



# UBUNTUNET-CONNECT 2021 CONFERENCE

## PAPER TITLE

**Analysing the effectiveness of e-learning platforms used for teaching and learning amidst COVID-19 pandemic**

**(A case of Kapasa Makasa and Copperbelt Universities)**

**SUB-THEME 1:  
SUCCESS STORIES IN THE CLASSROOM**

BY

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# Presentation Outline

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- Introduction
- Problem statement
- Objectives and Research
- Interim Literature
- Results
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- Recommendations

# Introduction

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- Since the beginning of 2019, COVID-19 has wreaked havoc across the world and many critical sectors such as education have not been spared.
- According to the report by UNESCO (2020), an estimated population of 800 million learners from around the world were affected as institutions of higher learning were forced to close premature as a measure to mitigate the spread of the pandemic and Zambia was not an exception.
- Zambia recorded its first confirmed COVID-19 case in mid-March, and as of mid-August nearly 10,000 additional cases had been reported and this forced the government to take drastic measures to mitigate the spread of the pandemic.
- In an effort to contain the virus, the government of Zambia took some preventive measures which also included closing schools. This in turn disrupted learning for over 4.2 million students (UNESCO report, 2020).
- It was during this same period that the government of Zambia opted to suspend all physical gatherings including closure of schools and churches.

# Introduction cont...

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- With these measures in place, institutions of higher learning were forced to shift from the tradition face to face mode of teaching and learning to e-learning.
- Various e-learning platforms were utilised by many institutions to ensure continuous learning.
- Prominent among these platforms included Google classrooms, Moodle, Astria e-learning, Zoom, Google meet among many other platforms.
- According to Association for Talent Development, (2020), there are different elements that make up an e-learning programme; these include live or pre-recorded lecture content, videos, quizzes, simulations, games, activities, and other interactive elements.
- Against this background this study was conducted to analyze the effectiveness of e-learning platforms used for teaching and learning amidst COVID-19 pandemic, with a particular focus on Kapasa Makasa and Copperbelt University..

# Problem statement

- The problem of the study emerges that, though there are many forms of e-learning platforms that are in use for teaching and learning during the COVID-19 pandemic, many of them lack the necessary elements such as live or pre-recorded lecture content, videos, quizzes, simulations, games, activities, and other interactive elements necessary for an effective eLearning (Association for Talent Development, (2020).
- In addition, though some platforms such as Moodle do provide some of these features, it is observed that the platform is merely used for supporting learners with reading contents and the administration of assignments without any forms of interactivity.
- According to proponents of e-learning, the teaching and learning must be interactive, in that there is communication between teacher/ lecturer and pupils/students and certain sessions must be delivered live on the platform to allow learners to electronically raise their hands and interact in real time with their instructors (e-learningNC, 2020).
- Against this background, a study was conducted to analyse the effectiveness of e-learning platforms used for teaching and learning amidst COVID-19 pandemic at Kapasa Makasa and Copperbelt Universities..

