distinct challenges of virtual classrooms, including engaging remote students and leveraging technology for interactive, inclusive learning. Participants identified key practices adopted during the pandemic to address these pedagogical challenges.

Capacity Building on Interactive Teaching Strategies. The importance of training and retooling in various teaching strategies, particularly interactive ones, was seen as crucial for maximizing online teaching skills. Familiarizing teachers with the new online teaching modality was emphasized.

> Since the modality is new, we must capacitate them through trainings. We must train our teachers. Because from my observation, it seems like we just changed the platform. What the faculty does in the face-to-face teaching, the same manner is done during online. So, it is still face-to-face teaching, which is not supposed to be the case. We adopted the online modality. We should employ teaching strategies aligned with our mode of teaching. What you do in the face-to-face should not be done when teaching online. (Participant E)

E-pedagogical skills, distinct from traditional competencies, are vital for effective online instruction (Khurshid, 2020). These skills involve continuous professional development through inquiry and collaboration, which correlates with improved student outcomes (Oribjonovich, 2022; Ramos, 2021). Fernandes et al. (2023) advocate pedagogical training emphasizing relevant content, active modeling, and confidence-building, while Aldahdouh et al. (2023) stress its role in adapting to online teaching challenges. Kamran et al. (2023) highlight interactive methods that enhance critical thinking, collaboration, and self-efficacy. Online pedagogy demands a deliberate approach to engage learners absent physical cues, underscoring the need for capacity building in interactive strategies.

Utilization of Alternative Mode of Assessment. Teachers reported receiving

plagiarized and questionable student submissions in online settings, exacerbated by widespread internet access and AI-generated content. To mitigate academic dishonesty and promote authentic student work, alternative assessments such as performance-based tasks and open-ended essays were strongly recommended.

> There are also activities that when given by the teacher, answers can be found on the internet or in the Google. Mostly, students will copy and paste the answer. So, what seems to be our solution to this is that our activities are more on performance although they are done online. Also, questions are open-ended. (Participant B)

The transition to online learning requires adapting assessment methods to fit altered course delivery (Martin, 2020). Senel and Senel (2021) found that performance-based assessments, such as assignments, portfolios, and research projects were widely used during the pandemic. Guangul et al. (2020) emphasized employing personalized tasks and online presentations to uphold academic integrity. Integrating diverse assessment strategies enhances learning outcomes by encouraging independent, meaningful work.

The findings underscore how the design of alternative assessments functions as a preventative mechanism against academic dishonesty, while supporting valid evaluation of individual and group performance. Integrating such assessments supports achieving intended learning outcomes and promotes a more engaging, inclusive online learning environment aligned with modern educational goals and the digital generation's needs.

Streamlining of Assessment Tasks. This practice facilitated the transition to online learning by reducing assessment frequency and consolidating related learning outcomes, thereby effectively managing students' academic workload.

> We reduced our assessment tasks with certain limits per term period. This is also a way to help our students from being overwhelmed with their academic activities. (Participant E)

Armstrong-Mensah et al. (2020) recommend adjusting expectations and reducing assessments focused on online participation and content recall to manage student workload in distance learning. Similarly, Ho et al. (2021) stress that higher education institutions should adapt assessment methods for workload, fairness, and relevance during crises. These findings support school leaders and faculty in streamlining learning outcomes to prioritize essential goals and eliminate redundant assessments. Such practices align with outcome-based education by emphasizing terminal learning outcomes and fostering a learner-centered environment. Innovative strategies, like embedding quizzes in video content, enhance engagement and promote continuous self-assessment, advancing academic excellence.

Implementation of Laboratory Class Compressed Schedule. This practice combined online and onsite instruction for laboratory courses, with lectures and virtual lab activities conducted remotely and hands-on work performed

onsite to develop essential competencies. Participant D noted that while virtual labs supported learning outcomes, they could not fully replicate the complete laboratory experience.

> We used virtual laboratory; However, I requested for a compressed schedule in our laboratory courses. The students need to have the actual experience in laboratory. Hence from the projection of the voice, it is already different. The methodology is different from regular class in laboratory. The size of the classroom is different; it's twice the size of the classroom. (Participant D)

Camp (2021) found students preferred a compressed laboratory format—two labs per week over seven weeks—enhancing material retention for exams. Teachers observed that students met learning goals and demonstrated improved comprehension during lab sessions. This learner-centered, compressed schedule fosters skill acquisition and promotes group interaction, offering a viable pedagogical strategy for other skill-based courses.

Extensive Student Training in the New Online Modality. The ultimate objective of employing appropriate pedagogical strategies in teaching is to meet the learning demands of students, who are the central figures in the learning process. Therefore, a comprehensive student training on various aspects relevant to online learning implementation was a worthwhile initiative.

> Involve the students in the learning process because they are the center of the education system or the learning process. Students should be trained in the same way we trained the teachers. (Participant E)

Almusharraf and Khahro (2020) found student satisfaction in online learning is linked to access to platforms, clear grading, varied assessments, training, and technical support. Khan (2020) emphasizes the need for training both staff and students to navigate complex learning platforms. These findings underscore that instructional supervision should extend beyond teachers to include students. Providing student orientations on learning management systems and technology enhances the effectiveness and engagement of online teaching and learning for all stakeholders.

Online pedagogy extends beyond content delivery, demanding intentional and student-centered strategies. Enhancing educators' pedagogical skills is crucial for effective virtual instruction. Additionally, cultivating communities of practice fosters resource sharing and collective professional growth, supporting the ongoing adaptation necessary for excellence in digital education.

Content Skills

Adjustability of the Learning Plans. In online teaching, content skills encompass a teacher's ability to design learning objectives, materials, activities, and assessments aligned with course outcomes. This includes developing engaging multimedia and curating pertinent digital resources. Effective online instruction

demands adapting content and activities to the specific requirements of the virtual learning environment.

> Another challenge we experienced was the modification of materials. From face-to-face then suddenly there will be a transition, unexpectedly going online. Hence, all the syllabi, the materials, the PowerPoint presentations, examinations, there is a need to edit all those, there is a need to prepare everything. (Participant D)

These adjustments highlight the importance of revising learning plans to reflect the structure and demands of online instruction. Cabual and Cabual (2022) highlight the need to review and adjust syllabi to focus on essential competencies in online teaching. Similarly, Calleja and Camilleri (2021) found that the pandemic prompted teachers to embrace digital technologies in lesson planning as a valuable learning experience.

A well-designed, adaptable learning plan tailored for online instruction enhances teacher confidence and effectiveness across modalities. Applying instructional design principles such as establishing clear objectives, aligning learning materials with outcomes, and designing appropriate assessments—ensures structured and impactful teaching. Ongoing professional development in digital tools further empowers educators to create dynamic, interactive online environments that promote deeper learning and retention.

Design Skills

Promoting Interactive Learning Modules. Design skills are critical in online teaching, as the visual and structural presentation of content significantly influences student engagement and learning outcomes. Effective online educators apply design principles to develop clear, intuitive, and visually appealing course materials. To support teachers in this area, the promotion of interactive learning modules was implemented as a key instructional design practice.

> I did not have any problem in the module-making. The only challenge was creating an interactive module using interactive learning. Uploading reading materials in the learning management system for students to read is not enough. Our learning materials should be improved from face-to-face to online modality, using interactive and collaborative approaches allowing the students to talk during synchronous classes. (Participant E)

The shift to online education requires enhancing learning processes and interactions among students, teachers, and materials. El Firdoussi et al. (2020) highlight the importance of innovative pedagogies and well-designed interactive resources to facilitate student engagement. Design skills are crucial for creating effective online experiences, and developing these skills benefits from ongoing professional development, collaboration with instructional designers, and integration of user feedback. Continuous learning and adaptation enable

educators to craft intuitive and impactful virtual learning environments.

Technological Skills

Training on the Use of Learning Management System (LMS). As digital platforms become central to instruction, educators must develop proficiency with technological tools. To meet this need, training on LMS, alongside support for internet access and devices, were implemented. Many senior teachers faced difficulties with educational technology, leading some to withdraw from teaching. Therefore, onboarding initiatives, including targeted training and webinars on LMS management, are crucial to support effective online teaching.

> I have several seasoned teachers during that time who do not want to teach anymore. They cannot cope with technology. There are even some teachers who would say they do not want technology anymore. They opted for an early retirement rather than shift to teaching using technology. (Participant D)

To address this challenge, participants implemented onboarding practices, including training sessions and webinars on LMS management for both teachers and students.

> The solution we made was to schedule trainings for the teachers on how to use the LMS. Then, after that to the students. We had seminars. (Participant B)

Providing comprehensive and continuous training to all stakeholders is essential to mitigate resistance and foster a culture of learning and innovation. School leaders play a crucial role in guiding and monitoring teachers' ongoing use of the LMS to ensure familiarity and mastery beyond initial training.

Assistance for Internet Access and Learning Device. Another practice addressing technological challenges in online teaching involved providing support for internet access and digital devices, assisting both teachers and students in overcoming connectivity issues and lack of necessary equipment.

> Students do not have gadgets, so we provided the students with gadgets but not all of them. We carefully selected the students who need monthly allowance for their internet access. It is very fulfilling we were able to give them monthly allowance as assistance. (Participant C)

Asio et al. (2021) identified internet connectivity as a major challenge for students, teachers, staff, and administrators. Financially constrained students often depended on sponsorships or donations to obtain necessary devices. The study recommended solutions such as providing pocket Wi-Fi, loaner devices, and community Wi-Fi zones. Given the centrality of technology and digital literacy in online education, offering comprehensive technological support to both students and staff is essential to meet the demands of effective online teaching and learning.

With education's digital transformation, teachers must master fluency in diverse digital tools and platforms to deliver the curriculum effectively. Such proficiency enables the creation of interactive, engaging learning experiences, customization of content to diverse needs, and precise student assessment. Technological adeptness also facilitates adaptation to emerging educational technologies, equipping teachers and students for success in a rapidly evolving landscape. Ultimately, integrating robust technological skills in online teaching enhances learning and prepares students for a future workforce where digital literacy is essential.

Management and Institutional Skills

Implementing Institutional Academic Policy. Management and institutional skills are pivotal in the realm of online teaching, where educators must navigate the complexities of virtual environments to deliver effective instruction. To assist teachers in this category, participants in the focus group discussion identified students' attendance to online classes, students' submission of requirements, and students' academic integrity as the challenges, particularly in this category.

> We have policy on attendance. Academic honesty is included in the academic policy on student expectations. There were some policies still being followed as is although there are a few adjustments on the number of attendances, number of absences, etc. We follow the policy. We do what is written in the policies. We have our academic framework, and everything is smooth - sailing. (Participant D)

Saha et al. (2021) advocated integrating advanced technologies, such as AI-driven facial recognition, to verify student attendance and improve online learning effectiveness. Amurao and Ilagan (2021) recommended a multiple submission policy in online courses to support mastery learning, highlighting how flexible deadlines enable better workload management. Sabrina et al. (2022) exposed widespread collaborative cheating through social networks, emphasizing the need for clear academic integrity policies and robust communication strategies to ensure students understand institutional expectations and online learning protocols.

Online Supervision of Instruction. Online supervision of instruction was also implemented by school leaders. Guidelines for teachers included establishing an online group chat for staff communication, submitting online class meeting links, screenshots, and recorded sessions, monitoring learning management system accounts, and collecting student feedback. Prestiadi et al. (2021) and Fendi et al. (2021) examined online instructional supervision during the pandemic, where supervisors conducted virtual classroom observations via platforms such as Zoom, Google Meet, Google Duo, and WhatsApp. Instructional supervision remains a critical mechanism for assessing teaching quality, enabling school leaders to verify the implementation of training and guidelines. These practices suggest the effective establishment of virtual instructional supervision.

The establishment of clear norms and routines from the outset, consistent enforcement of institutional guidelines, and adherence to legal, ethical, and copyright standards are essential for effective virtual classroom management. Institutional academic policies provide a framework governing online classes and instruction, encompassing regulations on attendance, assessment, submission of requirements, and academic integrity for both students and teachers.

Social and Communication Skills

Prioritizing Wellness. In online teaching, social and communication skills are vital for building rapport and fostering community despite physical distance. To support this, school leaders prioritized wellness initiatives such as scheduled health breaks and regular dialogues with students, aiming to alleviate academic stress and promote mental well-being while also serving as opportunities to maintain open communication on both academic and personal matters.

> I consider implementation of mental health break as a breakthrough. No classes, no synchronous and asynchronous meetings. It is a rest for them. I think that helps even for the teachers. Constant communication is important. We have monthly communication with student leaders. If we are listening to the concerns of the teachers, we should also listen to the concerns of the students. (Participant E)

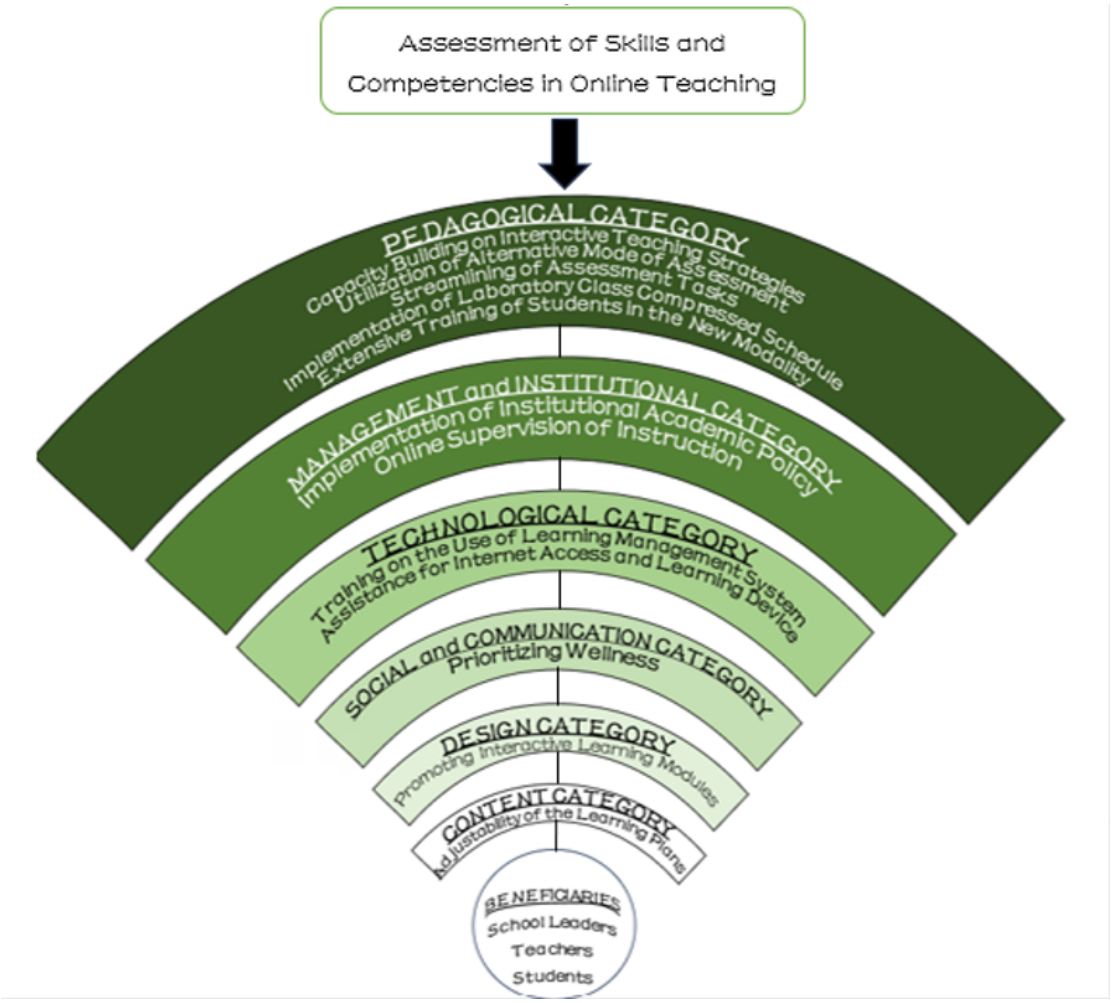
These findings underscore the critical role of social presence and empathic communication in digital education. Hikamah et al. (2021) emphasize that communication is central to effective pedagogy. The editorial Academic Break (Manila Bulletin, 2022) advocates for temporary class suspensions to alleviate pandemic-related stress among students and teachers. This study extends the concept, proposing academic breaks as a means to sustain communication and address challenges in virtual teaching and learning. Clear communication is crucial not only for content delivery but also for understanding student needs and providing timely feedback. As online education evolves, social and communication skills remain fundamental to the success of both educators and learners in digital classrooms.

