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An Assessment of the effectiveness of the use of e-learning in improving distant learning system and organizational development in Geography departments in colleges of education in Anambra state.

(pp. 350-367.)

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Abstract: The rapid advancement of technology has significantly transformed educational systems worldwide, with e-learning emerging as a powerful tool in enhancing distance learning and organizational development. This study used a descriptive survey design to assess the effectiveness of e-learning in improving distance learning systems and organizational development in Geography departments of colleges of education in Anambra State. A sample of 107 respondents (lecturers and students) was selected through simple random sampling. Data were collected using a validated and reliable structured questionnaire, analyzed using descriptive statistics, correlation analysis, and ANOVA. Results showed moderate usage of e-learning platforms, with a mean ranging from (2.24) to (2.91). Organizational development strategies were moderately adopted, with a focus on professional development (mean = 3.35). E-learning moderately enhanced learning outcomes, with a mean ranging from (2.37) to (2.73). A moderate positive correlation (r = 0.471) was found between e-learning and organizational development. Hypotheses revealed significant differences influenced by factors like marital status and age group. However, the study also found inconsistent adoption across departments, suggesting that more strategic implementation is needed for maximum impact. This study provides evidence supporting the role of e-learning in enhancing both the educational and organizational dimensions of Geography departments in Anambra State, while also highlighting the need for further investment in infrastructure and faculty training to ensure more effective integration. The findings contribute to the understanding of e-learning's potential to reshape teaching and organizational practices in higher education in Nigeria.

Key words: e-learning, distant learning, organizational development, Geography departments, colleges of education, educational technology

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INTRODUCTION

The adoption of e-learning has revolutionized education and organizational development, especially in distant learning systems. E-learning integrates technology to facilitate access to knowledge, allowing for flexible and scalable learning environments that transcend traditional classroom boundaries. E-learning is instrumental in overcoming geographical barriers, ensuring accessibility for learners in remote areas (Dulamă et al, 2015). The flexibility of online platforms enables students to access learning materials anytime and anywhere, accommodating various learning paces and schedules. This accessibility is crucial for learners balancing work, family, and education, as seen in the success of massive open online courses (MOOCs) and virtual learning environments. Research highlights that students in e-learning environments often demonstrate higher levels of satisfaction and motivation due to the flexibility and convenience of digital platforms (Al-Rahmi et al, 2019).

Moreover, e-learning supports interactive learning through multimedia resources, discussion forums, and real-time assessments, which enhance engagement and retention. Learners can access a diverse range of resources, including videos, podcasts, and simulations, which cater to different learning styles and improve comprehension. Evidence from Nigerian tertiary institutions shows that e-learning platforms encourage collaboration and critical thinking among students, leading to better academic outcomes (Supriyatno et al, 2020). Cost efficiency is another significant benefit of e-learning in distant learning systems. Traditional education often incurs high costs for infrastructure, materials, and commuting. E-learning mitigates these expenses by utilizing virtual resources, making education more affordable and accessible to a broader audience (Okolie et al, 2022). Additionally, the scalability of e-learning platforms allows institutions to reach larger audiences without proportional increases in operational costs.

E-learning plays a pivotal role in organizational development, particularly in the professional training and upskilling of employees. Organizations increasingly adopt e-learning systems to enhance employee knowledge and skills, which directly translates to improved performance and innovation. According to Farounbi (2024), e-learning programs tailored to organizational needs improve knowledge retention and facilitate continuous learning, fostering a culture of development within organizations. One of the notable strengths of e-learning is its capacity for personalized learning. Adaptive technologies enable organizations to customize training programs, ensuring relevance and efficiency. This customization enhances employee engagement and productivity, as training aligns with individual roles and career goals. Studies in Nigerian organizations reveal that personalized e-learning systems improve employee confidence and job satisfaction, contributing to organizational goals (Eli-Chukwu et al, 2023).