# Objectives and Research Questions

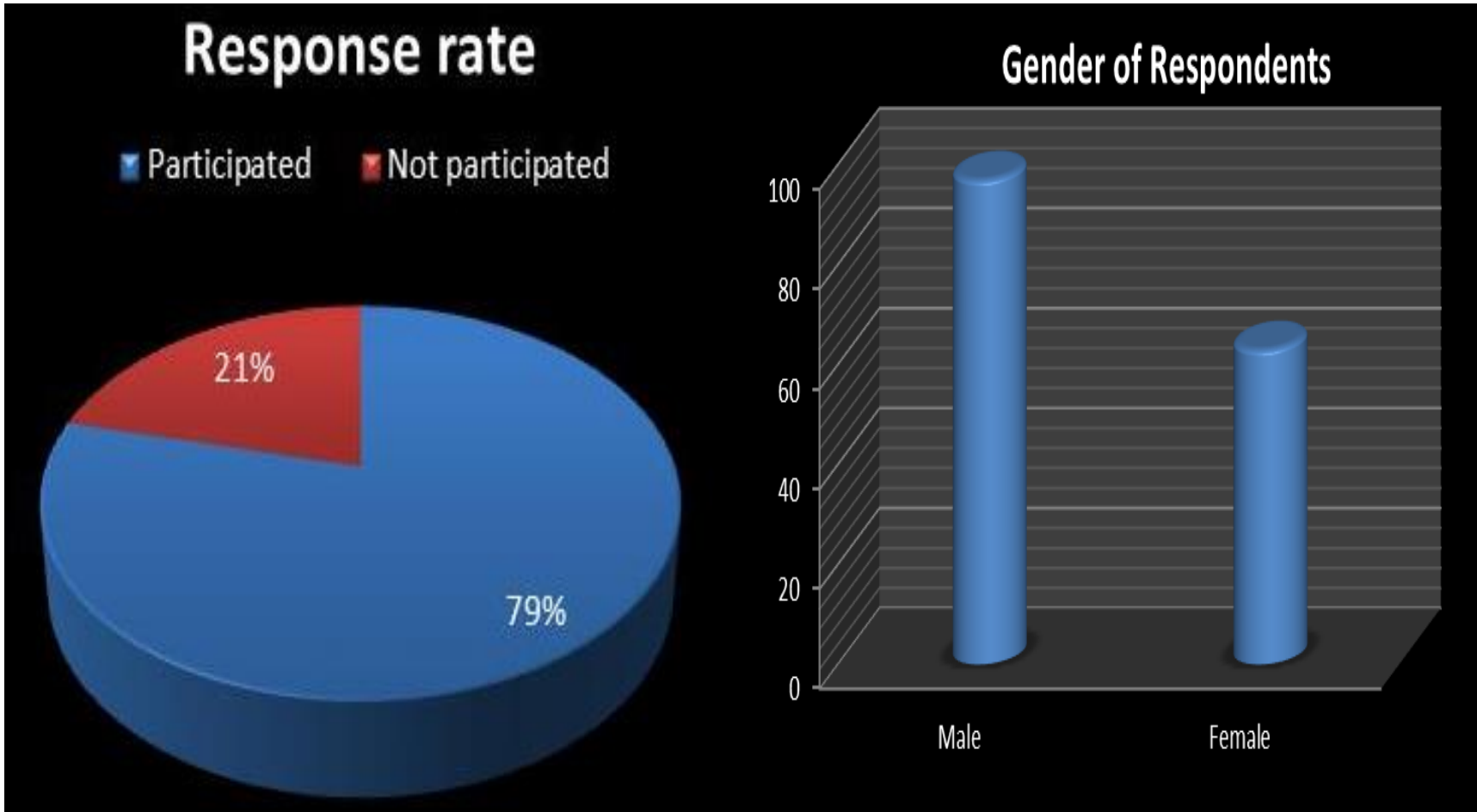
- The objectives of the study included the following:
  - a) To analyse the effectiveness of e-learning platforms used for teaching and learning amidst COVID-19 pandemic at Kapasa Makasa and Copperbelt Universities based on their feature contents.
  - b) To compare the e-learning platforms that are used based on the usability
  - c) Recommend the best platform that can be used by these institutions to provide effective eLearning to its students amid the much anticipated 4th wave of COVID-19
- The research questions of the study were set as follows:
  - a) How effective are the eLearning platforms used for teaching and learning amidst COVID-19 pandemic at Kapasa Makasa and Copperbelt Universities based on their feature contents?
  - b) Which of these platforms is widely used by both lecturers and students?
  - c) 3What platform should be used by the two institutions to provide effective eLearning to its students amid the much anticipated 4th wave of COVID-19?

# Interim Literature Review

- Before analyzing the effectiveness of e-learning platforms used for teaching and learning amidst COVID-19 pandemic, it is important that the study reviews the specific literature in which it applies.
- For example, a study by Azorín (2020) found that COVID 19 blew up education like unprecedented fireworks. The education system has no choice but to accept the imposed digital checkmates, from massive shutdowns of classroom education to voluntary virtualization.
- Carteret al. (2020) have discussed the effect of COVID-19 on classroom education and how e-learning would need to come to the forefront. The concept of self-regulated learning has been introduced along with its components and ways to integrate it with online learning.
- Hollweck and Doucet (2020) have also discussed the effects of COVID-19 on education, but they have created an interesting analogy with supernova. They have compared COVID-19 with a supernova in terms that after a supernova event everything changes for the better and the status quo are broken which was unraveling before.
- In a similar study, Fullan (2020) reiterates that evolution could have wonderful things in store for us - but only if we do our part to shape it and thus hints to take this pandemic positively.

