



Faculty Level of Readiness to Use e-Learning in Instruction and Supervision among Universities in Kenya

***Mmbaka Bonface Shisakha**

ORCID: <https://orcid.org/0000-0001-9023-5978>

Department of Educational Management, Policy and Curriculum Studies, Kenyatta University, Kenya

Email: bonfacemmbaka@yahoo.com

Felicita Njuguna, PhD

ORCID: <https://orcid.org/0000-0002-7062-7816>

Department of Educational Management, Policy and Curriculum Studies, Kenyatta University, Kenya

Email address: njuguna.felicita@ku.ac.ke

Norbert Ogeta, PhD

ORCID: <https://orcid.org/0000-0002-2775-5513>

Department of Educational Management, Policy and Curriculum Studies, Kenyatta University, Kenya

Email: norbertogeta@ku.ac.ke

***Corresponding Author:** bonfacemmbaka@yahoo.com

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Abstract: E-Learning has not gained widespread popularity as an instructional method in universities, primarily due to faculty members' readiness and awareness limited levels. This study examined faculty preparedness and use of e-Learning. The sample consisted of 6 Directors, 12 Heads of Department, 90 faculty members and 335 students in Kenyan universities. Data were gathered through a semi-structured questionnaire from faculty and students and in-depth interviews with Directors and Heads of Departments. The study concluded that blended learning is the faculty members' preferred instructional model, aligning with literature that emphasize its benefits in promoting flexibility, engagement and inclusivity. While the majority of faculty members rated their e-learning utilization as proficient, with most using resources like the internet and whiteboards effectively, the minority reported average or poor utilization, indicating a need for targeted interventions to enhance digital literacy and ensure equitable e-learning adoption. Finally, the study concludes that Moodle was the most preferred platform due to its flexibility and interactivity while WebCT was the less commonly used platform. Study recommends that policy makers should invest in infrastructure, training and awareness campaigns to support blended learning and e-Learning platform adoption and utilization.

Keywords: Faculty; readiness; e-Learning; utilization; instruction; supervision.

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Introduction

Increased growth of higher education has led to increased demand for quality university education. The demand continues to exert pressure on existing physical and human resources, leading to adoption of e-Learning in an attempt to attract and reach more students with quality education. Growth in

student enrolment has also been impressive. Only 1,000 students were enrolled in 1963 and today there are over 276,349 university students in Kenya, both full-time and part-time (Nyerere, 2020). A combination of high enrolments, low funding, inadequate infrastructure, low internet connectivity, inadequate academic staff, low

remuneration and poorly managed satellite campuses with no decent teaching and learning facilities or no access to innovative technology, has hit even established universities hard (Makokha & Mutisya, 2016).

Nyerere et al. (2012) concurs with Boit and Kipkoech (2012) that demand for university education continues to surpass supply. Universities have put in place measures to cope with the ever increasing demand for higher education by enrolling more students through diversified methods of content delivery from traditional face-to-face to incorporate e-Learning. Most universities have adopted blended learning but they still lag behind in its full implementation due to inadequate e-Learning skills and infrastructure (Boit & Kipkoech, 2012). It will take a combination of strategies to restore quality in university education in Kenya, particularly at public universities. The state, regulatory authorities and the institutions themselves will need to be involved. A probable solution to this problem is for the universities to fully embrace e-Learning in instruction and supervision.

Despite Kenya currently leading in Eastern Africa with faster internet speed, most universities are faced with infrastructure, technology and human resource capacity challenges (Nyerere, 2020; Makokha and Mutisya, 2016). The study by Makokha and Mutisya (2016) was limited to faculty level of awareness, readiness and use e-Learning and establishes strategies embraced to improve e-Learning use in instruction and supervision.

Acceptance and Use of e-Learning Reasons

A comparative study by Odhiambo (2009), exploring factors influencing the adoption of e-Learning platforms in Kenyan universities, revealed that lack of requisite Information Communication and Technology infrastructure and skills were the reasons for low rates of acceptance and use of e-Learning, specifically when comparing perceptions of e-Learning at Jomo Kenyatta University of Agriculture and Technology (JKUAT) and the United States International University (USIU). The implication is that for universities to improve institutional infrastructure, build capacity and standardize e-Learning programs, they need partnership with the private sector.

