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Computer Literacy Skills and Digital Grading of Students among Business Education Teaching Staff of Ignatius Ajuru University of Education

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Abstract:

This study investigates the relationship between computer literacy skills and digital grading of students among business education teaching staff at Ignatius Ajuru University of Education (IAUE). Specifically, the study examined how basic computer operation skills, software manipulative skills, and data/information management skills relate to the proficiency of lecturers in executing digital grading tasks. Design: The study used a correlation design. The population comprised all 24 business education teaching staff of Ignatius Ajuru University of Education, and because this number was small, a census sampling technique was used which entailed covering the entire population. We used an instrument called Computer Literacy Skills and Digital Grading of Students Questionnaire (CLSDGSQ), developed by the researchers themselves, to collect data. It was validated by experts in Business Education and trial-tested with 10 lecturers from another faculty at the same university; the reported Cronbach Alpha reliability coefficient is 0.72, reflecting acceptable consistency. Data analysis involved the use of descriptive statistics (mean and standard deviation) to answer research questions and Pearson Product Moment Correlation (PPMC) to test hypotheses at the 0.05 significance level. Findings revealed that business education teaching staff possessed moderate proficiency in basic computer operations (e.g., turning on, navigating, and managing files) and some competence in software use (Microsoft Word and Excel). However, weaknesses were observed in the use of PowerPoint, learning management systems, result-processing software, and advanced data management practices such as cloud backup and digital security. Overall, the study established positively strong and significant relationship between computer literacy of basic computer operation

skills and digital grading of students. However, the study found weak and no significant relationship with software manipulative skills and data/information management skills. This means that the better the computer literacy of business education teaching staff, the more effective, expedient, accurate, and transparent the processes of student assessment become. The implication from the study is that increased computer literacy is critical for sustainable digital assessment practices within IAUE and may also be relevant outside of IAUE itself. The report suggested ongoing training programs for educators, provision of modern information and communications technology infrastructure, and a policy-based approach to the adoption of digital grading systems to ensure proper assessment of students.

Keywords: Computer Literacy Skills, Digital Grading, Business Education, IAUE, Software Manipulation, Data Management.

Introduction

The integration of digital technologies in educational settings has underscored the importance of computer literacy among educators, particularly in higher institutions. For lecturers in business education at the Ignatius Ajuru University of Education (IAUE), proficiency in key computer-related skills is crucial for effective digital grading of students [1]. Their research on digital literacy in Nigerian open-distance learning contexts revealed that facilitators rated themselves highly in basic computer skills, including digital information handling—highlighting how foundational competencies support administrative and academic functions [1]. In addition to the general competency with computers, the ability to operate certain software programs is also imperative. Word processors, spreadsheets, presentation tools, and learningmanagement systems all impact on the effectiveness of digital grading in terms of speed, reliability, and timely feedback, depending on the degree of integration of such applications in the classroom and the profession of the educator who makes use of such tools for grading purposes [2]. Nworgu examined computer skills acquisition of lecturers in southeastern Nigeria and discovered that while educational instructors had achieved satisfactory levels of computer skills in Microsoft Word and Internet operation, they lagged in PowerPoint and Excel—the irregularities found in evaluation scores may produce discrepancies in software manipulations essential to digital pedagogical functions [2].

Beyond this, digital literacy encompasses the tangible handling of data and information. An empirical effect of computer literacy on the successful use of library information resources among postgraduate students of South-South Nigerian federal universities also signified that computer literacy significantly influenced successful use of library information resources [3]. This implies that information/data management skills (ex. organizing, retrieving, and protecting academic records) are instrumental to broader academic processes, including grading. While the study focuses of the relationship between general domains of computer literacy (broadly defined as level of knowledge and skills pertaining to use of computers) and faculty member capability in digital grading, it is specifically situated within the business education staff at IAUE (the subject area of the students involved - a different type of project). These relationships form an important component in detecting capability, gap, and training needs, ultimately seeking to improve the practice of digital grading and teaching performance in business education.

Statement of the Problem

Higher Education has placed increasing demands on knowledge and computer literacy skills of lecturers, with the gradual shift from manual to digital grading. Business education lecturers are therefore expected to use digital platforms to assess students in a transparent, timely and correct manner at Ignatius Ajuru University of Education (IAUE). Nonetheless, limited foundational computer skills, improper software operation, and ineffective data management have all been noted as difficulties, resulting in delays, mistakes, and discrepancies in grading.