Proposed Distinct Distance Learning Management Framework

Based on the research findings, a distinct distance learning management framework is proposed to guide school leaders in addressing the instructional supervision needs of private HEI teachers in online education. The identified themes related to online teaching skills demonstrate the effectiveness of current instructional supervision practices, reflected in the high level of teachers' competencies. Consequently, these practices are integrated into the framework to offer a foundational outline and priorities for school leaders. The framework aims to facilitate meaningful professional development, empowering teachers to become self-directed and confident in managing diverse instructional challenges. Figure 1 illustrates the proposed Distinct Distance Learning Management Framework.

Figure 1

Proposed Instructional Supervision in Online Teaching Framework



The proposed framework used the Wi-Fi image to symbolize the instructional supervision initiatives on six categories based on the skills and competencies required of a teacher teaching online to counter the challenges of online teaching. Based on the findings, it turned out that the pedagogical category has the greatest number of instructional supervision initiatives, specifically Capacity Building on Interactive Teaching Strategies, Utilization of Alternative Mode of Assessment, Streamlining of Assessment Tasks, Implementation of Laboratory Class Compressed Schedule, and Extensive Training of Students in the New Modality. That is why it projects the widest curve of the framework. It was followed by management and institutional category with initiatives on Implementation of Institutional Academic Policy and Online Supervision of Instruction; technological category with initiatives on Training on the Use of LMS and Assistance for Internet Access and Learning Device; social and communication category with initiative on Prioritizing Wellness; and design category with initiative on Promoting Interactive Learning Modules. Notably, the content category focused on Adjustability of Learning Plans forms the narrowest curve, as it typically precedes other instructional decisions and serves more as a preparatory phase.

A key distinction of this framework lies in its instructional supervision initiatives, developed and implemented amid an unprecedented global health crisis, without pre-existing models to guide the sudden transition to online teaching. Notably, the framework incorporates health breaks, emphasizing the mental health and well-being of both teachers and students. Designed to mitigate the impact of pandemics and similar disruptions, it is grounded in the assessed skills and competencies of teachers and the specific practices employed by school leaders during remote instruction. It equips school leaders with a roadmap to support educator development, ensure instructional quality, and sustain educational continuity in times of crisis and beyond.

Conclusion

In view of the findings, it can be concluded that teachers in private HEIs require skills distinct from those used in traditional classrooms. While their online teaching competencies are generally superior, further development is needed in pedagogical, content, design, and especially technological skills. School leaders responded to these challenges by implementing instructional supervision practices aligned with these needs. Moreover, a distinct distance learning management framework is deemed necessary to provide appropriate instructional supervision support to teachers and school leaders in resolving difficulties in delivering online education and fostering improved teaching practices. The proposed framework offers school leaders a practical and scalable tool for guiding professional development, ensuring continuity of quality education during crises, and promoting sustainable innovation in teaching practices across private HEIs.

Recommendations

Based on the key findings, this study recommends that all teachers undergo assessments of their online teaching skills and competencies to guide the provision of targeted instructional supervision. Assessment may utilize the instrument used in this study or the institution's existing tools, supplemented by clinical observations. Based on the results, an individualized intervention plan should be developed, outlining targeted initiatives and support for teachers. Follow-up assessments, including classroom observations and one-on-one dialogues, are essential for acknowledging successful practices and identifying areas for improvement.

All teachers must be fully engaged with any instructional changes or shifts in their responsibilities to ensure adequate lesson preparation and readiness, thereby meeting the expectations of the new teaching modality. Collaboration among school leaders, teachers, and students can be fostered through joint needs assessment workshops that identify challenges and prioritize professional development; co-design of online learning materials to enhance engagement; regular feedback sessions facilitating continuous improvement; peer mentoring programs to build teaching capacity; and student-led committees that actively contribute to shaping the online learning environment, thereby promoting shared responsibility and enhancing the overall quality of online education. All school

leaders and administrators involved in instructional supervision should receive comprehensive training to execute initiatives with resilience, competence, and confidence. Institutional policies, guidelines, and procedures on online education and remote supervision must be established to support informed decision-making, especially during unforeseen class disruptions. The proposed Distinct Distance Learning Management Framework may be adopted to assess its applicability and effectiveness. Future research could include experimental studies to validate the framework's reliability, and the development of an online teaching evaluation checklist based on the framework. Additionally, researchers are encouraged to evaluate its implementation within their institutions to inform potential improvements and align resources effectively.

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Instructors' Coping Strategies for Effective Online Teaching at the Open University of Tanzania (OUT)

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Abstract

Online teaching, now widely regarded as an appealing method of instruction in higher learning institutions, is constrained by various factors, including technological, pedagogical, and financial challenges that hinder instructors' efficiency in teaching. This study explored the coping strategies employed by instructors to facilitate effective online teaching at the Open University of Tanzania. Employing a qualitative approach and a phenomenological design, the study involved ten (10) participants, comprising two instructors selected from each of the five faculties at OUT. These faculties include the Faculty of Arts and Social Sciences, the Faculty of Education, the Faculty of Business Management, the Faculty of Law, and the Faculty of Science, Technology, and Environmental Studies. Data were collected through semi-structured interviews and document reviews, and were analyzed using thematic analysis. The findings revealed that instructors adopted various coping strategies to enhance the effectiveness of online teaching. These strategies included teaching in university premises, using alternative tools other than Zoom and Moodle, delivery pre-recording online lectures, distributing digital and printed copies of learning resources and using personal devices and internet bundles to support course delivery. The study recommends that instructors be trained in diverse coping strategies for effective online teaching. Additionally, they should be provided with essential tools such as personal laptops and provided with institutional bandwidth support. Furthermore, the university should establish mechanisms to motivate instructors engaged in online teaching.

Keywords: *online teaching, instructors, coping strategies, Open University of Tanzania*

Introduction

The adoption of online teaching and learning has increased in recent years. Educational institutions and learners have come to recognize the possibilities of this mode of instruction to democratize access to education. Online teaching is now seen as a more inclusive mode of instruction that aligns with contemporary lifestyles and meets the diverse needs of learners. It offers a more suitable

solution for individuals balancing work obligations and family commitments while skilling, reskilling, and upskilling to improve their career perspectives (Navarro & McGrath, 2021). One of the major advantages of online teaching is its convenience in terms of time and space. It allows students to pursue an internationally recognized degree without the need to attend classes on campus, reducing costs and offering flexibility (Sadiku et al., 2018). Moreover, online teaching systems promote interaction among distance learners, instructors, and affiliated institutions. The fundamental assumption of online teaching is that distance learners utilize electronic tools and digital resources to bridge the gap between instructors and learners. Distance learners actively engage with their peers, instructors, study materials, and institutions through online interactions (Liakou & Monousou, 2015). Electronic tools such as computers, calculators, tablets, and mobile phones have become essential to access applications, websites, and education platforms. The use of these electronic tools and software into the learning process has increased accessibility, interaction, and personalized learning experiences (Raja & Nagasubramani, 2018). According to Casanova and Price (2018), online teaching and learning is defined as the teaching and learning that is conducted via the Internet, requiring access to electronic devices and reliable connectivity.

Online teaching is conducted through asynchronous and synchronous modes (Parveen, 2016). The asynchronous mode provides learners with readily available materials in the form of audio/video lectures, handouts, articles and PowerPoint presentations (Ní Shé et al., 2019). These resources are provided through Learning Management Systems (LMS) such as WebCT, Blackboard, Desire2Learn, and Moodle. An asynchronous mode of teaching involves tools such as file attachments, bulletin boards, e-mail, news groups and threaded discussions. It is important for instructors to have skills on how to use tools and assist students to learn. However, the U.S. Department of Education (2012) criticizes asynchronous mode of online teaching as it lacks the immediacy, spontaneity and visual cues, potentially leading to a sense of distance between the instructors and students.

On the other hand, the synchronous mode involves teaching and learning that takes place simultaneously, including text chats and video conferencing (Parveen, 2016). Synchronous mode of teaching may be conducted through Adobe Connect, Zoom, Microsoft Teams, Google Meet, Cisco Webex, and Skype (Wang & Houdyshell, 2021). According to Liu et al. (2020), synchronous tools may include data and application sharing, virtual hand raising, live chat, audio/video conferencing, whiteboard, and joint multimedia presentations.

Both synchronous and asynchronous modes are very essential in online instruction delivery to students and instructors. For instructors, teaching can be done anytime and anywhere (Naidu, 2017).

However, the rise of online teaching has not been without challenges. It has been constantly criticized for lack of quality control and for depriving students of key aspects such as teacher-student interaction. Other concerns include unreliable internet connection, high bandwidth costs, limited instructor proficiency in online pedagogy, and inconsistent and power supply (Pedro &

Kumar, 2020). Almazova et al. (2020) identified several challenges faced by university instructors in implementing online education: computer literacy, the university's electronic environment and support, academic staff readiness, and students' readiness for online learning. Among these, the readiness of both staff and students emerged as the most significant impediments to effective online teaching. Additionally, the methodological work in a digital educational environment differs considerably from traditional teaching approaches.

Regardless of these concerns, online teaching has made great strides in recent years. More institutions of higher learning have introduced or reinforced their online education platforms, primarily to reduce cost for students and to expand recruitment amid rising competition (Pedro & Kumar, 2020). To address these challenges, instructors need effective coping strategies that empower them to deliver engaging and impactful online instruction.

The Open University of Tanzania (OUT), which for a long time relied on pure distance learning through correspondence and face-to-face instruction, is now offering options for blended distance learning. The university combines face-to-face teaching with digital platforms such as Moodle, which enables students to access learning resources, and Zoom, which facilitates real time communication with instructors. The university offers academic degrees, diploma, and certificate programs to approximately 75,356 students across 27 regional centers on the Tanzanian Mainland and four coordination centers in Zanzibar, Pemba, Kahama and Tunduru (OUT, 2022). However, instructors at OUT face different challenges, including lack of dedicated teaching space, unreliable internet access, high bandwidth costs, limited pedagogical skills for online instruction, technical challenges, low student attendance, insufficient access to internet bundles. It remains unclear how instructors manage to teach in online environment with the existing challenges. Therefore, this study intended to assess the instructors' coping strategies for effective online teaching at the Open University of Tanzania.

Objectives

Specifically, the study intended to assess the coping strategies employed by instructors for effective online teaching at the Open University of Tanzania. Online teaching is highly demanding and differs significantly from teaching in conventional settings, often causing stress for instructors, particularly when they are unable to meet learning expectations. The findings of this study add to the growing body of knowledge on teaching effectiveness in online environments. By assessing instructors' coping strategies, the study provides valuable insights for institutions and education policy makers seeking to improve the quality of online instruction.

Theoretical Underpinning of the Study

This study is anchored in Resilience Theory, developed by Norman Gazmezy in 1974. Resilience refers to the individual's capacity to recover from adversity and to maintain adaptive behaviour after experiencing hardships (Garmezy, 1974). It is centered on people's capacity to rebound from hardships stronger

and more capable than before (Vella & Pai, 2019). In the context of this study, Resilience Theory provides a framework for understanding how instructors at OUT cope with challenges of online teaching.

From a systems perspective, Masten (2015) holds that the adaptation to disturbances that threaten the functionality or development of a system can be termed resilience. Applying this lens, online teaching can be seen as a system whose functionality is dependent on the ability of instructors to participate and adapt despite challenges. Similarly, Van-Breda (2001) argued that the important part of resilience lies in achieving better-than expected results in the event of hardships.

This theory is relevant to the study as it seeks to assess coping strategies of instructors for effective online teaching. It offers a lens for the researchers to successfully establish how instructors coped with online teaching when they experienced challenges.

Methodology

The study employed a qualitative research approach using a phenomenological design. The phenomenology design was employed to explore the instructors' experiences and the strategies they employed to curb the problems they encountered during the online teaching process. The study was conducted at the headquarters of the Open University of Tanzania in Dar es Salaam.

The Open University of Tanzania was selected as the study site because it is the only university established in the country mandated to provide certificate, diploma, degree and postgraduate programs through open and distance learning systems since its establishment in 1992. Since 2016, OUT is the only university that delivers all its undergraduate degree programs through blended learning mode (OUT, 2021). Although, OUT operates across 27 regional centers across mainland Tanzania and four coordination centers in Zanzibar, Pemba, Kahama and Tunduru (OUT, 2022), this study was conducted at the headquarter Dar es Salaam. This location was selected because it hosts all heads of department and instructional designers responsible for online teaching.

The sample size included 10 instructors, five males and five females selected from the university's five faculties: the Faculty of Arts and Social Sciences (FASS), Faculty of Business Management (FBM), Faculty of Education (FED), Faculty of Law (FLW), and Faculty of Science, Technology and Environmental Studies (FSTES). Instructors were selected purposively, with two academic staff from each faculty who had more years of experience than their colleagues and had experienced the university's transition to blended learning over time.

In this study, semi-structured interviews and documentary review were employed to collect data from instructors. Semi structured interview was employed for its flexibility and effectiveness in eliciting people's perceptions, interpretations and lived experiences. According to Kvale and Brinkmann (2009), semi-structured interviews are valuable in disclosing nuanced and often hidden aspects of human and organizational behavior.