E-learning also supports organizational agility by equipping employees with the necessary skills to adapt to changing market demands. Organizations can quickly implement new training modules in response to emerging trends, maintaining a competitive edge. For instance, digital literacy programs delivered through e-learning platforms have

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been instrumental in preparing employees for technology-driven workplaces, thereby enhancing organizational resilience (Ogunwuyi, 2024).

Despite its effectiveness, e-learning faces challenges such as technological barriers, limited internet access, and lack of digital literacy, particularly in developing regions. Addressing these issues requires substantial investments in digital infrastructure, training, and policy frameworks. Furthermore, organizations and institutions must adopt innovative approaches to ensure inclusivity and accessibility for all learners. The future of e-learning in distant learning and organizational development is promising, with advancements in artificial intelligence, augmented reality, and blockchain technology poised to enhance learning experiences. These innovations will likely make e-learning more interactive, secure, and accessible, bridging the gap between technology and education.

The importance of this study lies in its focus on evaluating how e-learning can enhance distance learning systems and foster organizational development in Geography departments within Colleges of Education in Anambra State. Existing studies, such as Okafor (2019) on Polya's problem-solving technique and Obikezie et al. (2023) on generative learning, emphasize instructional strategies that improve academic achievement, but they largely rely on traditional classroom settings. This reveals a gap in understanding how digital platforms can replicate or enhance such outcomes in distance learning contexts. Similarly, research on computer literacy among teachers (Nneka & Okafor, 2013) and technological gamification (Enem et al., 2025) highlights the role of technology in education but does not specifically assess structured e-learning systems in Geography departments.

Studies on experiential learning (Muogbo et al., 2025) and authentic assessment (Nnorum & Okafor, 2011) further underscore innovative pedagogies, yet they lack integration with online learning environments. Moreover, issues like student difficulties, stress, and unethical practices (Okafor, 2015; 2017; 2019) suggest systemic challenges that e-learning could address through flexible, monitored, and resource-rich platforms. Therefore, this study fills a critical gap by linking e-learning effectiveness with both instructional improvement and institutional development, particularly within Geography education, which remains underexplored in the referenced literature.

Statement of the Problem

The integration of e-learning into distant learning systems has become a pivotal strategy for addressing the limitations of traditional educational approaches. In colleges of education, particularly in Geography departments, e-learning is expected to enhance accessibility, foster interactive learning, and improve organizational outcomes by equipping students with the necessary skills to thrive in a technology-driven world. Despite the widespread acknowledgment of these potential benefits, significant challenges and gaps persist in implementing and evaluating the effectiveness of e-learning in improving distant learning systems and organizational development.

In the Geography departments of colleges of education in Anambra State, the effectiveness of e-learning in enhancing distant learning and organizational development

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remains largely unexplored. While e-learning platforms have been introduced to bridge geographical barriers and provide flexible learning opportunities, several issues hinder their success. These include limited access to digital infrastructure, unreliable internet connectivity, and inadequate training for both students and educators on the use of e-learning tools. Consequently, many learners struggle to maximize the benefits of e-learning, resulting in suboptimal academic performance and diminished engagement.

Moreover, there is a lack of empirical studies assessing the extent to which e-learning contributes to organizational development in educational settings. Specifically, the role of e-learning in fostering professional growth, improving pedagogical strategies, and enhancing institutional efficiency within Geography departments has not been adequately examined. This gap is particularly concerning, as Geography, as a discipline, requires a blend of theoretical knowledge and practical application, which e-learning platforms are expected to facilitate but may fall short in delivering effectively. Additionally, disparities in e-learning adoption across colleges of education in Anambra State raise concerns about inclusivity and equitable access. Institutions in urban areas often have better resources and support systems than their rural counterparts, creating a digital divide that undermines the goals of distant learning systems. Furthermore, the lack of comprehensive monitoring and evaluation mechanisms to measure the impact of e-learning on academic and organizational outcomes exacerbates the problem.