Makokha and Mutisya, 2016) in a study on factors affecting the adoption of e-Learning in Public universities in Kenya revealed that faculty members cited insufficient Internet connectivity, denial of

copyrights for their developed e-Learning modules, limited Information and Communication Technology skills, lack of incentives, shortage of computers/laptops, inadequate computer laboratories and insufficient time for online interaction. The implication is that the universities have no choice but to build institutional resource capacity, train and equip faculty with requisite e-Learning skills and ensure use of more interactive platforms and modules for instruction and supervision to become more effective.

Faculty E-Learning Awareness and Readiness

Faculty levels of readiness for use of e-Learning in universities is an important subject at a time when universities have been forced by the COVID pandemic to adopt online learning. Readiness to make this move is influenced by a wide variety of contextual factors that vary by country. A study carried out in the USA at the Iowa University (2004) indicated that some faculties who had a clear student centered strategies for infusion of e-Learning in instruction and supervision were minority. Furthermore, the study indicated that there was still some resistance against the use of e-Learning in instruction and supervision. Most interviewees showed that they were not sure of how different learner centered strategies affect the instructional process. E-Learning has not and does not only create understanding of the value of different instructional strategies but it also raises awareness of the issue. Faculty had the desire to improving the quality and effectiveness of their teaching and instruction over focusing on enhancing administrative tasks and processes. Their primary goal was to ensure better learning outcomes for students rather than emphasis on operational or managerial efficiencies, while the administrators wanted faculty who are effective in delivering high-quality instruction that enhances student learning outcomes.

In the University of Copenhagen, approximately 95% of the faculty used e-Learning, with only 14% using a mix of face to face teaching with online exercises and discussions. The university has developed a number of complete online courses at Master level and in continuing education. The university prioritized and invested heavily in development and support of e-Learning (Adum, 2013), an indication that the university's achievements in e-Learning are not accidental but the result of strategic planning, resource allocation and institutional commitment to innovation in education. Khan et al. (2012) revealed

that low interest, low morale as well as low commitment of faculty hinder the effective utilization of e-Learning and that successful implementation requires faculty to develop positive attitude towards technology.

In the Kingdom of Bahrain, a study on challenges facing e-Learning implementation by Nina (2012), established that inadequate support, shortage of resources and inadequate technological prowess and techno-phobia among faculty limited the effective implementation of e-Learning. Movement towards learner control of human resource development interventions demanded for a paradigm shift in research towards different learning behavior and if success has to be realized, there is need for the implementation process to succinctly focus on faculty and provide for their empowerment. The study remained silent on the extent to which the faculty utilized e-Learning in instruction and supervision.

Nina (2012) in a study in Bahrain argues that inadequate support, shortage of resources, and inadequate technical know-how and techno-phobia; prevent utilization of online instruction and supervision in universities. Inadequate pedagogical skills possess a greater challenge. This study therefore sought to establish faculty level of readiness and knowledge, skills, training and exposure to effectively utilize e-Learning to improve instruction and supervision.

In Egypt, Al-Ammary et al. (2016) noted that virtual communications with instructors or students are ineffective, partly because the faculty preferred other channels of communication, mainly mobile applications and social media like Facebook, Instagram and WhatsApp. Online assessment is not common and online monitoring of students' performance is difficult. In Jordan, Muhannad (2013) pointed out that while some faculty had adopted technology enthusiastically, others had been much slower to integrate new technologies into the teaching and learning process. In South Africa, Bagarukayo and Kalema (2015) discovered that faculty members were more concerned about the possibility of being replaced by use of e-Learning technologies and the likelihood of students skipping classes. They also noted that the pedagogical value of the Learning Management System was largely overlooked.

Minish-Majanja (2007), in a study in South Africa, established shortage of qualified information

technology experts. This was made worse by the challenge of brain drain that led to loss of experts, who sought for greener pastures elsewhere. According to Almeneh and Hastings (2006), some senior university officials were reported to be technologically shy ('technophobic'), finding it difficult to implement e-Learning. A study conducted over two years among 21 faculty members at the University of Cape Town (UCT), Cape Peninsula University of Technology (CPUT), University of Stellenbosch (US) and the University of the Western Cape (UWC) in Western Cape Province revealed that LMS uptake was influenced by personal perceptions that were subjective.