Documentary review was employed to complement and validate the data collected through interviews. Information from the reviewed documents was used to supplement, contrast, and cross-check the consistency of the primary data. The following documents were selected and reviewed for this study: the OUT strategic plan (RSP 2023/24-2025/26), OUT prospectus, facts and figures, and the orientation speech of Deputy Vice Chancellor Academic, orientation speech from teaching and learning units. These documents were selected based on their relevance and potential to provide valuable information into the study's focus. All documents were obtained at the Open University of Tanzania offices and official website.

For data analysis, the study employed thematic analysis, following six stages of data analysis proposed by Clarke and Braun (2013). The stages included familiarizing with data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing a research report. Audio recordings and field notes from interviews were transcribed, listened to, and read several times to ensure thorough data immersion. Coded data were then reviewed and refined to identify major themes and recurring patterns. This data analysis technique helped the researchers to sort out similarities and differences in participants' views. Themes were developed in relation to the study's objectives and research questions, ensuring minimal overlaps. Relevant extracts from interviews were used to support key themes in reporting of findings.

Findings and Discussion

Semi-structured interviews and documentary review methods were used as source of data which helped the researcher to understand coping strategies employed by instructors for effective teaching in online environment. The findings from the study indicated that instructors employed different coping strategies to address different challenges they encountered when teaching through online mode. These strategies included: teaching in university premises, using alternative tools other than Zoom and Moodle, delivery pre-recording online lectures, distributing digital and printed copies of learning resources and using personal devices and internet bundles to support course delivery. Each of these coping strategies is discussed in the subsequent sections:

Teaching in University Premises

Online teaching depends heavily on technology. Online instructors have to possess adequate technological literacy skills to be able to utilize technology in a competent manner. Additionally, reliable electricity and stable internet are vital for effective delivery. However, many instructors reported that teaching from home pose challenges like the interruptions from guests and family members, unstable internet, and power outages. To cope with this challenge, instructors decided to teach in university premises. One of the participants reported that:

> When I teach using Zoom, I usually encounter technological problem. For example, you find computer is updating and wasting

> time or you find no internet, or no electricity and my laptop cannot save power for long time. So I prefer to teach while I'm at the university premises so as to get sure of technical assistance staff, to utilize university internet, reliable electricity because there are standby generator at the OUT headquarter. This actually release us stress of failing to teach due to technological problem and others. (Interview, Instructor 3 from OUT)

Another instructor shared similar concerns:

> Sometimes when teaching at home, you may postpone the session because of guests and interruptions from family members. You have a session but children are making noise, when you are at the master bedroom you may need to put on video and students can see some of information which are not ethically to be seen. So to avoid all these I prefer to teach when I'm at the work although there is also some challenges you find that in the office we are four and two of us have Zoom session then one need to find another venue within the university. (Interview with Instructor 6 from OUT)

The choice of teaching location, particularly when using synchronous tools like Zoom significantly affects instructors' comfort and ability to teach uninterrupted lessons. Data obtained through observation revealed that while majority of instructors taught from the university premises, others were teaching from lodges while there were away from campus, or from their homes using their own laptop and internet bundles. The findings corroborate with those reported by Mesuwini and Mokoena (2024), who found that home-based online teaching often comes with additional distractions that reduce focus and attention. Sources of distraction include family members, mobile phones, and various external interruptions that occur outside of the classroom. To solve these challenges, instructors are compelled to find teaching spaces that are free from noise and interference, and offers easy access to technical support.

Using Alternative Tools other than Zoom and Moodle

Although Zoom and Moodle were identified as the main platforms for online teaching at OUT, both instructors and students frequently encountered challenges accessing Moodle. In order to cope with these challenges, instructors used alternative tools for teaching and communication. These tools included WhatsApp, e-mail, Telegram and Short Message Service (SMS). Findings indicated that instructors used WhatsApp subject groups and Telegram channels to conduct discussions with students, share materials and announcements, and hold virtual meetings. Some instructors used WhatsApp and email to receive assignments and give feedback to students when Moodle failed to function properly. They reported that it is compulsory that every subject should have a WhatsApp subject group WhatsApp invitation links are shared annually to all Director of Regional Centers (DRCs) to ensure that students can join their subject groups automatically. Email was used to send assignments for students who failed to upload in Moodle. SMS was employed to notify students regarding class postponements and schedule changes. One instructor emphasized the

importance of these alternative tools:

> Out of Moodle and Zoom, we use WhatsApp subject group, Telegram and email and sometimes SMS or phone call. I use WhatsApp subject group to communicate with students, to share information, files, pictures, and videos, send messages and conduct real time conversation. Students use this platform to ask questions and receive answers from fellow students and instructors. (Interview, Instructor 4 from OUT)

Similarly, another instructor added that:

> WhatsApp group is used to disseminate information pertaining to students' studies. The problem is that some students misuse the group by debating issues not related to learning by attacking others negatively which lead to some students wanting to leave the group but the group administrator who mostly are staffs and students leaders put guidelines to ensure the group discussions are not dominated by issues not related to academic purposes. (Interview, Instructor 1 from OUT)

Among the alternative platforms, WhatsApp emerged as the most widely used alternative tool among students and staff. Normally, WhatsApp is used as a social platform for professional networks, community groups, or social circles. However, it has been proven useful for academic purposes such as sharing study materials, disseminating information, and engaging in academic discussions. Similar findings were reported by Mahyoob (2020) who found that English as a Foreign Language (EFL) learners used WhatsApp to send and receive homework and other assigned tasks when Blackboard was inaccessible. Similarly, Barhoumi (2015) reported that WhatsApp instant messaging facilitates online collaboration and cooperation among online students in blended learning environments. WhatsApp is a free and user-friendly tool. Groups connected to WhatsApp instant messaging can share learning materials easily through comments and messages, regardless of location.

Delivering Pre-recorded Online Lectures

Lectures are recorded to video, audio or both and uploaded to a digital platform such as Moodle. This enables students to access course content any time and from anywhere, as long as they have an internet connection, Furthermore, students can also view recorded lectures offline using the OUT mobile application. Each course instructor has prepared a one-hour lecture for each knowledge area, which can be viewable via the OUT ODL YouTube channel. One of the participants explained:

> At OUT, we have OUT ODL YouTube channel where all lectures which are recorded can be accessed and viewed by students. The problem is that not all lectures are recorded and uploaded but those courses which are in OUT ODL YouTube channel students are instructed to visit the channel and listen the lecture. So this

> is an alternative when OUT e-learning services not available. However, at the moment recorded online lectures at OUT are available for level one course and it was done in 2016 and till now there are no recorded lectures of knowledge area two to knowledge area six. But this is an alternative for students to study in online environment. (Interview with Instructor 7 from OUT)

Pre-recorded online lectures help students to engage with learning materials at their own pace and time convenient to them. According to Perveen (2016), recorded lessons can be added to an e-library. Using the archived e-library, students can access and replays lectures as many times as necessary to master the material. Similarly, Manea et al. (2021) emphasize that online teaching provides the opportunity to record courses and seminars for later review. Mtebe et al. (2021) also suggested that instructors record live Zoom lectures delivered for learners who could not attend live Zoom class.

However, findings from this study show that only level one courses were recorded and made available on OUT ODL YouTube channel. To enhance online learning, it is recommended that all courses should be recorded and be viewable in Moodle, the OUT e-library archive, and the OUT ODL YouTube channel. Doing so would minimize the problems faced by online learners because students will have access to lectures at their convenient time.

Distributing Digital and Printed Copies of Learning Resources

Instructors decided to give digital materials such as lectures notes, journal articles, and e-books so that students can download and read offline. Some students download and print the materials to read them in hardcopy format for easier access and comprehension. For example, one of the senior staff at OUT said that:

> Usually at OUT, students study through Moodle where they can access lecture notes, assignments, quiz, PowerPoint, recorded audio and video lectures, e-books. So students are usually advised to download lectures and save in their devices so that they can read in their convenience time when they are in environment where there is no internet or network. This helps to reduce stress among students and can continue with study without any obstacles. (Interview with Instructor 9 from OUT)

From the citation above, students often downloaded materials and printed materials to cope with challenges posed by unreliable internet access. This implies that all students need to download the material and have them in their devices so that they use when Moodle fail or when they experience challenge of device or when they can't study online. Distributing printed materials helps to bridge the digital divide, ensuring learning continuity even in low-resource settings, support active reading strategies like highlighting, annotating, and note-taking which can improve student comprehension and retention.

These findings are in line with a study by Johnston and Salaz (2019) who stated

that print materials provide an opportunity to write in the margins, underline or highlight important information, and allow ease of reference, particularly when reviewing multiple sources. Similarly, Hasby and Mohammed (2021) found that combined print and digital textbooks provides the optimum learning synergy.

Using Personal Devices and Internet Bundles to Support Course Delivery

It was found that instructors at OUT rely on their own devices such as laptops and smartphones to cope with limited institutional resources. Due to the nature of blended learning, possessing, laptops, smartphones or modems is not merely optional but essential for instructors to effectively deliver the courses. This was exemplified by one of the participants who said that:

> Being an academic staff at the Open University of Tanzania, and due to its nature of providing its education through blended mode, own laptop is not an option but mandatory. If you don't have laptop it will be difficult to teach through Zoom anytime and anywhere. Most of computer that are available are desktop and are not enough and not movable and very few staffs own university laptop. (Interview with Instructor 5 from OUT)

Additionally, it was found that instructors use their own internet bundles to cope with challenges interrupted online sessions as reported by one of the instructors:

> When you have a session, you must have your own bundle as a backup or you use it in teaching throughout the session. So, if there is no university internet or network, I use my own bundles so that the class can continue although the university paid Tsh 5,000 per session but is not sufficient and is even paid late not before the session. (Interview with Instructor 1 from OUT)

Two quotations above, indicates that instructors use their own devices and bundle to cope with shortage of computers and issues of internet and network. Being an instructor in online institution you must possess your own laptop, and you must have Smartphone or modem for availability of internet. Without doing so, you may fail to conduct the class.

According to Torres (2023), harnessing technology is imperative in the virtual classroom. Video conferencing software, such as Zoom, has proven to be an invaluable tool for conducting synchronous classes, facilitating group discussions, and conducting one-on-one meetings with students. Under this environment, Reyes (2022) suggested that the university should provide online teaching equipment like laptops, headsets, and webcams.

Conclusion and Recommendations

It is a challenge for instructors to transition from offline to online mode, particularly in adapting teaching methodologies and managing time effectively. Developing content which not only covers the curriculum but also engages students adds to this complexity. Instructors face different challenges including

lack of designated space for teaching, unreliable internet access, high bandwidth costs, inadequate pedagogical skills for online instruction, technical difficulties, low student attendance, poor internet and lack of access to bundles. To address these challenges, this study identified different coping strategies employed by instructors that empowered them to deliver engaging and impactful online instruction. Thus, the following recommendations are presented by this study: 1. instructors need to be trained on different coping strategies for effective online teaching; 2. instructors should be provided with devices such as personal laptops; 3. the university should supply reliable internet access and bandwidth support; and 4. the university should develop mechanisms to motivate instructors who teach in online environment.

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Flexible Learning for Dance Instruction in Higher Education Institutions at the National Capital Region, Philippines

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Abstract

This study addressed the lack of research on the use of flexible learning in dance in the Philippines. It investigated the experiences of dance teachers in Higher Education Institutions (HEIs) in the National Capital Region (NCR) during the shift to flexible learning amid the pandemic, specifically from academic years 2020 to 2022. The study examined the different flexible learning approaches, methods and techniques used, and assessed their effectiveness in ensuring sustained effective delivery of dance instruction. It also examined the challenges encountered in using flexible learning. Questionnaires and in-depth interviews were used to collect data which were analyzed using descriptive analysis. Findings revealed that flexible learning, consisting of synchronous and asynchronous delivery modes, was the only suitable method during the Covid-19 pandemic. However, its adoption caused a lot of pressures and challenges among teachers, particularly in preparing lessons and teaching materials, including the lack of familiarity with using the appropriate technologies. Recommended steps to improve the use of flexible learning were gathered to provide readiness to dance teachers and students during times of restricted activities like the pandemic.

Keywords: *dance instruction, flexible learning, pandemic*

Introduction

The COVID-19 pandemic disrupted education systems worldwide, compelling institutions to adapt to alternative modes of delivery. Flexible learning emerged as a response, though challenges on its implementation varied depending on the nature of the subject, availability of resources and personal circumstances of teachers. While teachers struggled with technological barriers, materials preparation, and student engagement, the practical difficulties they faced were highly contextual, particularly for subjects requiring physical presence like dance.

Teaching dance had a significant change following the COVID-19 pandemic

outbreak in 2020. Regulatory institutions required the adoption of flexible learning in all subjects. Consequently, dance teachers faced big challenges in translating studio-based, embodied instruction into digital formats. Teaching dance through screens became a unique problem, with the difficulty of replicating the energy of a studio environment. The loss of face-to-face interaction disrupted traditional pedagogies and needed urgent improvements in instructional strategies. Despite these challenges, there remains limited research on how flexible learning is used in dance teaching, particularly in the Philippine context. Therefore, this study addressed this gap.

Conducted in the National Capital Region (NCR) of the Philippines among Higher Education Institutions (HEI), this study assessed innovative teaching methods adopted in teaching dance during the pandemic. Specifically, the study aimed to:

1. discuss the teaching approaches, methods and techniques in flexible learning adopted by HEI teachers in NCR before and during the pandemic;
2. assess the effectiveness of these teaching approaches, methods, and techniques;
3. examine the challenges encountered by HEI dance teachers in using flexible learning; and
4. recommend strategies for improving the use of flexible learning in dance classes in HEIs.

The results of this study can benefit students, parents, dance teachers, school administrators and other researchers in dance toward improvement of the quality of teaching in dance in HEIs.

Crises such as pandemics require teaching and learning processes to assume a different form to continue despite various constraints (Chang-Richards et. al., 2013; Henderson, 2012). In response to COVID-19, the Philippine Commission on Higher Education (CHED) prescribed the use of flexible learning. As defined in CHED Memorandum Order No. 04 of 2020, flexible learning is a "pedagogical approach allowing flexible time, place, and audience, but not solely focused on the use of technology" (CHED, 2020). Flexible learning addresses the learners' unique needs in terms of time, place, pace, and process. Lessons are delivered via online learning, with additional use of printed modules, storage devices, and learning packages. Online learning often involves synchronous, real-time sessions with time-based outcome assessment, and asynchronous, delayed-time activities, like pre-recorded video lectures and time-independent assessments.

In remote learning environments, students and teachers can be anywhere yet connected via digital tools (Singh & Thurman, 2019). This mode of learning, once considered supplementary, became a necessity rather than option during the pandemic, as it was essential for sustaining teaching and learning activities (Dhawan, 2020). However, questions arose about the possibility of teaching performance-based disciplines such as dance under online learning conditions (Lemoine & Richardson, 2020).

