

Lecturers' Preparedness and Technology Use in Post-COVID-19 Online Teaching and Learning in Clinical Medicine Programs at KMTC in Kenya

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Abstract

The outbreak of the Covid-19 pandemic significantly impacted the education sector which subsequently adopted online learning programs for continuity. In the post-pandemic era, institutions like the Kenya Medical Training College (KMTC) transitioned to hybrid models, making the integration of technology a permanent pedagogical fixture. Despite this digital shift, a visible disconnect exists between the deployment of ICT tools and the actual delivery of clinical medicine coursework. Concerns persist regarding whether lecturers are institutionally and personally prepared to facilitate virtual classrooms effectively without compromising the quality of healthcare training. Therefore, this study evaluated lecturers' preparedness and technology use in Post-COVID-19 Online Teaching and Learning in Clinical Medicine Programs at KMTC in Kenya. The study was grounded in the Theory of Organizational Readiness for Change (TORC) and the Technology Acceptance Model (TAM). A mixed-methods research design was adopted, integrating both quantitative and qualitative approaches. The target population comprised all 43 KMTC campuses offering clinical medicine courses, while the study population included 20% (9 campuses: Nairobi, Embu, Nyeri, Nakuru, Mombasa, Machakos, Eldoret, Kisumu, and Kakamega). Participants included 36 lecturers and 359 final-year diploma clinical medicine students. A census approach was used to include all lecturers, while a sample of 189 students was selected using proportionate and systematic random sampling. Data were collected using structured 5-point Likert scale questionnaires, interview schedules for lecturers, and focus group discussion. A pilot study was conducted at KMTC Mosoriot Campus to refine the instruments. Content validity was established through expert review by university supervisors to ensure item relevance and clarity. Internal consistency was measured using Cronbach's Alpha, yielding

coefficient of 0.878 exceeding the 0.70 threshold. Quantitative data were analyzed using SPSS version 25.0 through descriptive statistics (means, standard deviations) and inferential statistics (Pearson correlation and multiple regression). Qualitative data were analyzed thematically using NVivo version 14. Findings indicated a positive but weak correlation ($r = 0.19$, $p > 0.05$) between technology modes and lecturer preparedness. Regression analysis revealed that Modes of Technology had a stronger significant influence on teaching effectiveness ($\beta=0.407$, $p<0.05$) than Lecturer Preparedness ($\beta=0.116$, $p<0.05$). Qualitative data highlighted challenges such as internet instability, a preference for mobile devices over laptops, and a lack of specialized training for senior faculty. The study concludes that while lecturer readiness is essential, the availability and suitability of technological infrastructure are the primary determinants of successful online clinical training at KMTC. For practice, KMTC should implement peer-mentorship programs to support senior staff; for policy, the college should institutionalize mandatory continuous digital pedagogy training and prioritize high-speed campus internet.

Keywords: Lecturer preparedness, technology use, online learning, clinical medicine, KMTC, Kenya

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Introduction

The novel coronavirus disease (COVID-19) was first reported in Wuhan, China, in late 2019 and rapidly spread across continents, becoming the fifth documented global pandemic since the 1918 influenza outbreak (Ali, Ahmad & Husain, 2020; Kelly, 2020). Africa recorded its first confirmed case on 14 February 2020 in Cairo, Egypt, followed shortly by cases in Algeria and other countries, prompting governments to introduce

stringent containment measures to limit transmission (Ayodele, Adeyemi & Adebuseyi, 2024; Ihekweazu & Agogo, 2020). Kenya reported its first COVID-19 case in early 2020, marking the beginning of widespread public health interventions that affected all sectors, including education (Mbatia & Nyachieo, 2025). In response to the escalating crisis, the World Health Organization declared COVID-19 a Public Health Emergency of

International Concern on 30 January 2020, signalling its far-reaching social and economic implications, particularly for education systems worldwide (Zhang et al., 2020; Bozkurt et al., 2020).

As part of pandemic control measures, learning institutions globally were closed at the peak of the outbreak, disrupting conventional face-to-face teaching and learning (Bozkurt et al., 2020). Medical training institutions were equally affected, with students sent home to reduce infection risk despite the practice-intensive nature of medical education (Gachanja, Mwangi & Gicheru, 2021). To support continuity of learning during institutional closures, UNESCO and national governments advocated for rapid adoption of online learning approaches. Online learning is commonly defined as computer-based instruction delivered through software that relies on internet services to facilitate teaching and learning interactions (Ogunleye et al., 2023).

