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USE OF DIGITAL MEDIA FOR ASSESSMENTS AND EVALUATIONS BY HIGHER EDUCATIONAL INSTITUTIONS - AN EMPIRICAL STUDY.

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Abstract
Higher education's assessment methodologies have transformed significantly, transitioning from conventional written evaluations to innovative digital platforms. This shift, along with digital technology's growth, offers unprecedented flexibility, scalability, and inclusivity in evaluation mechanisms. By using digital media, institutions aim to instil crucial 21st-century skills, such as digital literacy and critical analysis, while simulating real-world problem-solving scenarios for students. Integrating these platforms also presents unique challenges, notably in preserving academic integrity and ensuring equal access for all students. This empirical study explores the adoption and impact of digital media in the assessment and evaluation processes of higher education. This paper focuses on the multifaceted world of digital media assessments, highlighting their inherent advantages and associated challenges. It underscores the importance of aligning assessment strategies with the demands of a technologically driven educational ecosystem and offers a foundation for further research and improvements in practice. Sample of 211 respondents associated with higher educational institution were surveyed with the help of a questionnaire to know the impact of Digital Media for Assessments and Evaluations by Higher Educational Institutions. The study concludes that there is significant impact of Digital Media for Assessments and Evaluations by Higher Educational Institutions.

Introduction
Historically, higher educational institutions relied primarily on traditional methods of assessment, such as written exams and face-to-face presentations. With the advent of digital technologies, a shift toward more innovative and varied methods of assessment has been observed. Early discussions on digital assessments centred around the potential for enhanced flexibility, accessibility, and scalability (Timmis et al., 2015). These characteristics promise to cater to diverse student populations and pedagogical needs.

Digital media encompasses a wide range of tools and platforms, from multimedia presentations to virtual simulations and digital portfolios. Its integration into the educational framework has been driven by the need to cultivate 21st-century skills in students, such as digital literacy, critical thinking, and effective communication in various media formats. The varied forms of digital media allow educators to simulate real-world scenarios, requiring students to apply theoretical knowledge in practical contexts (Murphy & Cook, 2020).

One of the primary advantages of using digital media for assessments is its capacity to provide instant feedback. Immediate feedback has been shown to significantly influence student learning, as it allows them to identify areas of improvement in real-time. Digital platforms offer adaptive learning experiences, where assessment content can be tailored to suit individual student needs. This customizability addresses the unique learning trajectories and paces of different students, potentially resulting in a more equitable educational experience. Authentic assessments that mimic real-world challenges can enhance students' comprehension of theories, improve leadership skills, and develop self-concept as leaders (Wiewiora & Kowalkiewicz, 2018).

While digital media offers numerous advantages, it also presents challenges. The most frequently cited concern is that of academic integrity. Without physical supervision, the potential for misconduct, such as using unauthorized resources or outsourcing tasks, becomes a valid concern. In addition to this, there is the question of accessibility. While many students have access to digital devices and reliable internet, a significant portion might not, thereby placing them at a disadvantage. There are concerns about the reliability and validity of assessments delivered through digital means.

The trajectory of digital assessments in higher education appears promising. As technology continues to evolve, new tools and methods are likely to emerge, providing even more nuanced ways to gauge student learning. The integration of artificial intelligence and machine learning might offer solutions to some of the challenges, such as academic integrity and personalized assessments. The success of these tools will largely depend on thoughtful integration into curricula and continuous evaluation of their efficacy.

Literature Review

According to Jurāne-Brēmane (2023) digital assessments have considerable pedagogical implications like student-centered education, self-directed learning, and effective guidance of student learning. They encourage a shift from rote memorization to application-based learning, as these tools often demand critical thinking and practical application. Such assessments also promote collaborative learning. With tools like shared documents, forums, and virtual group spaces, students can collaborate on tasks, fostering teamwork and collective problem-solving.

Comparisons between digital media assessments and traditional methods revealed mixed outcomes. Students performed better in digital assessments due to the engaging and interactive nature of the tasks but at the same time no significant difference was observed in few cases, indicating that the method of delivery might not be as influential as the quality and design of the assessment itself. Another point of contention lies in the subjective nature of evaluating digital media projects, especially when they involve creative outputs. According to Damar Isti Pratiwi et al. (2023) gamified technology did not affect students' learning outcomes compared to the paper-based method. Gamification, or the use of game elements in non-game contexts, has found its way

into digital assessments. Elements like points, badges, leaderboards, and challenges can make assessments more engaging. More importantly, gamified assessments can drive intrinsic motivation, encouraging students to perform better not just for grades but for the joy of learning.

