DESIGNING AND IMPLEMENTING A HIGH-QUALITY TRAINING COURSE FOR OPEN AND DISTANCE FACILITATORS AND E-TUTORS IN FUTA

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Abstract
This study was conducted to design and implement a high-quality training course for Open and Distance facilitators and e-tutors in Federal University of Technology, Akure (FUTA). A descriptive survey design was deployed for the study. The population for the study comprised lecturers in FUTA while the course facilitators and e-tutors of the Open and Distance Learning Centre, Federal University of Technology, Akure constituted the purposive sample. The instruments used for this study were questionnaires and key informant interviews/focus group discussions (FGD). A needs analysis showed that many teachers are deficient in online facilitation skills. The course, a modification of the Enabling Blended Learning: A Modular Teachers' Course therefore focused on equipping them with requisite facilitation skills. In implementing the course, participants met face to face with facilitators for two days, except for three modules which were accessed online. Subsequently, they were required to work online for another three days. The data collected were analysed using descriptive and inferential statistics. All hypotheses were tested at a 0.05 level of significance. The findings revealed that the training of facilitators and e-tutors equipped them with the requisite skills in online facilitation.

Keywords: E-Tutors, Open Facilitators, Distance Facilitators

Introduction

Open and distance learning systems can usually be described as made up of a range of components such as the mission or goal of a particular system, programmes and curricula, teaching/ learning strategies and techniques, learning material and resources, communication and interaction, support and delivery systems, students, tutors, facilitators,and other experts, management, housing and equipment, and evaluation. The essential thing is that all or most of the teaching is conducted by someone who is away from the learner and that the mission aims to include greater dimensions of openness and flexibility, whether in terms of access, curriculum, or other elements of structure. The National Universities Commission (NUC) requires that the practice of distance learning should comply with global practice. Training of providers is at the heart of this programme. Facilitators and tutors need to be provided with skills to enable them to engage their students online. There is an urgent need for tutorsto be able to engage students online, foster the development of cognitive, social, and teaching presences, and enlarge students' architectural learning spaces.

The University of Abuja was the only federal university that was established as a dual-mode university at inception, to undertake, as part of its academic programmes, distance learning, and part-time courses in various disciplines to cater to the interests of the working class or those who could not benefit directly in full-time University education (the

University of Abuja Act Section1 Subsection 3 (e). Many other universities have started open and distance learning courses to complement their regular courses. As FUTA begins its open and distance learning programme, there is a dearth of capacity in e-tutoring and course facilitation. This paper addresses the issue by designing a custom-made course designed to satisfy the ODL training curriculum, to be delivered promptly to prepare for the take-off of the course.

In recent time, previous studies on Open and Distance learning have explored the role of facilitators and tutors; curriculum design in ODL, and the perception of facilitators on the use of blended learning techniques in the National Open University of Nigeria. Lee (2020) conducted a study on the roles of online Instructional Facilitators and Student Performance of Online Class Activity. The result of the independent samples t-test reveals that the student performance in online classes has no association with facilitators' educational background or academic degrees as well as demographic characteristics, student evaluation records, and instructional achievement. However, Odeyemi (2012) emphasizes the need to train facilitators in ODL. The study sets out to explore the rate of professionalism of facilitators in ODL using NOUN as a case study being the first and only open learning institution in Nigeria. The study revealed that some of the facilitators in ODL are not ODL-careerists, therefore recommended training for the necessary skills needed in ODL facilitation to be developed. It is recommended that a structure should be put in place for newly employed facilitators to go through compulsory training; reflection as a key module should be incorporated into the training roadmap for facilitators; newer facilitators should be mentored in workshops that could develop skills to reflect on their facilitation. Though it is a challenge to find suitable mentors who are ODL-oriented facilitators, it is pertinent to start standardised training for mentors to equip them to support new facilitators. This paper reports the process of implementing a bespoke training programme for the staff of the Open and Distance Learning Centre of the Federal University of Technology, Akure.

Literature Review

Distance education is an educational process in which a significant proportion of the teaching process is conducted by someone removed in space and/or time from the learner. Open learning, in turn, is an organised educational activity, based on the use of teaching materials, in which constraints on the study are minimised in terms of either access, time and place, pace, method of study, or any combination of these. There are a variety of elements to consider when developing distance learning programmes, including course structure, content presentation, collaboration and interaction, and timely feedback.

Distance learning and open access to education place an emphasis on giving learners flexibility in their learning possibilities and liberating them from the limitations of time and place. This is a rapidly expanding area of education, with a significant impact on all systems for delivering education. This is due in part to advancements in Internet-based information technologies, particularly the World Wide Web. The aim behind ODL is to make the entire educational system flexible, by providing teachers and students separated by geographical space with a means of interaction.

In the past, open and distance learning education courses consisted of

a variety of course components or learning materials, which may include any or all of the following: teaching texts, study guides, course guides, readers or anthologies, assignments (with or without an accompanying tutor guide), television or radio broadcasts or videotapes, audiotapes or software, software or online information and data, CD-ROMS, textbooks, and laboratory materials. Modern open and distance courses are mostly delivered online (Jimoh, 2013). This presents significant challenges in Nigeria where internet penetration was 26% in 2018 and rose to 38% in 2021 (Statista, August 2022). Nigeria has the capacity to generate and distribute 12,522 MW but currently generates only 7,302 GWh. Some challenges in open and distancelearning in Nigeria as noted by Jimoh (2013) arepoor infrastructure: poor electricity supply and internet connectivity.