Although computer literacy is fundamental to improving digital assessment, relatively little is known about the relation between the gradable skills possessed by business education lecturers and their continued use of the digital grading system in IAUE. This gap is problematic as it calls into question the degree to which lecturer computer literacy plays a role in effective grading and would merit further investigation to establish strengths and weaknesses deserving of intervention.

Literature Review

Computer literacy skill is the individual ability to effectively use computer and related the technology which is to paraphrase it, that it involves a set of skills and skills to solve the tasks, problems, and managing of the information. Today, these are indispensable abilities not only for school but also for the workforce and everyday life. As stated by Adebayo, basic skills, such as using word processing software, spreadsheets, web browsing, location services, emails, and digital hygiene, are all part of the computer literacy umbrella [4] Owning such knowledge enables one to access, evaluate and use the digital materials sensibly.

Also, computer literacy goes beyond just being able to perform basic functions; it can be about critical thinking and adaptability to the digital space. When discussing computer literacy, Okeke explains that computer literacy should not just be the ability to use tech, but being aware of the social, ethical, and legal aspects of tech use including responsible participation through electronic media [5]. That demonstrates the changing nature of what computer literacy is, which now includes aspects of information literacy, digital citizenship, and problem-solving skills.

Computer literacy are basically the skills that allow for technology that are necessary for academic performance, employability and participation in the global IT economy. Technological progress provides new challenges for societies, particularly in terms of preparing individuals for employment opportunities, as computer literacy becomes increasingly important for individuals to successfully compete in knowledge societies.

Digital Grading of Students

Digital packaging for students is an electronic and/or a systematic computer automated platform that assesses, documents analyses, and communicates academic specifications and performance. The system runs as a modern substitute for human grading, which tends to be slow and subjective. Johnson explains that with digital grading, the evaluations are processed in a method that is transparent, accurate, and efficient, and these are fundamental qualities that reduce variability in traditional assessment [6]. It also enables teachers to provide on-time feedback to the learners which is the key to improving academically. In addition, digital grading systems encourage educational institutions to make decisions based on data. These platforms, Musa explains, not only help in the grading process but also in generating analytical reports that can help teachers identify learning gaps, keep track of learning progress, and create personalized solutions [7]. This provides evidence-based strategies for closely reframing and monitoring students' academic performance.

In short, digital grading of students is a major breakthrough in educational assessment. It strengthens accountability, reduces the burden on educators, and creates an ecosystem that supports a better learning experience. With increasingly technological schools and universities, digital grading systems will likely become an even bigger focus in terms of academic evaluation.

Digital Grading of Students

When we talk about digital grading of students, there are various angles to look at and derive the significance of digital grading in the current education scenario. The technological dimension refers to tools and platforms that enable electronic assessment, such as Learning Management Systems, e-portfolios, and automated grade-assessing software. Such technologies offer speed,

precision, and automated conversion into practical educational tasks which can accelerate and clarify grading [6]. In particular, the pedagogical dimension focuses on the role of digital grading in teaching and learning. When implemented correctly, timely feedback, personalized learning opportunities, and a combination of formative and summative assessments create a more responsive learning environment. This construct guarantees that the grading process would not only assess student academic achievement but also improve their academic performance as well as [7].

On the administrative side, grading digitally takes away some of the stress of record-keeping and minimizes human error when it comes to compiling scores. It increases transparency in indicating the performance of students while enabling the safe storage of data and easy access of academic records. This allows educators and institutions to spend less time on clerical work and more on instructional quality through the automation of processes. In addition, the ethical and legal domain that stresses fairness, privacy, and abiding by institutional and governmental guidelines is also just as essential. Exam data must be kept secret: therefore, digital grading should also be bias-proof and secure the private data of students according to the legal framework. Finally, the psychological and social aspect takes into account how digital grading affects both learners and teachers. Timely and clear, students can be excited — others anxious or even resistant to these digital systems. Hence, Educators and students have to learn to trust to embrace technology in evaluation.

Lastly, the fourth dimension — analytical — represents the value of digital grading in delivering data-driven intelligence. By providing rich reports that allow for progress tracking, gap finding and individual-specific interventions, digital platforms offer вамгнм Returning A lot compasion SkHero wWlich it E not Moxor, They Take Tool Engaged03202. Such an analytics approach promotes evidence-based decision-making and institutional effectiveness (Lee, 2019). In short, digital grading of students is more than just a replacement for physical assessments. It has multiple layers and is technological, pedagogical, administrative, ethical, psychological and analytical. In unison, these dimensions illustrate the importance of digital grading for accuracy, fairness, pedagogy, and institutional advancement in our education systems.