# Results

- 5.1 Response Rate and Gender of the respondents



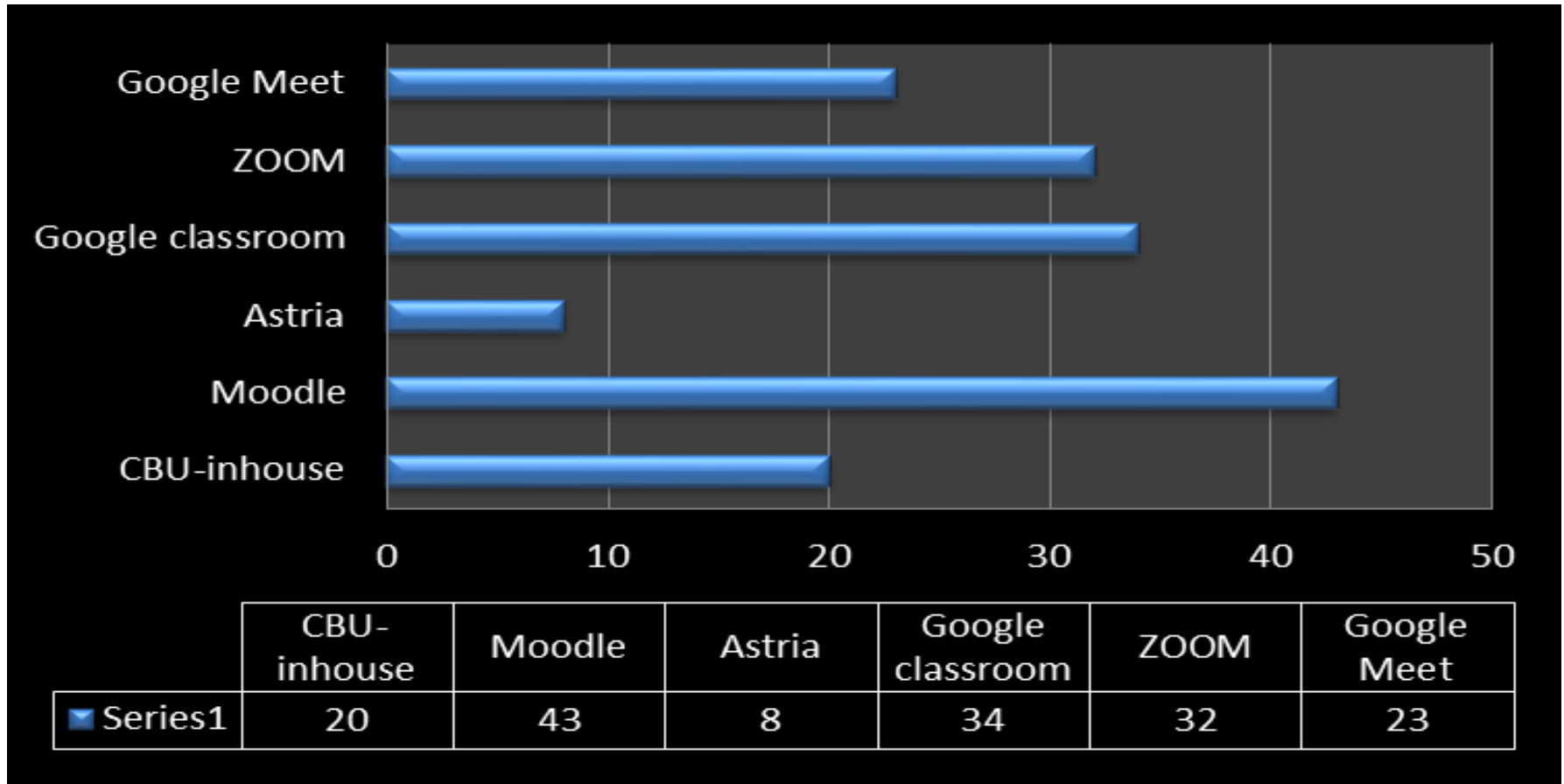
# Results cont....

- **Objective one:** To analyze the effectiveness of eLearning platforms used for teaching and learning amidst COVID-19 pandemic at Kapasa Makasa and Copperbelt .

Platform	No	Live content	lecture	videos	quizzes	Simulations	games activities	Average Mean value
In-house platform	160	2.86		2.79	5.28	3.13	3.98	3.61
Moodle	160	6.02		5.60	5.38	.22	6.22	5.68
Astria	160	3.57		3.52	4.49	3.64	3.84	3.83
Google classroom	160	4.32		3.50	4.62	3.94	3.05	3.88
ZOOM	160	4.91		4.34	2.47	3.85	3.92	3.89
Google meet	160	4.91		4.44	2.42	3.98	3.92	3.14

# Results cont....

- **Objective Two:** To compare the e-learning platforms that are used based on user preference.