These gaps highlight the urgent need for a systematic assessment of the effectiveness of e-learning in improving distant learning systems and organizational development in Geography departments of colleges of education in Anambra State. Addressing these issues is critical for maximizing the potential of e-learning, ensuring equity, and fostering the holistic development of students and institutions alike.

Objectives

1. To ascertain on the levels of e-learning platforms utilization by Geography department in colleges of education across Anambra State.
2. To evaluate the organizational development strategies adopted by Geography departments in colleges of education in Anambra State.
3. Examine the efficacy of e-learning on distant learning outcomes for the courses in Geography.
4. Relationship between e-learning and Organisational development of Geography departments within colleges of education in Anambra State

Research questions

1. To what degree are e-learning platforms used in Geography department in colleges of education across Anambra State?
2. What is the organizational development strategies adopted by Geography departments in colleges of education in Anambra State?
3. What is the efficacy of e-learning on distant learning outcomes for the courses in Geography?

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4. what is the relationship between e-learning and Organisational development of Geography departments within colleges of education in Anambra State?

Hypotheses

1. **(H_{01}):** There is no significant difference in the degree to which e-learning platforms are used in the Geography departments of colleges of education across Anambra State.
2. **(H_{02}):** There is no significant difference in the perceived organizational development strategies adopted by Geography departments in colleges of education in Anambra State.
3. **(H_{03}):** There is no significant difference in the perceived efficacy of e-learning on distant learning outcomes for courses in Geography in colleges of education across Anambra State.
4. **($H_0$4):** There is no significant relationship between e-learning and Organisational development of Geography departments within colleges of education in Anambra State?

Methodology

This study adopted a descriptive survey research design. The design was chosen as it allows for the collection of data from a large sample of Geography departments in colleges of education in Anambra State, providing a comprehensive understanding of the effectiveness of e-learning in improving the distance learning system and organizational development. The study was conducted in colleges of education located in Anambra State, Nigeria. The focus was on Geography departments in these institutions, as they are the target area where the research sought to assess the adoption and impact of e-learning platforms on both academic outcomes and organizational development.

The population of the study comprised 107 lecturers and students in the Geography departments across the colleges of education in Anambra State. The population is representative of both faculty and student perspectives on the use of e-learning in Geography course delivery and its role in the organizational development of the departments. The primary instrument for data collection was a structured questionnaire, which included both closed and open-ended questions. The questionnaire was designed to assess the frequency of e-learning usage, its perceived efficacy in improving academic outcomes, and the strategies for organizational development within the Geography departments. To ensure the validity of the instrument, the questionnaire was subjected to expert review by professionals in the fields of educational research and geography. The experts provided feedback on the clarity, relevance, and comprehensiveness of the items. Necessary adjustments were made based on their suggestions to ensure the instrument effectively measures the intended variables. The reliability of the research instrument was tested using a pilot study conducted in a similar college of education within the region. A sample of 20 respondents was selected, and the Cronbach's alpha coefficient was calculated to determine internal consistency. The instrument showed a reliability coefficient of 0.83, which indicates that it is reliable for the study.

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Data were collected using the survey method, where the structured questionnaires were administered to the selected respondents via online survey. The questionnaires were distributed to the participants using the Google form, and responses were collected within a one-week period. To ensure accuracy and high response rates, follow-up reminders were sent to participants who had not completed the questionnaires. The collected data were analyzed using both descriptive and inferential statistical methods. Descriptive statistics, including means, frequencies, and percentages, were used to summarize the responses. For inferential analysis, correlation analysis and ANOVA were employed to test the relationships and differences in the use of e-learning platforms and organizational development strategies. The results were interpreted in light of the research questions to draw conclusions and make recommendations.