Contemporary online education uses a range of digital devices, including desktop computers, laptops, tablets and smartphones, giving rise to the concept of mobile learning in educational literature (Olabisi, Orijji & Abe, 2024). Online learning generally takes two main forms: synchronous and asynchronous. Synchronous learning allows real-time interaction between lecturers and students through platforms such as virtual classrooms and video conferencing tools, while asynchronous learning involves delayed interaction through recorded lectures, emails, discussion forums, and uploaded learning materials that students can access at their own pace (Wahab et al., 2022). The effectiveness of these modalities depends substantially on lecturers' ability to select, manage, and integrate digital tools into teaching practice.

E-learning has been associated with several pedagogical benefits,

including promotion of learner autonomy, self-confidence, and responsibility for learning. Studies show that adoption of e-learning can support collaborative and active learning, increase learner motivation, improve access to information resources, deepen understanding, and support creative thinking and communication (Khan, Hasan, & Clement, 2012). In medical education, online learning has demonstrated added value through improved accessibility of instructional content, ease of updating and standardising materials, cost efficiency, accountability, and support for active learning approaches (Saboktakin, 2024). Students can acquire foundational knowledge and confidence through online platforms before exposure to real or simulated patients, and online approaches have been applied successfully in teaching evidence-based medicine and facilitating interprofessional education (Dzhumatovich & Salimrouhi, 2025).

Before the COVID-19 pandemic, teaching and learning in medical education largely relied on face-to-face methods such as lectures, demonstrations, role plays, and clinical practice (Gachanja et al., 2021). During and after the pandemic, e-learning became widely adopted across medical training institutions globally, although its implementation in low- and middle-income countries remained relatively nascent. Evidence on the suitability and sustainability of online learning platforms for medical education in resource-constrained settings remains limited. In Kenya, the learning experiences associated with the shift to online and blended learning modes in medical training institutions have received limited scholarly attention, despite concerns from stakeholders regarding continued use of digital instruction and evidence that medical students' experiences and

perceptions of online learning vary across contexts.

Several studies identify technological constraints as major barriers to effective online learning in medical education, including inadequate digital infrastructure, limited access to devices, unreliable internet connectivity, and insufficient technical support (o'Doherty et al., 2018; Almahasees & Jacomard, 2020; Mondal & Mondal, 2025). The medical curriculum presents additional complexity due to its rigorous structure and emphasis on clinical competence, making adaptation to online environments challenging. Difficulties with assessment and evaluation in online medical education have also been reported, including postponed or cancelled examinations due to system disruptions and concerns about academic integrity (Egarter, Mutschler & Brass, 2021). These challenges point out the key role of lecturers' preparedness and effective technology use in sustaining instructional quality.

In Kenya, most medical training colleges adopted online and blended learning approaches during and after the pandemic, aligning with global trends in medical education (Gachanja et al., 2021). The Kenya Medical Training College (KMTC), as the country's largest public medical training institution, offers a wide range of programs, including clinical medicine, nursing, pharmacy, medical imaging sciences, health records and information, and medical engineering (Amtamwa, 2019). During the pandemic, KMTC transitioned to distance and e-learning modalities, though studies indicate that implementation faced multiple challenges related to infrastructure, digital capacity, and instructional support.

Following the pandemic, many medical training institutions did not fully return to exclusive face-to-face

instruction but continued with blended learning models that integrate online and in-person teaching (Gachanja et al., 2021). However, lecturers and students have reported persistent challenges, including increased workload, burnout, limited ICT resources, unreliable internet access, power interruptions, and anxiety related to academic outcomes (Kiamba, 2024). These factors have implications for lecturers' preparedness, confidence, and sustained use of online teaching technologies. Given the complexity of training healthcare professionals, maintaining instructional quality requires careful examination of how lecturers adapt to digital teaching demands.