Basic Computer Operation Skills of Business Education Teaching Staff

In the context of business education, lecturers are expected to possess and demonstrate essential computer operation skills that enhance both pedagogical efficacy and student learning outcomes. Christopher Gil Jones, in his empirical study on employer expectations, identifies fundamental competencies such as effective documentation, email proficiency, and the ability to manage computer-mediated written communication as key requisites in modern business contexts. To be considered, employers want clear, accurate messaging — competences which rely upon executing simple computer skills such as composing, formatting and structuring electronic documents.

In line with this, the Northstar Digital Literacy standards provide a hierarchical taxonomy of essential computer skills necessary for both students and teachers. For example, these competencies pertain to the ability to identify different types of hardware devices, perform mouse and keyboard actions (such as: click, double-click), understand graphical user interfaces (such as: icons, drop-down menus), use the file-system (such as: create, move, delete, folders) and storage media (such as: USB drives, cloud services). Together, these sources underscore that business education teaching must incorporate the following basic computer operation dimensions:

1. **Hardware and Interface Interaction:** Teachers must competently handle physical devices (desktop, laptop, touchpad) and interface elements such as icons, menus, and mouse pointer actions.
2. **Input Devices Proficiency:** This includes mastery of keyboard functions, shortcuts, and nuanced mouse operations (single-click, double-click, right-click, drag-and-drop).
3. **File and Folder Management:** Capable handling of document organization: creating, naming,

moving, copying, and deleting files; navigating and structuring folders.

4. **Software Navigation and Usage:** Familiarity with launching and closing applications, understanding common application types (e.g., word processors, spreadsheets), and effectively navigating software environments.
5. **Digital Communication Tools:** Ability to compose, format, and send emails, use documentation tools, and communicate through digital platforms in professional business contexts.
6. **Storage Media and Data Management:** Identification and secure usage of storage mechanisms, including external drives and cloud storage, to ensure data accessibility and reliability.
7. **Digital Literacy and Interface Fluency:** Overall fluency in system navigation, understanding operating system functionality, and maintaining system operation through proper log-on, log-off, and shutdown procedures.

Moreover, by modeling and reinforcing these competencies, business education teachers promote digital confidence and readiness among students—preparing them for the technologically driven workplace.

Software Manipulative Skills of Business Education Teaching Staff

Software manipulative skills refer to the ability of teachers to efficiently operate, apply, and integrate computer software in the teaching and evaluation of students. For business education teaching staff, these skills are crucial as they enable the effective use of productivity software such as Microsoft Office Suite (Word, Excel, PowerPoint, Access), learning management systems (LMS), and specialized accounting or statistical packages to enhance instruction and student assessment. Manipulating such software enhances the efficiency of teachers in grading, maintaining records of teaching–learning processes and preparing teaching materials, indirectly giving way to technology-based pedagogy.

Omodara and Adu stated that strong software manipulative skills positions the business education teachers for the embracing of the digital grading systems and the management of electronic record with little or no distractions [8]. This time saving reduces the errors that come from manually managing the students academic records. In the same vein, Afolabi and Okubanjo [9] succinctly stated that qualitative teaching is dependent on teachers' proficiency in the use of software applications, which improves lessons delivery, and virtual learning and ensures that students gain digital skills that are essential for 21st-century workplace. This is why the competence of applying software manipulates stays unalterable for the business teaching staff. Teachers with little training and little actual practicum in this area seem to be having difficulty in integrating ICT because they are unable to shape pedagogy such that educational goals can be reached.

Data/Information Management Skills of Business Education Teaching Staff

Data and information management skills are essential competencies that enable business education teaching staff to collect, organize, store, analyze, and retrieve academic and administrative records for effective decision-making. In the digital era, these skills extend beyond traditional record-keeping to include the use of spreadsheets, databases, and cloud-based platforms that ensure accuracy, security, and accessibility of student-related information. For business education teachers, proficiency in information management is critical for tasks such as grading, monitoring student progress, preparing reports, and safeguarding academic records.