Universities offering Dance under the Bachelor of Performing Arts follow CHED's Order No. 25-17, which requires the program to cover mandatory course components in theory and criticism, aesthetics and semiotics, music, movement and choreography. They also study theoretical aspects of dance, like its history, aesthetics and signification, criticism, sociology and anthropology of dance, anatomy and kinesiology, movement notation, music, theatrical designs (costumes, sets, lighting and make-up) and dance production. They are developed in both theoretical and practical expertise in dance.(Villaruz, 2017).
In addition to various teaching styles, dance classes can be structured in various ways, ranging from classes devoted exclusively to skill acquisition to classes aimed at developing personal and interpersonal skills. The class structure is determined by the teacher's expertise and pedagogical approaches. It also depends on the characteristics of both the teacher and the students. Dance educators have varied strengths, abilities, values, personalities, and constraints that influence how they teach, just as students also differ in ability, talent, personality, and learning styles (Mainwaring & Krasnow, 2010).

Upon learning that classes will soon be shifting to online instruction, dance teachers expressed concern over issues such as lack of space, safety risks, insufficient training, and limited technological resources (Li et al., 2022). Students were equally impacted by the move, and many universities struggled to provide enough infrastructure or resources to facilitate online teaching. The change from studio-based to digital teaching posed challenges to dance education, where modeling and physical contact are central to effectively teaching dance (Simamora, 2020).

Achieving engagement and performance in virtual settings become challenging to achieve, though some innovative approaches emerged (Gingrasso, 2020). Nonetheless, the challenges in tertiary-level dance education continued, highlighting the importance of an in-person engaged atmosphere in studios in teaching dance (Papp-Danka & Lanszki, 2020). Heyang and Martin (2021) captured a dance teacher's initial worries about shifting to online teaching. Concerned about how a hands-on subject like dance could be effectively taught online while maintaining educational standards, the teacher sought guidance by contacting department heads of other Chinese universities, only to find that uncertainty was the prevailing feeling among them. Many expressed reluctance, doubting that online platforms can provide the needed feedback in dance, something that can only be achieved through face-to-face observation. The shift to online teaching, however, was unavoidable, despite these challenges.

Dance and Technology

Dance students rely heavily on observations—closely watching their teachers' movements and play-demonstrations. This visual learning is followed by imitation and repetition, with real-time corrections provided by the teacher. Based on this, traditional classes have involved minimal use of technology in the past. As noted by Calvert et al. (2005), dance is among the last subjects to embrace technology applications into teaching.
As one of the oldest forms of performing arts, dance has been slow to adopt modern technology, firmly believing that it should be taught in a bricks-and-

mortar setting. Li et al. (2022) observed that performing arts education, including dance, has relied on face-to-face settings, following the "sage on the stage" and "learn from the master" models of instruction.

The possible contribution of technology to the improvement of dance teaching has been increasingly recognized. Researchers have advocated for the use of technology in dance education, as the majority of students nowadays are digital natives familiar with the most cutting-edge digital tools (Li et al. 2018). Technologies such as mobile apps, virtual and augmented reality (VR/AR), blogs, and learning platforms have been shown to improve teaching effectiveness, student engagement, quality of instructional resources, and interactions between instructors and students.

Specifically, in tertiary dance education, the use of digital tools in dance teaching and learning is emerging globally, as it meets many universities' strategic plans to enhance teaching, learning and student engagement (Li et al, 2018). The growing literature on the acceptance of artistic performance through social media is also noted (Hong et al., 2020). As such, digital tools can push dance education to an unknown territory—a space where technology, creativity, and embodiment intertwine (Li et al., 2022; Schmid & McGreevy-Nicholas, 2021).

Assessment of Dance Classes

Assessment and feedback which are essential components of dance education may be restricted by online teaching. Dance teachers do physical corrections, such as adjusting a student's alignment, which are impossible to do in a virtual setting. Morgan (2020) explains that "Dance is inherently more intimate than other academic disciplines. Tactile feedback from one another is a critical component of the process. With the restrictions of physical/social distancing, we lose a fundamental part of our discipline, our practice."

Feedback, especially when used within the framework of formative assessment, or assessment for learning (AfL), helps students identify specific areas for improvement. According to Harlen et al (2006), a good deal of attention is now given on using assessment not just to measure learning, but to enhance it through guidance and reflection. In contrast, summative assessment or assessment of learning, is used to evaluate what pupils know or can do at certain times in order to report achievement and progress.

Effective learning does not follow a one-size-fits-all model. Students interact with new information in diverse ways, and they have different learning styles. This diversity places a clear responsibility to teachers to recognize and adapt to individual differences, providing support for students to learn. During the pandemic, teachers had to work double in monitoring and assessing student progress remotely. Torrance (2007) said that "teachers' ability to individualize dance education and feedback is prerequisite for working with assessment for learning." Individualized learning means addressing different student needs, from learning difficulties and different physical capacities, while fostering each student's unique potential.

Challenges in using Flexible Learning

Studies from other countries have identified challenges related to the implementation of flexible learning in dance education. Kurtz (2022) enumerated environmental issues such as lack of available space, distractions in the home, and differing degrees and rigor of training, all of which are new limitations for college-level dance students.

Vitharana (2021) examined the challenges encountered by dance teachers in teaching online. These include limited IT knowledge, lack of access to digital equipment, and challenges from students who are more technologically adept. Some institutions limited access to online teaching tools to a small number of teachers. Additionally, many teachers lacked facilities for preparing lessons electronically at home. The number of students in one class exceeded the capacity of the available equipment. Training on how to use digital tools was also inadequate.

The same study by Vitharana (2021) found that teachers lacked confidence in their ability to implement online class strategies. This was attributed to 80% of the teachers who responded that they had no experience teaching online classes.

Flexible Learning Theory

Gearheart (n.d.) citing George and Luke (1995), stated that the term "anytime, anyplace" is common when discussing online learning. However, to fully reflect the inclusive nature of flexible learning, the phrase should be changed to "anytime, anyplace, for everyone". The term flexible learning has a dual meaning. It is commonly used in place of distance education, especially in international contexts, and it is also a learning theory. This theory challenges traditional delivery models designed for the industrial age, emphasizing approaches suited to the information age, where learner-centered, adaptive methods are prioritized (George & Luke, 1995).

Flexible learning theory places learner educational needs and choices as the center of educational decision-making. It signifies a shift from formal, didactic, whole-class instruction towards a more individualized or group managed learning, supported by structured resource materials. Gearheart (n.d.) states that "flexibility and access are important to the success of education in the information age. In order to provide flexible learning, an instructor must consider the issues facing online education such as pedagogy, learner needs and characteristics, interaction and communication between and among instructors, learner and content, outcomes, and assessment".

Methodology

This study employed a mixed-methods approach, using both qualitative and quantitative research methods, with interviews as the main source of data. Data were gathered from teachers of four higher education institutions (HEIs) offering Bachelor of Performing Arts majors in Dance located at the National Capital

Region (NCR), Philippines. Due to the observance of health protocols such as physical distancing during the pandemic, most of the data gathering activities were conducted virtually through Zoom, emails, and Facebook Messenger.

Table 1

Respondent Institutions and Profiles

Respondents' Institution	Degree Program	Number and Characteristics
University of the Philippines Diliman	Bachelor of Music, Major in Dance	3 female respondents
De La Salle-College of Saint Benilde	Bachelor of Performing Arts, Major in Dance	1 female respondent 1 male respondent
Guang Ming College	Bachelor of Performing Arts, Dance Program	1 female respondent 2 male respondents
Asian Institute of Maritime Studies	Bachelor of Performing Arts, Dance Program	1 female respondent 2 male respondents

The University of the Philippines Diliman (UPD) dance program is based at the College of Music and under the Bachelor of Music program. It is a five-year course of study with a wider coverage providing a well-rounded preparation including General (GE) courses for a career in dance. UPD's Bachelor of Music major in Dance includes classes in composition, history of dance, anatomy, dance semiotic and pedagogy. De La Salle-College of Saint Benilde's Bachelor of Performing Arts Major in Dance was first offered in 1994. The program was initially set up in partnership with Ballet Philippines (BP) to directly provide BP dancers with a college degree while they worked as full-time members of the company. Since then, the dance program has established itself as a leading dance program with graduates going to prominent dance here and abroad. Guang Ming College (GMC)'s dance program aims to cultivate Filipino dance artists and scholars through a comprehensive curriculum in dance performance. It focuses on Asian, ballet and contemporary dance. The program blends a combination of theory and practice. Asian Institute of Maritime Studies (AIMS) dance program aims to produce graduates who are highly skilled practitioners of their specific technique, genre, and style and who are competent in the theory, history, literature and production of the dance. The program was established in February 2020 with six students during the Academic Year of 2020-2021.

The study used purposeful sampling, selecting only a limited number of participants who are able to serve as primary data sources due to the nature of research design and aims and objectives (Dudovskiy, 2018). The study focused on teachers handling dance classes under the Bachelor of Performing Arts during school years 2020 to 2022, which is a period covered when the government ordered the closure of all schools, including dance studios and schools. A total of 11 teachers served as research respondents.

Among them, five respondents are male and six are female. Two respondents are 25 to 30 years old, three respondents were 31 to 35 years old, and one

respondent was 36 to 40 years old. The rest are above 40 years old. Five respondents had less than five years of teaching experience, three respondents had 6 to 10 years of teaching experience, and the remaining three respondents had over 10 years of teaching experience.

All the respondents were academically qualified to teach dance, with at least a degree course in dance or related fields. One respondent holds a Diploma in Creative Musical and Theater Arts, five respondents hold bachelor's degree in Dance, while one respondent has a master's degree in Sports Studies, and one is continuing a master's degree in Anthropology. The rest of the three respondents are pursuing their Ph.D. degrees. The respondents also occupy different positions as faculty. Four respondents are part-time lecturers, two respondents are senior lecturers, one respondent is the Program Coordinator in Dance in their HEI, one respondent works under the Office of Student Affairs as Student Activity and Company Coordinator, two respondents are Department Chairs, and one respondent acts as the Executive Director for the Office of the President in their HEI.

All respondents qualified for the study having taught dance both prior and during the pandemic and experienced transition to flexible learning.

Framework of Analysis

Primary data were collected using a researcher-designed questionnaire which included both survey and open-and closed-ended questions. The instrument was reviewed and validated by a fellow dance teacher and a field study adviser to ensure validity. It was designed to collect data on innovative teaching strategies used by dance teachers, in addition to the background information of the respondents. The questionnaire used a 5-point Likert scale to get insights and perceptions on the effectiveness of the innovations used. Scales used represented teachers' satisfaction with achieving their objectives of their dance classes. Prior to the use of the scale, teacher respondents were asked to clearly define and reflect on the goals of their dance classes. Five responses were used and numerical values to the responses were assigned.

To gather more nuanced responses, the questionnaire included several open-ended questions aimed at collecting first-hand descriptions of the teaching methods, challenges encountered, online tools and strategies used. The questionnaire also surveyed the innovations adopted by the dance teachers. It gathered insights from respondents as to which of these innovations are worth adopting and effective.

To supplement the questionnaire data, in-depth interviews were conducted for clarification and deeper insight. The questionnaires were sent through email to the respondents ahead of time allowing them ample time to study the questions before the actual interview. The respondents were informed about the study's purpose and asked for their consent to record interviews, which took no more than 45 to 60 minutes.

The study gathered and analyzed three kinds of data: document research

data, survey data, and interview data. First, document research data consisted of background information relevant to the study, which was analyzed to contextualize and support findings. Second, survey data were gathered through a questionnaire with both close-ended and open-ended questions.. Close-ended questions required respondents to choose from a list of choices. Responses to these questions were tabulated and frequency counts were derived to determine preferences and assess factors, such as technology-related concerns that affected teaching innovations. Open-ended questions allowed participants to freely describe their experiences. Responses were analyzed, tallied and contextualized. Finally, interview data were also collected through semi-structured interviews, carried out using an interview schedule, to clarify and expand on the responses previously provided.

After accomplishing all the interviews, data analysis was undertaken. Interview transcripts were reviewed, and initial observations on emerging challenges were noted. The challenges were then grouped into thematic categories, which included: technical difficulties (e.g., internet issues, software constraints, distorted sound), loss of physical feedback (e.g., inability to correct posture, lack of tactile guidance, spatial limitations), pedagogical shifts (e.g., adapted teaching methods, use of pre-recorded demonstrations, modified lesson plans), student engagement challenges (e.g., engagement strategies, distractions, lack of motivation), and emotional impact (e.g., frustration, burnout, adaptation resilience). Each identified theme was thoroughly checked if aligned with the raw data to ensure accuracy. In some instances, verbatim quotes were selected from the interviews to illustrate these problems. Findings were linked to literature and aligned with the study's research questions. The findings were shared to participants for validation.

To interpret patterns, tendencies, and accounts and to understand their societal implications, this study used qualitative data analysis. Ary et.al. (2010) state that qualitative data analysis involves attempts to comprehend the phenomenon under study, synthesize information, explore relationships, theorize about causes and consequences of relationships, and reconnect new knowledge to existing knowledge. Meanwhile Bogdan and Biklen (2006) emphasize that "analysis involves working with data, organizing them, breaking them into manageable units, synthesizing them, searching for patterns, discovering what is important and what is to be learned and deciding what you will tell to others". Before the respondents agreed to participate in the study, they were given the content and purpose of the survey, allowing them to make an informed judgment about their involvement. The data collection procedures and the overall research objectives were explained to ensure that the participants understood their rights and that the study results will not negatively impact their work. Their right to be informed of the results of the study was honored. To maintain ethical integrity, respondents were assured that their identities and answers will remain confidential. They were also informed of their right to withdraw their participation anytime during the interview.

Result and Discussion

The teaching approaches, methods and techniques in flexible learning adopted

by the HEI dance teachers in NCR before and during the pandemic were mainly affected by instructional delivery practices and support provided by their universities. Each of the four HEIs have different terminologies for their modes of instructional delivery. De La Salle-College of Saint Benilde (DLS-CSB) referred to it as Benilde Online Learning Term (BOLT). Guang Ming College used the term “online learning”, the University of the Philippines called it “remote learning", and Asian Institute of Maritime Studies (AIMS) termed it Remote Virtual Learning (RVL).

All 11 teacher-respondents shifted from teacher-centered to student-centered learning during the flexible learning set-up, acknowledging that this approach better addressed the needs and conditions of their students. There is an overall agreement among respondents that student-centered learning, rooted in the philosophy that the student is at the heart of the learning process, was the best teaching approach. The shift requires more thorough lesson planning and readiness for the teacher. According to Gilbert (2005), dance teachers must not only master dance content including dance techniques, choreographic principles and processes, somatic practices, dance history, cultures, and philosophy, but also demonstrate a solid understanding of learning and child development theories, pedagogical methods, and classroom management strategies.