Despite the continued use of online teaching at KMTC, limited empirical evidence exists on lecturers' preparedness and patterns of technology use in post-COVID-19 clinical medicine programs, particularly among diploma students. Apart from the study by Gachanja et al. (2021), which focused on higher diploma research training, few studies have examined this issue within KMTC. Against this background, the present study assessed lecturers' preparedness and technology use in post-COVID-19 online teaching and learning in the Department of Clinical Medicine at selected KMTC campuses in Kenya.

Theoretical Framework

The study was guided by the theory of organizational readiness for change and the technology acceptance model.

Theory of Organizational Readiness for Change

The Theory of Organizational Readiness for Change (TORC) was developed by Bryan J. Weiner and formally articulated in 2009. The theory defines organizational readiness as a shared psychological state in which members of an organization feel committed to

implementing a change and confident in their collective ability to carry it out (Weiner, 2009). Unlike approaches that focus on individual attitudes or skills, TORC frames change implementation at the organizational level, viewing it as a collective process that depends on coordinated action across members.

Weiner conceptualizes organizational readiness as comprising two core components: change commitment and change efficacy. Change commitment refers to the shared resolve among organizational members to pursue a specific change, while change efficacy reflects their shared belief in the organization's collective capability to implement that change successfully. According to the theory, these components depend on how strongly members value the change and how they assess key implementation conditions, including task demands, availability of resources, and situational factors such as leadership support and institutional context (Weiner, 2009). When organizational readiness is high, members are more likely to initiate change, sustain effort, cooperate with one another, and persist despite challenges, leading to more effective implementation outcomes. TORC integrates both structural and psychological dimensions of readiness. It accounts for tangible factors such as infrastructure, training, and workload while also addressing shared perceptions, motivation, and confidence. The theory further argues that readiness does not arise from a single universal strategy, but from context-specific combinations of actions that align organizational conditions with the demands of the change being implemented (Weiner, 2009). The TORC is used to evaluate how the shared resolve (change commitment) and collective confidence (change efficacy) of clinical medicine lecturers influence their transition from traditional

bedside instruction to digital teaching models at KMTC. The study applies this framework to analyze how lecturers' appraisal of task demands and resource availability determines their actual preparedness and consistent use of synchronous and asynchronous technologies in a post-pandemic environment.

Technology Acceptance Model

The Technology Acceptance Model (TAM) was originally developed by Fred Davis in 1985 and formally introduced in 1989 as an adaptation of the Theory of Reasoned Action (TRA). The model provides a theoretical foundation for understanding the psychological factors that lead users to either accept or reject computer-based information systems (Davis, 1989). TAM posits that an individual's behavioral intention to use a system is primarily determined by two specific beliefs: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). Perceived usefulness is defined as the degree to which a person believes that using a particular system would enhance their job performance, while perceived ease of use refers to the degree to which a person believes that using a particular system would be free of effort (Venkatesh & Davis, 2000).

In this study, lecturers' decisions to adopt and integrate digital tools such as virtual classrooms and learning management systems are likely influenced by whether they believe these technologies will enhance their teaching effectiveness (perceived usefulness) and how easy these tools are to use (perceived ease of use). TAM helps interpret how these beliefs shape lecturers' intentions and actual technology use in their instructional practices.

Methodology

The study adopted a mixed methods research design, integrating quantitative and qualitative approaches within a single investigation. Mixed methods support comprehensive inquiry since quantitative data provide generalizable patterns, while qualitative data offer contextual depth and explanatory insight.

The study population consisted of all final-year diploma clinical medicine students and lecturers from nine selected KMTC campuses, representing 20% of the 43 campuses offering clinical medicine courses in Kenya (Nardi, 2018). The campuses included Nairobi, Embu, Nyeri, Nakuru, Mombasa, Machakos, Eldoret, Kisumu, and Kakamega. Only final-year ordinary diploma students were included, as they had experienced learning during

and after the COVID-19 pandemic. Students who completed most of their studies pre-pandemic, as well as technicians, hospital-based instructors, and higher diploma students, were excluded.

The total population comprised 359 students and 36 lecturers. The student sample size was determined using Yamane's (1967) formula, resulting in 189 students, while all 36 lecturers were included through a census approach. Proportionate sampling was used to distribute the student sample across campuses, as shown in Table 1. Systematic random sampling was applied to select students: participants were assigned numbers, and those with odd numbers were included to ensure fair representation within classes. Lecturers who consented were included in the study.