Ojo and Adu emphasized that teachers with strong data management skills are more capable of maintaining accurate student information, which enhances accountability and transparency in school administration [10]. They argued that the absence of these skills often results in inefficiencies and errors in record handling. Similarly, Adeoye and Afolabi observed that in the context of business education, effective data management supports evidence-based instructional decisions and facilitates the integration of information communication technologies (ICTs) in teaching and learning [11]. This ensures that both teachers and students adapt to global educational standards where data-driven practices are prioritized [12][13][14]. Thus, data/information management skills are indispensable for business education teaching staff, as they not only strengthen administrative efficiency but also contribute to quality assurance in teaching and assessment processes [15].

Aim and Objectives of the Study

The study examined the relationship between computer literacy skills and digital grading of students among business education teaching staff of IAUE. The study determined:

1. Relationship between basic computer operation skills and digital grading of students among business education teaching staff of IAUE.
2. Relationship between software manipulative skills and digital grading of students among business education teaching staff of IAUE.
3. Relationship between data/information management skills and digital grading of students among business education teaching staff of IAUE.

Research Questions

The following research questions were formulated by the researcher to guide the study.

1. What are the basic computer operation skills needed for digital grading of students among business education teaching staff of IAUE?
2. What are the software manipulative skills needed for digital grading of students among business education teaching staff of IAUE?
3. What are the data/information management skills needed for digital grading of students among business education teaching staff of IAUE?

Hypothesis

The following hypotheses are tested at 0.05 level of significant.

HO_1: There is no significant relationship between basic computer operation skills and digital grading of students among business education teaching staff of IAUE.

HO_2: There is no significant relationship between basic software manipulative skills and digital grading of students among business education teaching staff of IAUE.

HO_3: There is no significant relationship between basic data/information management skills and digital grading of students among business education teaching staff of IAUE.

Methodology

The study will adopt correlation designs to gather data from business education teaching staff of IAUE. The study population was 24 business education teaching staff of IAUE, since there were only 24 lecturers in the department. The sample size of the study was 24 selected using census sampling technique to select at the teaching staff population. The researcher developed questionnaire

tagged “Computer Literacy Skills and Digital Grading of Students Questionnaire (CLSDGSQ)” The instrument was validated by experts in Business Education. A pilot study was conducted with 10 teaching staff of Office & Information Management in a university outside the sample area. Cronbach Alpha was used to determine internal consistency of the instrument which gave a reliability index of 0.72. Descriptive statistics (mean and standard deviation) was used to answer the research questions while Pearson Product Moment Correlation (PPMC) coefficient was used to test the hypotheses at 0.05 significance level.

Results and Discussion

Research Question One: What are the basic computer operation skills needed for digital grading of students among business education teaching staff of IAUE?

Table 1. Summary of mean responses on basic computer operation skills needed for digital grading of students among business education teaching staff of IAUE.

S/N	Basic Computer Operation Skills Needed for Digital Grading	Mean	SD	Remark
1.	I can comfortably turn on, shut down, and restart a computer.	3.07	0.69	Agreed
2.	I can navigate a computer desktop and locate files.	2.88	0.72	Agreed
3.	I can use input/output devices (keyboard, mouse, printer, etc.) effectively.	2.51	0.58	Agreed
4.	I can create, rename, and manage folders for students’ records.	2.66	0.82	Agreed
5.	I can use external storage devices to back up students’ grading data/information.	2.62	0.66	Agreed
6.	I troubleshoot my ICT devices if encounter any challenges operating a computer during digital grading.	2.43	0.77	Agreed
	Grand Total	**2.70**	**0.71**	**Agreed**

The table above shows that business education teaching staff can comfortably turn on, shut down, and restart a computer (Mean=3.07, SD=0.69), navigate a computer desktop and locate files (Mean=2.88, SD=0.72), use input/output devices (keyboard, mouse, printer, etc.) effectively (Mean=2.51, SD=0.58), create, rename, and manage folders for students’ records (Mean=2.66, SD=0.82), use external storage devices to back up students’ grading data/information (Mean=2.62, SD=0.66) and troubleshoot my ICT devices if encounter any challenges operating a computer during digital grading (Mean=2.43, SD=0.77).

Research Question Two: What are the software manipulative skills needed for digital grading of students among business education teaching staff of IAUE?

Table 2. Summary of mean responses on software manipulative skills needed for digital grading of students among business education teaching staff of IAUE.

