RESEARCH ARTICLE

Effects of Digital Learning on Student's Motivation and Attitude

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Manuscript Info	_Abstract_
	Education in recent years has undergone impressive transformation occasioned by the rise in technological innovations. Digital learning resources have been widely integrated into teaching and learning in all levels of Nigeria's educational system, and the trend is significantly affecting learner's enthusiasm and schoolwork engagement. The primary purpose of the present study was to examine the effect of digital learning on student's learning motivation and attitude. A cross-sectional design was adopted, and 127 students randomly pooled from public tertiary institutions in Kogi State, Nigeria, participated in the study. The samples completed a self-report measure assessing digital learning perceptions, learning motivation, and attitude. The result of the linear regression model revealed that digital learning resources statistically significantly predicted student's learning motivation and attitudes. The study concludes that the digital learning platform remains an indispensable tool in enhancing learning willingness.

Introduction:-

Education is the central basis for the development of any nation (Chankseliani et al., 2021; Udofia & Gberevbie, 2019; Vorontsova et al., 2020), including socio-economic empowerment and poverty reduction(Ubogu & Veronica, 2018). It is an inevitable aspect for any country (Sriyakul et al., 2020). The concept of sustainable national development and its relationship with education has attracted research attention for many years(Boyi, 2013; Nwogu, 2013; Ugbogbo et al., 2013). Undoubtedly, education has provided the opportunity for nations to attain their desired objective. Hence, education remains part of the developmental goals of every country.

The demand for education in Africa has been on the increase(Kabir & Kadage, 2017). Perhaps, the educational delivery method in developing countries, including Nigeria, has been the traditional face-to-face delivery held in a defined school environment characterized by teacher-students or instructors-learners physical interaction(Ajadi et al., 2008; Oyeleke et al., 2015). The conventional teaching method places the burden of promoting learning fully on the teacher(Osinubi, 2014), thereby limiting the learning potentials of the learner and creating knowledge gaps. However, There has been an increasing commitment to update the delivery of education in Nigeria in the last few decades(Adewumi et al., 2012; Irele, 2021). Whereas, the educational system encounter numerous challenges in the total integration of learners due to lack of proper digital learning and knowledge preservation tool(Gumel et al., 2019). The recognition of the importance of digital education in providing learners with the most up-to-date knowledge has prompted educational institutions and governments to adopt digital learning methods to provide more flexibility and individualization in learning. Perhaps, the traditional model has faced numerous challenges of carrying everyone on the same page through the lack of proper digital learning and knowledge preservation tool

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In past years, global trends in technological development have brought about innovations in educational paradigms (Zhang et al., 2020). Technology provided a viable alternative to face-to-face or conventional teaching-learning in schools (Ebelogu et al., 2021). The rapid evolution of the internet and wireless communication technology has resulted in various interactive multimedia networks and learning applications such as virtual classrooms, instant messaging, and web-based learning.

Digital learning has reshaped education in many ways(Mulenga & Marbán, 2020). Thus, the construct refers to the process of integrating digital media in learning. Accordingly,Anttila et al. (2012) described digital learning as a tool designed to improve digital teaching materials for web-based learning activity (Hockly, 2012). Although digital learning cannot substitute conventional teaching, it provides the best teaching effect and improved learning.

Computer devices have become the driving force in the delivery of instruction of today's education in Nigeria (Oguzor, 2011).Research shows that using computer devices and other digital innovations, including computer games, androids, podcasts, blogs, wikis, e-learningapplications, and other classroom technologies in teaching and learning, is vital in influencing and shaping learner's performance and promotes schoolwork engagement(Al-Jaberi, 2018; Alam et al., 2021; Franklin & Nahari, 2018; Mohammadyari & Singh, 2015; Moon & Ke, 2020; Mulqueeny et al., 2015; Owino, 2010; Ramdani et al., 2021; Rasheed et al., 2020; Shahabadi & Uplane, 2015; Suresh et al., 2018; Yang et al., 2021; Zahir et al., 2018; Zulkiply & Aziz, 2019). This is particularly important as the world is rapidly transforming into a technologically intensive community, and the work environment expansively acknowledging digital knowledge and skills.

Empirical investigations have explored the association between digital learning and performance outcomes. For instance, Zwart et al. (2020)investigated the effects of digital learning materials (DLMs) on nursing students' mathematics learning. The study adopted a pre-test/post-test control group design, and the result found that the mathematics learning of students undergoing DLMs training improved significantly.Chen (2017) explored the effect of digital game-based instruction on students' learning motivation and achievement using 326 students from Taiwan universities as the research participants. The researcher found that game-based instruction positively influenced learning achievement. Little (2015)examined the effect of digital game-based learning on student engagement and academic achievement using 34 students enrolled in rural public schools. The study utilized an experimental pretest-posttest design with switching replications. Consequently, the researcher observed that the digital game was as effective as the lab activity on teacher's reported student engagement and academic achievement.