The faculty viewed e-Learning as an administrative tool for assigning, submitting, managing and easing communication (Mlitwa & Van Belle, 2011). A studies by Gachago et al. (2007) at the University of Botswana confirmed that introduction of e-Learning in education has led to a need to train and equip the faculty with appropriate skills for e-Learning. In Nigeria, Sunday et al. (2018) opined that the faculty's inability to assist students build up capacity and information needed to make them utilize e-Learning facilities adequately has been a major stumbling block to the successful utilization of e-Learning in instruction and supervision. The faculty, felt that integration of rapidly developing digital technologies to deliver content will improve students' ability to solve problems in digital space (Sadaf & Johnson, 2017).

In East Africa, a study carried out at the University of Nairobi (Kenya), Makerere University (Uganda) and University of Dar es Salaam (Tanzania) revealed that growth of e-Learning was rapid but the East African universities are yet to explore their full capacity. Key findings were that the faculty had limited skills and universities had inadequate human resource capacity, thus the slow rate of e-Learning. Limited and unstable Internet bandwidth and lack of policy harmonization hindered e-Learning from expanding in the East African universities (Walimbwa, 2008).

In Kenya, a study at Strathmore University showed that 61% of the faculty utilized e-Learning platforms mainly to post notes, post reading references, manage quizzes and process timed and untimed quizzes, process timed and un-timed assignments uploaded by students, facilitate students' forums on specific subjects, communicate with learners via email, share evaluated learning journals, post updates and announcements and utilize blogs to

encourage collaborative learning (Shabaya, 2009). In response to the outlined challenges, Tarus et al. (2015) concur with Wanyembi (2008) that relevant e-content development and faculty e-Learning skills are critical components for effective implementation of e-Learning in instruction and supervision. Despite the efforts made by the Government of Kenya, Nongovernmental organizations and private sectors, utilization of e-Learning for instruction remains limited and unsatisfactory, with only 32% of users reporting its use, and a performance level of 7.14% as noted by Makokha & Mutisya (2016). The study therefore sought to establish the level of preparedness and readiness by the faculty to use e-Learning in instruction and supervision.

Current Use and Exposure of University Faculty

It is vital for faculty to play a key role in socialization and fostering lifelong learning. The pedagogical and andragogical skills acquired during training enable them to impart new knowledge, skills and positive attitudes to learners effectively. Faculty members are entrusted with educating individuals at a teachable age, who will become tomorrow's better citizens. As such, they are highly regarded as change agents in the community, with their opinions respected and their actions serving as role models.

Fasasi and Alabi (2015) noted that challenges such as excessive supervisor workload, limited time, electricity issues and poor internet connectivity hinder the effective utilization of e-Learning. Some scholars interpret this to mean that faculty lack sufficient time to acquire the knowledge and technical skills necessary for e-Learning in instruction. Nina (2012) highlighted additional challenges, including inadequate institutional support, limited resources, technological deficiencies and technophobia. These issues are more pronounced in public universities compared to private ones, underscoring the need to compare e-Learning utilization in selected public and private universities. For success, the implementation process must prioritize faculty empowerment and provide adequate support.

According to UNESCO (2012), instructors can use e-Learning to empower students by teaching them to analyze, evaluate, solve problems and make appropriate decisions while enhancing their communication, collaboration and creativity skills. This helps students become more informed and responsible citizens. Therefore, it is crucial to equip

faculty with technical skills and competencies to teach effectively, impart the subject matter content and prepare students with the necessary knowledge and skills for better academic performance (NACOSTI, 2010). Without proper in-service training for university faculty, their ability to utilize e-Learning tools effectively will remain unrealized. As Nyerere (2020) suggested, the future of education is increasingly digital, necessitating a greater focus on digital skill development.

The utilization of e-Learning for instruction and supervision significantly depends on faculty members' awareness of its potential (Kimotho, 2010). It is important to note that e-Learning has facilitated better connections between faculty and students (Fasasi & Alabi, 2015). However, Nina (2012) observed that faculty members are inadequately equipped to fully actualize e-Learning, emphasizing the need to maximize its use in teaching and supervision. It is therefore essential to assess faculty members' awareness, readiness and exposure to e-Learning and to identify viable strategies for its enhanced adoption.

Fasasi and Alabi (2015) assert that traditional supervision practices have been challenged by the introduction of e-Learning. Mettinen (2015) further argues that while e-Learning opens new possibilities, its adoption has been hindered by faculty members' limitations in knowledge, skills, and attitudes.

