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Research Article

SHAPING ONLINE PEDAGOGY: FACULTY EXPERIENCES ON INSTRUCTIONAL DESIGN AND ODEL COURSE DEVELOPMENT IN A PRIVATE UNIVERSITY IN KENYA

Rebecca Mwikali Wambua[1], Suleiman Mwangi[2]

1. Africa Nazarene University, 2. University of South Africa & St. Paul's University

Abstract

With increased use of online and blended learning in higher education, teachers' technical proficiency in teaching design and implementation of Open, Distance, and e-Learning (ODeL) models has been rendered essential to ensure quality and student achievement. This study investigated learning among faculty staff in instructional design and ODeL course development at the University of Eastern Africa, Baraton, with emphasis on four objectives: assessing knowledge baseline, capturing training experience, assessing post-training gains, and investigating integration of Open Educational Resources (OER). Using a mixed-methods case study approach, data were collected from 100 faculty staff via pre- and post-workshop surveys, with qualitative answers. Results indicated that most of the faculty started with little knowledge of instructional design models like ADDIE and with no awareness of OER licensing. The training had a positive impact on improving the confidence of the faculty. Most of the faculty reported increased knowledge of instructional design principles and improved e-content development skills. Qualitative findings indicated that experiential and collaborative approaches enhanced experiential learning and peer-to-peer learning, although participants requested more time being devoted to experiential activities. Progress was also reported in the implementation of OER, where the ability of faculty to locate, modify, and license open resources was enhanced. Despite this, challenges existed, such as lack of time, reliability of sources, and availability of institutional support. The research points to the necessity for systematic training in enhancing faculty capacities for ODeL. It also calls for continuous professional development, institutional OER policy, and national quality assurance mechanisms. The study contributes to the literature on digital transformation in African higher education by providing evidence-based recommendations for boosting sustainable, high-quality ODeL.

Key Words: Instructional Design, ODeL, Online Pedagogy, and Open Educational Resources

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Introduction:-

As online and blended learning become essential to higher education worldwide, institutions need to improve the skills and knowledge of their teaching staff to create and maintain high-quality Open, Distance, and e-Learning (ODeL). Instructional design, which involves planning learning outcomes, activities, and assessments, is fundamental for effective online course development. When implemented correctly, it is known to boost learner engagement, retention, and outcomes (Biggs & Tang, 2011). The COVID-19 pandemic accelerated the transition from emergency remote teaching to more thoughtful online education. However, experts emphasize that well-designed online learning is very different from emergency efforts. It requires focused professional development for faculty, quality instructional materials, accessible learning materials, and technology (Hodges et al., 2020; Bozkurt & Sharma, 2021).

Quality instructional materials are among the most critical elements of quality learning in an ODeL environment. Instructional materials are at the heart of Open, Distance, and e-Learning (ODeL) as they directly affect the quality of learning and performance. Quality instructional materials facilitate increased access and flexibility, allowing learners to learn from anywhere and at any time (Hodges et al., 2020). They also promote interaction and engagement through electronic media (Alzahrani, 2021), support self-learning for different learners (Hodgkinson-Williams, 2019), and promote inclusivity through the availability of access to learners with differing abilities and contexts (Paskevicius, 2019). Additionally, instructional material plays a critical function in quality assurance in ODeL through the provision of organized and standardized learning materials (Ehlers & Conole, 2019). They encourage flexibility and regular updates of content to suit unfolding knowledge and technology (Baran & Correia, 2014). The instructional design profession and the faculty skills have been highly valued both nationally and internationally. Empirical research has continually shown that the quality of teaching materials and experienced instructors significantly improves the satisfaction and performance of distance learners. For example, Wambua, Gakuu, Kidembo, and Ndege (2019) found a significant positive correlation between the presence of instructional material and student performance in some selected public universities in Kenya. This is in agreement with overall research that shows that effective instructional design in ODeL contexts not only increases learning outcomes but also decreases dropout rates, improves learner persistence, and improves overall student success (Bozkurt & Sharma, 2021).

Despite these documented benefits, many African universities still struggle with uneven adoption and integration of ODeL. In Kenya, structural issues and capacity problems persist. At the University of Eastern Africa, Baraton, for instance, the adoption of online teaching among faculty has remained quite low, even as student enrollment has increased. This situation puts a strain on physical resources like lecture halls and libraries. This mismatch highlights broader challenges related to digitization, limited digital skills, and low use of educational technologies in many African higher education institutions (Mwangi, Mutwiri, & Muthima, 2022). Although the pandemic drove the use of virtual learning platforms, the transition revealed gaps in faculty preparedness, instructional design skills, and confidence in online teaching. Barriers included a

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lack of skills in developing ODeL course content, insufficient training in using Open Educational Resources (OER), and not enough technical expertise to incorporate digital tools into teaching (Njoroge & Atina, 2022). The use of OER is especially important for improving equitable and high-quality ODeL. OER, which includes digital textbooks, online courses, instructional videos, multimedia resources, assessment tools, and open repositories, allows universities to increase access to knowledge while reducing costs for students. They also afford possibilities for collaborative and relevant content creation. However, in spite of national and international endeavors to promote their use, the majority of faculty in Kenya and throughout Africa still experience challenges in discovering, customizing, and using OER (Paskevicius, 2019; Hodgkinson-Williams, 2019). Inadequate awareness of open licensing frameworks, like Creative Commons, makes it increasingly difficult to effectively use OER in course creation.

