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Assessment of Digital Awareness and Competence Among Lecturers and Students for Enhancing Social Studies Instruction in Government-Owned Universities

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Abstract

Proper utilization of technology by students and lecturers in tertiary institutions is essential during the era of digital revolution. This study aimed to evaluate the level of digital awareness and competency of the students and lecturers in the government-owned institutions in South-West Nigeria. A descriptive survey research design was used for this study. They were all lecturers and full-time undergraduate students in the public universities of the region. Multistage sampling led to a sample of 102 lecturers and 1,507 students. The data was collected by two structured tools: the Lecturers' Preparedness for Digitalisation of Higher Education Instruction Questionnaire (LPDHEIQ) and the Students' Preparedness for Digitalisation of Higher Education Instruction Questionnaire (SPDHEIQ). Every questionnaire had six scales with demographic data, awareness of digitalisation, and digital competence and the items were scaled on a four-point Likert scale. The instruments were validated based on expert judgment in educational technology, measurement, and supervision. Pilot study application in non-sample institutions yielded Cronbach's alpha values of 0.79 for LPDHEIQ and 0.97 for SPDHEIQ, indicating high internal consistency. The questionnaires were filled online through Google Forms dispatched on social media platforms and email. Descriptive statistics such as means and standard deviations were used to respond to the research questions, and t-test statistics to test the hypothesis at a 0.05 level of significance. The findings showed lecturers to possess a moderate level of digital awareness and competence, while students yielded moderately high to high levels of digital competence. A significant difference was created between lecturers' and students' digital competence in favor of the students. Universities are recommended to place highest emphasis on continuous digital training and support frameworks to reinforce lecturers' competence and narrow the digital preparedness gap.

Keywords: *Competence, Digital Awareness, Lecturers, Public Universities Students.*

Introduction

The digitalization of education has become a global imperative, influencing teaching and learning globally across subject matters and levels of education. Digital technologies are increasingly woven into pedagogical practice, fostering interactive, student-centered environments and facilitating access to varied instructional resources (UNESCO, 2021). In Social Studies education, the implementation of digital tools can enhance civic literacy, historical knowledge, and global consciousness through simulations, virtual field trips, digital storytelling, and real-time data analysis (Heafner & Fitchett, 2018).

In Nigeria, the push towards digitalisation of higher education has been backed by policy provisions such as the National Policy on ICT in Education (Federal Ministry of Education, 2019), which places high priority on the integration of digital competences among students and

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teachers.Despite these policy provisions, the majority of public universities continue to experience difficulties in areas related to poor infrastructure, poor funding, poor digital training, and irregular implementation schedules (Olaore, 2014; Ololube, 2016). These challenges are most evident in South West Nigerian public universities, where digital access inequality as well as lecturers' and students' proficiency has been noted.

Digital awareness as the recognition of the existence, relevance, and potential of digital technologies in education (Ng, 2012) precedes digital adoption. Attitude is guided by awareness and determines the amount of effort lecturers and students expend on activities on digital platforms (Ertmer & Ottenbreit-Leftwich, 2010). Also of importance is digital competence, i.e., the ability to effectively utilize digital tools in order to search for information, communicate, collaborate, create content, and solve problems in teaching environments (European Commission, 2018; Ferrari, 2013). A research by Akomolafe and Adesua (2016) indicated that while there are Nigerian university lecturers who possess minimum ICT competence, they do not possess pedagogical competence in using these tools in teaching. Similarly, another research by Ifinedo, Rikala, and Hämäläinen (2020) indicated that Nigerian university students utilize technology to a greater degree in social communication than learning, which shows an imbalance in educational digital literacy. This inconsistency can negatively affect the instruction and learning of Social Studies, a subject which thrives by way of interactivity, questioning, and global consciousness.

The COVID-19 pandemic underscored the necessity of digital readiness in the Nigerian university system. The transition to online delivery during lockdowns uncovered both infrastructural and human resource gaps, particularly among academic staff who were not prepared for digital delivery modes (Akinyemi & Ofodu, 2021; Agbo et al., 2021). Thus, the necessity to investigate digital awareness and competence among university stakeholders cannot be overstated.