Most studies failed to examine how faculty members' awareness, readiness and preparedness influence e-Learning adoption for instruction and supervision in universities. Additionally, a significant number of faculty do not effectively utilize the e-Learning resources available to them, resulting in weak integration. Some faculty members prefer traditional face-to-face teaching over e-Learning platforms due to a lack of time to engage in meaningful research. This disparity highlights the need to address gaps in preferred instructional and supervisory approaches, modules and technologies for both faculty and students in universities.

Methodology

Design

The study used the imbedded mixed methods design that prioritized the quantitative methods while the qualitative aspect enhancing the findings. Orodho (2010) argues that the use of the mixed methods enables researchers to formulate

principles of knowledge that can be used to find solutions to significant problems and establish facts about the existing state of e-Learning. The imbedded mixed methods research design provided a background upon which e-Learning utilization for instruction and supervision was determined.

Population and Sampling

The target population in this study comprised of all the 74 universities (31 accredited and chartered public universities, 6 Constituent University Colleges, 18 chartered private universities, 5 Private Constituent University Colleges and 14 Higher Education Institutions with Letters of Interim Authority (Commission for University Education, 2020) in Kenya, along with their schools of education, Directors of e-Learning, Heads of Department, faculty members and students. A sample of six (3 public and 3 private) universities was selected, using a multi-stage random sampling procedure that incorporated purposive and simple random sampling techniques. The multi-stage random sampling approach was employed because the population was too extensive to survey every individual, ensuring a manageable yet representative sample.

The population within the sampled universities was then categorized into sub-groups for a more focused primary data collection exercise. Specifically, Directors of e-Learning and Heads of Department from the schools of education were purposively sampled, resulting in the selection of 6 Directors and 12 Heads of Department. Faculty members and students were chosen using the simple random sampling techniques, resulting in the sample of 90 faculty members and 335 students.

Instruments

The study used both a questionnaire and an interview schedule as instruments for data collection. Two sets of the semi-structured questionnaire were utilized to obtain information from students and faculty members. A semi-structured interview schedule was used for collecting data from Heads of Departments and Directors of e-Learning.

Validity and Reliability

Content validity was determined through expert opinions and appraisal by checking for ambiguity, confusion and poorly prepared items. The level of internal consistency or stability was determined using the split half technique in that the questionnaire items, which were split into two sets,

odd-numbered items in one subset and even-numbered items in another subset. A coefficient of 0.75 was derived for the students whereas a coefficient of 0.82 was obtained for the faculty members. The coefficient values were closer to 1, an indicator that the research instrument was reliable or consistent in getting results.

Statistical Treatment of Data

The quantitative analysis involved the use of descriptive statistics, including frequencies and percentages to establish the degree of incorporation of e-Learning in the instructional practices within the universities being investigated. The frequencies were used to present continuous variables by rating the students' and faculty members' views about e-Learning utilization in the instruction. The percentages helped in spotting the trends. The results were presented using frequency tables with detailed information.

Ethical Considerations

Respondents were fully informed about the study through a transmittal letter. They were requested not to write names or sign anywhere in the research instruments. An assurance of anonymity, confidentiality and privacy was provided. The verbal consent of respondents was obtained through the confirmed consent document.

Results and Discussion

This section presents the results and discussion derived from the study. It begins with an overview of the participants, followed by descriptive statistics on e-Learning utilization.

Research Question 1: What is the Faculty members' attitude toward the use of e-Learning platforms?

This research question sought to establish the attitude of faculty members' toward the use of e-learning platforms. In Table 1, the faculty members rated their attitude towards the e-Learning use in instruction and supervision.

Faculty Attitude towards the e-Learning Use

In Table 1, the faculty members rated their attitude towards the e-Learning use in instruction and supervision.

Table 1: Attitude towards e-Learning

Response	Frequency	Percent
Negative	13	14.4
Neutral	20	22.2
Positive	48	53.3
I don't know	9	10.0
Total	90	100.0

Findings in Table 1 reveal that a majority (53.3%) of faculty members expressed a positive attitude toward the use of e-Learning platforms. This aligns with studies, such as Adum (2013), which underscored the importance of a positive attitude among faculty members in successfully adopting and utilizing digital teaching tools. Positive attitudes are critical as they drive the willingness to embrace innovation, adapt to technological changes and integrate e-Learning into pedagogical practices (Makokha & Mutisya, 2016). Faculty members who view e-Learning favorably are more likely to engage students actively, foster collaborative learning and improve the overall effectiveness of instruction.