During the pandemic, all the teacher-respondents delivered their classes online with options of synchronous and asynchronous classes. Synchronous classes require both students and the dance teachers to be logged in simultaneously, allowing real-time virtual interaction. In contrast, asynchronous classes involve students accessing pre-designed lessons either in video format or through readings provided by the teacher, which were typically available all throughout the semester. In some HEIs, a required number of synchronous and asynchronous meetings were mandated., while other HEIs allowed their teachers to decide when they want to conduct synchronous or asynchronous classes. Teachers with fixed scheduling requirements encountered challenges, particularly with synchronous meetings due to reliable or unstable internet connectivity affecting both the teachers and the students.

In this study, three teacher-respondents (27.3%) preferred real-time synchronous classes to ensure that the students accurately followed the movements, styles, and postures. The remaining eight of-respondents (72.7%) combined synchronous and asynchronous sessions. However, there were challenges faced, and all the teacher-respondents had to adjust their movement exercises or break down their lessons. According to one respondent (*Assistant Professor and Department Chair, Female, 47 years old*), she had to go to the bare minimum in delivering her movement classes. The content of her online sessions was often shaped by how students felt on a given day. This was likely due to the lack of motivation and engagement from the students as she observed during the interview. She emphasized that the online format was more about coping and prioritizing the well-being of their students.

In both online and offline teaching, students remain the central focus in the classroom. Effective teaching outcomes are more likely when educators understand the students and perform hands= on or heuristic approaches

suited to the actual learning conditions. Hence, an in-depth understanding of the students is an indispensable part of lesson preparation and delivery.

One of the useful tools in flexible teaching is the Learning Management System (LMS), a software application designed to manage, document, track, and report learning activities. The majority of LMSs are web-based, allowing for "anytime, anywhere, at any pace" access to learning content and management. Some LMSs can also assist teachers in the delivery and management of instructor-led synchronous and asynchronous online instruction. An LMS is essentially a strategic solution for organizing, delivering, and administering most learning activities, such as online, virtual classroom, and instructor-led courses. In this study, respondents came from different HEIs, each using different LMS platforms to support online teaching. Online instruction was mainly conducted through Microsoft Teams, Zoom, Google Classroom, BigSky and even Facebook Messenger.

Dance teacher-respondents from De La Salle College of St. Benilde reported using BigSky Benilde as the institution's official integrated learning platform. BigSky is an LMS that allows students and faculty to learn and teach virtually whether online or mobile devices. Prior to the pandemic, the College had already been using BigSky, but not all the teachers were using it according to the teacher-respondent from College of St. Benilde. However, its full-scale adoption occurred during the peak of COVID-19 pandemic, following the implementation of flexible learning imposed by CHED. By then, teachers and students were provided workshops to better understand and utilize BigSky as their LMS.

BigSky offers a central location where teachers and students can meet and communicate. It supports the creation and organization of learning modules, hosts various online learning resources, and facilitates communication, course delivery, and student evaluation. BigSky provides access to students' class schedule, grades, assessments, and attendance records. It also includes features for tracking the academic calendar, events and activities, viewing course outlines, accessing multimedia resources (e.g., PowerPoint presentations, articles, images, and videos) and engaging in communication through chat messaging, email, evaluations and surveys.

The Asian Institute of Maritime Studies (AIMS) used Microsoft Teams, which is not a traditional LMS. AIMS chose Microsoft Teams as its organizing platform because of its collaboration features, allowing students and teachers to interact effectively in a virtual setting. The platform allows users to engage in real-time chat, create channels, schedule and attend meetings, and share learning resources.

Meanwhile, in Guang Ming College, students and teachers use the Google Classroom as their LMS. Google Classroom is most popular due to its user-friendly interface. Aside from Google Classroom, Facebook Messenger is used by two teacher-respondents to communicate with their students. While Facebook Messenger is not a conventional teaching tool, it offers numerous advantages. Its features support the easy sharing of multimedia content such as videos, audios, texts and images created by either teacher or the students.

Furthermore, most students in the participating HEIs own a smartphone which is always turned on. Students respond instantaneously to mobile phone alerts; thus, texting and instant messaging are quickly responded to.

At the University of the Philippines Diliman, many teachers opted to use the Google Classroom instead of using the university's official LMS, the University Virtual Learning Environment (UVLE). According to a teacher-respondent who tried to use UVLE during the first semester of 2020, the platform is difficult to manage and navigate, prompting a shift to Google Classroom. The University of the Philippines teachers use Zoom as their platform for conducting synchronous classes or meetings. Zoom has been used in various disciplines at universities due to its fairly good audio and video quality, screen sharing option, and interactive features. These attributes make Zoom a top choice for online lectures, webinars, virtual conferences, and more. In the general education course "Visual and Performing Arts—Introduction to Dance Studies," Zoom was adopted due to its proven effectiveness in tertiary teaching (Rixon et al., 2021) and for its positive impact on student satisfaction (Sayem et al., 2017).

Astaiza et al. (2021) showed that Zoom was an effective tool for teaching dance in higher education during the pandemic. Not only did Zoom allow the development of an agile and responsive curriculum to meet the diverse needs of the students, but it also greatly stimulated students' creativity and collaboration skills, leading to greater satisfaction with the course. Consistent with previous studies, Nie and Hu (2018) found that the use of online tools such as Zoom significantly increased students' satisfaction about the course.

Google Classroom is an online tool that has been widely employed as a virtual classroom in performing arts education during the COVID-19 pandemic. This platform helped educators overcome time and place constraints. Using this platform, performing arts students could record and upload performances, such as dance, at their convenience, and teachers could review and respond flexibly. It could also support video submission, enabling the sharing of performances like dance routines.

Teaching strategies are how teachers communicate the dance content to the students, and these strategies rely on the use of appropriate teaching materials. In the context of online dance education, preparing teaching materials requires additional preparations in terms of hardware and software, and contents. According to the respondents, the determination of teaching strategies such as learning activities and the preparation of teaching materials are the main focus of preparations for online teaching.

Effective online teaching is the result of meticulous instructional design and planning, which has been researched for decades. However, the sudden adoption of flexible learning has placed more pressure on dance teachers, who were required to upload their course packs, modules, and academic toolkits to their preferred LMS prior to the commencement of the semester. Teachers were forced to pre-plan their movement exercises even before the semester started. A teacher-respondent shared that he had to record instructional materials of himself executing the exercises. This was difficult and challenging since dance

is skill-based, where learning is typically interactive and allows expression and creativity. A few of the teacher-respondents reported having to slow down or break down the exercises just to accommodate the students facing space limitations or unreliable internet connectivity.

Technology is vital in the online teaching of dance. Not only should the technology be available but should also be reliable. Online teaching demands dependable gadgets to support seamless communication and performance. This is especially critical in dance education, where technical issues such as lag or malfunction during movement demonstrations can hinder learning. The goal of the use of technology is to enhance dance teaching and learning experience. Results show that the most commonly used gadgets among teacher-respondents are laptops and cameras. These gadgets are staples when teaching dance online. In the case when an extra screen was needed, seven respondents used mobile phones. Four of the respondents connected their laptop to their TV screens to benefit from the larger view. For better listening and improved mobility during instruction, three teacher-respondents used Bluetooth or cordless earphones. Three of the respondents, on the other hand, preferred to use a speaker for audio output. For playing the audio, two teacher-respondents used their iPad and one used a tablet. Other teacher-respondents played their music through the 'share computer audio', a feature in Zoom which was a good solution to the problem of on-going lag or delay of music.

However, some teachers experienced unclear voice audio when using this feature and they cannot hear themselves well when talking. To address this, teachers enhanced their audio setup by using a lapel microphone, ensuring that their voice remained audible even when they were far from the laptop during demonstration. Additional equipment such as a wide-angle lens allowed the camera to capture a wider view, and external lighting enhanced the video quality of movement demonstrations. An interesting solution from a teacher-respondent was the use of an external camera, which can produce a wider and multiple frames. The respondent suggested using a sports camera such as the GoPro. A GoPro uses an extremely wide lens that increases the amount of scenery captured in the frame, making it easy to frame the shot. GoPro may be used independently, but extra capability and adaptability can be added by pairing them with Android and iOS applications. Users have complete control over their GoPro camera because of the built-in Wi-Fi and Bluetooth. While GoPros can significantly improve visual coverage, their high cost remains a limitation for some teachers.

Gadgets are essential tools in digital technology which have helped the teacher-respondents to resolve restrictions in distance, space, and time present in virtual dance classes. These restrictions were experienced by the respondents in different extents and intensities. However, while technology offers significant support, dance teachers must keep in mind that incorporating technology is not an end in itself, but rather a means to enhance the quality of dance teaching and learning. The physical aspect of dance training can never be replaced by technology and its possibilities. Nonetheless, technology is an important tool that promotes active learning, critical thinking, and evidence-based assessment. With the restrictions brought by online learning, traditional final exams and

culminating performances were often replaced with video submissions, as mentioned by most teacher-respondents. Students were required to record themselves performing as their final examination. This shift addressed the spatial and physical limitations of remote instruction but also introduced new challenges.

Teachers traditionally correct students in class by physically guiding or holding specific areas of the body. In an online class, this cannot be practiced anymore. Corrections were done through verbal feedback, which may sometimes be delayed or lack immediate context. This can reduce the effectiveness of the feedback since the student may forget or misinterpret the meaning of the correction when it is not physically reinforced. According to a teacher-respondent (*Part-time Lecturer, Male, 29 years old*), viewing their dance on camera allowed pupils to study their own bodies in motion and reflect on their technique. Teachers can use playback features, such as pause and slow motion, to be able to properly evaluate if the student is doing the movement exercise properly. Skills such as posture, turnout, extension, balance, flexibility, and strength may improve using video assessment. This assessment tool was notable because of its emphasis on enhancing communication between dance teacher and student. It showed how video might be used to bridge the gap between the teachers' comments and students' execution in online dance classes. When students view their own performance, they can better understand movement words like turnout, pull-up, extension, lengthening, and alignment. This visual reinforcement allowed students to better digest the feedback more effectively, leading to more accurate self- correction and improved technique.

Another interesting assessment tool used by a teacher-respondent (*Part-time Lecturer, Male, 29 years old*) was reflective journal-writing throughout the semester to support students' learning processes and further document their individual growth and development. By reading the journals, the teacher-respondent was able to determine if the student fully understood the lessons in class and has reflected on the corrections from previous classes.

Despite these innovative approaches, dance teachers faced varying degrees of issues while implementing flexible learning during the pandemic. Difficulties encountered were related to inadequate equipment and facilities, issues with performance assessment, student discipline and motivation, delivery of instruction, and unstable internet connectivity.

Inadequate equipment and facilities. Essential facilities including a danceable floor, mirrors, ballet barres, music/stereo system, and other specialized tools that can facilitate learning dance were not available in online learning. Students were often forced to practice dance in limited spaces such as living rooms or bedrooms, which were not designed for physical activity. Moreover, the areas where students practiced dance often have flooring like tile and carpet, which were not suited for dancing. As a result, many of the teachers had to adjust their exercise to prevent their students from having injuries.

Difficulty in conducting performance assessment. Performance assessment is an integral part of the dance learning process. It provides students with guidance

to develop technically and artistically while ensuring that learning outcomes are met. For assessment to be effective, it must be clearly aligned with learning objectives and serve as tool for evaluating both teaching practices and student performance. However, conducting performance assessments online presented several challenges. One major issue reported by teacher-respondents was that several students disabled their cameras during synchronous sessions, displaying profile images instead. As a result, the teacher could no longer observe the student whose cameras were turned off and could not get enough information to assess attention and understanding. Without being able to view students' movements, teachers were unable to adequately assess each student's pace and preparation. The lack of visual feedback also hindered teachers from identifying who were having difficulties with specific movements. Instructors relied heavily on hands-on corrections in traditional dance learning settings. Teachers view these corrections as positively offering students direct, embodied feedback. Teacher-respondents amplified the struggles to correct the students' body alignment and technique since there was no direct contact with them during online learning. Many found it impossible to teach dance without physically guiding or touching students as these physical cues help students to understand correct physicality.

Providing feedback in an online class was difficult for teachers who have spent most of their careers in face-to-face environments. In traditional settings, dance teachers provide direct, instant feedback during movement instruction, through demonstration or physical adjustments. This challenging issue has led to teachers to rethink their teaching approaches and redefine best practices for offering corrections without touch.

The body is the medium of communication in dance, and without visually seeing it, meaningful interaction becomes difficult. Teacher-respondents who conducted classes using Zoom and other teleconferencing apps found it difficult to view the full range of students' movement due to screen restrictions. A teacher-respondent complained how difficult it was to provide accurate corrections because the virtual format only allowed a two-dimensional view of the student's body. This is in contrast with traditional face-to-face classes that enable the teachers to observe the student's body in a three-dimensional view. One of the primary components of dance training is musicality. Musicality is how dancers hear, interpret, and dance to the music. A challenge identified by the teachers is how to determine if the students were using their musicality to move to the music Persistent latency issues (lag/delay) and poor internet connectivity whether from the teacher's or the student's end made it very challenging to give students timely feedback on their musicality.

Because of the physical barriers involved in the online set up, the artistic side of dance was compromised. Teacher-respondents expressed that they were unable to see the natural form of self-expression, the authentic body movement, and the spirit of their students when conducting online dance classes. Several respondents even remarked that students appeared mechanical or robotic on screen.

Difficulty in instilling student discipline and motivation. Discipline is a very

important characteristic that a dance student should acquire. Discipline includes consistent habits such as coming to class 15-30 minutes early to warm-up and wearing appropriate attire, which are crucial to prevent injuries. There were a couple of times that some teacher-respondents would catch their student attending in improper attire or even seemingly having to have just woken up.
Motivation, a necessary prerequisite to learning, was also significantly impacted. Students' motivation to achieve their academic goals declined during the temporary closures of schools and home confinement. This was confirmed by teacher-respondents who had difficulty in motivating their students to actively participate in their dance classes.

Students have different reasons for their reluctance to switch on their cameras during synchronous classes. Among the reasons were low bandwidth and poor connectivity, the desire to maintain privacy about home life and spaces, distractions in the home, or simply lack of interest. With cameras off, the teachers were unable to see if the students were engaged, following instructions, or participating in the movement exercises. In response, many teacher-respondents implemented strategies to encourage accountability and foster participation. At the beginning of the semester, they would impose the rule that since the class involved movement and required visual assessment, cameras should be turned-on. In some cases, teacher respondents would request students with turned off cameras to log out to give space for those students who have their cameras on. One teacher recounted a particularly frustrating instance where only half of a 26-student class had their cameras on. However, some teachers used a student-centered approach by making pedagogical decisions based on what is best for the student's learning and not the instructor's teaching.