Results

Table 1: Demographic Distribution of Respondents by Role, Marital Status, and Age Group

Category	Subcategory	Frequency	Percent	Valid Percent	Cumulative Percent
Lecturer/Student	Lecturer	30	28.0	28.0	28.0
	Student	77	72.0	72.0	100.0
	Total	107	100.0	100.0	100.0
Marital Status	Married	37	34.6	34.6	34.6
	Single	55	51.4	51.4	86.0
	Divorced	2	1.9	1.9	87.9
	Widowed	13	12.1	12.1	100.0
	Total	107	100.0	100.0	100.0
Age Group	22-32 years	37	34.6	34.6	34.6
	33-44 years	43	40.2	40.2	74.8
	45-55 years	15	14.0	14.0	88.8
	56-65 years	12	11.2	11.2	100.0
	Total	107	100.0	100.0	100.0

The majority of respondents in Table 1 were students (72.0%, 77), with lecturers accounting for 28.0% (30). Regarding marital status, over half were single (51.4%, 55), followed by married individuals (34.6%, 37). Widowed respondents constituted 12.1% (13), while divorced respondents were the least (1.9%, 2). In terms of age, most respondents fell within 33–44 years (40.2%, 43) and 22–32 years (34.6%, 37), while fewer were aged 45–55 years (14.0%, 15) or 56–65 years (11.2%, 12).

Research question 1: To what degree are e-learning platforms used in Geography department in colleges of education across Anambra State?

Table 2: Statistical Analysis of E-Learning Platform Usage in Geography Departments across Anambra State

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		Distance e-learning platforms are frequently used in Geography departments across Anambra State.	Lecturers in Geography departments utilize e-learning platforms for course delivery.	Geography departments in Anambra State use e-learning platforms extensively.	E-learning platforms have become central to Geography course instruction.	The adoption of e-learning platforms in Geography remains inconsistent.
N	Valid	107	107	107	107	107
	Missing	0	0	0	0	0
Mean		2.24	2.52	2.44	2.91	2.62
Std. Error of Mean		.128	.121	.100	.068	.105
Median		2.00	2.00	3.00	3.00	2.00
Variance		1.752	1.554	1.079	.501	1.182
Skewness		.287	-.010	-.092	.135	.008
Std. Error of Skewness		.234	.234	.234	.234	.234
Kurtosis		-1.725	-1.634	-1.186	-.973	-1.329
Std. Error of Kurtosis		.463	.463	.463	.463	.463
Percentiles	25	1.00	1.00	1.00	2.00	2.00
	50	2.00	2.00	3.00	3.00	2.00
	75	4.00	4.00	3.00	3.00	4.00

The data in Table 2 indicates varying degrees of e-learning platform usage in Geography departments across colleges of education in Anambra State. The mean values range from (2.24) to (2.91), with the highest usage noted for platforms being central to course instruction (mean = 2.91, std. error = 0.068). Median values show a balanced usage pattern with scores of (2.00) or (3.00) across categories. Variance is highest for "frequent platform usage" (1.752), reflecting inconsistencies in adoption. Skewness and kurtosis values indicate slight asymmetry and flatter-than-normal distributions, suggesting variability in respondents' ratings.

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Research question 2: What is the organizational development strategies adopted by Geography departments in colleges of education in Anambra State?

Table 3: Organizational Development Strategies in Geography Departments in Colleges of Education in Anambra State

		Collaborative faculty workshops enhance organizational development in Geography departments.	Resource management strategies focus on improving departmental efficiency.	Faculty engagement in professional development drives organizational growth strategies.	Strategic partnerships strengthen Geography departments in Anambra State colleges.	Geographic information systems are integrated to enhance departmental growth.
N	Valid	107	107	107	107	107
	Missing	0	0	0	0	0
Mean		2.95	3.03	3.35	3.23	2.89
Std. Error of Mean		.092	.049	.046	.062	.072
Median		3.00	3.00	3.00	3.00	3.00
Variance		.913	.254	.228	.407	.553
Skewness		-1.030	.055	.658	-.245	-1.497
Std. Error of Skewness		.234	.234	.234	.234	.234
Kurtosis		.295	1.061	-1.598	-.634	2.482
Std. Error of Kurtosis		.463	.463	.463	.463	.463
Percentiles	25	3.00	3.00	3.00	3.00	3.00
	50	3.00	3.00	3.00	3.00	3.00
	75	4.00	3.00	4.00	4.00	3.00