Faculty members with positive attitudes are open to experimenting with e-Learning tools, which leads to higher rates of adoption and integration. This positive disposition enables them to create interactive and engaging learning experiences, improving students' outcomes (University of Washington, 2004). Additionally, faculty with a positive outlook are more inclined to explore innovative instructional strategies that leverage the capabilities of e-Learning platforms. This attitude further results in better utilization of institutional resources, maximizing the return on investments in e-Learning infrastructure.

The findings further indicate that 22.2% of faculty members remained neutral, 14.4% expressed negative attitudes and 10.0% were undecided. This minority without a positive attitude presents potential challenges to the broader utilization of e-Learning within the institutions. Neutral and undecided attitudes may portray a lack of awareness or insufficient training while negative attitudes could stem from resistance to change, fear of technology (Nina, 2012) or doubts about the effectiveness of the e-Learning platforms. The lack of a positive attitude among faculty members has critical implications for e-Learning utilization (University of Washington, 2004). Negative or indifferent attitudes can act as barriers to implementation, creating resistance and slowing down the transition to e-Learning, which impacts institutional goals. Addressing this challenge requires institutions to prioritize capacity-building efforts, such as targeted training programs, to equip faculty members with the necessary skills and confidence to effectively utilize the e-Learning. Ensuring that all faculty members develop a positive attitude is crucial for bridging disparities in utilization and fostering a cohesive learning

environment. Institutions may also need to implement supportive policies that provide incentives for adopting e-Learning, thereby enhancing the overall integration and effectiveness of digital platforms in education.

Mohamed and Peerbhay (2012) aligns with the current study by emphasizing the critical role of faculty attitudes in fostering an effective learning environment, arguing that positive attitudes among faculty members not only enhance their willingness to adopt new teaching methodologies, such as e-Learning, but also create an environment that encourages active student engagement and deeper learning. This perspective resonates with the findings of the current study, which revealed that a majority of faculty members expressed positive attitudes toward e-Learning, leading to improved instructional effectiveness and better student outcomes. Hence, faculty members with positive attitudes are more likely to embrace technological innovations, integrate them seamlessly into their teaching practices, and create interactive learning experiences. Such attitudes are instrumental in bridging the gap between traditional and digital pedagogies, ensuring that e-Learning platforms are utilized to their full potential for the benefit of students and institutions alike.

Research Question 2: What is the rating of faculty members' e-Learning utilization in instruction and supervision?

This research question sought to establish the faculty members' e-learning utilization in the instruction. Faculty members were asked to self-rate their use of the e-learning platforms on the scale of five options: 5=Excellent, 4 =Very Good, 3=Satisfactory, 2 =Average, and 1=Poor. The findings appear in Table 2.

E-Learning Utilization

This research question sought to establish the faculty members' e-Learning utilization in instruction and supervision. Faculty members were asked to self-rate their use of the e-learning platforms on the scale of five options: 5=Excellent, 4 =Very Good, 3=Satisfactory, 2 =Average, and 1=Poor. The findings appear in Table 2.

The Use of Specific e-Learning Resources

Table 3 indicates faculty members' use of specific e-learning components in three categories of responses: high, moderate and low, as rated by students. The e-Learning components rated by the

faculty members include Teleconferencing, Skype, Internet, Moodle and WEBCT and White Boards. According to Aboagye et al. (2020), e-Learning offers opportunities for both advancing knowledge and skills and fostering employment prospects. This observation aligns with the current study by underscoring the various benefits of e-Learning utilization, emphasizing its potential to empower

both faculty and students. By leveraging e-Learning, institutions can equip learners with industry relevant competencies, thereby enhancing employability. Additionally, faculty members who effectively utilize e-Learning tools can better prepare students for a technology driven job market, bridging the gap between education and employment demands.