Lack of capability of teachers. The transition from traditional learning to online learning not only disrupted the flow of learning but also how the teacher-respondents delivered their movement classes. Many reported feeling unprepared for online classes, as most of the HEIs did not formally prepare their teachers for this mode of program delivery. An exception was DLS-CSB, especially their College, the School of Design and Arts, which provided their teachers with seminars for script writing, video production, use of BIGSKY (the official LMS of CSB) and crash courses on video creation for students and their faculty. In contrast, other HEIs had to rely on their teachers' skills and initiative in adapting to this new paradigm shift. The University of the Philippines had to conduct workshops or webinars on how to navigate the preferred LMS. According to a teacher respondent, UP Diliman especially the Arts Cluster including College of Arts and Letters, College of Music and College of Human Kinetics organized workshops for teachers on navigating the UVLE, Zoom and Google Classroom. In addition, the College of Music, where the teacher-respondent is teaching, prepared the teachers by offering workshops and checking if the teachers are equipped to conduct classes online. They even checked the kind of laptop, microphones, and lighting equipment for conducting online classes.

The findings emphasize the necessity of increasing teachers' flexibility through further professional development programs so that they are more equipped to adjust to changes in program delivery, in both asynchronous and synchronous

formats. One of the most significant pedagogical challenges is lack of digital competencies, especially when teachers are unfamiliar with use of online-based tools. This gap, coupled with the lack of experience in distance learning. expectedly resulted in increased workloads with the preparation of teaching materials and difficulties in delivering new content. The teacher-respondents generally felt that they need additional training in many areas to best support the teaching and learning process. In this study, most of the participants indicated a desire for immediate and informal workshops or practical training that would share tips and techniques for online teaching.

Poor internet connectivity. A teacher-respondent (*Senior Lecturer 1, Female, 46 years old*) wished she was good at troubleshooting when a technical issue occurs during her online classes. She emphasized the emotional toll brought about by sudden disruptions in connectivity. Teachers should not only teach their classes, but should be equipped and prepared when these circumstances occur to prevent frustrations and technostress.

Although the majority of respondents reported having relatively stable internet connections, several had to switch providers due to consistent slowdowns or interruptions. There were issues with their internet provider such as internet loss due to maintenance work. There were moments when the internet was very unstable that prompted class cancellations, and some teachers would have two different internet providers to serve as back-up systems. It was acknowledged that internet reliability is an uncontrollable and costly factor in online learning.
Teacher respondents identified activities they found effective and helpful in delivering their class content in an online learning setup. Table 2 shows their responses on the perceived effectiveness of each activity used in their dance classes during the pandemic.

Uploading course materials was perceived effective by most (45.4%). For the respondents, uploading course materials helped them to be organized and provided students with ease of navigation in the online learning environment. Linking to online resources was also perceived effective by 63.6% of the respondents. However, some teacher respondents had doubts that their students might not access these materials unless there was a specific task or requirement linked to them. Online individual learning activities had the same results, as perceived effective by 63.6% of respondents. For the online group learning activities, 54.5% found them effective in promoting collaboration and peer interaction. One respondent did not include this activity in her course, believing group work to be non-essential. Holding synchronous classes is the most important activity according to the teacher respondents. Teachers emphasized that real-time interaction enabled them to monitor students' application of movement techniques. This is why some teacher respondents required students to turn on their cameras. Despite technical issues and connectivity challenges, more than half or 54.5% of respondents found synchronous classes as effective. In contrast, asynchronous classes received mixed feedback. While 27.3% found them ineffective, citing the difficulty of learning dance without live instruction, more than half (54.5%) of the respondents still believed it was effective since students can study their lessons on their own time and pace. Only 18.2% found asynchronous classes very effective. For the last activity, which is recorded

lectures, the results were positive, with 63.6% finding it effective and 36.4% rating it very effective. Teacher respondents believed that these recorded lectures gave students an opportunity to review materials at their own pace, offering the convenience of replaying and closely observing the details of each movement.

Table 2

Teacher-respondents' Assessment of Learning Activity Effectiveness

Learning Activity	Respondents' assessment of learning activities (N=11)			
	Very Ineffective	Ineffective	Effective	Very Effective
Uploading course materials	0	2 (18.2%)	5 (45.4%)	4 (36.4%)
Creating links to online resources	0	1 (9.1%)	7 (63.6%)	3 (27.3%)
Online individual learning activities	0	1 (9.1%)	7 (63.6%)	3 (27.3%)
Online group learning activities	0	2 (18.2%)	6 (54.5%)	2 (18.2%)
Synchronous classes	0	1 (9.1%)	6 (54.5%)	4 (36.4%)
Asynchronous classes	0	3 (27.3%)	6 (54.5%)	2 (18.2%)
Recorded lectures	0		7 (63.6%)	4 (36.4%)

The ability of teachers to take notes and record their dance classes is a progressive development for dance education. Teaching resources are now easy to document and preserve, unlike in the pre-pandemic setup where teachers relied on minimal tools such as phone and speakers. This offers a good opportunity for dance teachers to preserve their class content through recorded videos, music, pictures, PowerPoint presentations, course packs with learning outcomes and goals of the course and other instructional materials. These resources can now be obtained quickly and conveniently.

Finally, the survey on the teachers' satisfaction with achieving course objectives through flexible learning showed that the teachers agreed they achieved their class objectives by adopting flexible learning. Based on their responses to the question using a 5-point Likert Scale (1-strongly agree, 2-agree, 3-neither agree nor disagree, 4-disagree, 5 strongly disagree), ten of eleven respondents chose 2 or agree, indicating that they believed they had achieved their class objectives. One respondent chose 3 (neither agree nor disagree). While most respondents believed that their objectives were met, they also acknowledge that there is still room for improvement to enhance the effectiveness of their

teaching.

Conclusion

Prior to the pandemic, the teachers included in this study were able to effectively achieve the goals of dance teaching because they are equipped with strong educational backgrounds and experience in dance instruction. However, during the pandemic, they faced difficulties in achieving the same goals because they lacked experience in dance instruction using flexible learning.

Despite these difficulties, most of the teachers in this study used student-centered approaches while adopting new methodologies for flexible learning environments. Throughout this shift, these dance teachers had to overcome many challenges, including inadequate equipment and facilities, difficulties in conducting performance assessment, issues in instilling student discipline and motivation, lack of digital capability of teachers, and unreliable internet connectivity.

The teachers utilized a variety of learning activities and instructional strategies to support flexible learning, including uploading course materials, linking to online resources, facilitating online individual and group learning activities, conducting synchronous and asynchronous classes, and providing recorded lectures. These strategies were as effective in facilitating student learning and helped improve the overall teaching experience.

Each HEI represented in the study provided distinct platforms and tools to support online delivery, which conform with the CHED guidelines. The platforms used, such as BigSky Benilde, Google Classroom, Microsoft Teams, and UVLE, enabled a variety of content delivery modes. Moreover, the use of technological tools like laptops, phones, televisions, bluetooth devices, speakers, lighting equipment, lapel, wide-angle lenses and tablets proved helpful in addressing several logistical challenges in online dance instruction.

Despite these innovations, the teachers still faced various challenges, including difficulties with the lack of studio space and proper flooring and limitations in assessing students' musicality, technique, artistic expression, and discipline. Students' lack of motivation and engagement was another challenge to face aside from the teachers' difficulties in transitioning to online and lack of training in an online environment.

Learning activities that are effective to support flexible learning include uploading course materials, creating links to online resources, facilitating online individual and group learning activities, conducting synchronous classes and asynchronous classes, and recording videos for better learning.

Recommendations

While the COVID-19 pandemic continues to affect education systems, online teaching and learning must be sustained. Higher Education Institutions should consider how to improve the delivery of online dance instruction. The

researchers also call for the proactive participation of school administrators, government agencies, and policymakers to provide the dance teachers with the needed technological and pedagogical support. Based on the results of the study, the researchers suggest the following:

1. Given that current teaching methods rely on technology, dance teachers must be provided with sufficient training on the use of appropriate technologies, especially software which they can use in teaching.
2. Teachers should be assisted in using gadgets and equipment, useful in teaching dance. This study recommends familiarity in the use of laptops, web cameras and mobile phones, among others. Furthermore, institutions must support the acquisition of reliable, high-quality equipment necessary for conducting effective online dance classes.
3. Teachers should be required to practice activities that contribute to effectiveness in teaching dance. These include uploading course materials, linking to online resources, facilitating individual and group learning activities, conducting synchronous and asynchronous classes, and providing recorded lectures.
4. While Zoom was found to be the most effective and widely used platform among HEIs involved in this study, a more specialized learning management system that is designed and dedicated for dance teaching is preferred. It is recommended for HEIs to collaborate on a future research endeavor with appropriate IT experts to develop a learning platform most suited to dance teaching.

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Students' Usage of Google Classroom as LMS during Covid-19

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Abstract

Both developed and developing nations have adopted online education in response to the difficulties posed by the Covid-19 pandemic. Learning Management Systems (LMS) have gained rapid popularity as a widely utilized method for teaching and learning in the blended learning environment of universities. In the context of Open and Distance Learning (ODL), Google Classroom has often been used as a substitute for LMS, either due to the constraints of traditional LMSs or the absence of any existing LMSs. This study investigates the students' reactions to the utilization of Google Classroom as a LMS during the Covid-19 pandemic, when traditional in-person instruction was suspended in universities in Bangladesh. The study employed various techniques to gather responses from the students. A mixed-methods approach was employed, incorporating both survey questionnaires and in-depth interviews to gather quantitative and qualitative data. A total of 152 pupils completed the survey, and five learners participated in interviews. The findings of the study revealed that majority of the students responded positively on the usage of Google Classroom as LMS. However, several problems were observed such as the need for formalization and concerns over privacy and safety. The study recommends that the respective university authority should provide constant monitoring, timely feedback, and regular updates. Moreover, having clear policy guidelines, online surveillance measures, and active facilitation role of teachers are essential for the effective use of Google Classroom in ODL settings.

Keywords: *Covid-19, Blended Learning, Google Classroom, LMS, ODL*

Introduction

The swift advancement of Learning Management Systems (LMS) has significantly influenced the methods of teaching and learning in universities (Coates et al., 2005). LMSs are digital platforms that allow educators to upload digital materials, organize instructional resources, support interactive discussions, and share information (Meishar et al., 2012). Furthermore, educators possess the capacity to assess students' proficiency in the LMS through their behaviors, tasks, and assignments.

A commonly used LMS is Moodle, a widely adopted digital platform for remote

education that enables knowledge exchange through assignments, forums, and chats (Martin-Blas & Serrano-Fernandez, 2009). Steel (2009) found that most universities utilize LMS as a comprehensive technological solution for online education and instruction. Nevertheless, university instructors are reluctant to employ this platform for pedagogical purposes. Effective use of LMS in a blended learning environment requires collaboration, interaction, and commitment from all stakeholders (Dias et al., 2014). Educational institutions tries to introduce LMS which offers a digital learning environment for students on campus and has the capacity to create entirely virtual online colleges. The e-learning tools utilized within the LMS not also disseminate knowledge but also foster community development. These tools facilitate the enhancement of critical thinking and higher-order thinking skills in learners through the use of debate and cooperation (Zanjani et al., 2016). Despite some resistance to technology, numerous universities opt to adopt LMS to enhance education quality and increase access to of higher education (Macharia & Nyakwende, 2010). Student's participation is an essential element in the effectiveness of LMS. Studies have demonstrated a direct relationship between learner involvement and the magnitude of advantages gained from the LMS (Klobas & McGill, 2010).

The COVID-19 pandemic caused unprecedented disturbances in everyday life, compelling sectors to shift to online and facilitate social distancing protocols. Educational institutions were no exception, suspending face-to-face instruction and rapidly transitioning to flexible learning modalities (Reimers & Schleicher, 2020). Consequently, higher education institutions globally employ LMS to administer online education (Siang et al., 2024), with students embracing LMS online distance learning (ODL) amid a crisis-driven transition (Alontaga et al., 2024). In March 2020, the Bangladeshi government implemented the closure of in-person classes across all educational institutions. Bangladesh has 108 private universities and 50 public universities (Bhuiyan, 2024). During the Covid-19 pandemic, many private as well as several public universities in Bangladesh implemented online education to ensure the continuation of tertiary education during the lockdown time (Shama & Ikbal, 2020).

Google Classroom emerged as a widely used LMS alternative for online education, alongside platforms like as Facebook and Zoom (Fami, 2020). Google Classroom was widely utilized in online education due to its availability as a free LMS (Philipose & Rajagopal, 2019). Together with Google Suite for Education, Google Classroom offers a range of tools, including Drives, Gmail, Docs, Forms, Sheets, and Slides that enhance digital collaboration (Bhat et al., 2018). Furthermore, as an LMS, Google Classroom enables paperless interaction and real-time feedback, making it an attractive option among teachers and students. Despite its numerous benefits, Google Classroom also presents some challenges. Students may struggle navigating the online classroom, with its non-personalized user interface, privacy concerns regarding submitted assignments, limited peer interaction, and unreliable internet facilities at home (Susanti et al.,2021). Consequently, it is a matter of experimentation to find out students' perceptions and experiences with Google Classroom as an LMS during the COVID-19 pandemic in Bangladeshi universities, when in-person education was suspended.

Objectives

This study aims to address the following objectives:

1. To find out students' feedback on the utilization of Google Classroom as a Learning Management System (LMS) during the COVID-19 pandemic; and
2. To evaluate the difficulties and potential of utilizing Google Classroom as a Learning Management System (LMS) in Bangladesh.

Research Questions

The study aims to investigate the following research questions:

1. How do students respond to the usage of Google Classroom as a LMS during Covid-19?
2. What are the challenges and possibilities of Google Classroom as a LMS in Bangladesh after COVID-19?

Relevant Studies

Effectively designed LMSs have been shown to facilitate dynamic student engagement and facilitate meaningful interaction between students and teachers (Lonn & Teasley, 2009). However, currently available or free LMSs have restrictions in terms of their ability to fully support teaching and learning (Sanchez-Franco, 2010). Academics generally agree that LMS promote self-directed learning (Vrasidas, 2004) and provide a platform for collaborative and productive interactions (Dillenbourg et al., 2002). Nevertheless, it has been noted that the practical effectiveness of LMSs in higher education is restricted in its extent (Meishar et al., 2012). In addition, the implementation and maintenance of LMSs necessitate proficient technical teams, leading to substantial financial and logistical burdens for educational institutions (Sanchez-Franco, 2010).