Table 1: Distribution of Lecturer Sample Size

KMTC Campus	Lecturers		Students	
	Population	Sample Size	Population	Sample Size
Nairobi	5	5	51	27
Embu	3	3	29	15
Nyeri	3	3	32	17
Nakuru	5	5	48	25
Mombasa	4	4	39	21
Machakos	4	4	42	22
Eldoret	4	4	40	21
Kisumu	4	4	40	21
Kakamega	4	4	38	20
Totals	36	36	359	189

A structured, closed-ended questionnaire was administered to students using a drop-and-pick-later method. Items were scored on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). Lecturers were interviewed using a semi-structured guide to obtain in-depth qualitative data on their experiences and preparedness for online teaching. Each interview lasted approximately 20 minutes, conducted by

the researcher, and allowed for clarification and follow-up questions to enhance data richness. FGDs were conducted with groups of 8–10 students per campus, moderated by the researcher, and lasted about 45 minutes. Instruments were pilot tested at KMTC Mosoriot campus (not included in the final sample) with 13 students and 1 lecturer.

The pilot helped identify ambiguous items, correct errors and

improve clarity and relevance. Content validity was established through expert review by the researcher's supervisors, who evaluated whether the items adequately measured the intended constructs. Recommendations were incorporated by rewording ambiguous questions, removing irrelevant items, and including missing content, improving the instruments' accuracy and meaningfulness for the actual study.

Reliability was assessed using the internal consistency method. Data from the pilot study were subjected to Cronbach's alpha analysis, with a threshold of $\alpha \geq 0.70$ considered acceptable for social science research (Tavakol & Dennick, 2011). Table 2 summarizes the reliability results.

Table 2: Instrument Reliability Results

Variable	Number of Items	Cronbach's Alpha
Modes of Technology	9	0.891
Online Teaching and Learning	6	0.865
Overall Reliability	15	0.878

All constructs and the overall instrument recorded reliability coefficients above 0.70, confirming suitability for the study. Quantitative data

from questionnaires were checked, cleaned, and coded before analysis using SPSS version 25.0. Qualitative data from interviews and FGDs were similarly cleaned and coded, then analyzed using NVivo version 14. Descriptive statistics, including frequencies, percentages, means, and standard deviations, summarized the data. Inferential analysis applied Pearson's Product-Moment Correlation Coefficient to test bivariate relationships and multiple regression analysis to examine joint effects of independent variables on the dependent variable. Qualitative data underwent thematic content analysis aligned with the study objectives using NVivo software.

Results and Discussion

Response Rate

Table 3 presents the response rate for the questionnaires administered to students and lecturers. The overall response rate of 76.2% was satisfactory and within the acceptable range for survey research, as Sataloff and Vontela (2021) indicate that a response rate of at least 70% is considered acceptable. The high response rate facilitated clarification of respondents' questions during data collection, while care was taken to avoid introducing bias. Instruments that were not returned were excluded from the analysis.

Table 3: Response Rate

Respondent	No. of Instruments Issued	No. of Instruments	
		Returned	Response Rate (%)
Students	189	141	74.6
Lecturers	36	28	77.8
Overall	225	169	76.2

Background Information of the Respondents

The study sought to determine the background information of the respondents in order to give some basic insight about the respondents. The

characteristics considered in the study were; the age and gender for the students and the age, gender, level of education and length of time they had worked in the KMTC. The findings on these are summarized in Table 4.

Table 4: Demographic Characteristics of the Respondents

Respondents	Variable	Category	Frequency	Percentage(%)
Students	Gender	Male	82	58
		Female	59	42
	Age (in years):	20	107	76
		21-30	27	19
		31-40	7	5
Lecturers	Gender	Male	16	57
		Female	12	43
	Age (in years):	21-30	2	7
		31-40	10	36
		41-50	11	41
		Above 50	5	16
		Level of Education	Higher Diploma	11
		Undergraduate	9	33
		Masters	6	22
		PhD	2	6
	Years in the College	1-5.	8	29
		6-10.	10	37
		16-20	5	17
21-25		3	10	
	26>	2	7	

Table 4 shows that most of the students who participated in the study were male (58%). Further, most of them were aged 20 years (76%). Regarding the lecturers, most of the lecturers were male (57%) and were aged between 41 and 50 years (41%). Further, majority had university level education as their highest level of education (61%). There were also indications that most of the lecturers (37%) had worked in the college for between 6 and 10 years. This was important in the discharge of their duties and was also important in relation to the study problem, that is, they could be relied on to provide valid responses on the issues raised in this study. According to Olaison et al., (2018) the length or the durability of work experience plays a major role on how

managers and key decision makers and implementers make decisions.

