



## Dataset on University Lecturers' Competence and Experiences with Online Learning Platforms in Rwanda

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### Abstract

This dataset captures the experiences and self-reported competencies of university lecturers in Rwanda concerning their use of online learning platforms and digital assessment tools. Collected in May 2024, the data reflects responses from lecturers across various academic ranks and years of teaching experience. The survey explores their familiarity and usage of platforms such as Moodle, Google Classroom, and various video conferencing tools, along with their confidence in utilizing digital tools for teaching and assessment. The data is valuable for understanding the challenges and training needs of lecturers in transitioning to online education, offering insights for policymakers, educators, and institutions looking to improve digital learning environments.

**Keywords:** Online Learning, Lecturer Competence, Learning Management System (LMS), Higher Education, Digital Assessment, E-learning, Rwanda

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### Introduction

The COVID-19 pandemic accelerated the adoption of online learning platforms globally, forcing educational institutions to rapidly adapt to digital modes of instruction (Nsengimana et al., 2021). In Rwanda, universities faced significant challenges in this transition, particularly in ensuring that lecturers had the necessary skills and resources to deliver effective online education. This dataset was collected to assess the competencies and experiences of university lecturers in Rwanda as they navigated this shift to online learning.

The primary objective of this dataset is to identify the strengths and gaps in lecturers' use of online platforms and digital tools. By analyzing this data, educational institutions can tailor professional development programs to address the specific needs of their staff, ultimately enhancing the quality of online education in Rwanda.

Sharing data is important for researchers and education stakeholders (Byukusenge et al., 2024) regarding access to tools and replication of analysis. The dataset described in this article is available on the Figshare repository at [10.6084/m9.figshare.26662570](https://doi.org/10.6084/m9.figshare.26662570), and is free for reuse.

## Methodology

The dataset was collected through an online survey conducted in May 2024, targeting university lecturers in Rwanda. The survey was designed to gather information on the following:

**Demographics:** Age range, academic rank, years of teaching experience.

**Usage of Online Platforms:** Frequency of use of platforms such as Moodle, Google Classroom, Webex, Microsoft Teams, and Zoom.

**Competence in Digital Tools:** Self-assessment of competence in using various digital tools for online instruction, including creating meeting links, running online classes, saving and sharing files, and designing online assessments.

**Challenges and Suggestions:** Open-ended responses regarding the challenges faced in using these platforms and suggestions for improving online learning at their institutions.

The respondents included lecturers from different academic ranks, ranging from tutorial assistants to full professors, with varying years of experience. The survey captured their self-reported frequency of using specific platforms and their perceived competence in managing online classes and assessments.

## Data description

The dataset is organized in a structured spreadsheet format, with each row representing an individual respondent's answers and each column corresponding to a specific question or statement from the survey (Ndayambaje & Ndiokubwayo, 2024). File Format:

Rows:

Row 1: Contains headers for each question or data point.

Rows 2-75: Represent the responses from each lecturer.

Columns:

Column A: Timestamp of when the survey was submitted.

Columns B-D: These columns contain demographic information:

Column B: Gender of the respondent.

Column C: Age range (e.g., 31-40, 41-50).

Column D: Academic rank (e.g., Assistant Lecturer, Senior Lecturer).

Column E: Years of teaching experience at the university level.

Columns F-K: These columns capture the frequency of platform usage:

Columns F-G: Usage of Moodle and Google Classroom.

Columns H-L: Competence in independently running online classes using Google Meet, Webex, Microsoft Teams, and Zoom.

Columns M-W: Competence in using digital tools and assessment platforms:

Columns M-O: File storage and sharing preferences (e.g., Google Drive, OneDrive).

Columns P-W: Competence in online instruction using digital tools like blogs, wikis, and gamification.

Columns X-AF: Respondents' overall agreement on stated statements and suggestions:

Columns X-AE: Confidence in conducting various online teaching tasks (e.g., designing quizzes and marking online activities).

Columns AF: Suggestions for improving online learning, focusing on infrastructure, training, and support systems.

Columns AG-AM: Ratings of the existing Learning Management System (LMS) and desired features for improvement, covering aspects like question formats, grading, academic integrity, and user management.

### **Data collection**

We used the convenience sampling technique (Fraenkel et al., 2012) to get participants responses. The first author drafted the survey, and coauthors validated it. Most authors possess experience in digital learning; thus, the administered survey was confidently pursued to detect necessary information and collect reliable data. The data was collected using Google Forms and shared with all targeted participants. The data was collected within two days, 16 and 17 May 2024, after getting almost expected participants responses. Thus, 74 URCE faculty staff participated in this study (Ndayambaje & Ndiokubwayo, 2024). The survey design (Orodho et al., 2016) was chosen to be used due to its quick implementation, easy use, and enormous information it provides.

### **Ethics Statement**

Before conducting this study, a conducive message was passed to participants:

"Dear colleagues,

We are conducting a survey that will help troubleshoot the online learning practices at UR-CE based on the lecturers' self-efficacy perspective. We would be very grateful to get your sincere and swift feedback on the proposed items. For any further inquiries, contact Dr. Irene Ndayambaje at +250788609810, Email: [irenee.ndayambaje@gmail.com](mailto:irenee.ndayambaje@gmail.com)"

Apart from this message, data was collected on a voluntary basis and in an anonymous manner.

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