Table 2: Rating of e-Learning Utilization in Instruction and Supervision

SN	Category of Responses	f	%
1	Excellent	9	10.0
2	Very Good	36	40.0
3	Satisfactory	22	24.4
4	Average	19	21.1
5	Poor	4	4.4
	Total	90	100.0

Table 3: Faculty Level of Use of e-Learning as reported by Students

E-Learning Resource Use	High		Moderate		Low	
	F	%	F	%	F	%
Teleconference	166	49.5	104	31.0	69	20.5
Skype	124	37.1	105	31.3	106	31.6
Internet	175	52.2	128	38.2	32.0	9.6
Moodle and WebCT	143	42.7	133	39.7	59	17.6
White Board	172	51.3	124	37.1	39	11.6

The findings from the faculty members, who participated in the study, reveal that a substantial majority (74.4%) of faculty members are proficient and comfortable in utilizing e-Learning platforms, which suggests significant readiness for digital integration in instruction. This aligns with global trends, such as Adum's (2013) findings at the University of Copenhagen, indicating a growing acceptance and use of e-Learning among faculty. However, the minority (21.1%) who rated their utilization as average or poor highlights a need for targeted interventions, such as enhanced training and support systems, to ensure that all faculty members can effectively leverage e-Learning technologies (COL, 2020). This trend has implications for institutional strategies to improve digital literacy, reduce disparities in utilization and foster equitable access to quality instruction.

Therefore, the universities need to prioritize and invest heavily in development and support of e-Learning platforms to meet the demand of the simple majority of the faculty members, who considered the e-learning platforms as user-friendly, as advocated by Adum (2013).

Table 3 shows that most students (52.2%) opined that internet was the most highly used e-Learning resource by the teachers while 38.2% of student considered it as moderately used. The use Whiteboard was reported high by 172 (51.3%) students with 124 (37.1%) considering it moderate and 39 (11.6%) considering it low. Teleconferencing was indicated as high by 166 (49.5%) of the students; the rest reporting it moderate (31.0%) and low use (20.5%). The least utilized resource was Skype as 124(37.1%) of the students indicated it highly used, 105 (31.3%) considered it moderate

and 106 (31.6) considered it as low. Generally, results from Table 3 show that in all the listed resources, the “high” option constituted a bigger portion compared to the “moderate” and the “low” options. This indicates that students considered their teachers as cooperative in the use of all the listed e-learning resources.

The findings align with the reviewed literature that highlights the importance of effective adoption and utilization of e-Learning tools in education. For instance, studies, such as Aboagye (2020) and Mohamed and Peerbhay (2012) argued that faculty members who actively utilize e-learning resources foster an environment conducive to knowledge acquisition, skill enhancement and student engagement. Similarly, recent studies by Singh and Thurman (2019) and Kim and Lim (2022) demonstrated that tools like whiteboards and

teleconferencing platforms are pivotal in bridging gaps between traditional and online education, allowing for interactive and collaborative learning experiences.

The findings underscore the importance of cooperative faculty attitudes in enhancing the e-Learning experiences. High whiteboard and teleconferencing use highlights faculty members’ positive impact, while lower Skype utilization suggests a need for targeted training.

Research Question 3: What is the faculty members’ preferred mode of instruction?

This research question sought to establish the faculty members’ preferred model of instruction, considering traditional face to face, blended mode, online instruction and other forms of instruction as options.

Table 4: Preferred Mode of Instruction by Faculty reported by Students

SN	Modes of Instruction	f	%
1	Traditional face to face	137	40.9
2	Blended mode	160	47.8
3	Online instruction only	29	8.7
4	Others	9	2.7
Total		335	100.0

Table 5: Platform Used by Teachers

SN	Platform	f	%
1	WebCT	13	14.4
2	Moodle	54	60.0
3	All	2	2.2
4	None	9	10.0
5	Not aware of any	5	5.6
6	LMS Kusoma	2	2.2
7	Others	5	5.6
Total		90	100.0

The findings in Table 4 underscore the growing preference for blended learning among students, which aligns with existing literature emphasizing its benefits. Garrison and Vaughan (2013), for instance, identified blended learning as a transformative approach that effectively integrates traditional face-to-face instruction with online methodologies, offering flexibility and enhanced engagement. This combination supports a variety of learning preferences and promotes active participation. Similarly, Graham (2020) highlighted blended learning’s role in addressing challenges related to accessibility and personalization in education, making it a practical and inclusive option.

The relatively high preference for traditional face-to-face instruction (40.9%) echoes findings by

Adedoyin and Soykan (2020), who noted that many students and faculty still value the immediacy and personal connection of in-person interactions. Meanwhile, the lower preference for fully online learning (8.7%) reflects challenges such as digital access disparities, reduced interaction, and potential feelings of isolation, as discussed in studies like those of Moore et al. (2018).