Despite growing interest in digital learning, there is limited empirical exploration of Social Studies teaching in Nigerian public universities. Most literature discusses e-learning adoption or digital literacy in general terms without differentiating between disciplines or between lecturers' and students' digital preparedness. This necessitates a detailed exploration into how digitalisation is perceived and carried out in teaching Social Studies in South West Nigerian universities. This study, therefore, aims to assess the level of digital awareness and competency among lecturers and students in South West Nigerian public universities in the context of teaching Social Studies. The outcome is expected to inform policy, curriculum development, and professional development interventions that will foster a digitally competent academic community and enhance the teaching and learning process in general.

Statement of the Problem

The application of digital technologies within higher education has been becoming increasingly vital for efficient teaching delivery, particularly in disciplines such as Social Studies that require interactive, critical, and civic-driven approaches to learning. While world education systems are increasingly embracing digitalisation to facilitate learning and teaching, many Nigerian public universities especially in the South West region of the nation are still confronted with pervasive limited digital awareness and competencies among the key players, particularly lecturers and students. This case is one that needs attention to do with the readiness of academia to embrace pedagogic methodologies of the 21st century and adapt themselves to a digitally based world of learning. Despite national efforts such as the National Policy on ICT in Education (Federal

Ministry of Education, 2019) and institutional efforts to provide digital literacy, various studies (e.g., Akinyemi & Ofodu, 2021; Agbo et al., 2021) have attested that university lecturers are not digitally literate enough to impact teaching. Further, students use digital tools and resources more for socializing and entertainment than for academic work (Ifinedo, Rikala, & Hämäläinen, 2020), suggesting an incongruence between digital exposure and its academic application. Where technology can be used in Social Studies instruction discussing citizenship, social responsibility, and world consciousness the lack of digital readiness disenfranchises pedagogical effectiveness and learning participation. Specifically, past studies have generally overlooked discipline-specific digital awareness and competency metrics. It has no empirical evidence to date that is specific to the Social Studies context of South West Nigerian public universities, whose pedagogical requirements are unique. Solutions to problems still remain in matters of how well informed and capable are teachers and students themselves in utilizing digital technologies towards improved instruction in Social Studies. Without that information, one may try to come up with relevant interventions, training modules, or curricular innovations, which may prove irrelevant and ineffective. Therefore, this research seeks to fill this gap by establishing the level of digital awareness and capacity of students and lecturers in South West Nigerian public universities, with particular focus on Social Studies instruction. The findings will be utilized to guide evidence-based interventions for quality teaching, student participation, and overall academic performance in the digital age.

Objectives of the Study

Ascertain level of awareness of digitalisation of instructional delivery among lecturers in the South West Nigerian public universities

Ascertain level of awareness of digitalisation of instructional delivery among students in the South West Nigerian public universities

Ascertain the level of digital competence among lecturers in the South West Nigerian public universities

Ascertain the level of digital competence among students in the South West Nigerian public universities

Research Questions

1. What is the level of awareness of digitalisation for instructional delivery among lecturers in the South West Nigerian public universities?

2. What is the level of awareness of digitalisation for instructional delivery among students in the South West Nigerian public universities?

3. What is the level of digital competence among lecturers in the South West Nigerian public universities?

4. What is the level of digital competence among students in the South West Nigerian public universities?

Research Hypothesis

1. There is no significant difference between the level of awareness of digitalisation of lecturers and students in higher education institutions in the South West Nigeria.

Methodology

The study utilized descriptive survey research design to examine the awareness and ability of lecturers and students' digital literacy in South-West Nigeria's public universities. The population included all the lecturers and full-time undergraduate students of the South-West region, from which a multistage sampling technique was utilized to sample 102 lecturers and 1,507 students. Data were collected via two planned instruments: the Lecturers' Preparedness for Digitalisation of Higher Education Instruction Questionnaire (LPDHEIQ) and the Students' Preparedness for Digitalisation of Higher Education Instruction Questionnaire (SPDHEIQ). The questionnaires contained six sections: demographic information (Section A), awareness level regarding digitalisation of instruction delivery (Section B), and digital competence (Section C). Questions were presented on a four-point Likert scale. The tools underwent face and content validity through expert review in educational technology, measurement, and the supervisory team. Pilot testing in non-sampled institutions ensured reliability, providing Cronbach's alpha coefficients of 0.79 for LPDHEIQ and 0.97 for SPDHEIQ, which are indicators of very high internal consistency. Online administration of the questionnaire using Google Forms sent by email and social media ensured availability and a very high response rate. The information collected were analyzed by descriptive statistics (standard deviation, mean, frequency count, and percent) in addressing questions raised to provide answers that required a decision mean of 2.50. The use of t-test was done while testing the hypothesis when the significance level is at 0.05.