Descriptive Analysis

Mode of Technology and Online Teaching and Learning at KMTC

The first objective of the study was to analyze the influence of Mode of technology effectiveness on online teaching and learning at KMTC. A five-point Likert scale was used to rate responses of this variable and it ranged from; 1 = strongly disagree to 5 = strongly agree and was analyzed on the basis of the mean score and standard deviation. The closer the mean score on each item was to 5, the more the agreement concerning the statement. The findings are presented in Table 5.

Table 5: Mode of Technology Effectiveness in Online Teaching and Learning at KMTC

Statement	SA %	A %	N %	D %	SD %	Mean	St. Dev
I have access to a digital device that can fully support online learning	11	54	6	20	9	3.6	0.576
I prefer using a laptop for online learning	23	43	14	11	9	3.38	0.774
I prefer using my mobile phone for online learning	17	62	8	11	2	3.81	0.835
I have to keep downloading and updating software on my devices to support online learning	20	38	33	6	3	3.66	0.946
Most of the online learning we do is direct	17	57	20	4	2	3.83	0.838
We are not able to get recorded versions of the online learning sessions	5	43	43	8	1	3.43	0.764
Sometimes our lecturers send to us prerecorded lectures on our emails, student portals and social media applications or via links	11	11	20	51	7	2.68	1.314
The internet access at home is usually challenging	11	58	13	13	5	3.57	0.809
Access to internet on campus is better than outside the campus	11	15	14	54	6	2.71	1.273
Aggregate						3.434	0.870

The results in Table 5 indicate that most students agreed that they have access to a digital device that can fully support online learning (mean = 3.6). However, fewer students agreed that they prefer using a laptop for online learning (mean = 3.38). Most of the students instead prefer using my mobile phone for online learning (mean = 3.81). Further, most students indicated that they have to keep downloading and updating software on their devices to support online learning (mean = 3.66). The results also indicate that most of the online learning is direct (mean = 3.83), and fewer students agreed that they were not able to get recorded versions of the online learning sessions (mean = 3.43). Majority of the students also disagreed that their lecturers sometimes send to them prerecorded lectures on their emails, student portals and social media applications or via links (mean = 2.68). Students also indicated that the internet access at home is usually

challenging (mean = 3.57). Also, the students disagreed that access to internet on campus is better than outside the campus (mean = 2.71). The results also show that the aggregate mean, $M = 3.434$; $SD = 0.870$, was low and the standard deviation below 1 implying that most of the respondents had low agreement with the statements regarding the effectiveness of mode of technology on online teaching and learning at KMTC. These findings aligns with those of Kirongo, Bundi and Kitaria (2023) who examined awareness and attitudes toward educational technologies (EdTech) in Kenyan higher education during the COVID-19 pandemic. They found that 70% of students were aware of e-learning platforms and agreed that EdTech improved teaching and learning, though implementation challenges and infrastructure gaps persisted. Owidi et al. (2023) also assessed online learning infrastructure in Kenyan public universities

post-pandemic. Their study revealed insufficient ICT infrastructure and limited access to online resources, negatively affecting both students and lecturers. Similarly, Matere and Oranga (2025) explored the benefits and challenges of technology-enhanced learning in Kenyan higher education. While students acknowledged increased access to information and collaborative learning, digital literacy gaps, device limitations, and connectivity issues remained significant barriers. This reinforces KMTC findings, where students preferred mobile devices for online learning but faced difficulties with updates and software management. Further, Tarus, Gichoya, and Muumbo (2024) investigated e-learning implementation challenges in Kenyan public universities. Limited infrastructure, weak internet, and low digital literacy were cited as major constraints, aligning closely with KMTC responses regarding inconsistent access to online platforms and prerecorded lectures. Omito (2024) examined institutional readiness for online education during COVID-19 in Kenyan universities. The study highlighted underutilization of learning management systems (LMS) and variable staff preparedness for online teaching, reflecting KMTC students' reports of mostly direct online sessions and minimal prerecorded content.