Diversity in digital assessment methods has seen an uptick with the rise of various platforms and tools. Unlike traditional methods, which often adhere to a fixed pattern, digital tools cater to various learning styles and needs. For instance, students who excel in visual or auditory learning can leverage multimedia tools, while kinesthetic learners might benefit from interactive simulations. The diversity of methods means instructors can tailor assessments to better measure multiple intelligences and competencies. Trucil et al. (2014) examined the diversity in digital media use and access, confirming the persistence of a digital divide among different demographic groups.

According to None Anghelo Josué et al. (2023) higher educational institutions increasingly rely on Learning Management System (LMS) platforms, which often come with built-in digital assessment tools. These platforms can provide a seamless experience for students, blending learning resources with assessments. LMS integrations can track student progress over time, offer insights into their strengths and weaknesses, and even predict future performance based on past trends.

While educators and institutions have largely advocated for the integration of digital media in assessments, it's essential to consider stakeholder perceptions, especially students and parents. Some students may feel unequipped or anxious about technology-based assessments (Lopes da Silva et al., 2022). They might be wary of their digital skills or feel that such assessments may not accurately represent their knowledge and skills. On the other hand, some students feel that digital tools allow them to express themselves better and showcase a wider range of competencies.

According to Szilas and Emery, (2022) one critical aspect that determines the success of digital assessments is the training provided to educators. Institutions must invest in capacity-building initiatives that help instructors design, implement, and evaluate digital media assessments effectively. This training goes beyond merely understanding the tools but delves into pedagogical strategies that maximize the benefits of these methods.

Afzal et al. (2023) demonstrated that the digital divide remains a persistent challenge in integrating technology into education. Not all students have equal access to devices, high-speed internet, or a conducive environment for online assessments. Institutions must ensure that these assessments don't inadvertently widen the gap between different student demographics. Solutions like providing devices on loan, creating offline assessment modes, and offering flexible timelines can help bridge this divide.

According to Chakabwata (2022), unlike traditional methods, digital assessments often come with rich analytical insights. Platforms can capture data points like time spent on a task, resources accessed, patterns of errors, and more. These analytics can provide granular insights into student performance, informing instructors about areas that need attention. They can be a powerful tool for reflective teaching, allowing educators to modify their strategies based on real data.

While initial investments in digital infrastructure might be high, digital assessments can offer cost savings in the long run (Salmieri & Giancola, 2019). They eliminate the need for physical infrastructure, reduce the time spent on grading (especially with automated tools), and can be easily scaled up or down based on requirements. However, it's also essential to consider ongoing costs like software licenses, regular training, and periodic updates.

The term 'authentic assessment' refers to tasks that mirror real-world challenges. Digital tools can elevate the authenticity of assignments, especially in fields like architecture where simulations can replicate real-world scenarios (Irwan & Nurmala, 2023). Students can engage in problem-solving that mirrors tasks they might undertake in their professional lives, thereby bridging the gap between academia and industry.

Steur and Seiter (2020) demonstrated that digital tools often come with advanced feedback mechanisms. Unlike traditional methods where feedback might be limited to grades or brief comments, digital platforms can offer multi-faceted feedback. This can include annotations, voice notes, video feedback, and even peer reviews. Such comprehensive feedback can greatly enhance the learning experience, providing students with actionable insights for improvement.

It's essential to consider the long-term impact of digital assessments. While short-term benefits like engagement and flexibility are evident, institutions must study how these methods impact learning outcomes, retention rates, and even post-graduation success in the longer run.

Objective

1. To know the impact of Digital Media for Assessments and Evaluations by Higher Educational Institutions.

Methodology

Sample of 211 respondents associated with higher educational institution were surveyed with the help of a questionnaire to know the impact of Digital Media for Assessments and Evaluations by Higher Educational Institutions. Convenient sampling method was used to collect the primary data and multiple linear regression was applied to get the results.

Findings

Table below is showing respondent's general detail. It is found that in total 203 respondents, males are 67.0% and females are 33.0%. 34.0% are below 38 years of age, 41.4% are between 38-45 years of age and rest 24.6% are above 45 years of age. 35.0% are having the work experience of less than 6 years, 43.8% are working from last 6-9 years and rest 21.2% are having work experience of more than 9 years.