Other researchers have found the trend to be effective in improving communication skills (Kyaw et al., 2019), thinking style (Liu & Hsueh, 2016), social skills (McNaughton et al., 2018), and business ethics (Magrizos, 2020). Generally, digital learning is essential in reducing student's anxiety and improving their learning achievements(Thongkoo, 2019). Conversely, research notes that the proliferation of digital technologies in classrooms has fashioned digital distractions among learners in recent times(Awofala et al., 2020; Gök, 2015), suggesting that digital learning maybe dampening motivation and attitude relating to academics.

Motivation and attitude are among the crucial psychological constructs that are relevant in classroom learning. Motivation entails certain variables that propel an individual to commit time and energy to a particular task. Motivation is essential in achieving desired goals because of its propelling forces. On the other hand, attitude denotes the favorable and unfavorable evaluation of any aspect of our socio-world. In the learning environment, attitude determines a person's like or dislike of subjects, teachers, and the learning condition in general. Perhaps, attitude is a determinant variable in learning outcome. The present study's primary purpose is to explore the role of digital learning on students' motivation and attitude in their academic endeavors. Thus, based on the study's objective, the following hypothesis was formulated.

Digital learning will significantly influence student's learning motivation and attitude.

Method:-
The present research adopted a cross-sectional survey design. The study's population comprised students from two public tertiary institutions in Kogi State, Nigeria. A total of one hundred and twenty-seven students comprising males and females (n=127) were randomly selected as participants for the study. The participants were mainly drawn from the classrooms and school hostels.

Measure:-

The participants completed a self-report digital learning quality scale designed to assess the student's perception of the available digital learning models. The 10-item Linkert type instrument is scored in a 5-point response format with high scores indicating a positive perception. The reliability of the scale was obtained following a pilot study. Observation of the Cronbach's alpha coefficients revealed acceptable levels of internal consistency reliabilities of the instrument, which exceeded the cutoff rules-of-the thumb of .70 as recommended for study purposes (Kaplan & Saccuzzo, 2013).

Learning motivation and attitude were assessed using a questionnaire developed to measure students' desire and evaluation of digital learning. The instrument consists of15-items scored in a 5-point Likert-type form. Higher scores indicate a high motivation and attitude. Cronbach alpha 0.78 coefficient was recorded for the scale.

Result:-

To test the formulated hypothesis. A linear regression analysis was conducted to determine the influence of digital learning on student's learning motivation and attitude. The investigation revealed that digital learning statistically significantly predicted student's learning motivation and attitude at F (1,125), 60.035, P<. 000.With adjusted R^2, the predictor variable accounted for 22.2% of the observed variance in the student's learning motivation and attitude.

Table 1:- Table showing linear regression results for the effect of digital learning on motivation and attitude.

95% CI for B								
	B	LL	UL	SEB	β	R^2t	Sig	
Constant	2.34	2.08	2.61	.133			17.58	.000
D L	-.47	-.59	-.39	.061	-.476	.222	-7.83	.000

Note. D L= Digital Learning B = Unstandardized regression coefficient; CI = Confident Interval; LL = Lower Limit; UL = Upper Limit; SEB = Standardized error of the coefficient; β = Standardized coefficient; R^2 = Coefficient of determination. [*]P<.000.

Discussion:-

The present study aimed to determine the predictive effect of digital learning on student's learning motivation and attitude. The study's findings showed that digital learning statistically significantly predicted learning motivation and attitude at F (1,125), 60.035, P<.000. With adjusted R^2, digital learning accounted for 22.2% of the observed variance in learning motivation and attitude. The result suggests that students who perceive digital learning as a seamless and flexible learning platform are more likely to engage in digital learning and have a favorable evaluation of the forum. The probable explanation for the result could be attributed to the idea that students exposed to digital phenomena are keener in embracing the opportunities embedded in digital innovations. Thus, the prior digital experience may be an essential variable influencing student's digital motivation and favorable attitude. Also, the wide range of internet learning resources and the overall convenient access to digital materials are important motivating factors for the students. The result corroborates the study byHarry and Anoop (2019), who noted that learning motivation has a positive effect on digital learning than the traditional method.

Furthermore, the research result aligns with previous studies(Alphonce & Mwantimwa, 2019; Chao et al., 2016; Efremova & Huseynova, 2021; Elfaki et al., 2019; Faridah et al., 2020; Getuno et al., 2015; Jian, 2019). For example, the study conducted by Lin et al. (2017) indicated that digital learning offers apositive effects on learner's motivation than traditional teaching. Thus, the present research finding supports the literature that digital learning resources are a critical pathway to student's engagement in schoolwork and academic goal attainment. Therefore, digital resources are indispensable tools in achieving the desired educational outcome.

Conclusion:-

The present study aimed to determine the student's learning motivation and attitude variability based on digital learning resources. The current research observed that digital learning is positively associated with student's learning motivation and attitude. Thus, the study concludes that digital learning resources in the educational system remain a

veritable tool in enhancing student's learning motivation and attitude. This revelation is crucial in academia because a better understanding of factors that could influence student's learning motivation and attitudes would provide relevant data to instructors and educational institutions promoting learning motivations and attitudes. More so, the study's findings implied that students' learning enthusiasm might be increased through digital learning. Thus, the study recommends that educational institutions and instructors adopt more robust and updated digital learning resources in the classroom.

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