The minimal interest in "other" modes of instruction (2.7%) could indicate a lack of familiarity or perceived effectiveness of less conventional teaching methods. These findings suggest that while students recognize the value of technology-enhanced education, a balanced approach, as seen in blended learning, remains the most effective and preferred instructional model. Institutions should

leverage these insights to enhance infrastructure and provide professional development, ensuring faculty can effectively implement blended learning strategies.

Research Question 4: What platform did the faculty members use in the teaching and learning transaction?

This research question sought to establish the platform the faculty members used in the teaching and learning transaction. The faculty were asked to name the module they frequently used in Table 5. Most (74.4%) faculty members reported using mainly WebCT and Moodle with 60.0% in favour of Moodle and 14.4% in favour of WebCT. A few faculty members reported others (5.6%) and LMS Kusoma (2.2%) while 5.6% were not aware of any of the platforms.

WebCT (Web Course Tools) and Moodle (Modular Object-Oriented Dynamic Learning Environment) are widely recognized e-Learning platforms designed to facilitate teaching and learning. WebCT, one of the earliest learning management systems (LMS), was primarily developed to support online education by providing tools for course delivery, discussion boards and assessment (Britain & Liber, 2004). Moodle, on the other hand, is an open-source LMS that focuses on flexibility, interactivity and collaborative learning (Dougiamas & Taylor, 2003). Moodle is highly customizable and supports various plugins, making it adaptable for diverse educational needs.

The high preference for Moodle (60.0%) in this study is consistent with its global popularity due to its user-friendly interface and robust features that encourage interactive and student-centered learning. According to Al-Ajlan and Zedan (2008), Moodle's flexibility in course management, content delivery, and communication tools makes it a preferred choice for faculty members, aiming to enhance engagement in their courses. Its open-source nature further allows learning institutions to adapt the platform to specific needs, reducing costs and increasing utility.

WebCT, though less commonly used (14.4%), remains a significant platform historically recognized for its structured and intuitive environment that supports course organization and management. However, its lower adoption compared to Moodle may be attributed to its limited customization options and the shift towards

more modern, open-source solutions (Coates et al., 2005).

The finding that some faculty members were unaware of any platform (5.6%) or used less common platforms like LMS Kusoma (2.2%) highlights gaps in awareness and training regarding available e-learning tools. This aligns with studies, such as Adedoyin and Soykan (2020), which emphasized the importance of institutional support in promoting e-learning adoption among educators. The implication is that the preference for platforms like Moodle reiterates the need for institutions to invest in accessible, interactive and user-friendly LMS tools. Learning institutions should also focus on capacity-building initiatives to familiarize faculty members with appropriate e-Learning platforms, addressing the knowledge gaps revealed by the 5.6% who were unaware of any platforms.

Conclusions and Recommendations

Conclusions

The study concludes that blended learning is the faculty members' preferred instructional model, aligning with literature that emphasize its benefits in promoting flexibility, engagement and inclusivity. Traditional face-to-face instruction remains significant, reflecting the value of personal interaction.

While the majority of faculty members rated their e-learning utilization as proficient, with most using resources like the internet and whiteboards effectively, the minority reported average or poor utilization, indicating a need for targeted interventions to enhance digital literacy and ensure equitable e-learning adoption. Finally, the study concludes that Moodle was the most preferred platform due to its flexibility and interactivity while WebCT was the less commonly used platform.

Recommendations

Based on the conclusions, policy makers should prioritize investment in infrastructural and professional development to effectively enhance the blended learning and support both traditional and online instruction models. The universities should implement targeted training programs to address faculty members' digital literacy gaps and ensure the equitable adoption of e-learning platforms. Universities need to enhance the blended learning implementation by providing faculty members with necessary resources and training to balance the face-to-face and online teaching

methods. Finally, the universities, Commission for University, ministry of education and other stakeholders should invest in awareness campaigns, user-friendly e-Learning platforms and comprehensive training to ensure widespread adoption and effective use of tools like Moodle.

There is a need to conduct longitudinal studies to examine the long-term impact of blended learning on faculty members' teaching effectiveness and students' outcomes across disciplines. There is also a need to investigate specific factors contributing to faculty members' lower e-Learning utilization to tailor training programs that address unique challenges faced by different instructors.

There is a need to explore the role of faculty attitudes and perceptions toward blended learning in shaping the successful integration of online and face-to-face teaching methods. Finally, there is a need to examine faculty members' preferences and experiences with different e-learning platforms to better understand barriers to platform adoption and identify factors that influence user satisfaction.

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