Ineffective courseware design and online course delivery have an impact on how instruction is delivered. Many ODL course facilitators and e-tutors have no prior experience in online facilitation, despite their considerable digital skills. They will benefit from professional development at the beginning and throughout their online teaching career. According to the California Department of Education, this includes, but is not limited to professional development on the following which will positively impact course structure: helping teachers understand how to motivate individual learners, enhancing student interaction and understanding without visual cues, tailoring instruction to particular learning styles, and developing 21st-century learning skills. (California Department of Education: https://www.cde.ca.gov/ci/cr/dl/hqonlinecourse.asp)

Studies on Computer-Mediated Communication in the context of higher education have been on the increase in sub-Saharan Africa (Aborisade, Fola-Adebayo & Olubode-Sawe, 2013; Bervell & Umar, 2017, Fola-Adebayo, 2019), and work by Garrison, Anderson and Archer (2000) presents a conceptual framework that specifies the elements that are crucial for a successful higher education experience and success factors for collaborative online-based learning. The Community of Inquiry (CoI) is a conceptual, collaborative-constructivist framework to foster collaborative learning in online learning environments. This model is captured in the convergence of three key elements: Cognitive Presence, Social Presence, and Teaching Presence which are multidimensional, and interdependent, and must combine to create an educational experience.

Teaching presence comprises design and organisation, facilitating discourse, and direct instruction, required to direct the activities of cognitive and social presence in order to achieve the desired learning outcome. Cognitive presence consists of four phases: triggering events, exploration, integration, and resolution whereby students learn to construct and confirm meaning through personal reflection and discussion. Finally, social presence which comprises: affective expression, open communication, and group cohesion; enables students to feel comfortable and have a sense of belonging, even while learning online (Swan, Garrison, and Richardson 2009).The proposed course will be underpinned by the CoI Model which will centre on the aforementioned presences and the benefits, therein.

Constructivism

Constructivists' approach to learning is that it is an active process rather than passive. The learner is at

the central point of the entire learning process. In ODL, the learner is at the centre of the learning process, rather than facilitators and tutors. This is a major shift from the conventional mode of teaching and learning. A major emphasis of constructivists is situated learning, which sees learning as contextual. Learning activities that allow learners to contextualise the information given should be used in online instruction. The implication for Open and Distance Learning is that learning should be an active process; learners should construct their knowledge, add their existing knowledge with tutor-designed class activities, engage in collaborative and cooperative learning, rather than accepting the knowledge solely given by the instructor (Hooper &Hannafin, 1991; Johnson & Johnson, 1996; Palloff& Pratt, 1999); learners should be given control of the learning process (Murphy &Cifuentes, 2001); and should be given time and opportunity to reflect. Learning should be made meaningful for learners and should be made interactive to promote a higher level of learning and social presence. This puts a huge responsibility on the experts and practitioners of ODL to design a learner-friendly curriculum; come up with a qualitative method of facilitation; and choose technologies that are appropriate to the educational, social, and economic status of learners to aid and ensure good learning outcomes.

The approach to facilitating learning rather than delivering teaching will open more opportunities for both the learners and tutors. Learners may need help in overcoming technical difficulties using the course materials and other tools (being used). They may also require help to boost confidence in projecting their own views, experiences, and beliefs. Facilitators should assume a supportive role in ODL and their involvement should focus largely on offering a facilitated approach to learning rather than an instructive approach. According to Smith *et al*, learners' collaboration, interaction, and mutual support will increase throughout the course of study so that at the end, learners will be self-directive and reliant. There is also a major shift in roles, from the 'teacher as expert' role to 'teacher as facilitator of learning' where learners are guided towards resources and sources of knowledge (just as much as being the sources of knowledge themselves). Qualitative facilitation demands that strategies be implemented in facilitation.

Using the constructivist approach, Smith, Reed, and Jones (2008), conducted research on Mode Neutral Pedagogy. The research revealed the synergy of all forms of delivery: face-to-face, online, and blended modes. This could be used at any point throughout the learner's course of study based on their preferences, requirements, and personal professional commitments. They found out that it truly provides a flexible approach to learning. Smith et al further asserted that processes and activities in a classroom are directly aligned to learning outcomes and assessments. Three essential components were proposed: Curriculum Design Method (CD); Role of the Tutor or Facilitator in delivery (RT); Communication for Learning i.e. through interaction (CL). These three components are critical to providing an effective learning experience across modes of delivery.

Models of Distance Education

Either consciously or subconsciously, distance teaching institutions are shaped by certain theoretical notions and ideas about distance education. Therefore,

presenting a number of selected models of distance education might be needed for a clearer understanding of their conception underpinnings. Otto (2018) proposed three models of distance education: the group distance education model, the autonomous learner model, and the network-based distance education model.

The Group Distance Education Model: In this model, radio and television are used permanently as teaching media, especially for transporting lectures held by professors. However, instead of individuals receiving these lectures, they are received by a group of students attending obligatory classes where they follow the explanations of an instructor, discuss what they have heard and watched, do their assignments and take their tests. No special printed teaching material is developed and distributed with the exception of the customary "lecture notes". This model of distance education is a form of technically extended campus-based education. The lectures transmitted are the same as on a real campus and the instructions in the local classes are the same too. Proponents of this model are very much concerned not to depart from the formats of campus-based teaching and learning. They maintain and insist that the Central Radio and Television University is a university just like all other universities. An example of this is the Chinese 'Central Radio and Television University'.

The Autonomous Learner Model provides freedom to develop independent learning. Its main goal is the education and learning of the autonomous learner, which is ambitious, demanding, but also very promising (pedagogically). The students do not only organize their learning themselves, they also tackle the curricular tasks, are responsible for determining the aims and objectives, selecting the contents, deciding on the strategies and media they want to adopt, and even the measurement of their learning success. Here, the professors do not need to present different contents lectures, or course materials, instead, professors function as individual and personal advisors, as facilitators, who meet the students regularly through interviews. At these meetings, the students present, discuss, and negotiate their objectives and plans. Agreements are reached, and are fixed in form of a contract.

The Network-Based Distance Education Model

This model is presently emerging as part of the digital transformation of ODL. It gives room for the possibility to work in a digitalized learning environment. This model is the most convenient learning situation. The students have access to all relevant information, from the remotest teaching programmes to the databases. They may choose to work offline or online. They may use CD-ROMs with distance education courses in hypertext form or just databases while studying; they may take part in virtual seminars, workshops, tutorials and counselling meetings, tuition or project groups and even chat with their fellow students. The greatest pedagogic advantage, however, is that the students are challenged to develop new forms of learning by searching, finding, acquiring, evaluating, judging, changing, storing, managing, and retrieving information when needed. They have the chance to learn by discovery and to be introduced to learning by doing research. This model is certainly a complex and demanding one, but it is promising as it opens up a new dimension of pedagogical endeavour in distance education. This is a better model for Open and Distance learning in the 21st century.