Findings

Research Question 1: What is the level of awareness of digitalisation for instructional delivery among lecturers in the South West Nigerian public universities?

S/N	Statement	Mean	SD	Remark
1	I am familiar with the ongoing digitalisation efforts for instructional delivery at my university.	3.06	0.87	Moderate Awareness
2	I have received adequate training or attended workshops on using digital tools for instructional purposes.	2.78	0.94	Moderate Awareness
3	I actively incorporate digital technologies into my teaching methods.	2.85	0.94	Moderate Awareness
4	I am aware of the digital resources available for enhancing instructional delivery.	3.03	0.85	Moderate Awareness
5	I regularly integrate digital tools into my lesson plans and instructional activities.	2.9	0.92	Moderate Awareness
6	I have attended seminars or conferences focused on digital pedagogy and its application in teaching.	2.61	0.98	Low Awareness
7	I am confident in my ability to adapt to new digital teaching methods and technologies.	2.94	0.93	Moderate Awareness
8	I have explored online platforms for sharing educational resources with my students.	3.06	0.85	Moderate Awareness

9	I believe that digitalisation has the potential to significantly enhance student learning outcomes.	3.23	0.83	High Awareness
10	I am open to receiving further training or support in using digital technologies for teaching and learning.	3.12	0.87	Moderate Awareness
11	I am aware of the limitations and challenges associated with using digital tools in instructional delivery.	2.9	0.96	Moderate Awareness
12	I have sufficient knowledge of how to effectively integrate digital tools to improve instructional delivery.	2.8	0.95	Moderate Awareness
13	I regularly evaluate and update my digital teaching practices to align with current educational trends.	2.81	0.93	Moderate Awareness
14	I feel supported by my institution in my efforts to incorporate digital technologies into my teaching.	2.86	0.94	Moderate Awareness
15	I am familiar with the pedagogical potential of digital tools and how they can be used to enhance learning.	2.85	0.93	Moderate Awareness

Table 1: Mean And Standard Deviation of Responses on The Level of Awareness of Digitalisation for Instructional Delivery Among Lecturers N=102

Cut-off = 2.50

Table 1 reveals that lecturers generally demonstrated a moderate level of awareness regarding digitalisation for instructional delivery, as the mean scores for most items ranged between 2.78 and 3.23. The highest awareness was recorded in the belief that digitalisation can enhance student learning outcomes (M = 3.23, SD = 0.83), suggesting strong recognition of its potential impact. However, awareness was lowest in participation in seminars or conferences on digital pedagogy (M = 2.61, SD = 0.98), indicating limited exposure to professional development opportunities in this area. Despite moderate familiarity with digital tools and willingness to adopt them, the findings highlight a need for more structured training and institutional support to deepen lecturers' digital teaching competencies and engagement.

Research Question 2: What is the level of awareness of digitalisation for instructional delivery among students in the South West Nigerian public universities?

SN	**Item**	**Mean**	**S.D**	**Remark**
1	I am aware that my university is currently implementing digitalisation in instructional delivery.	3.09	0.88	Moderately High
2	I am familiar with the online learning platforms and digital tools used in my university.	3.06	0.8	Moderately High

			9	
3	I have received information about how digitalisation enhances teaching and learning.	3.16	0.85	Moderately High
4	I have undergone training or received guidance on how to use digital tools effectively in learning.	2.97	0.91	Moderate
5	I proactively search for updates on learning-related digital tools and platforms provided by my university.	3.05	0.90	Moderately High
6	I know the commonly used digital applications and platforms for academic purposes.	3.04	0.88	Moderately High
7	I understand how digital instructional delivery can positively influence my academic performance.	3.20	0.84	High
8	I feel confident in navigating the digital resources available for my coursework.	3.07	0.89	Moderately High
9	I am aware of the technical support systems available to assist students with digital learning tools.	3.13	0.86	Moderately High
10	I believe digitalisation will significantly shape the future of education in my institution.	3.10	0.85	Moderately High