LMSs have traditionally relied on simplistic self-evaluation models, making it difficult to incorporate alternative assessment components (Coats et al., 2005). Meishar et al. (2012) argue that students lack autonomy in LMS use, impeding their capacity for self-paced learning. The centralized and hierarchical design of LMSs is another issue, as it deters educational institutions from using them (Sclater, 2008). According to usage patterns, many LMSs are more suited for administrative management than enhancing learning and teaching activities (Mott, 2010). Furthermore, LMSs impede student-centered learning as instructors are typically the ones creating courses, uploading academic resources, launching discussions, and managing groups. Nachmias and Ram (2009) argue that the restricted use of LMSs by teachers prevents the development of innovative approaches to learning and teaching. Many colleges choose to delete course contents after the term ends to conserve storage space, which limit students' ability to retrieve course materials. This is a widely acknowledged disadvantage of LMSs (Meishar et al., 2012).

Google Classroom was employed to manage the classroom. The Google Classroom interface was used to communicate classroom instructions, reminders, internal chores, and assessment feedback between students and teachers. Initially, the teacher had to encourage the students to examine their phones for any notifications. Afterwards, the pupils developed the capacity to autonomously carry out this activity and, in fact, even aided their classmates who were unable of independently reviewing and responding to the notifications. Developing expertise in using the blended classroom technology and teaching others how to do the same created a community of people actively seeking knowledge, going beyond just learning a language. Students were granted permission to post on Classroom, and a substantial proportion of them utilized this technological capability to communicate information and questions pertaining to the classroom and the course (Philipose & Rajagopal, 2019).

In today's blended learning environment, LMSs have been used as a prevalent method for delivering higher education. In a LMS, both educators and students engage, exchange, observe, track, and evaluate activities, tasks, and assignments (Bhuiyan, 2023). The introduction of Google Classroom in 2014 as a Learning Management System (LMS) has offered a fundamental and user-friendly platform (Das, 2019). Numerous studies globally examined its effectiveness (Bhat et al., 2018; Fami, 2020; Philipose & Rajagopal, 2019), with focus on its role as an LMS (Abazi-Bexheti et al., 2018; Das, 2019; Kassim, 2024). However, in Bangladesh, limited research has been conducted on the utilization of Google Classroom as an LMS (Rabbi et al., 2018; Rahman & Sanjana, 2021). No existing studies have been undertaken on students' responses to the utilization of Google Classroom in this context. This study will address the gap in the current literature regarding the utilization of Google Classroom as a Learning Management System. The findings aim to contribute to the growing body of literature on digital learning tools and provide information to enhance the effectiveness of higher education in Bangladesh in facilitating student learning.

Methodology

A mixed methods research design was utilized in this study. This approach offers a more holistic and interconnected response to the research questions, bridging the gap between theory and practice (Creswell & Clark, 2017).

The participants of this study were students from both private and government universities in Bangladesh. Specifically, the study examined student responses to the use of Google Classroom as a Learning Management System (LMS) during the COVID-19 pandemic. The research included students from a population comprising of 50 public institutions and 108 private universities.

The representative sample for the research has been selected from the study conducted by Kanyenji et al. (2020) utilizing Cochran's (1963) formula, which is articulated as follows:

$$n_0 = \frac{z^2 \times p(q)}{e^2} \text{..... (1)}$$

Where:
n = (1.645)2*.5*.5/ (.07)2 =138
n_0 = estimated sample size
Z^2 = selected critical value of desired level of confidence or risk
For instance, at 90% confidence interval, the sample size was calculated.
p = estimated proportion of an attribute that is present in the population or maximum variability of the population
$q = 1 - p$
e = error margin

A total of 152 respondents completed the survey which is higher than the minimum sample size calculated by using the formula. Additionally, five students from different universities, were chosen for comprehensive interviews. The survey questionnaires utilized simple random sampling, whereas interviews employed convenience sampling to acquire qualitative data.

The questionnaire for this study is comprised of three sections: (1) demographic information of research participants, (2) utilization of Google Classroom as an LMS, and (3) perceived problems and opportunities associated with the platform. The second section used a 5-point Likert scale ranging from Strongly Agree (5), Agree (4), Neither Agree nor Disagree (3), Disagree (2), and Strongly Disagree (1). One open-ended question was also included. The questionnaire was prepared using Google Forms, and the survey link was disseminated over many websites. On average, the survey took 9 to 10 minutes to complete.

Semi-structured interviews were conducted online via Google Meet to collect qualitative data from students. Each interview lasted around 40 to 50 minutes and was held in 2023. Interviews were documented with the participants' consent for transcription and analysis. A total of five participants were selected through convenience sampling, with one student representing a different university.

Cronbach's alpha was employed to assess the reliability of the quantitative instrument. This study reported a Cronbach's alpha value of 0.855, exceeding the minimum requirement of 0.70 (Mohajan, 2017), indicating a high level of internal consistency for the scale in this sample. Moreover, the member checking technique was utilized to authenticate the information from the qualitative data. Triangulation of data from both survey and interviews enhanced the overall reliability and validity of the study.

Microsoft Excel was employed to tabulate and analyze each item of the questionnaire. Descriptive statistical methods were applied to the quantitative data. For the qualitative data, each interview was transcribed, coded, and organized into themes and sub-themes based on the study questions. The thematic findings were presented in descriptive form.

To mitigate potential risk factors, no identifiable information were gathered, and

the confidentiality and anonymity of respondents were prioritized. An information sheet and an ethical consent form for interviews detailing project requirements, expectations, potential dangers, and other pertinent problems, were sent to the research participants. All research data were securely stored on a password-protected computer to safeguard the privacy, confidentiality, and anonymity of the participants. At every stage of the research, participants have retained the freedom to withdraw or modify their responses.

Results and Discussion

Table 1 presents the demographic information of the participants. Among the152 participants, 84 were male and 68 were female. Of the total, 106 students were enrolled in a Bachelor's program and 46 were enrolled in a Master's program.

Table 1

Demographic Information of the Participants (n=152)

Indicators	Description	No. of participants
Gender	Male	84
	Female	68
		Total=152
Program Name	Bachelor	106
	Masters	46
		Total=152

Research Question 1: How do students respond to the usage of Google Classroom as an LMS during Covid-19?

Table 2

Student Responses on the Usage of Google Classroom as LMS (n=152)

Responses on the usage of Google Classroom as a LMS	Mean	Median	Standard Deviation
1. Google Classroom is very easy to navigate.	3.88	3	0.65
2. Google Classroom is convenient and user-friendly.	3.89	3	0.52
3. Videos and study materials shared in Google Classroom are helpful.	3.99	3	0.72
4. It was convenient to answer quizzes and submit assignments, projects, and homework in Google Classroom.	3.76	3	0.59

Responses on the usage of Google Classroom as a LMS	Mean	Median	Standard Deviation
5. Google Classroom allows for quick feedback, and interaction is possible.	3.88	3	0.59
Total Mean	**3.88**		

Descriptive statistics (Table 2) reveal that most of the students responded positively on the usage of Google Classroom as an LMS during Covid-19. Finding indicated moderate to positive student reactions about the utilization of Google Classroom as a Learning Management System. The highest rated item was the usefulness of videos and study materials shared on the platform (M = 3.99, SD = 0.72), followed by convenience and user-friendliness (M = 3.89, SD = 0.52). These correspond with Kassim (2024), who reported students' favourable reactions to the utilisation of Google Classroom as a learning management system. A lower but still favorable level of agreement(higher than median) was seen about the submission of quizzes, assignments, projects, and homework (M = 3.76, SD = 0.59). Students also expressed positive views regarding the platforrm's ease of navigation (M=3.88, SD=0.65), and its capacity for quick feedback and interaction (M = 3.88, SD = 0.59), aligning with Moonma (2021) who indicated that students had a positive perception of Google Classroom for its features that support timely updates and assignment submission. The findings support educators in planning Google Classroom activities like live online tutoring and discussions to increase student engagement or in implementing blended learning, which combines online and in-person instruction.

During the in-depth interview session, most students expressed their satisfaction with Google Classroom and reported no notable distinction between face-to-face classes and Google Classroom. One of the participants stated:

> As a 21st century learners we need to adopt web 2.0 technologies, virtual realities, and software applications in our daily life and education. I personally enjoyed Google Classroom. I participated in Google Classroom according to my own willingness. (Participant 4)

One attendee expressed dissent towards Google Classroom, stating:

> Google Classroom is not comparable to a traditional face-to-face classroom. I joined Google Classroom in response to the university's directives. I lack any interest in Google Classroom. (Participant 3)

Meanwhile, one of the participants emphasized the emotional and social value of Google Classroom during the crisis:

> Amidst the COVID-19 pandemic, Google Classroom is the sole option available to sustain our academic endeavors. We were all

> at risk of death. Google Classroom facilitates the sharing of our emotions and thoughts. Engaging in social interactions with our friends and professors can effectively alleviate our psychological strain... (Participant 1)

Research Question 2: What are the challenges and possibilities of Google Classroom as an LMS in Bangladesh after COVID-19?

Challenges of Google Classroom

This study explored students' post-pandemic experiences with Google Classroom, focusing on three key challenges: concentration, learning environment, and interaction.

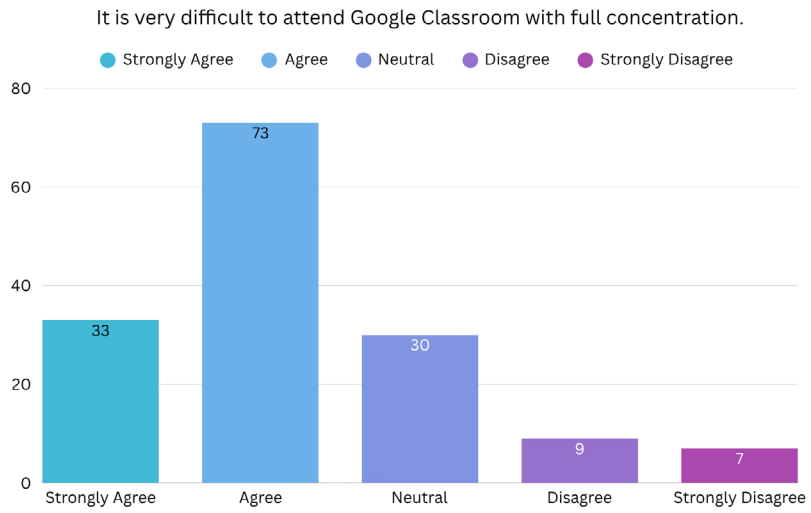
Out of 152 respondents, 73 agreed and 33 strongly agreed that they found it challenging to maintain complete concentration while attending Google Classroom. (Figure 1). These data suggest that there are difficulties in maintaining a high degree of focus. Although most of the organization tries to allocate resources and welfare in online education, students fail to retain their concentration.

Akter and Bhuiyan (2022) similarly found that due to lack of technical support, inappropriate learning environment and limited pedagogical skills of faculty members are the factors which distract students' concentration in online class. These were emphasized in an interview response:

> During Covid-19, university instructed to join online classes and Google Classroom as an alternative to traditional face-to-face classroom. I joined Google Classroom in response to the university's directives but I did not find motivation in Google Classroom. I was unable to communicate and make friends. Due to motivation, less interaction of teachers and having no friends I find it difficult to retain my concentration. (Participant 3)

Figure 1

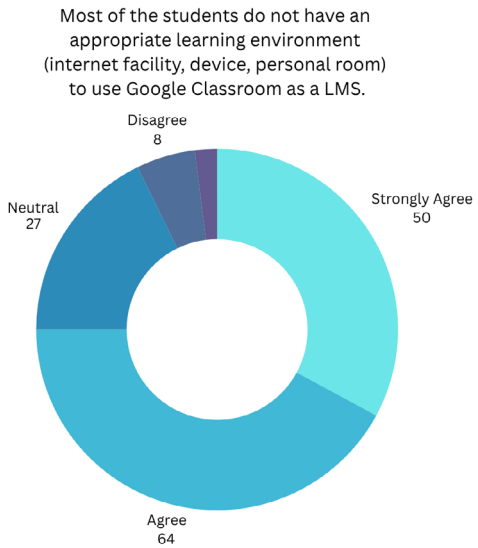
Student Difficulties in Concentrating during Google Classroom Sessions



As shown in Figure 2, out of 152 students, 114 do not have appropriate learning environment and face difficulty in internet access, digital devices, and a dedicated learning space. The remaining students do not face any obstacles in their online learning environment.

Figure 2

Perceived Learning Environment in Google Classroom



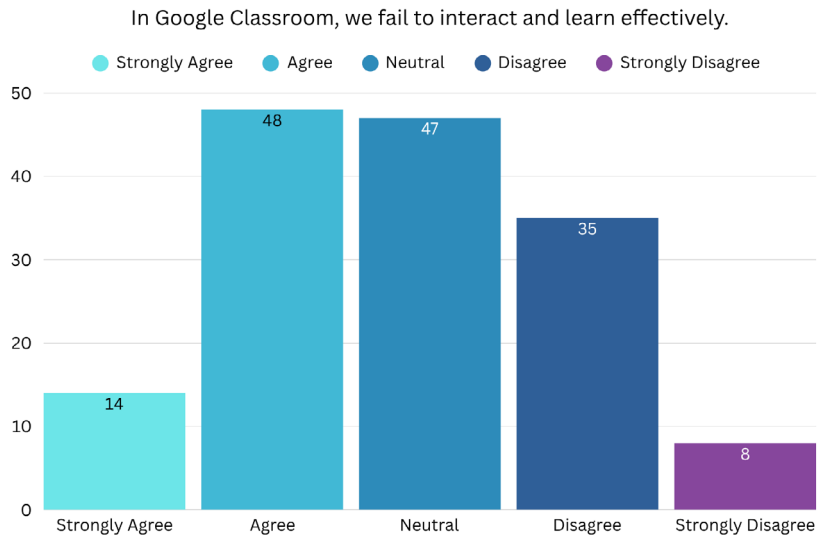
Issues of interactivity and efficacy of Google Classroom often emerge in most circumstances. Figure 3 illustrates that 14 students strongly agreed and 48 students agreed that they experience a lack of learning and interaction in Google Classroom compared to face-to-face sessions. Meanwhile, 47 students neither agreed nor disagreed while 35 students disagreed with this notion.

This finding is consistent with Kumar et al. (2020), who noted that instructors faced difficulties with accessing Google Classroom's learning analytics and managing privacy, peer interaction, and interface design. These were similar challenges expressed by students during the in-depth interview sessions, where half of the students listed limited interaction, difficulty navigating the platform, and concerns about connectivity and engagement in the Google Classroom. One of the interview participants recounted:

> Google Classroom requires a reliable internet connection, a digital device, and a private space for participation, which many of us do not have access to. The pupils found it more challenging to maintain their focus during the classes. The level of contact between students and teachers in online classes differs from that in traditional face-to-face classes. (Participant 5)

Figure 3

Student Interaction and Perceived Effectiveness of Google Classroom



Possibilities of Google Classroom as a LMS

Despite its limitations, students also acknowledged the potential of Google Classroom as an LMS, as reflected in their responses to three related survey items. One of these items asked whether faculty members conducted their classes in a more organized manner using Google Classroom or not. As shown in Figure 4, a majority of students expressed agreement where 15 strongly agreed and 106 agreed. This indicates a broadly positive perception of instructional organization on the platform.