Against this backdrop, the University of Eastern Africa, Baraton, organized a faculty workshop on instructional design and ODeL course development capacity building. The workshop was expected to help the faculty improve the quality of their instructional materials, their online teaching competencies, and the integration of OER in course design. After the training, a study was conducted to get the faculty's experiences and gauge the success of the workshop. There were four specific aims in the study: firstly, to determine the baseline knowledge of faculty members in instructional design and ODeL course development; secondly, to record their training experiences; thirdly, to measure any change in knowledge and ability after training; and fourthly, to ascertain the degree to which faculty members used OER in ODeL course development. The findings aimed to inform the improvement of faculty development initiatives, guide institutional planning for ODeL expansion, and contribute to ongoing discussions on building digital learning in African universities.

Methodology:-

A case study-based mixed-methods research design was used to examine how efficiently to develop and design instruction materials at the University of Eastern Africa, Baraton. The study combined a campus-wide survey and a workshop in measuring faculty knowledge and experience in instructional design for ODeL course materials. These included the ADDIE model, the Co-Creation Model, inclusion of OER in course design, utilization of OER repositories, knowledge of virtual learning platforms, and quality assurance of OER competence and ODeL content creation competence. All these key stakeholders were invited for consultation on instructional material production during the workshop. Pre- and post-workshop surveys were conducted to gather personal opinions. The major aim of the study was to provide evidence-based advice to improve instructional materials, improve the quality of the ODeL program, and improve faculty capacity for the university.

The target population was 100 faculty members of the university who were invited to a two-day training workshop on preparing or refining instructional materials. A census approach was utilized, where all individuals in the workshop were considered as the respondents. The study employed an interpretivist philosophical approach, since the aim of the study was to examine a social issue within the experience of the participants and not from an external or entirely objective point of view (Creswell & Creswell, 2018). Pre- and post-workshop questionnaires were completed using

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Google Forms. These questionnaires had closed- and open-ended questions to measure participants' experience and knowledge in instructional design, the ADDIE model, the Co-Creation Model, OER integration, use of OER repositories, virtual learning platforms, and quality assurance practice in ODeL.

Validity and reliability of the questionnaire were ensured through expert reviews, which provided face, content, and construct validity. In addition, the instrument had been developed and refined through the years based on its previous use in similar workshops, which added validity to it. Questionnaires were sent to the participants of all workshops via email after informed consent procedures. Participants were informed of the purpose of the study. Voluntary participation, anonymity, and confidentiality were maintained (Creswell & Creswell, 2018). All 100 members of staff returned and completed the questionnaires, although the response rate for certain questions was different. Quantitative data were explored in terms of frequency and percentage. Qualitative feedback was analyzed thematically to allow narrative accounts to be constructed. A detailed analysis resulted from the integration of quantitative and qualitative findings, leading to the identification of converging, diverging, and complementary.

Findings and Discussions:-

This study explored initial awareness of instructional design and ODeL course development by faculty members, their training experiences, improvements in knowledge and skills after training, and utilization of OER in course development. The findings, based on survey respondents' feedback and responses, provide insight into the possibilities and challenges of creating faculty capacity for ODeL within a Kenyan university context. The results showed that the majority of the participants came into the training with little knowledge of instructional design. 32.6% reported not knowing instructional design principles for ODeL course materials, while 71.2% did not know much about systematic models like the ADDIE model. Feedback confirmed this, as the respondents indicated that instructing them how they could "*create course content and deliver it to learners effectively*" and "*master online content creation and navigation*" would be beneficial. These are testaments to their own recognition of their flaws and their willingness to improve. These findings are corroborated by research, with evidence suggesting that many African instructors take to online instruction without proper training, resorting to stopgap measures instead of considered instruction design (Bozkurt & Sharma, 2021; Njoroge & Atina, 2022).

