







COVID-19 REMOTE LEARNING ENVIRONMENT: UNDERSTANDING THE DIGITAL DIVIDE

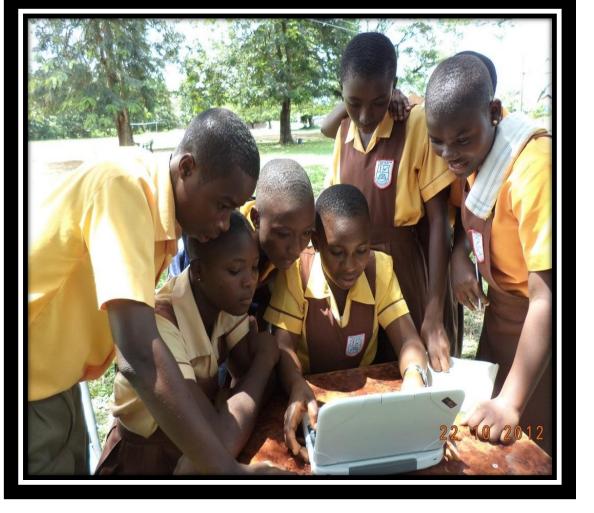
Presented by
Lamech Angíla
Dean of Students, KCA University

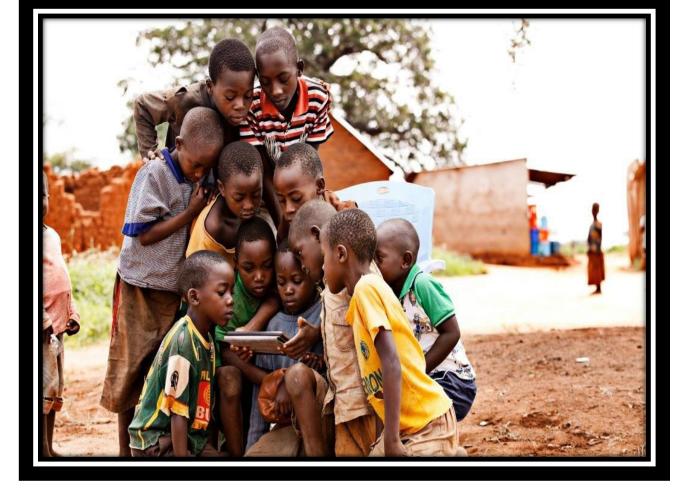
Global Summit 2022

Outline

- Introduction
- Methodology
- Findings and Discussions
- Conclusion and Implications







Accessibility, Competency, Experiences, Acceptance and Implications



Introduction

• In the wake of COVID-19 pandemic, the education sector globally was thrown into a whirlpool leaving a large proportion of **learners not only vulnerable** but also **technologically disadvantaged**.

• For this reason, it was imperative to seek a deeper understanding of the covid-19 remote learning environment by way of illuminating the digital gap in terms of accessibility, competency, experiences, and students' acceptance.

- In Kenya, the government shut down institutions of learning on March 15, 2020.
- This lockdown of schools, colleges and universities effectively disrupted over 15.2 million learners countrywide (UNESCO, 2020).
- Consequently, this led to online learning becoming a crucial delivery medium to minimize the gap between the lecturer and the learner.



- KCA University has been proactive in formulating and implementing practical actions to contain the new educational demands with respect to student accessibility.
- The study examined the variables that were essential in making remote learning environment suitable for the learners.
- The variables in this study were; students' accessibility, self-efficacy belief and acceptance of remote engagement.
- This study therefore reflects on salient lessons from the KCA University response to improving student accessibility.

Methodology

- An online survey was conducted to assess how self-efficacy belief, learning experiences and availability of online learning tools relate to acceptance of covid-19 remote learning environment.
- The study embraced nested (embedded) mixed method approach.
- The study targeted all KCA University students who were undertaking their studies under the remote engagement plan.
- A 46 item semi-structured questionnaire was electronically administered via the KCA University Web.



Findings and Discussion

- A total of 426 students (Male = 205; Female = 211 and Prefer not to state gender = 10) participated in the study.
- Majority (82.4percent) of the students were within the 18 28 year age group while 12.0percent of the students fell under the 25-34 year category.
- When categorised by year of study, 21.8percent and 48.1percent of students were in years 1 and 2 of study.
- Majority **(83.3percent)** of the students who participated in the study were drawn from the KCA **University Ruaraka (Main) Campus**, the rest were spread across the regional campuses (Buru Buru/KCA Technical College 0.2percent; Kisumu Campus 4.5percent; Kitengela Campus 4.7percent and Town Campus 7.3percent.

Access to remote learning environment

- The current study assessed accessibility to remote learning environment via three fundamental aspects namely;
 - * availability of electronic devices and tools necessary to support remote learning
 - *availability of internet connectivity
 - *reliability of internet connectivity.