Competencies for Distance Educators

Williams (2000) provides a very long list ofcompetencies required of distance educators. The skills were presented in a list, without any sort of logic. They are presented here with some sort of logic imposed on them. Technical skills include: basic technology knowledge, skills in development of collaborative, student focused learning environment, software skills, technology access knowledge, multimedia knowledge, knowledge of support services and data analysis skills. Skills relating to the distance knowledge field include adult learning theory and knowledge of the distance learning field.

Other skills include those generally required in the online learning space: needs assessment skills, collaboration/teamwork skills, evaluation skills, facilitation (discussion) skills, feedback skills, negotiation skills, organizational skills, personal organization skills, planning skills, and group process skills. Interpersonal communication skills could subsume English proficiency, editing skills, writing skills, questioning skills, and presentation skills. Knowledge of intellectual property, fair usage & copyright regulations would be helpful when adapting or adopting courseware or other intellectual material.

Miscellaneous skills include project management skills, public relations skills, change agent skills, and consulting skills. The matrix for developing distance education faculty that Grant and Dickson (2008) developed is a competency-based model with seven competencies: understand online format, know online pedagogy, develop course content, understand instructional design, determine course management, practice use of technology and develop quality assurances. These are matched against best practices such as cooperation, time on task, communication, expectations, active learning, feedback and respect for diversity.

Method

Lecturers in FUTA constituted the population for this study. Course facilitators and e-tutors of the Federal University of Technology, Akure constituted the sample for this study. Survey design was deployed for the study, and this took the form of online administration of questionnaire and key informant interviews. The latter provided validation for the quantitative data obtained and provided some effective insight into the study. A need analysis was conducted, relying on the available syllabus, and the gaps in the skill sets of the participants were identified. A practical test of the skills required showed areas where intervention was required. A descriptive survey design was deployed for the study. This research paper is intended to answer the following research questions: What skills do ODL course facilitators and e-tutors require? What challenges do ODL course facilitators and e-tutors face in transitioning to fully online courses? How can these challenges be mitigated? To what extent will exposure to training in ODL courses equip course facilitators and e-tutors with requisite online facilitation skills?

Implementation

Course Design

To ensure that course design meets the principles set out in our policy guide and according to our strategies, tutors and facilitators were trained to incorporate blended learning strategies into the overall curriculum design and rationally link them to learning outcomes. The review of the Academic Staff Training Curriculum “Enabling Digital Learning/Teaching Change: A Blended Learning Approach" was completed on

December 10, 2022. This was to make it respond to the needs of ODL programme managers such as director and associate directors, facilitators, e-tutors, and learner support staff. The aims of the course outline are listed below:

1. Support ODL programme managers, facilitators, e-tutors, and learner support staff to make informed choices about how technology can be integrated into the curriculum and learning design;
2. Provide ideas and inspiration for how staff can overcome barriers to using technology;
3. Dispel a range of misconceptions about what can and cannot be achieved by using technology;
4. Help make ODL programme managers, facilitators, e-tutors, and learner support staff feel more comfortable and confident with technology in and out of the classroom; and
5. Learn about a variety of web tools that help make lessons more engaging for students.

Implementation

Face-to-Face Training

The training programme, titled *"Training course for Open and Distance Facilitators and e-tutors in FUTA",* had two components: the face-to-face and the online component. The face-to-face (F2F) training took place from December 12 – 13 and 15 December 2022. The F2F training had the following modules:

1. Module 1A: Overview of distance, online and blended learning: organisation and delivery
2. Module 1B: ODL policy formulation
3. Module 1C: NUC Guidelines in Evaluation and Assessments for ODL
4. Module 2: Aims of Digital Teaching/Learning Change
5. Module 3:Contents Gathering
6. Module 4: Instructional Design/Course Content Development
7. Module 5:Adaptation of Course Contents/Courseware Development
8. Module 6: Affordances of the Online Learning Space: various tools and multimedia devices
9. Module 7: Course Evaluation

The Online Course

The online component was scheduled to take place between 14-15 December 2022. The online component comprised two discussion forums, collaborative writing, and curriculum design tasks. Discussion 1 involved a reading assignment as a prompt; Discussion 2 was a free composition about learner support. Online activities continued until 6 January 2023.

Data Analysis and Results

Training in Digital Literacy

Table 1: Case Processing Summary

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Have you ever received training in Digital Literacy? * Require training on Presenting lessons using a projector	31	100.0%	0	0.0%	31	100.0%

Have you ever received training in Digital Literacy? * Require training on Using the Smartboard to teach	31	100.0%	0	0.0%	31	100.0%
Have you ever received training in Digital Literacy? * Require training on Have students use the Internet as part of their lesson	31	100.0%	0	0.0%	31	100.0%
Have you ever received training in Digital Literacy? * Require training on Creating PowerPoint presentations	31	100.0%	0	0.0%	31	100.0%
Have you ever received training in Digital Literacy? * Require training on Creating online assignments	31	100.0%	0	0.0%	31	100.0%
Have you ever received training in Digital Literacy? * Require training on Using a Learning Management System for teaching and learning	31	100.0%	0	0.0%	31	100.0%

Table 2: Crosstab: **Training in Digital Literacy? * Require training on Presenting lessons using a projector**

			Require training on Presenting lessons using a projector		
			Yes	No	Total
Have you ever received training in Digital Literacy?	Yes	Count	14	13	27
		% of Total	45.2%	41.9%	87.1%
	No	Count	3	1	4
		% of Total	9.7%	3.2%	12.9%
Total		Count	17	14	31
		% of Total	54.8%	45.2%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.754[a]	1	.385		
Continuity Correction[b]	.109	1	.741		
Likelihood Ratio	.793	1	.373		
Fisher's Exact Test				.607	.378
Linear-by-Linear Association	.729	1	.393		
N of Valid Cases	31				

a. 2 cells (50.0%) have an expected count of less than 5. The minimum expected count is 1.81.
b. Computed only for a 2x2 table

The analysis of the training needs of FUTA lecturers in digital literacy skills presents interesting findings, particularly regarding the requirement for training in presenting lessons using a projector. The cross-tabulation reveals that most lecturers, accounting for 87.1% of respondents, express a need for training in this aspect, even though 45.2% of them have received prior training in digital literacy. This indicates a prevalent recognition among lecturers of the importance of enhancing their skills in utilizing projectors for lesson presentations, despite having some level of familiarity with digital technologies. However, it's noteworthy

that a small proportion of respondents (12.9%) who have not received prior training also express a need for instruction in this area, suggesting a desire among some lecturers to acquire new skills or refine existing ones.