The workshop was overall seen as practical and applicable. The participatory methodology was welcomed by delegates, which de-mystified theoretical concepts and rendered models like ADDIE more accessible. Peer learning was encouraged through collaborative exercises, where instructors were able to share challenges and refine solutions in a group setting. These sessions boosted their confidence in shifting from face-to-face to ODeL delivery. This aligns with previous evidence to show that experiential and collaborative methods are effective in faculty development, enhancing motivation as well as long-term utilization of online teaching methods (Baran & Correia, 2014; Hodges et al., 2020). A few participants, though, stated they had had little chance for hands-on

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use. One stated that the training *"should have more breakout rooms,"* while another asked for *"more time for hands-on*" activities. These remarks underscore the necessity of reconciling theory with opportunities for practice, a difficulty usually reported in other faculty development initiatives (Kumar & Ritzhaupt, 2017).

Survey results confirmed significant learning gains. A total of 92.6% of respondents agreed that the workshop covered instructional design principles well, including the ADDIE model. Additionally, 83.6% reported gaining practical skills in e-content design and development. These results suggest that structured training can effectively fill knowledge gaps. However, as participants mentioned, true mastery requires more than just basic exposure. Without further practice and mentorship, improvements might stay at a foundational level. This is consistent with research showing that faculty development for online teaching is most effective when paired with ongoing support and application opportunities (McQuiggan, 2012; Philipsen et al., 2019).

The integration of OER was another area of notable advancement. Initially, 57% of participants reported not knowing how to integrate OER into their teaching, and 82.3% had no prior experience with Creative Commons licensing. After the workshop, many faculty felt more confident in finding, adapting, and using OER, as well as applying the right licenses. Several participants successfully included open-access textbooks and multimedia resources in their courses. These results support global findings indicating that OER training boosts faculty capacity to adopt open practices (Paskevicius, 2019; Hodgkinson-Williams, 2019). However, adoption was not uniform. Some participants expressed concerns about the reliability of OER sources, mentioned time constraints in customizing materials, and noted limited institutional support for repositories. These barriers reflect broader challenges discussed in the literature, which emphasize that sustainable OER adoption requires both individual skills and supportive institutional frameworks (de los Arcos et al., 2016; Rolfe, 2017).

Overall, these findings indicate that while faculty began the training with significant gaps in instructional design, technical skills, and OER integration, the workshop raised awareness, built confidence, and laid a foundation for better practice. However, the ongoing practical, structural, and institutional barriers suggest that single training sessions are not enough. Faculty development should be part of a broader strategy that includes mentorship, extended practice, and supportive institutional policies. Such an approach would deepen faculty expertise and help create more sustainable, high-quality ODeL practices in Kenyan higher education.

Conclusion:-

As discussed previously, majority of participants had inadequate prior knowledge of Instructional Design and ODeL course material development before the capacity building intervention. The workshop provided insight into experiences of the capacity-building activity. The intervention also enhanced knowledge on Instructional Design and ODeL course material. The faculty members were thus able to develop instructional materials. In summary, the study emphasizes that building

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sustainable capacity in instructional design and ODeL requires a coordinated approach. This includes continuous professional development for faculty, supportive institutional policies for OER and digital resources, and national strategies to assure quality and scalability.

Recommendations :-

The findings of this study have significant implications for policy and practice in Kenyan higher education. First, the limited understanding of instructional design and the ADDIE framework among faculty highlights the need for ongoing professional development. Universities should move beyond one-time workshops. They should incorporate continuous training, mentorship, and peer-learning groups into their faculty development plans. This ongoing support is more likely to build confidence, deepen expertise, and promote the consistent use of structured instructional design methods. Second, while the workshop did boost faculty awareness and skills in using OER, issues with licensing knowledge, source reliability, and the time needed for customization indicate a need for institutional OER policies. Universities should create clear guidelines for adopting OER, set up centralized repositories, and encourage faculty to produce and share high-quality open content. Recognizing contributions to OER in promotion and evaluation criteria could further support ongoing use (Paskevicius, 2019).

Third, the varied feedback on the training structure suggests a need for practice-focused professional development models. Training programs should include more hands-on activities, breakout sessions, and course-development labs that let faculty apply concepts directly to their teaching. Experiential learning models that mix guided practice with feedback have been shown to improve learning outcomes and long-term adoption (Kumar & Ritzhaupt, 2017; Baran & Correia, 2014). Fourth, the findings emphasize the need for policy support for digital infrastructure and instructional design units. Faculty development in ODeL cannot succeed alone; it needs institutional investment in reliable learning management systems, access to digital tools, and dedicated instructional design teams. This aligns with broader recommendations for African higher education, which stress the importance of connecting digital transformation with capacity-building efforts (Bozkurt & Sharma, 2021; Njoroge & Atina, 2022). Finally, the results point to the importance of national policies that bolster ODeL quality assurance. Agencies like the Commission for University Education (CUE) and Kenya's Ministry of Education could create frameworks to standardize instructional design practices, ensure quality in ODeL materials, and fund OER initiatives. Such policies would not only strengthen individual institutions but also boost the credibility and competitiveness of Kenyan universities in the global digital education arena.

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