	Software Manipulative Skills Needed for Digital Grading	Mean	SD	Remark
7.	I can use Microsoft Word to prepare and record students’ results.	2.85	0.87	Agreed

8.	I can use Microsoft Excel to compute students' scores and results.	2.53	0.69	Agreed
9.	I can use PowerPoint to present students' performance records.	2.33	0.58	Disagreed
10.	I can navigate LMS (e.g., Moodle, Google Classroom) for grading.	2.21	0.43	Disagreed
11.	I can use result-processing software to generate/store grades.	2.03	0.73	Disagreed
12.	I experience difficulty using software applications for grading.	2.89	0.80	Agreed
	Grand Mean	**2.47**	**0.68**	**Disagreed**

The table above shows that business education teaching staff can use Microsoft Word to prepare and record students' results (Mean=2.85, SD=0.87), use Microsoft Excel to compute students' scores and results (Mean=2.53, SD=0.69), and experience difficulty using software applications for grading (Mean=2.89, SD=0.80). However, business education teaching staff don't use PowerPoint to present students' performance records (Mean=2.33, SD=0.58), navigate LMS (e.g., Moodle, Google Classroom) for grading (Mean=2.21, SD=0.43), use result-processing software to generate/store grades (Mean=2.03, SD=0.73) effectively.

Research Question Three: What are the data/information management skills needed for digital grading of students among business education teaching staff of IAUE?

Table 3. Summary of Mean Responses on Data/Information Management Skills Needed for Digital Grading of Students Among Business Education Teaching Staff of IAUE.

S/N	Data/Information Management Skills Needed for Digital Grading	Mean	SD	Remark
13.	I can properly store students' grades in computer system for easy accessibility and retrieval.	2.34	0.82	Disagreed
14.	I can secure students' grading records using passwords/encryption.	2.04	0.66	Disagreed
15.	I can retrieve past grading records of students when needed in ICT storage devices.	2.64	0.73	Agreed
16.	I can organize students' grades systematically for easy access.	2.61	0.55	Agreed
17.	I can back up students' records on cloud storage (Google Drive, etc.).	2.42	0.81	Disagreed
18.	I can manage large volumes of grading data digitally with minimal errors.	2.47	0.76	Disagreed
	Grand Total	**2.42**	**0.72**	**Disagreed**

The table above shows that business education teaching staff can retrieve past grading records of students when needed in ICT storage devices (Mean=2.64, SD=0.73) and organize students' grades systematically for easy access (Mean=2.61, SD=0.55). However, teaching staff in business education cannot properly store students' grades in computer system for easy accessibility and retrieval (Mean=2.34, SD=0.82), secure students' grading records using passwords/encryption. (Mean=2.04, SD=0.66), back up students' records on cloud storage (Google Drive, etc.) (Mean=2.42, SD=0.81) and manage large volumes of grading data digitally with minimal errors (mean=2.47, SD=0.76).

HO1: There is no significant relationship between basic computer operation skills and digital grading of students among business education teaching staff of IAUE.

Table 4. Model Summary on the relationship between basic computer operation skills and digital grading of students among business education teaching staff of IAUE.

		Basic Computer Operation Skills	Digital Grading of Students
Basic Computer Operation Skills	Pearson Correlation	1	.647**
	Sig. (2-tailed)		.000
	N	24	24
Digital Grading of Students	Pearson Correlation	. 647**	1
	Sig. (2-tailed)	.000	
	N	24	24

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

Table 4 shows that the relationship between basic computer operation skills and digital grading of students among business education teaching staff of IAUE is 0.647. This indicate that basic computer operation skills have strong positive relationship with digital grading of students among business education teaching staff of IAUE. The sig. value showed there is a significant relationship between basic computer operation skills and digital grading of students among business education teaching staff of IAUE (r=0.000). Hence, the null hypothesis one is rejected at 0.05 level of significance (p>0.05).

HO2: There is no significant relationship between basic software manipulative skills and digital grading of students among business education teaching staff of IAUE.

Table 5. Model Summary on the relationship between software manipulative skills and digital grading of students among business education teaching staff of IAUE.

		Software Manipulative Skills	Digital Grading of Students
Software Manipulative Skills	Pearson Correlation	1	. 156
	Sig. (2-tailed)		.309
	N	24	24
Digital Grading of Students	Pearson Correlation	. 156	1
	Sig. (2-tailed)	.309	
	N	24	24

Table 5 shows that the relationship between software manipulative skills and digital grading of students among business education teaching staff of IAUE is 0.156. This indicate that software manipulative skills have strong positive relationship with digital grading of students among business education teaching staff of IAUE. The sig. value showed there is no significant relationship between software manipulative skills and digital grading of students among business education teaching staff of IAUE (r=0.000). Hence, the null hypothesis one is rejected at 0.05 level of significance (p>0.05).