The Chi-Square test results do not indicate a statistically significant relationship between prior training in digital literacy and the requirement for training in presenting lessons using a projector (p = 0.385), the findings underscore the importance of targeted professional development initiatives tailored to address specific skill gaps among lecturers. Given the widespread acknowledgment of the need for training in utilizing projectors for lesson presentations, FUTA could consider implementing workshops, seminars, or online courses focused on enhancing lecturers' proficiency in this area. Additionally, these findings emphasize the dynamic nature of technological advancements and the continuous need for ongoing training and upskilling initiatives to ensure that lecturers remain adept at leveraging digital tools effectively in their teaching practices.

Table 3: Crosstab: Training IN Digital Literacy? * Require training on Using the Smart board to teach

			Require training on Using the Smart board to teach		
			Yes	No	Total
Have you ever received training in Digital Literacy?	Yes	Count	17	10	27
		% of Total	54.8%	32.3%	87.1%
	No	Count	4	0	4
		% of Total	12.9%	0.0%	12.9%
Total		Count	21	10	31
		% of Total	67.7%	32.3%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	2.187[a]	1	.139		
Continuity Correction[b]	.820	1	.365		
Likelihood Ratio	3.391	1	.066		
Fisher's Exact Test				.277	.190
Linear-by-Linear Association	2.116	1	.146		
N of Valid Cases	31				

a. 2 cells (50.0%) have an expected count of less than 5. The minimum expected count is 1.29.
b. Computed only for a 2x2 table

The analysis of the training needs of FUTA lecturers regarding the use of Smart-boards for teaching reveals compelling insights into their digital literacy requirements. The cross-tabulation indicates that a significant portion of lecturers, constituting 87.1% of respondents, express a need for training in utilizing Smart boards despite having received prior training in digital literacy, which accounts for 67.7% of the total respondents. This suggests a prevalent recognition among lecturers of the importance of acquiring specific skills related to Smartboard usage for instructional purposes, indicating a desire to enhance their teaching methods with interactive digital technologies. Additionally, it is notable that a small proportion of respondents (12.9%) who

have not received prior training in digital literacy also express a need for instruction in using Smartboards, underscoring the perceived value of this technology in the educational horizon and the desire among some lecturers to incorporate it into their teaching practices.

Although the Chi-Square test results do not indicate a statistically significant relationship between prior training in digital literacy and the requirement for training in using Smartboards to teach (p = 0.139), the findings highlight the importance of targeted professional development efforts to address specific skill gaps identified among lecturers. Given the widespread acknowledgment of the need for training in Smartboard usage, FUTA could consider implementing specialized training programs or workshops aimed at equipping lecturers with the necessary skills to effectively integrate Smart boards into their teaching methodologies. These findings underscore the evolving nature of educational technology and the continuous need for tailored training initiatives to ensure that lecturers remain proficient in leveraging innovative digital tools to enhance the learning experience for students.

Table 4 Crosstab: Training in Digital Literacy * Require training on Have students use the Internet as part of lesson

			Require training on having students use the Internet as part of their lesson		
			Yes	No	Total
Have you ever received training IN Digital Literacy?	Yes	Count	11	16	27
		% of Total	35.5%	51.6%	87.1%
	No	Count	2	2	4
		% of Total	6.5%	6.5%	12.9%
Total		Count	13	18	31
		% of Total	41.9%	58.1%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.123[a]	1	.726		
Continuity Correction[b]	.000	1	1.000		
Likelihood Ratio	.121	1	.728		
Fisher's Exact Test				1.000	.566
Linear-by-Linear Association	.119	1	.730		
N of Valid Cases	31				

a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 1.68.
b. Computed only for a 2x2 table

Table 5: Crosstab: Training in digital literacy? * Require training on Creating PowerPoint presentations

			Require training on creating PowerPoint presentations		
			yes	no	Total
Have you ever received training in Digital Literacy?	yes	Count	7	20	27
		% of Total	22.6%	64.5%	87.1%
	no	Count	2	2	4
		% of Total	6.5%	6.5%	12.9%
Total		Count	9	22	31

% of Total	29.0%	71.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.980[a]	1	.322		
Continuity Correction	.160	1	.689		
Likelihood Ratio	.903	1	.342		
Fisher's Exact Test				.560	.327
Linear-by-Linear Association	.948	1	.330		
N of Valid Cases	31				

a. 2 cells (50.0%) have an expected count of less than 5. The minimum expected count is 1.16.
b. Computed only for a 2x2 table

The examination of FUTA lecturers' training needs regarding the integration of internet usage and PowerPoint presentations into their lessons provides valuable insights into their digital literacy requirements. The cross-tabulation illustrates that among lecturers who have received training in digital literacy, 35.5% express a need for further instruction on incorporating internet usage into their lessons, while 22.6% indicate a similar need for training in creating PowerPoint presentations despite having received prior digital literacy training. Notably, a significant proportion of respondents, accounting for 51.6% in the case of internet usage and 64.5%, in the case of PowerPoint presentations, report no requirement for additional training in these areas. Conversely, among lecturers who have not undergone digital literacy training, 6.5% express a need for instruction in both internet usage and PowerPoint presentations. These findings suggest varying levels of perceived proficiency and training needs among lecturers regarding specific digital skills, highlighting the importance of targeted professional development initiatives to address identified gaps and enhance digital literacy across the faculty.