Figure 4

Class Organization by Faculty in Google Classroom

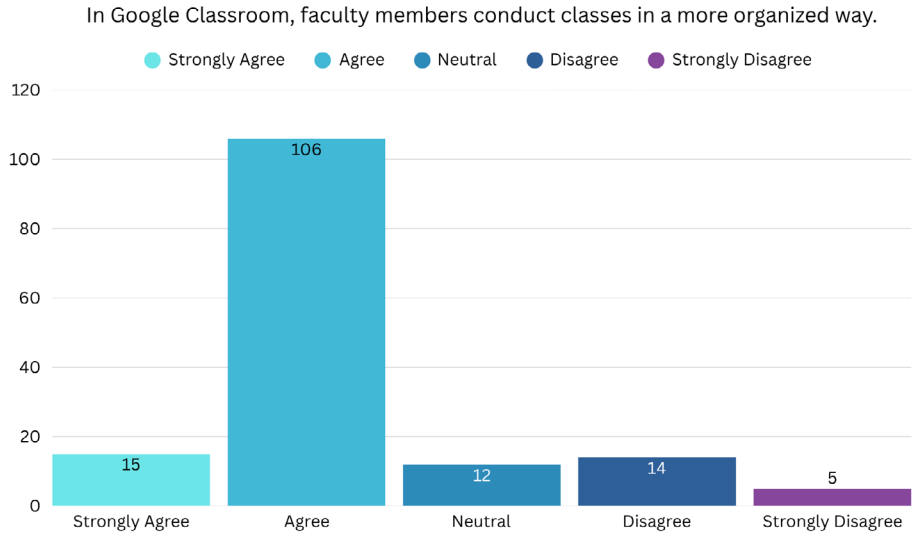
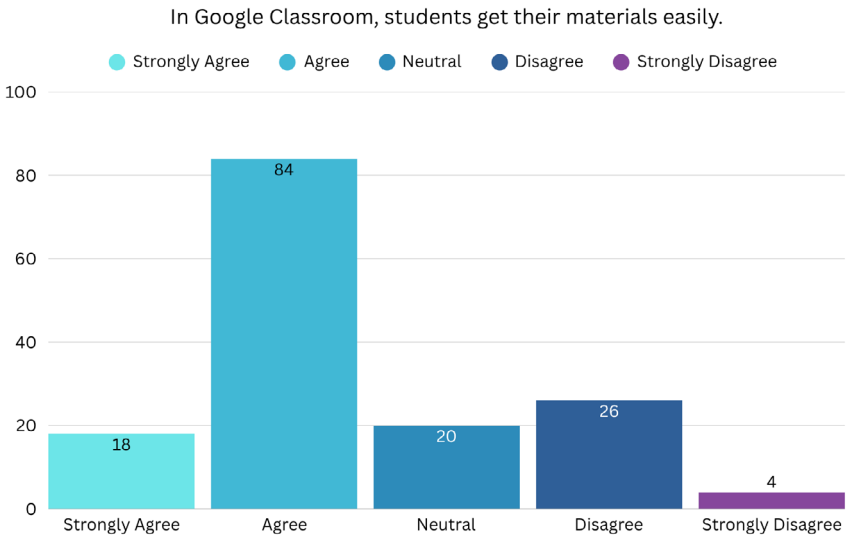


Figure 5 illustrates that a significant majority of the students (102) agreed that they could quickly access their learning resources on Google Classroom. This proves the platform's efficiency in content delivery, despite 20 students neither agreed nor disagreed and 30 students who disagreed.

Figure 5

Ease of Access of Learning Materials in Google Classroom



As presented in Figure 6, the majority of students, 108 out of 152, expressed support for continuing to use Google Classroom as part of their educational experience alongside traditional instruction, even after the COVID-19 pandemic.

This is aligned with Sibuea (2018), who found that Google Classroom's usability,

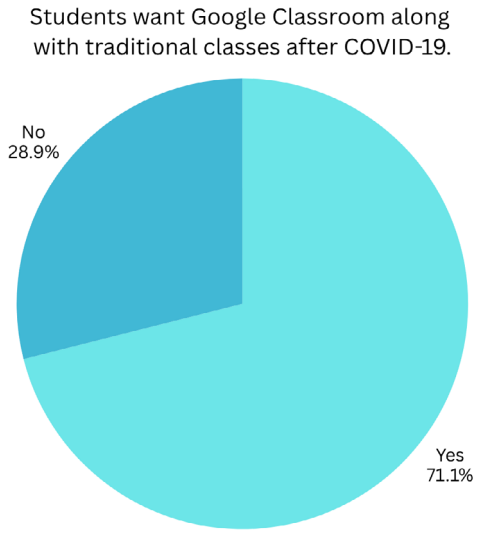
and and other features, made it suitable LMS for blended learning.

The majority of students in Bangladesh concur that Google Classroom has significant potential to continue serving as an effective LMS following the Covid-19 pandemic. One of the interview participants described the potential of Google Classroom:

> İf proper guidelines and online surveillance have been developed in Google Classroom then Google Classroom will be a fantastic LMS. As a 21st century learners we need to adopt Google Classroom. After COVID-19, I have a particular preference for a mixed learning method. (Participant 1)

Figure 6

Students' Preference for Using Google Classroom in Post-COVID-19 Period



Conclusions and Recommendations

This study reveals that students' views on the utilization of Google Classroom as a Learning Management System during the Covid-19 pandemic were markedly different from their pre-pandemic experiences. During the Covid-19 pandemic, Google Classroom was utilized to sustain academic sessions and serve as an alternative to typical in-person classes in most universities. In response to the COVID-19 pandemic, many private institutions in Bangladesh, as well as certain public universities, have adopted Google Classroom as a Learning Management System (LMS) to facilitate their academic activities (Shama & Ikbal, 2020). The primary aim of this study was to examine the reactions of learners about the utilization of Google Classroom as an LMS during the COVID-19 pandemic, taking into account both its constraints and potential within the Bangladeshi higher education context.

While Google Classroom has numerous benefits as an LMS, its use in teaching

and learning poses challenges for both students and faculty members. The design and implementation of Google Classroom in Bangladeshi universities should be supported by clear policy guidelines, online surveillance measures, and active engagement of teachers to maximize its potential as an LMS.

The study was limited by its relatively small and homogenous sample of 152 university students. The inclusion of additional participants may reveal different patterns of usage and perceptions regarding the utilization of Google Classroom as an LMS. Additionally, the participants selected for the interview by convenience sampling may exhibit bias issues. Further research that include the perspectives of other stakeholders, such as faculty members and university authorities, may lead to a more comprehensive understanding of Google Classroom's role in post-pandemic education.

To enhance the effectiveness of Google Classroom as a Learning Management System in Bangladeshi universities, several key strategies should be considered. First, university authorities should provide constant monitoring, timely feedback, and regular updates. Moreover, university authorities should also introduce policy guidelines, online surveillance measures, and the active facilitation role of teachers.

As educational institutions transition into a post-pandemic hybrid model, the role of Google Classroom should be integrated alongside face-to-face teaching. This integration should feature options to submit assignments, quizzes, and projects, and share other learning materials in Google Classroom. Faculty members and students should arrange online discussions and feedback systems to enhance the effectiveness of Google classroom.

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Please visit the IJODeL website to familiarize yourselves with the author's guide and submission guidelines.

Template for Quantitatively-Oriented Articles

Title of Article

Author 1[1]and Author 2[2]

[1]Position, Institutional Affiliation, Country, Email address

Abstract

Abstract in 150-250 words.

Keywords: No more than five (5) keywords.

Introduction (Center Heading 1)

This section contains a clear historical background of the study, showing why the research had to be undertaken. In this section, the author(s) shall have the opportunity to expound on what the research says about the research problem, and show clear support for the need to undertake the research, through appropriate research gap analysis.

Objectives (Center Heading 2)

This section provides a clear statement of the goals and objectives of the research.

Conceptual/Theoretical Framework (Center Heading 3)

The conceptual or theoretical framework would be expected for research studies that dealt with empirical procedures and methodologies. A framework of this nature would provide for clear interrelationships and direction of interactions of variables which the researcher expects to show by his/her data and data interpretations. It should be noted that variable interactions may be easier to understand if they were to be presented in illustrated model formats.

Methodology (Center Heading 4)

This section includes brief discussions of data collection procedures and analyses. Data must be presented in appropriate tables.

Results and Discussions (Center Heading 5)

Analytical discussions must present possible relationships of the results of the study and the findings from other studies specifically reviewed for this purpose. Post analysis data may be presented in both statistical tables and appropriate models and figures.

Include subheadings as are necessary.

Conclusions and Recommendations (Center Heading 6)

Conclusions must be according to the objectives of the study.

Recommendations must reflect the objectives and conclusions of the study.

References

General format must follow the suggestions for authors, but generally must follow the APA Style for publications. (As of writing, APA's publication manual is in its 7th edition.)

Template for Qualitatively-Oriented Articles

Title of Article

Author 1[1] and Author 2[2]

[1]Position, Institutional Affiliation, Country, Email address

Abstract

Abstract in 150-250 words.

Keywords: no more than five (5) keywords

Introduction (Center Heading 1)

This section contains the historical background of the study, including specific reports and studies that provided direct support to the research problem. Some relevant part of the literature shall be included in the discussion of the research problem to establish more strongly the need to undertake the study.

Objectives of the Study (Center Heading 2)

This section contains both the research over-all goal and the specific objectives to be attained.

Relevant Studies or Review of Related Studies (Center Heading 3)

Review of studies that are highly related to the current study. After the relevant studies have been presented, a synthesis of these may be presented and the relationship of such synthesis must be related to the study under consideration.

Subheading may be determined as necessary. In these subheadings, specific observations may be noted and statistical tables presented as well as figures and models.

Discussions (Center Heading 4)

In this section shall be inserted full discussion of results and findings, discussed

more deeply in relation to the related studies already reviewed. Subheads may be determined and included in the discussions.

Conclusions (Center Heading 5)

The conclusions of the study must reflect the objectives of the research.

Recommendations (Center Heading 6)

All recommendations must appropriately correspond to the conclusions, and therefore the objectives of the study.

References (Center Heading 7)

Follow the APA Style Guide (As of writing, APA's publication manual is in its 7th edition.)

Style Guide for Full Paper Submission

The paper should be 15-25 pages long (including tables, figures, and references) and prepared preferably in Microsoft Word format. The author(s) should provide a title, the name(s) of the author(s), position(s), institutional affiliation(s), institutional address(es), email address(es) and key words (no more than five). You may make use of the template for preparing your paper: Journal Article Template (Qualitatively-Oriented); Journal Article Template (Quantitatively-Oriented). Detailed guidelines are as follows:

1. **Font type**
   The whole text should be in Arial.

2. **Margins**
   The paper should be A4 size (21 x 29.7 cm). All margins (top, bottom, left, and right) should be 1 inch.

3. **Line Spacing**
   The whole text should be single-spaced.

4. **Title**
   The title of the paper should be 14-point, bold, in capital and lower case letters, and centered.

5. **Author Information**
   Use 12-point and centered for the author name(s). The Western naming convention, with given names preceding surnames, should be used.

   The author name(s) should appear below the title, with one blank line after the title.

   Use 10-point for author(s)' position(s), institutional affiliation(s), country, and email address(es).

   The author(s)' position(s), institutional affiliation(s), institutional address(es), and email address(es) should appear below the author name(s), with one blank line after the name(s).

6. **Headings**
   - Heading font (with the exception of the paper title and the abstract) should be 14-point Arial and in bold.
   - Headings should be centered and in capital and lower case letters [i.e. nouns, verbs, and all other words (except articles, prepositions, and conjunctions) should be set with an initial capital].
   - There should be two blank lines before each heading and one blank line after it.

7. Subthemes

- Subtheme(s) should be 14-point Arial, in bold capital and lower case letters, and flushed left.
- There should be one blank line before and after each subtheme.

8. Abstract

- The abstract heading should be 14-point Arial, bold, centered.
- The abstract should be in **150-250 words.**
- The main text of the abstract should be 12-point Arial, italicized.
- Alignment of the main text of the abstract should be justified, no indent.

9. Key Words

- Include **at most five** keywords.
- Use 12-point Arial. The keywords should appear below the abstract, with one blank line after the abstract.

10. Main Text

- In general, paragraphs should be separated by a single space.
- All paragraphs must be in block format.
- Text font should be 12-point Arial, single-spacing. Italic type may be used to emphasize words in running text. Bold type and underlining should be avoided.
- The first line of each paragraph should not be indented.

11. Tables and Figures

- Tables and figures should be numbered and have captions which appear above them.
- Graphics and pictures should not exceed the given page margins.
- Captions should be 14-point centered.
- The tables and figures of the paper should follow the APA citation style.
- There should be no space between the caption and the table/figure.

12. Footnotes

- Footnotes may be used only sparingly. A superscript numeral to refer to a footnote should be used in the text either directly after the word to be discussed or – in relation to a phrase or a sentence – following the punctuation mark (comma, semicolon, or period)
- Footnotes should appear at the bottom of the page within the normal text area, with a line about 5 cm long immediately above them.
- Footnotes should be 10-point and aligned left.

13. References

- The author-date method in-text citation should be used. Following the APA format, the author's last name and the year of publication for the source should appear in the text.
- All references that are cited in the text must be given in the reference list. The references must follow the latest edition of the APA Style Guide (as of writing, APA's publication manual is in its 7th edition) and

arranged alphabetically at the end of the paper.

Sample:

Surname, A. A. (year). Article title. *Title of Journal, volume number* (issue number), inclusive page numbers. URL/doi link

Surname, A. A. (year). *Title of book.* Publisher location: Publisher Name.

Surname, A. A., Surname, B. B., & Surname, C. C. (2000). Title of article. *Title of periodical, volume number* (issue number). URL/web address.

Surname, A.A. (Year, Month). *Title of paper.* Paper presented at name of conference, city, country.

14. **Length**

The paper should be **3,000-7,000 words** including tables, figures, and references.

Author's Guide

The International Journal on Open and Distance e-Learning (IJODeL) welcomes original research articles, book reviews, theories, and best practices pertaining to ODeL worldwide. Articles should be 3,000-7,000 words including tables, figures, and references.

A publishable quantitatively-oriented paper should contain the following:

1. Abstract
2. Objectives
3. Conceptual/Theoretical Framework
4. Methodology
5. Results and Discussions
6. Conclusions and Recommendations
7. References

Go to: Quantitatively-Oriented Journal Article Template

A publishable qualitatively-oriented paper should contain the following:

1. Abstract (with keywords)
2. Introduction
3. Objectives of the Study
4. Relevant Studies or Review of Related Studies
5. Discussions
6. Conclusions
7. Recommendations
8. References

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