Availability Of Electronic Devices And Tools Necessary to Support Remote Learning

Devices used by students to access remote learning	Percent
Laptop	31.2
Desktop	0.2
Smart mobile phone	67.1
Cyber	0.5
<u>Television</u>	0.2
No Device	0.7
<mark>Total</mark>	100.0



Availability of internet connectivity

Internet service providers (ISPs)	Percent
Safaricom	55.9
<mark>Airtel</mark>	14.8
<mark>Telkom Kenya</mark>	10.8
<mark>Zuku</mark>	<mark>7.7</mark>
<mark>Jamii Telkom-faiba</mark>	5.9
Others	<mark>4.9</mark>
Total Total	100



Reliability of internet connectivity

Connectivity	
Connectivity	Percent
Poor - slow speed and unreliable	10.3
Good - Average speed and mostly reliable	54.7
Excellent - High speed and reliable	<mark>35.0</mark>
<mark>Total</mark>	100.0



- It is clear that though majority of students are able to access the internet, reliability of internet connectivity among other technological challenges remains a hindrance to access.
- It is therefore critical for all who engage students online to be cognizant of the many home aspects that can and do negatively interfere with effective teaching and learning from home situations.



ONLINE LEARNING SELF-EFFICACY BELIEF

Online Learning self-efficacy belief	Percent
Low	<mark>6.3</mark>
Moderate	56.1
<mark>High</mark>	<mark>37.6</mark>
<mark>Total</mark>	100.0



Students 'Remote Learning Experience

Online learning experience	Percent
Poor - needs improvement	<mark>21.9</mark>
Average - meets expectation	<mark>59.0</mark>
Good - Goes beyond expectation	<mark>19.1</mark>
Total Total	100.0



- We quote two students, who wrote;
- "I feel that remote engagement has not served as well as a mode of learning. This is because it is quite hard to learn without proper illustrations from lecturers, some lectures don't explain points well rather they just read through their notes and this leaves many of us hanging on some points. ... Presentations which are a factor that helps us as students grasp content hasn't been done well. ... Finally access to notes through the Moodle hasn't been easy, making it difficult for us to study. ..."
- "... The e-learning is not comprehensive, it is hard to comprehend since much of what I learn requires practical examples... it is unfortunate the approach is really theoretical and the lecturer assumes we have understood ... Classes aren't detailed compared to face to face learning ... we can hold discussions but we don't. A very worse scenario is when you submit work through the lecture's email and ignores and he insists that you submit the work using the moodle yet there is poor or no network connectivity..."



Students' level of acceptance of remote engagement

Level of acceptance of remote engagement	Percent		
Low	<mark>36.6</mark>		
<mark>Moderate</mark>	<mark>29.1</mark>		
<mark>High</mark>	<mark>34.3</mark>		
<mark>Total</mark>	100.0		



Availability of internet and level of acceptance of remote engagement

Do you have access to internet at home?	Level of acceptance of remote engagement			
	Low	<mark>Moderate</mark>	<mark>High</mark>	Total
<mark>No</mark>	<mark>29</mark>	<mark>16</mark>	<mark>7</mark>	<mark>52</mark>
Yes	127	108	139	374
<mark>Total</mark>	<mark>156</mark>	<mark>124</mark>	<mark>146</mark>	<mark>426</mark>



Reliability of internet connectivity & acceptance of remote engagement

Reliability of internet	Level of acceptance of remote				
connectivity	engagement				
	Low	Moderate	High	Total	
Poor - slow speed and unreliable	<mark>7</mark>	<mark>11</mark>	<mark>26</mark>	<mark>44</mark>	
Good - Average speed and mostly reliable	<mark>57</mark>	<mark>78</mark>	<mark>98</mark>	<mark>233</mark>	
Excellent - High speed and reliable	<mark>92</mark>	<mark>35</mark>	<mark>22</mark>	<mark>149</mark>	
<mark>Total</mark>	<mark>156</mark>	<mark>124</mark>	<mark>146</mark>	<mark>426</mark>	

Students self-efficacy belief and acceptance of remote engagement

Remote learning experience	Level of acceptance of			
	1	<mark>remote enga</mark>	gemer	ıt
	Low	Moderate	High	<mark>Total</mark>
Poor - Needs improvement	<mark>75</mark>	13	<mark>5</mark>	<mark>93</mark>
Average - Meets expectation	<mark>79</mark>	100	71	<mark>250</mark>
Good - Goes beyond expectation	O	11	<mark>70</mark>	81
<mark>Total</mark>	<mark>154</mark>	<mark>124</mark>	146	<mark>424</mark>

Conclusion

- It is clear that majority of the students have devices needed to connect to the remote learning environment with the smartphone being the device of choice.
- Even though access to network seems to be not a big problem, what remains daunting to many is the quality and reliability of internet connectivity.
- In addition, power outages, high-priced internet bundles and covid-19 economic meltdown have disenfranchised many from beneficial and gratifying access to the remote learning environment.
- There is a significant (though low) association between geographical location and reliability of internet connectivity



Implications

- There is an urgent need to evaluate the quality of learning experiences that the students are exposed to on the remote engagement environment.
- It is essential to carry out an audit of online teaching and learning methodologies applied by lecturers. This may help establish existing remote teaching competency gaps among students and staff.
- faculty proficiency in online customer care and effective communication appears to be vital requirements.
- There is need for the management to reexamine administration of online continuous assessment strategies.

- This study therefore reflects on salient lessons from the KCA University response to improving student accessibility.
- I trust that these lessons will be relevant for other institutions of learning in the region and globally that are facing disruptions of their education systems due to the COVID-19 health crisis.





Research Presentation End