Although the Chi-Square test results do not indicate statistically significant relationships between prior digital literacy training and the requirement for further training in internet usage ($p = 0.726$) or PowerPoint presentations ($p = 0.322$), the findings underscore the importance of tailored training programs to meet the diverse needs of lecturers in leveraging digital tools effectively for teaching and learning. Given the essential role of internet resources and multimedia presentations in modern education, FUTA could consider implementing focused training sessions or workshops aimed at enhancing lecturers' skills in utilizing these technologies to enrich their instructional practices. These initiatives could contribute to fostering a more technologically adept faculty body, thereby promoting innovative teaching methodologies, and improving the overall quality of education at FUTA.

Table 6: Crosstab: Training in Digital Literacy * Require training on Creating online assignments

			Require training on Creating online assignments		
			Yes	No	Total
Have you ever received training in Digital Literacy?	Yes	Count	14	13	27
		% of Total	45.2%	41.9%	87.1%
	No	Count	3	1	4
		% of Total	9.7%	3.2%	12.9%
Total		Count	17	14	31
		% of Total	54.8%	45.2%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.754[a]	1	.385		
Continuity Correction[b]	.109	1	.741		
Likelihood Ratio	.793	1	.373		
Fisher's Exact Test				.607	.378
Linear-by-Linear Association	.729	1	.393		
N of Valid Cases	31				

a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 1.81.
b. Computed only for a 2x2 table

The analysis of FUTA lecturers' training needs regarding the creation of online assignments reveals insights into their digital literacy requirements. Among lecturers who have received training in digital literacy, 45.2% express a need for further instruction on creating online assignments despite having undergone prior digital literacy training while 41.9% report no requirement for additional training in this area. Conversely, among lecturers who have not received digital literacy training, 9.7% indicate a need for instruction in creating online assignments, while 3.2% report no such requirement. While the Chi-Square test results do not indicate statistically significant relationships between prior digital literacy training and the requirement for further training in creating online assignments (p = 0.385), the findings underline the importance of tailored professional development initiatives to address identified gaps and enhance digital literacy across the faculty.

Despite the lack of statistical significance, these findings highlight the varying levels of perceived proficiency and training needs among lecturers regarding specific digital skills, emphasizing the importance of targeted training programs to meet diverse instructional requirements. Implementing focused training sessions or workshops aimed at enhancing lecturers' skills in creating online assignments. These initiatives align with the university's commitment to embracing digital advancements in education and ensuring that lecturers are equipped with the necessary skills to leverage technology effectively in their instructional practices.

Table 7 Crosstab: Have you ever received training in Digital Literacy? * Require training on Using a LMS for teaching and learning

	Require training on Using a LMS for teaching and learning	Total

			yes	No	
Haveyou ever receivedyes training in Digital Literacy?		Count	24	3	27
		% of Total	77.4%	9.7%	87.1%
	no	Count	4	0	4
		% of Total	12.9%	0.0%	12.9%
Total		Count	28	3	31
		% of Total	90.3%	9.7%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.492[a]	1	.483		
Continuity Correction[b]	.000	1	1.000		
Likelihood Ratio	.875	1	.350		
Fisher's Exact Test				1.000	.651
Linear-by-Linear Association	.476	1	.490		
N of Valid Cases	31				

a. 3 cells (75.0%) have expected count less than 5. The minimum expected count is .39.
b. Computed only for a 2x2 table

The results on FUTA lecturers' training experiences and their perceived need for further instruction on using a LMS for teaching and learning reveal significant understandings into their digital literacy requirements. Among lecturers who have received training in digital literacy, a substantial majority (77.4%) express a desire for additional training on using an LMS, while only a minority (9.7%) feel adequately prepared in this aspect because of their prior training. On the contrary, among lecturers who have not received digital literacy training, a notable portion (12.9%) indicate a need for instruction in using an LMS, while none report confidence in this skill without prior training. The Chi-Square test results do not indicate statistically significant relationships between prior digital literacy training and the requirement for further training in using an LMS ($p = 0.483$), suggesting that the perceived need for LMS training is consistent across both trained and untrained lecturers.

Despite the lack of statistical significance, these findings emphasize the widespread demand among lecturers for training in utilizing an LMS for instructional purposes. Given the critical role of LMS platforms in modern educational settings, addressing this training need is paramount to ensuring effective teaching and learning practices. Tailored professional development programs focusing on LMS utilization could empower FUTA lecturers to leverage digital tools more effectively, leading to enhanced educational experiences for students and promoting the integration of technology in the learning process.

Challenges of ODL Course Facilitators and E-Tutors in Transitioning to Fully Online Courses

This section examines reasons why ODL course facilitators do not use DLTs in their teaching. These range from lack of skills, lack of training, infrastructural challenges, class size and cost of access.

Table 8: Crosstab - Challenges: Lack of skills * Use of DLTs in supporting teaching

			Do you use DLTs to support teaching in any of the courses you teach?		
			Yes	No	Total
Challenges: Lack of skills	Yes	Count	2	3	5
		% of Total	6.5%	9.7%	16.1%
	No	Count	16	10	26
		% of Total	51.6%	32.3%	83.9%
Total		Count	18	13	31
		% of Total	58.1%	41.9%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.799[a]	1	.371		
Continuity Correction[b]	.159	1	.690		
Likelihood Ratio	.789	1	.375		
Fisher's Exact Test				.625	.341
Linear-by-Linear Association	.773	1	.379		
N of Valid Cases	31				

a. 2 cells (50.0%) have an expected count less than 5. The minimum expected count is 2.10.
b. Computed only for a 2x2 table

The cross-tabulation examines the relationship between challenges due to lack of skills and the use of DLTs to support teaching. Among respondents who reported challenges due to lack of skills, 6.5% indicated using DLTs, while 9.7% reported not using them. Conversely, among those who did not report challenges due to lack of skills, 51.6% reported using DLTs, while 32.3% did not. Overall, 58.1% of respondents reported challenges due to lack of skills, and 41.9% did not.