Table 1 General Details

Variable	Respondents	Percentage
Gender		
Male	136	67.0
Female	67	33.0
Total	**203**	**100**
Age		
Below 38 yrs	69	34.0
38-45 yrs	84	41.4
Above 45 yrs	50	24.6
Total	**203**	**100**
Work experience		
Less than 6 years	71	35.0
6-9 years	89	43.8
More than 9 years	43	21.2
Total	**203**	**100**

Table 2 Impact of Digital Media for Assessments and Evaluations

S. No.	Impact of Digital Media for Assessments and Evaluations
1.	Digital assessments and evaluations allow students to participate from anywhere with an internet connection, increasing **accessibility and flexibility**
2.	Collect **vast amounts of data**, which can be analysed to understand student performance and adapt teaching strategies
3.	Online assessments often provide **immediate feedback** to students, helping them understand their mistakes and learn from them
4.	Digital assessments can be **automatically graded**, saving instructors time and reducing human error
5.	Digital media enable a **wider range of assessment types** beyond traditional exams and papers
6.	**Cost saving** that saves institutions money on printing and storage costs

7.	Adoption of digital assessments often requires faculty to **adapt to new technologies and teaching methods**
8.	Maintain the **integrity of the assessment process**
DV	Impact of Digital Media for Assessments and Evaluations

"Multiple Linear Regression"

Table 3 "Model Summary"

"Model"	**"R"**	**"R Square"**	**"Adjusted R Square"**	**"Std. Error of the Estimate"**
1	.753[a]	.566	.549	.59069
a. Predictors: (Constant), Accessibility and flexibility, Vast amounts of data, Immediate feedback, automatically graded, Wider range of assessment types, Cost saving, Adapt to new technologies and teaching methods and Integrity of the assessment process				

The Value of adjusted R square is 0.566 and the model explains around 56% of the variation.

"Table 4 ANOVA"

"Model"		**"Sum of Squares"**	**"df"**	**"Mean Square"**	**"F"**	**"Sig."**
1	Regression	88.429	8	11.054	31.680	.000[b]
	Residual	67.689	194	.349		
	Total	156.118	202			
a. Dependent Variable: Impact of Digital Media for Assessments and Evaluations						
b. Predictors: (Constant), Accessibility and flexibility, Vast amounts of data, Immediate feedback, automatically graded, Wider range of assessment types, Cost saving, Adapt to new technologies and teaching methods and Integrity of the assessment process						

The impact of independent variables on dependent has been explained in the table above and the value in the significance column 0.000 shows that one or more variables are significant on dependent variable.

"Table 5 Coefficients"

"Model"	**"Un standardized Coefficients"**		**"Standardized Coefficients"**	**"t"**	**"Sig."**
	"B"	**"Std. Error"**	**"Beta"**		
(Constant)	-.454	.295		-1.537	.126

Accessibility and flexibility	.106	.042	.132	2.547	.012
Vast amounts of data	.000	.052	.000	.004	.997
Immediate feedback	.103	.052	.109	1.991	.048
Automatically graded	.100	.047	.110	2.126	.035
Wider range of assessment types	.154	.070	.158	2.202	.029
Cost saving	.201	.078	.189	2.559	.011
Adapt to new technologies and teaching methods	.301	.072	.283	4.171	.000
Integrity of the assessment process	.150	.049	.155	3.057	.003
a. Dependent Variable: Impact of Digital Media for Assessments and Evaluations					

Table above shows that out of 8 variables, 7 variables namely Accessibility and flexibility, Immediate feedback, automatically graded, Wider range of assessment types, Cost saving, adapt to new technologies and teaching methods and Integrity of the assessment process are showing significant Impact of Digital Media for Assessments and Evaluations. Highest impact is shown by Adapt to new technologies and teaching methods with beta value .283 followed by Cost saving (.189), Wider range of assessment types (.158), Integrity of the assessment process (.155), Accessibility and flexibility (.132), Automatically graded (.110) and Immediate feedback with beta value .109.

Conclusion

The embrace of digital media in assessments represents higher education's adaptive response to a technologically evolving landscape. The benefits, including enhanced flexibility, immediate feedback, and the nurturing of pivotal 21st-century skills, are transformative and resonate with the needs of contemporary learners. Yet, with these advances come inherent challenges: the preservation of academic integrity, the assurance of equitable access, and the validation of digital methods' reliability. As institutions venture deeper into this digital realm, striking a harmonious balance between innovation and traditional assessment virtues becomes important. To ensure that the academic journey remains both progressive and grounded, educators, technologists, and policymakers must collaborate, refining and recalibrating approaches to truly harness the potential of digital assessments while safeguarding their core values.

The study was conducted to know the impact of Digital Media for Assessments and Evaluations by Higher Educational Institutions and found that the factors like Accessibility and flexibility, Vast amounts of data, Immediate feedback, automatically graded, Wider range of assessment types, Cost saving, Adapt to new technologies and teaching methods and Integrity of the assessment process had shown significant Impact of Digital Media for Assessments and Evaluations by Higher Educational Institutions.

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