- Below are some of the interfaces of the three common eLearning platforms used at these institutions and their features

# Results cont....

- CBU in-house Platform Interface

The screenshot displays a web browser window with two tabs: 'New Tab' and 'Student Information System'. The address bar shows the URL 'cbu.ac.zm/opus/registration/detail.php'. The browser's toolbar includes icons for 'Apps', 'Suggested Sites', 'Web Slice Gallery', 'Imported From IE', 'eResearch Africa | e...', 'Customer Service', and 'G'.

The main content area features a dark blue header for 'THE COPPERBELT UNIVERSITY' with a hamburger menu icon. Below the header is a 'WELCOME' message and a vertical navigation menu with the following items: POLICIES, STUDENTS, TIME TABLE, E-LEARNING, Examination Timetable, REGISTRATION, RESULTS, CURRICULUM, and STAFF MEMBERS.

The central part of the page is titled 'CBU E-LEARNING PORTAL' and contains two main interactive panels:

- Assignment Panel:** Features a yellow sticky note icon with the word 'Assignment' in red. It includes a blue button labeled 'upload assignment', a blue button labeled 'View Assignments Created', and a text prompt: 'Upload Assignments for this Course and set a start,end date and time .'
- Handouts Panel:** Features an icon of a stack of papers labeled 'Handouts'. It includes a blue button labeled 'View Handouts', a blue button labeled 'Handout', and a text prompt: 'Upload a handout for your students.'

# Results cont....

- Google Classroom platform

The screenshot displays the Google Classroom interface for a class named "1ST Year Class-2021" in the "ICT Department". The "Classwork" tab is selected, showing a "Create" button with a dropdown menu. The menu options are: Assignment, Quiz assignment, Question, Material, Reuse post, and Topic. Below the menu, there are two items: "MA110 LECTURE NOTES" and "PH 110 Test 2". The left sidebar shows "All topics" with sub-items "CS 110 Units, 8,9,10,..." and "Measurement". The top navigation bar includes "Stream", "Classwork", "People", and "Grades".

# Results cont....

- Moodle platform

The screenshot shows a web browser window with the URL [cbu.ac.zm/opus/moodle/course/view.php?id=4083&notifieditingon=1](http://cbu.ac.zm/opus/moodle/course/view.php?id=4083&notifieditingon=1). The browser tabs include (3) WhatsApp, Course: Introduction to Data Proc, and a plus sign for more tabs. The browser's address bar and search bar are visible. The main content area shows the Moodle course interface for 'Introduction to Data Processing'. The left sidebar contains navigation links like 'Dashboard / Courses / Directorate' and 'Announcements'. The main content area is partially obscured by a dialog box titled 'Add an activity or resource'. This dialog box has a search bar and tabs for 'All', 'Activities', and 'Resources'. It displays a grid of activity and resource options, each with an icon, a name, and a star icon. The options include: Assignment, BigBlueButton N, Book, Chat, Choice, Database, External tool, Feedback, File, Folder, Forum, Glossary, H5P, IMS content package, Label, Lesson, Page, and Quiz. The Windows taskbar at the bottom shows the search bar, task view, and several application icons (Edge, Mail, File Explorer, OneDrive, Chrome, GIMP, Word). The system tray shows the date and time as 23°C Sunny.

# Conclusion

- The study concludes the following:
- That most of the platforms utilized by lecturers during this period of COVID-19 pandemic from both institutions were farfetched from successfully delivering comprehensive virtual lessons.
- It was further established that, though some platforms such as Moodle, Zoom and Google-meet provides the ability for some interactivity, many lecturers still struggle to effectively utilize them as the only activity is posting of lecture notes and as well as assignments with little or no interactivity.
- In terms of preference for usage by the institutions, Moodle and Google classroom platforms is the preference because of its flexibility.

# Recommendations

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- Based on the above conclusion, the study recommended that deliberate measures should be put in place by the institutions to acquire and train their members of staff on how to use these platforms.
- It was further recommended that, university management at both institutions should compel their members of the academic staff to strive and get the basic skills needed to effectively deliver their lessons using these platforms.
- In the same manner, students should be trained or provided with user manuals in order to allow them use the system properly during the much anticipated fourth wave of COVID-19.



**THE END**