The Chi-square tests were conducted to determine the association between these variables. The Pearson Chi-Square value was found to be 0.799 with 1 degree of freedom and an asymptotic significance value of 0.371. This indicates that there is no statistically significant association between challenges due to lack of skills and the use of DLTs to support teaching. Additionally, Fisher's Exact Test yielded a two-sided significance value of 0.625, further supporting the lack of statistical significance.

Table 9: Crosstab - Challenges: Lack of training * Use of DLTs in supporting teaching

			Do you use DLTs to support teaching in any of the courses you teach?		
			Yes	No	Total
Challenges: Lack of training	yes	Count	8	7	15
		% of Total	25.8%	22.6%	48.4%
	no	Count	10	6	16
		% of Total	32.3%	19.4%	51.6%

Total	Count	18	13	31
	% of Total	58.1%	41.9%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.267[a]	1	.605		
Continuity Correction[b]	.023	1	.879		
Likelihood Ratio	.267	1	.605		
Fisher's Exact Test				.722	.439
Linear-by-Linear Association	.259	1	.611		
N of Valid Cases	31				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.29.
b. Computed only for a 2x2 table

The cross tabulation determines the interplay between challenges due to lack of training and the use of DLTs to support teaching. Among respondents who reported challenges due to lack of training, 25.8% indicated using DLTs, while 22.6% reported not using them. Equally, among those who did not report challenges due to lack of training, 32.3% reported using DLTs, while 19.4% did not. In this case, 48.4% of respondents reported challenges due to lack of training, and 51.6% did not.

Chi-square tests, in this case, Pearson Chi-Square value was found to be 0.267 with 1 degree of freedom and an asymptotic significance value of 0.605. This indicates that there is no statistically significant association between challenges due to lack of training and the use of DLTs to support teaching. Additionally, Fisher's Exact Test yielded a two-sided significance value of 0.722, further supporting the lack of statistical significance.

Table 10: Crosstab - Challenges: Lack of institutional Digital infrastructure e.g. internet services * Use of DLTs in supporting teaching

			Do you use (DLTs) to support teaching in any of the courses you teach?		
			Yes	No	Total
Challenges: Lack of institutional Digital infrastructure e.g. internet services	yes	Count	15	9	24
		% of Total	48.4%	29.0%	77.4%
	no	Count	3	4	7
		% of Total	9.7%	12.9%	22.6%
Total		Count	18	13	31
		% of Total	58.1%	41.9%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.859[a]	1	.354		
Continuity Correction[b]	.241	1	.623		
Likelihood Ratio	.849	1	.357		
Fisher's Exact Test				.413	.309
Linear-by-Linear Association	.831	1	.362		
N of Valid Cases	31				

a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 2.94.

b. Computed only for a 2x2 table

The cross tabulation examines the connection between challenges due to lack of institutional Digital infrastructure (e.g., internet services) and the use of DLTs to support teaching. Among respondents who reported challenges due to lack of institutional Digital infrastructure, 48.4% indicated using DLTs, while 29.0% reported not using them. However, among those who did not report challenges due to lack of institutional Digital infrastructure, 9.7% reported using DLTs, while 12.9% did not.

77.4% of respondents reported challenges due to lack of institutional digital infrastructure, and 22.6% did not. The Chi-square tests were conducted to determine the association between these variables. The Pearson Chi-Square value was found to be 0.859 with 1 degree of freedom and an asymptotic significance value of 0.354. This indicates that there is no statistically significant association between challenges due to lack of institutional digital infrastructure and the use of DLTs to support teaching. Additionally, Fisher's Exact Test yielded a two-sided significance value of 0.413, further supporting the lack of statistical significance.

Table 11: Crosstab - Challenges: Lack of support infrastructure e.g. electricity * Use of DLTs in supporting teaching

			Do you use (DLTs) to support teaching in any of the courses you teach?		
			Yes	No	Total
Challenges: Lack support infrastructure e.g. electricity	yes	Count	16	9	25
		% of Total	51.6%	29.0%	80.6%
	no	Count	2	4	6
		% of Total	6.5%	12.9%	19.4%
Total		Count	18	13	31
		% of Total	58.1%	41.9%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.869[a]	1	.172		
Continuity Correction[b]	.822	1	.365		
Likelihood Ratio	1.856	1	.173		
Fisher's Exact Test				.208	.182
Linear-by-Linear Association	1.809	1	.179		
N of Valid Cases	31				

a. 2 cells (50.0%) have an expected count of less than 5. The minimum expected count is 2.52.
b. Computed only for a 2x2 table

The cross-tabulation examines how the absence of supportive infrastructure, such as electricity, relates to usingDLTs for teaching

support. Among respondents citing a lack of supportive infrastructure, 51.6% reported using DLTs, while 29.0% did not. On the contrary, among those not facing infrastructure challenges, 6.5% used DLTs, while 12.9% did not. 80.6% reported infrastructure challenges, while 19.4% did not.

Chi-square tests were performed to analyse the relationship. The Pearson Chi-Square value was 1.869 with 1 degree of freedom and an asymptotic significance value of 0.172, indicating no significant association. Fisher's Exact Test yielded a two-sided significance value of 0.208, reinforcing the lack of statistical significance.

Table 12: Crosstab – Challenges: Lack of institutional support * Use of DLTs in supporting teaching

			Do you use (DLTs) to support teaching in any of the courses you teach?		
			Yes	No	Total
Challenges: Lack of institutional support	yes	Count	8	5	13
		% of Total	25.8%	16.1%	41.9%
	no	Count	10	8	18
		% of Total	32.3%	25.8%	58.1%
Total		Count	18	13	31
		% of Total	58.1%	41.9%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.111[a]	1	.739		
Continuity Correction[b]	.000	1	1.000		
Likelihood Ratio	.111	1	.739		
Fisher's Exact Test				1.000	.516
Linear-by-Linear Association	.107	1	.743		
N of Valid Cases	31				

a. 0 cells (0.0%) have an expected count of less than 5. The minimum expected count is 5.45.
b. Computed only for a 2x2 table

The cross-tabulation explores the relationship between the lack of institutional support and the utilization of DLTs for teaching purposes. Among respondents who stated a lack of institutional support, 25.8% reported using DLTs, while 16.1% did not. Equally, among those reporting institutional support, 32.3% used DLTs, while 25.8% did not. Only 41.9% mentioned a lack of institutional support, while 58.1% did not.