HO3: There is no significant relationship between basic data/information management skills and digital grading of students among business education teaching staff of IAUE.

Table 6. Model Summary on the relationship between data/information management skills and digital grading of students among business education teaching staff of IAUE.

		Data/Information Management Skills	Digital Grading of Students
Data/Information Management Skills	Pearson Correlation	1	.143
	Sig. (2-tailed)		.431
	N	24	24
Digital Grading of Students	Pearson Correlation	.143	1
	Sig. (2-tailed)	.431	
	N	24	24

Table 6 shows that the relationship between data/information management skills and digital grading of students among business education teaching staff of IAUE is 0.143. This indicate that data/information management skills have weak but positive relationship with digital grading of students among business education teaching staff of IAUE. The sig. value showed there is no significant relationship between data/information management skills and digital grading of students among business education teaching staff of IAUE (r=0.000). Hence, the null hypothesis one is rejected at 0.05 level of significance (p>0.05).

Discussion of Findings

Basic Computer Operation Skills and Digital Grading

The findings revealed that business education teaching staff can comfortably perform basic computer operations such as turning on, shutting down, and restarting a computer, navigating the desktop to locate files, and using input/output devices effectively. However, they showed moderate ability in creating and managing folders, using external storage devices for backup, and troubleshooting ICT devices. The correlation coefficient ($r = 0.647$, $p < 0.05$) indicates a strong positive and significant relationship between basic computer operation skills and digital grading of students. This finding aligns with the study of Adebayo and Abimbade (2019), who found that basic computer literacy significantly predicts teachers' efficiency in record keeping and students' assessment in Nigerian secondary schools.

Software Manipulative Skills and Digital Grading

The results further show that business education teaching staff can use Microsoft Word to prepare and record students' results and Microsoft Excel to compute scores, but they struggle with using PowerPoint to present results, navigating LMS platforms, and utilizing result-processing software effectively. A positive but weak non-significant relationship was established between software manipulative skills and digital grading ($r = 0.156$, $p > 0.05$). Although Omodara and Adu upheld other who reported that teachers' proficiency in software applications is a key determinant of successful ICT integration and digital grading in Nigerian secondary schools [8].

Data/Information Management Skills and Digital Grading

Regarding data/information management skills, business education teaching staff were able to retrieve past grading records and organize grades systematically. However, they showed weaknesses in storing grades in computer systems for easy retrieval, securing records with passwords, backing up data on cloud storage, and managing large volumes of grading data with minimal errors. The correlation ($r = 0.143$, $p < 0.05$) indicates a positive but weak non-significant relationship between data/information management skills and digital grading. This agrees with Adeoye and Afolabi, who observed that teachers' information management competencies does not significantly enhance record accuracy and accountability in academic institutions due to poor computer literacy skills and ICT

manipulative ability [11].

Conclusion

This study examined the relationship between computer literacy skills and digital grading of students among business education teaching staff at Ignatius Ajuru University of Education (IAUE). The findings revealed that lecturers possessed moderate proficiency in basic computer operation skills such as turning on, shutting down, and navigating computers, which significantly influenced their ability to carry out digital grading tasks. Similarly, software manipulative skills were evident in their use of Microsoft Word and Excel, although there were noticeable weaknesses in the use of PowerPoint, learning management systems (LMS), and result-processing applications. Data and information management skills showed that while lecturers could retrieve and organize records, they faced challenges in securing grading data, cloud-based backup, and managing large datasets with minimal errors.

Overall, the study established positively strong and significant relationship between computer literacy of basic computer operation skills and digital grading of students. However, the study found weak and no significant relationship with software manipulative skills and data/information management skills. This indicates that enhancing computer literacy among business education teaching staff directly improves the efficiency, accuracy, and transparency of student assessment processes. The study therefore concludes that strengthening computer literacy is vital for sustainable digital assessment practices in IAUE and beyond.

Recommendations

1. IAUE management to conduct lifelong professional development workshops in Advanced Software manipulative skills (Excel, LMS platforms for result-processing software) and data management practices like encryption and cloud(ans) storage for Business Education lecturers.
2. A university should therefore, invest in the provision of modern ICT facilities such as licensed result-processing software, a secured cloud platform and well-staffed and functional ICT support units so that teachers are able to carry out digital grading efficiently and with the least incidence of error.

Digital grading: Digital grading should be made part of policy for each department with data safety, back-up and record management guidelines. It will enhance accountability, establish uniformity, and eliminate dependency on the manual grading system.

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