From the interviews and FGDs with lecturers, it emerged that the modes of technology still presented considerable challenges. This was captured in statements such as, *"I think online teaching and learning needs to be done using state of the art devices"* *"We are not at the same level of technology as a class and clearly some are struggling"* *"Our campus' ICT is not fully supportive"* *"Internet connectivity is still a perennial challenge for online teaching and learning"*

Lecturers' Preparedness in Online Teaching and Learning in KMTC

The second objective of the study was to determine the influence of Lecturers' preparedness on online teaching and learning in the department of clinical medicine in KMTC. A five-point Likert scale was used to rate responses of this variable and it ranged from; 1 = strongly disagree to 5 = strongly agree and was analysed on the basis of the mean score and standard deviation. The findings are presented in Table 6.

The findings show that most lecturers are very competent in using online teaching and learning tools as indicated by most students who agreed (mean = 3.52). However, fewer students agreed that their lecturers sometimes help them troubleshoot when they are experiencing challenges with their online tools (mean = 3.43). There were indications that most lecturers are able to effectively monitor online learning progress (mean = 3.62) and that lecturers always try to make the online classes as involving as possible so as to ensure all students are active (mean = 3.86). Further, the lecturers are able to effectively monitor online exams so as to prevent cheating (mean 3.79). Also, most students agreed that all essays are checked for plagiarism (mean = 4.00). There were also indications that some of the lecturers teach online but administer exams physically (mean = 4.04). The results also show that the aggregate mean, $M = 3.751$; $SD = 0.824$, was high and the standard deviation below 1 implying that most of the respondents moderately agreed with the statements regarding Lecturers' preparedness for online teaching and learning in the department of clinical medicine in KMTC. A descriptive cross-sectional study at a Kenyan public university by Wekullo et al. (2023) found that both faculty and students perceived their institutions and faculty themselves as

largely unprepared for the sudden shift to online teaching. Faculty members lacked adequate training, sufficient time to design online courses, and robust support systems for using virtual technologies, which hindered effective engagement and interaction with students. This mirrors KMTC findings where lecturers' digital competence and ability to troubleshoot e learning tools were moderate rather than high. Kimutai, Wawire and Gathara, (2025) study on trends in lecturers' use of e learning platforms across selected Kenyan universities showed high uptake of digital platforms (e.g., 92.8% in one institution), but also highlighted that preparedness and use were influenced by institutional policies, digital skills, and teaching

experience. Majority of lecturers engaged in blended modes, yet the depth of online instructional design varied, reflecting KMTC students' varied perceptions of lecturer competence in online facilitation. Ochogo et al. (2014) in their study noted that institutional support significantly affects lecturers' preparedness to deliver e learning, with findings that training in specific software tools and adequate resource allocation were key to improving lecturers' confidence and instructional effectiveness. This aligns with the KMTC, where student responses indicated that lecturers were only somewhat competent with online tools.

Table 6: Lecturers' Preparedness in Online Teaching and Learning

Statement	SA %	A %	N %	D %	SD %	Mean	St. Dev
Our lecturers are very competent in using online teaching and learning tools	19	46	13	12	10	3.52	0.784
Our lecturers sometimes help us troubleshoot when we are experiencing challenges with our online tools	23	36	11	20	10	3.43	0.96
Our lecturers are able to effectively monitor our online learning progress	11	55	21	11	2	3.62	0.859
Lecturers always try to make the online classes as involving as possible so as to ensure all students are active	24	52	12	10	2	3.86	0.714
Our lecturers are able to effectively monitor online exams so as to prevent cheating	22	49	18	8	3	3.79	1.001
All essays are checked for plagiarism	31	46	15	8	0	4.00	0.621
Some of our lecturers teach online but administer exams physically	31	49	17	1	0	4.04	0.831
Aggregate						3.751	0.824

Interviews and FGDs with the lecturers revealed some capacity gaps which needed to be addressed. This were evidenced in statements such as, "Online T&L is rapidly evolving and I don't think we are quite prepared for it training wise" "For us old lecturers using online teaching and learning without assistance is quite a

challenge" "We need a modernized ICT department in our campus so that we can build more capacity" "We need to factor in lecturer online teaching and learning training in our budgets and plans so as to facilitate regular training and preparedness"

Correlation Analysis

The study conducted a correlation analysis to examine the relationship between modes of technology and

lecturers' preparedness for online teaching and learning in clinical medicine programs at KMTC. The results are summarized in Table 7.