The Chi-square tests were conducted to analyse the relationship. The Pearson Chi-Square value was 0.111 with 1 degree of freedom and an asymptotic significance value of 0.739, indicating no significant association. Fisher's Exact Test yielded a two-sided significance value of 1.000, further supporting the lack of statistical significance.

Table 13: Crosstab - Challenges: Cost of access * Use of DLTs in supporting teaching

			Do you use (DLTs) to support teaching in any of the courses you teach?		
			Yes	No	Total
Challenges: Cost of access	Yes	Count	13	8	21
		% of Total	41.9%	25.8%	67.7%
	No	Count	5	5	10
		% of Total	16.1%	16.1%	32.3%
Total		Count	18	13	31
		% of Total	58.1%	41.9%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.394[a]	1	.530		
Continuity Correction	.057	1	.811		
Likelihood Ratio	.392	1	.531		
Fisher's Exact Test				.701	.403
Linear-by-Linear Association	.382	1	.537		
N of Valid Cases	31				

a. 1 cells (25.0%) have an expected count of less than 5. The minimum expected count is 4.19.
b. Computed only for a 2x2 table

The cross-tabulation investigates the relationship between the perceived cost of access and the use of DLTs for teaching purposes. Among respondents citing the cost of access as a preventive factor, 41.9% reported using DLTs, while 25.8% did not. Conversely, among those not considering cost a barrier, 16.1% used DLTs, while another 16.1% did not. In total, 67.7% mentioned cost as a barrier, while 32.3% did not.

Chi-square tests were conducted to assess the relationship. The Pearson Chi-Square value was .394 with 1 degree of freedom and an asymptotic significance value of .530, indicating no significant association. Fisher's Exact Test yielded a two-sided significance value of .701, further supporting the lack of statistical significance. All cells had expected counts greater than 5, ensuring the reliability of the analysis.

Table 14: Crosstab Challenges: Large classes * Use of DLTs in supporting teaching

			Do you use (DLTs) to support teaching in any of the courses you teach?		
			Yes	No	Total
challenges: Large classes	yes	Count	4	2	6
		% of Total	12.9%	6.5%	19.4%
	no	Count	14	11	25
		% of Total	45.2%	35.5%	80.6%
Total		Count	18	13	31
		% of Total	58.1%	41.9%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.226[a]	1	.634		
Continuity Correction[b]	.000	1	.988		
Likelihood Ratio	.230	1	.631		
Fisher's Exact Test				1.000	.501
Linear-by-Linear Association	.219	1	.640		
N of Valid Cases	31				

a. 2 cells (50.0%) have an expected count less than 5. The minimum expected count is 2.52.
b. Computed only for a 2x2 table

The cross-tabulation examines the relationship between the perceived barrier of large class sizes and the use of DLTs for teaching. Among respondents citing large classes as a preventive factor, 12.9% reported using DLTs, while 6.5% did not. Conversely, among those not considering large classes a barrier, 45.2% used DLTs, while another 35.5% did not. In total, 19.4% mentioned large classes as a barrier, while 80.6% did not.

Chi-square tests were conducted to assess the relationship. The Pearson Chi-Square value was 0.226 with 1 degree of freedom and an asymptotic significance value of 0.634, indicating no significant association. Fisher's Exact Test yielded a two-sided significance value of 1.000, further supporting the lack of statistical significance.

Table 15: Crosstab - Challenges: Lack of interest * Use of DLTs in supporting teaching

			Do you use (DLTs) to support teaching in any of the courses you teach?		
			Yes	No	Total
Challenges: Lack of interest	yes	Count	2	1	3
		% of Total	6.5%	3.2%	9.7%
	no	Count	16	12	28
		% of Total	51.6%	38.7%	90.3%
Total		Count	18	13	31
		% of Total	58.1%	41.9%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.101[a]	1	.751		
Continuity Correction[b]	.000	1	1.000		
Likelihood Ratio	.103	1	.748		
Fisher's Exact Test				1.000	.624
Linear-by-Linear Association	.098	1	.755		
N of Valid Cases	31				

a. 2 cells (50.0%) have an expected count of less than 5. The minimum expected count is 1.26.
b. Computed only for a 2x2 table

The cross-tabulation determines the relationship between the perceived barrier of lack of interest and the use of DLTs for teaching. Among respondents who reported lack of interest as a preventive factor, 6.5% reported using

DLTs, while 3.2% did not. Contrarily, among those not considering lack of interest a barrier, 51.6% used DLTs, while another 38.7% did not. In total, 9.7% mentioned lack of interest as a barrier, while 90.3% did not.

Chi-square tests were conducted to assess the relationship between the variables. The Pearson Chi-Square value was 0.101 with 1 degree of freedom and an asymptotic significance value of 0.751, indicating no significant association. Fisher's Exact Test yielded a two-sided significance value of 1.000, further supporting the lack of statistical significance.

Table 16: Cross-tabulation: Use of DLTs in supporting teaching * Mode of learning students are exposed to

			Mode of learning students are exposed to			
			Blended learning	Online learning	Face-to-face	Total
Do you use DLTs to support teaching in any of the courses you teach?	yes	Count	11	2	5	18
		% of Total	35.5%	6.5%	16.1%	58.1%
	no	Count	3	0	10	13
		% of Total	9.7%	0.0%	32.3%	41.9%
Total		Count	14	2	15	31
		% of Total	45.2%	6.5%	48.4%	100%

The cross-tabulation explores the relationship between the use of Digital Learning Technologies (DLTs) for teaching and the mode of learning students are exposed to: blended learning, online learning, and face-to-face (F2F). Of respondents who reported using DLTs for teaching, 35.5% utilise blended learning, 6.5% utilise online learning, and 16.1% utilise F2F learning. Of those who did not use DLTs, 9.7% utilise blended learning, while none reported online learning, and 32.3% utilise F2F learning. 45.2% of respondents used DLTs and exposed their learners to blended learning, only 6.5% used DLTs and exposed their learners to online learning, and 48.4% exposed their learners to face-to-face learning.