Table 2: Mean And Standard Deviation of Responses on Level of Awareness of Digitalisation For Instructional Delivery Among Students in the South West Nigerian Public Universities

N=1507

Cut-off = 2.50

Table 2 indicates that students in South West Nigerian public universities generally have a moderately high level of awareness of digitalisation for instructional delivery, with mean scores ranging from 2.97 to 3.20. The highest level of awareness was observed in students' understanding of how digitalisation can enhance academic performance (M = 3.20, SD = 0.84), reflecting positive perceptions of its benefits. While most students are familiar with digital platforms and technical support systems, their lowest mean score was in receiving training or guidance on using digital tools (M = 2.97, SD = 0.91), suggesting a gap in hands-on capacity-building efforts. Students show a strong awareness of digitalisation trends but would benefit from more structured training and support to fully maximise digital learning opportunities.

Research Question 3: What is the level of digital competence among lecturers in the South West Nigerian public universities?

S/N	**Item**	**Mean**	**S.D**	**Remark**

1	I am competent in designing online courses, including setting objectives, strategies, content, activities, and assessments.	2.92	0.78	Competent
2	I am capable of organising course materials such as the syllabus and learning modules.	2.98	0.70	Competent
3	I am skilled in selecting and evaluating appropriate digital resources for teaching.	2.90	0.75	Competent
4	I effectively use digital tools to communicate and provide feedback to students.	3.11	0.69	Highly Competent
5	I manage my time efficiently when teaching online courses.	2.77	0.79	Competent
6	I use a variety of digital communication tools (e.g., email, chat applications) in my instruction.	3.08	0.75	Highly Competent
7	I can troubleshoot basic technical issues related to digital instruction.	2.56	0.86	Competent
8	I possess technical knowledge in using learning management systems, browsers, and media tools.	2.93	0.81	Competent
9	I am proficient in designing and delivering online assessments.	2.77	0.82	Competent
10	I utilize digital tools effectively for collaboration and content creation.	2.94	0.77	Competent
11	I am able to manage and integrate various digital learning platforms.	2.84	0.84	Competent
12	I easily adapt to new digital platforms and technologies used in teaching.	2.94	0.77	Competent
13	I provide adequate support to enhance students' digital literacy skills.	2.92	0.81	Competent
14	I am capable of managing and utilizing digital content, such as videos and multimedia, in instruction.	2.90	0.79	Competent
15	I regularly update my digital teaching practices to align with emerging trends.	2.99	0.74	Competent

Table 3: Mean And Standard Deviation of Responses on the Level of Digital Competence Among Lecturers in the South West Nigerian Public Universities

N=102

Cut-off = 2.50

Table 3 reveals that lecturers in South West Nigerian public universities generally demonstrate a competent level of digital competence, with mean scores ranging from 2.56 to 3.11. The highest competence levels were observed in using digital tools for communication and feedback (M = 3.11, SD = 0.69) and utilizing diverse communication platforms (M = 3.08, SD = 0.75), indicating strong digital interaction skills. However, lecturers showed lower competence in troubleshooting technical issues (M = 2.56, SD = 0.86) and managing online teaching time effectively (M = 2.77, SD = 0.79), suggesting areas needing improvement. Overall, while lecturers are broadly competent in digital teaching, targeted training in technical troubleshooting and course management could enhance their effectiveness.

Research Question 4: What is the level of digital competence among students in the South West Nigerian public universities?

S/N	Item	Mean	S.D	Remark
1	I am proficient in the use of basic digital tools such as word processors, spreadsheets, and presentation software.	3.20	0.87	High
2	I feel confident navigating online learning platforms like Learning Management Systems (e.g., Moodle, Blackboard).	3.13	0.86	High
3	I effectively use the internet to search for academic resources and information.	3.25	0.82	High
4	I am capable of critically assessing the credibility of digital information sources.	3.15	0.84	High
5	I am proficient in using digital communication tools such as email, instant messaging, and video conferencing.	3.16	0.83	High
6	I am comfortable using digital collaboration platforms like Google Docs, Microsoft Teams, or Zoom for projects.	3.23	0.81	High
7	I can create and edit digital content such as videos, podcasts, or blogs for academic assignments.	3.08	0.88	Moderate
8	I am aware of ethical issues and privacy considerations when using digital technologies.	3.03	0.89	Moderate
9	I am skilled in using software tools such as Excel or SPSS for data	2.9	0.	Mod