Table 7: Results of the Correlation Analysis

		Modes of Technology	Lecturers' Preparedness
Modes of Technology	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	141	
Lecturers' Preparedness	Pearson Correlation	0.19	1
	Sig. (2-tailed)	0.132	
	N	141	141

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

The findings indicate a positive but weak correlation ($r = 0.19$, $p = 0.132 > 0.05$) between modes of technology and lecturers' preparedness. However, the relationship was not statistically significant at the 0.05 level. This suggests that, while there is a slight tendency for increased use of diverse technological tools to coincide with higher levels of lecturer preparedness, the association is not strong enough to be considered meaningful in this study context. These results imply that other factors beyond technology availability and variety may play a more significant role in shaping lecturers' preparedness for online teaching, such as prior training,

institutional support, or individual attitudes toward e-learning.

Predictors of Online Teaching and Learning

To identify the relative contribution of modes of technology and lecturers' preparedness in predicting the effectiveness of online teaching and learning after the COVID-19 pandemic in the Department of Clinical Medicine at selected KMTC campuses, a multiple regression analysis was conducted. The standardized beta values were used to determine which factor had a greater influence on the outcome. The results are presented in Table 8.

Table 8: Model Coefficients Results

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	15.01	4.759		3.154	0.002
Modes of Technology	0.444	0.084	0.407	5.286	0.000
Lecturers' Preparedness	0.198	0.097	0.116	2.041	0.045

a Predictors: (Constant), Modes of Technology, Lecturers' Preparedness

The results indicate that modes of technology had the strongest influence on online teaching and learning ($\beta = 0.407$, $p < 0.05$). Lecturers' preparedness also contributed positively but to a lesser extent ($\beta = 0.116$, $p < 0.05$). These findings suggest that while both technology use and lecturer readiness are important for effective online teaching, the availability and utilization of appropriate technological tools play a more dominant role in determining the success of post-pandemic online learning in KMTC's clinical medicine programs.

Conclusion

The study established that while both the modes of technology used and lecturers' preparedness significantly contribute to the effectiveness of post-pandemic online learning at KMTC, the availability and suitability of technological tools exert a more dominant influence compared to lecturer readiness. Despite a predominantly mature and experienced faculty, qualitative findings revealed persistent capacity gaps particularly among senior lecturers and a reliance on mobile devices over laptops, coupled with challenges in internet connectivity and the provision of asynchronous resources. The weak, non-significant correlation between technology modes and preparedness suggests that simply providing tools is insufficient.

Recommendations

Recommendations for Practice

In the Department of Clinical Medicine, KMTC should move beyond a mobile-first accidental strategy and encourage the use of laptops to support more complex clinical simulations and academic writing. Departments should establish a standardized repository for asynchronous materials, such as pre-recorded clinical demonstrations and links

to virtual cadaveric dissections, to ensure students can access learning beyond direct synchronous sessions. Furthermore, since senior lecturers reported significant challenges with digital tools, the college should implement a peer-mentorship program where tech-savvy junior staff assist senior faculty in troubleshooting and mastering Learning Management Systems (LMS).

Recommendations for Policy

The KMTC Board of Management should institutionalize a policy for Mandatory Continuous Digital Pedagogy Training (CDPT) for all clinical instructors to ensure that lecturer preparedness keeps pace with evolving technology. To address the infrastructure limitations identified, policy revisions should prioritize the allocation of budgets specifically for "campus-wide high-speed internet and the provision of subsidized high-specification laptops for staff. Additionally, the college should formalize a hybrid examination policy that balances the efficiency of online assessments using the identified plagiarism checks with the necessity of physical practical assessments for clinical competencies.

Recommendations for Future Studies

Since this study found only a weak correlation between technology modes and lecturer preparedness, future research should investigate other variables that might play a more significant role, such as lecturer attitudes, psychological resistance to change, or the impact of institutional leadership styles.

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