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.630[a]	2	.022
Likelihood Ratio	8.521	2	.014
Linear-by-Linear Association	5.941	1	.015
N of Valid Cases	31		

a. 2 cells (33.3%) have an expected count less than 5. The minimum expected count is .84.

The cross-tabulation compares the use of DLTs for teaching with the mode of learning that students are exposed to. Among the participants, 58.1% reported using DLTs to support teaching in any of the courses they teach, while 41.9% did not. Chi-square tests indicate a statistically significant relationship between the use of DLTs and the mode of learning students are exposed to (Pearson Chi-Square = 7.630, p = 0.022). This suggests that there may be a meaningful association

between the use of DLTs and the mode of learning students' experience.

Table 17: Crosstab: Integration of DLTs into instruction or materials * Require training on Presenting lessons using a projector

			Require training on Presenting lessons using a projector		
			Yes	No	Total
Do you Integrate DLTs into your instruction or materials	REGULARLY: Once a week	Count	1	3	4
		% of Total	3.2%	9.7%	12.9%
	FREQUENTLY: Like once or twice a month	Count	3	1	4
		% of Total	9.7%	3.2%	12.9%
	OCCASIONALLY: Like once or twice a semester	Count	6	6	12
		% of Total	19.4%	19.4%	38.7%
	RARELY: Like once or twice a year	Count	2	0	2
		% of Total	6.5%	0.0%	6.5%
	NEVER: Never use it	Count	5	4	9
		% of Total	16.1%	12.9%	29.0%
Total		Count	17	14	31
		% of Total	54.8%	45.2%	100%

The table illustrates the relationship between the integration of DLTs into instruction or materials and the training requirement for presenting lessons using a projector. Among the educators sampled, 54.8% reported integrating DLTs into their instruction or materials, while 45.2% did not.

When considering the need for training on presenting lessons using a projector, 3.2% of those who integrate DLTs regularly (once a week) and 9.7% of those who do not report needing training. 9.7% of those who do not feel they require training. 19.4% of those who integrate DLTs occasionally (once or twice a semester) and the same percentage of those who do not feel they need training. Among those who rarely integrate DLTs (once or twice a year), 6.5% reported needing training, while none of those who do not integrate DLTs reported needs for training. Lastly, among those who never use DLTs, 16.1% felt they needed training, compared to 12.9% of those who do not use them. This suggests a potential association between the integration of DLTs and the perceived need for training on presenting lessons using a projector.

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.857[a]	4	.426
Likelihood Ratio	4.686	4	.321
Linear-by-Linear Association	.477	1	.490
N of Valid Cases	31		

a. 8 cells (80.0%) have an expected count less than 5. The minimum expected count is .90.

In the analysis of educators' integration of DLTs into their instruction or materials, 54.8% indicated implementation, while 45.2% did not. Examining the necessity for training in presenting lessons using a projector reveals nuanced trends: Among those who integrate DLTs weekly, 3.2% acknowledged a training requirement, contrasting with 9.7% of non-integrators. Similarly, 9.7% of frequent integrators expressed a need training, in contrast to 3.2% of non-frequent users. Occasional integrators, comprising 19.4% of both integrating and non-integrating educators, identified a training necessity. However, among rare DLT integrators, 6.5% perceived a need, while non-integrators did not. Finally, 16.1% of educators abstaining from DLT use indicated a requirement for training, compared to 12.9% among non-users. These findings suggest a potential correlation between DLT integration and perceived training needs for projector-based instruction.

Table 18: Crosstab: Integration of DLTs into instruction or materials * require training on Using the Smartboard to teach

			Require training on Using the Smartboard to teach		
			Yes	No	Total
Do you integrate DLTs into your instruction or materials	REGULARLY: Once a week	Count	3	1	4
		% of Total	9.7%	3.2%	12.9%
	FREQUENTLY: Like once or twice a month	Count	2	2	4
		% of Total	6.5%	6.5%	12.9%
	OCCASIONALLY: Like once or twice a semester	Count	8	4	12
		% of Total	25.8%	12.9%	38.7%
	RARELY: Like once or twice a year	Count	2	0	2
		% of Total	6.5%	0.0%	6.5%
	NEVER: Never use it	Count	6	3	9
		% of Total	19.4%	9.7%	29.0%
Total		Count	21	10	31
		% of Total	67.7%	32.3%	100%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.636[a]	4	.802
Likelihood Ratio	2.208	4	.698
Linear-by-Linear Association	.027	1	.870
N of Valid Cases	31		

a. 8 cells (80.0%) have expected count less than 5. The minimum expected count is .65.

Conclusion and Recommendations

Conclusion

In conclusion, many lecturers had challenges integrating DLTs into their courses. They also expressed challenges with the integration of DLTs into instructional materials. They expressed a need for training on using a smart board. Among DLT integrators, varied percentages indicated a need for training based on integration frequency: 9.7% once a week, 6.5% once or twice a month, 25.8% once or twice a semester, 6.5% once or twice a year, and 19.4% never. The frequency of DLT integration among educators shows 12.9% weekly, another 12.9% monthly, 38.7% semestrial, 6.5% annual, and 29 % never. Chi-Square test outcomes revealed no significant association between DLT integration frequency and the demand for smart board training ($\chi^2 = 1.636$, df = 4, p = .802).

Recommendations

The study has identified challenges in using DLTs such as lack of skills, training, support infrastructure, and digital infrastructure. To address these issues, universities can improve funding, transition to renewable energy sources, and consider marketable short-term courses. Additionally, bespoke training programs and advanced training can help address skills and training issues. These programs can be sponsored and hosted by the university, with resource persons from local and foreign universities, and can be facilitated via Zoom or Google Meet.

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