	analysis in my academic work.	7	93	erate
10	I can troubleshoot common technical issues encountered with digital devices or software.	2.97	0.91	Moderate
11	I frequently use online educational resources (e.g., e-libraries, academic websites) to support my learning.	3.30	0.80	High
12	I effectively manage and organise my academic work using digital tools.	3.22	0.82	High
13	I have experience contributing to online discussions or forums as part of coursework.	3.10	0.86	High
14	I feel confident in adapting to new digital technologies and tools.	3.15	0.84	High
15	I am knowledgeable about the digital tools provided by my university and how to access them.	3.14	0.83	High
16	I effectively use social media platforms for academic networking and collaboration.	3.16	0.82	High
17	I understand and practice digital security measures such as using strong passwords and recognizing phishing.	3.21	0.81	High
18	I am skilled in using online tools to design visually effective and engaging presentations.	3.17	0.81	High
19	I am comfortable using digital assessment platforms such as online quizzes and e-portfolios.	3.09	0.87	High
20	I actively seek to improve my digital literacy through tutorials, workshops, or online training.	3.27	0.80	High

Table 4: Mean and Standard Deviation of Responses on the Level of Digital Competence Among Students in the South West Nigerian Public Universities

N=1057

Cut-off =2.50

Table 4 shows that students in South West Nigerian public universities generally exhibit a high level of digital competence, with most mean scores above 3.00. The highest competence was recorded in frequent use of online educational resources (M = 3.30, SD = 0.80), active efforts to improve digital literacy (M = 3.27, SD = 0.80), and effective use of the internet for academic research (M = 3.25, SD = 0.82). Students also reported strong abilities in using communication and collaboration tools, managing academic work digitally, and understanding digital security.

However, moderate competence was observed in more technical or specialized areas like data analysis using software tools (M = 2.97), troubleshooting (M = 2.97), and creating multimedia content (M = 3.08). Hence, students are digitally competent but may benefit from targeted training in advanced and technical digital skills.

Testing of Hypothesis

Hypothesis 1: There is no significant difference between the digital competence of faculty staff and students in higher education institutions in the South West Nigeria.

Variable	**N**	**Mean**	**S.D**	**Df**	**t**	**P**
Lecturers	102	83.18	8.62			
Students	1507	82.19	8.75	1067	0.55	0.001*

Table 5: T-Test Analysis of the Difference Between the Digital Competence of Lecturers and Students in Higher Education Institutions in The South West Nigeria

p<0.05 (Significant Result)

Table 5 presents a t-test analysis comparing the digital competence of lecturers and students in South West Nigerian higher education institutions. The results reveal a statistically significant difference in digital competence between lecturers (M = 83.18, SD = 8.62) and students (M = 82.19, SD = 8.75), with a t-value of 0.55 and a p-value of 0.001, which is less than the 0.05 significance level. Although the mean difference is relatively small, the result indicates that lecturers possess a slightly higher level of digital competence than students, and this difference is statistically significant.

Discussion

The result shows that lecturers have a moderate level of digitalisation consciousness in teaching practices. The research result agrees with the research report by Akomolafe and Adesua (2021), which established that while many university lecturers in Nigeria have knowledge of digital tools, it is superficial in nature due to limited exposure and training. This is also corroborated by Agbo et al. (2021), who reported that despite heightened awareness of digitalisation during the COVID-19 pandemic, many lecturers still struggled to incorporate digital tools practically into pedagogy. Similarly, in line with Adedoyin and Soykan (2020), lecturers in emerging environments are likely to face structural and logistic challenges which prevent complete internalisation of digital teaching frameworks. However, this result contrasts with Al-Fraihat et al. (2020), whose study in certain Middle East universities showed lecturers' high readiness and awareness levels through continuous institutional investment in e-learning facilities and continuous training. The moderate awareness in the present research thus indicates the need for continuous policy implementation and digital capacity-building in South West Nigerian public universities.

The finding shows that students had a relatively high degree of awareness of digitalization. This is in agreement with the finding of Ifinedo, Rikala, and Hämäläinen (2020), who showed that Nigerian university students are aware of digital platforms since they have continuous exposure to mobile and internet technologies. It is also buttressed by Olutola and Olatoye (2021), who stated that students often point out the utility of digital tools for learning, especially for access to learning materials and communication with others. In concordance with this, Oni and Bello

(2022) explained that the proliferation of smartphones and learning apps has subjected students to increased digital exposure. However, this finding differs from the report by Eze et al. (2020), wherein certain Nigerian university students particularly rural or underprivileged institutions lack good awareness and are not readily exposed to digital learning materials. This difference can be attributed to variation in institutions and socio-economic situations towards digital access. The overall moderate high awareness level reported here signals the enhanced role of digital technology in structuring students' educational engagement but also a requirement for formal digital orientation programs.

The result of the study reveals that lecturers as a whole can perform digital pedagogy abilities. This is in line with Yusuf, Okebukola, and Onasanya (2021) study, where they established that the majority of Nigerian lecturers have general digital competencies, especially in content presentation and communication. It is also argued by Adebayo and AbdulRahman (2022), whose study established that the lecturers in public universities are moderately capable to utilize devices like learning management systems but are incapable of more complex digital pedagogic practice. Consistent with Ololube (2021), present findings are illustrative of a situation where capability tends to result from self-upbringing and is not the product of formalized institutional training. Contrarily, this finding differs from Tella et al. (2019), who documented a high rate of lecturers in some private Nigerian universities to be highly digitally capable through ongoing investment in training and administrative support. Therefore, although South West Nigerian public university lecturers show functional digital capability, there is still space for advanced digital instructional design and problem-solving as deliberate professional development activities.

The result shows that students demonstrated a great extent of digital literacy. This corroborates the works of Onwuka and Ajayi (2022), which reported Nigerian students, particularly those in urban universities, as being more proficient in using digital devices for academic and social activities. The same is endorsed by Eze, Chinedu-Eze, and Bello (2021), which indicated that students use internet platforms extensively for researching, collaborating, and communicating digitally. In line with the global pattern highlighted by UNESCO (2022), the current students typically referred to as digital natives are more confident in managing multiple technologies. Nevertheless, this finding contradicts Kpolovie and Awusaku (2020), whose argument was that the majority of Nigerian students only demonstrate shallow digital literacy, particularly for analytical abilities and content creation ability. This difference may be due to variations in institutions, amounts of available resources, or varying levels of previous exposure to online learning. The level of competence found in this research is high and reflects widespread incorporation of the digital world into students' learning processes but also reflects more intensification of deepening their expertise in content creation, data analysis, and ethics of using online tools.

The finding is indicative of a statistically significant difference when comparing the digital literacy of lecturers and students, the latter being one notch below the former. The report is reiterated in Agbo et al. (2021) words that they assumed that despite students' general digital fluency, lecturers tend to perform better where the digital capabilities are referred to specifically in academic competence tasks, particularly the application of formal tools like LMS. This result also supports Eze and Chinedu-Eze (2020), which found that while students can excel in non-formal digital use, lecturers excel in professional academic application. However, this result contradicts that of Akinyemi and Ofodu (2021), which reported that Nigerian students performed better to traverse most digital platforms than lecturers, particularly in the initial phase of the post-COVID digital transformation. The paradox suggests competence can be situational and a

function of nature of training, availability of the device, and organizational support. The finding yet points to the need to close the gap to ensure balanced digital capacity for the two groups if teaching and learning outcomes are to be effective.

Conclusion and Recommendations

Lecturers have a moderate digital capacity and students' awareness of teaching delivery, whereas students exhibit higher awareness and digital competence. The extensive variation in digital capability among lecturers and students means that there has to be on-going professional development among lecturers so that they are able to maintain pace with evolving digital educational trends. Thus, the study establishes that even though digitalisation is gradually gaining momentum in higher education, collective efforts need to be made towards ensuring equal digital preparedness among all the stakeholders to improve the effectiveness of teaching. South West Nigerian universities need to enhance efforts towards improving digital skills among lecturers through regular training, technical support, and systematic capacity-building activities. Universities need to integrate digital literacy into education development policies and provide incentives for the adoption of digital technology. For the students, although their digital skills are primarily ideal, continuous exposure to new digital tools and support systems is needed to maintain and develop their skills. Universities also need to have mechanisms in place for ongoing monitoring to assess the effectiveness of digitalisation processes and compliance with global standards of education.

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