From Table 3, the Geography departments in Anambra State adopt various organizational development strategies with a focus on professional and departmental growth. The mean scores for strategies range from (2.89) to (3.35), indicating moderate to high adoption levels. Faculty engagement in professional development recorded the highest mean (3.35, std. error = 0.046), emphasizing its importance in organizational growth. Collaborative faculty workshops and strategic partnerships also scored high (means = 2.95 and 3.23, respectively), reflecting their significance in fostering development. Variance values suggest relative consistency in responses, except for resource management (variance = 0.913).

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Research question 3: What is the efficacy of e-learning on distant learning outcomes for the courses in Geography?

Table 4: Efficacy of E-Learning on Distance Learning Outcomes in Geography Courses

		E-learning enhances Geography students' understanding of complex course topics.	Distance learning through e-learning platforms improves Geography course performance.	Geography students benefit from interactive, multimedia-rich e-learning materials.	Online Geography learning increases student motivation and academic performance.	Distance learning in Geography yields better learning outcomes overall.
N	Valid	107	107	107	107	107
	Missing	0	0	0	0	0
Mean		2.66	2.73	2.73	2.49	2.37
Std. Error of Mean		.115	.092	.092	.103	.096
Median		3.00	3.00	3.00	3.00	3.00
Variance		1.414	.898	.898	1.139	.991
Skewness		-.450	-.922	-.922	-.461	-.228
Std. Error of Skewness		.234	.234	.234	.234	.234
Kurtosis		-1.344	-.161	-.161	-1.253	-1.208
Std. Error of Kurtosis		.463	.463	.463	.463	.463
Percentiles	25	1.00	3.00	3.00	1.00	1.00
	50	3.00	3.00	3.00	3.00	3.00
	75	4.00	3.00	3.00	3.00	3.00

The efficacy of e-learning in Geography courses in Table 4 shows moderate effectiveness, with mean scores ranging from (2.37) to (2.73). E-learning's role in improving understanding of complex topics and course performance shares the highest mean (2.73 each, std. error = 0.092), reflecting its potential for academic enhancement. However, overall learning outcomes from distance education scored the lowest mean (2.37, std. error = 0.096), suggesting room for improvement. Median values (3.00 across categories) indicate consistent perceptions. Variance values reveal moderate variability, with the highest for topic understanding (1.414). These results suggest e-learning moderately improves Geography distance learning but requires optimization.

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Research question 4: what is the relationship between e-learning and Organisational development of Geography departments within colleges of education in Anambra State?
Table 5: Correlation Between E-Learning and Organizational Development in Geography Departments

		e-learning	Organisational development
e-learning	Pearson Correlation	1	.471**
	Sig. (2-tailed)		.000
	N	107	107
Organisational development	Pearson Correlation	.471**	1
	Sig. (2-tailed)	.000	
	N	107	107

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

The analysis in Table 5 reveals a moderate positive relationship between e-learning and organizational development in Geography departments within colleges of education in Anambra State, as indicated by the Pearson correlation coefficient ($r = .471$). This relationship is statistically significant ($p = .000$, $p < 0.01$), suggesting that improvements in e-learning are associated with enhancements in organizational development strategies. Therefore, there is a relationship between e-learning and organizational development in Geography departments, emphasizing the importance of e-learning in fostering organizational growth.

Hypothesis 1: There is no significant difference in the degree to which e-learning platforms are used in the Geography departments of colleges of education across Anambra State.
Table 6: ANOVA Analysis of the Degree of E-Learning Platform Usage in Geography Departments

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.249	1	9.249	.516	.474[b]
	Residual	1881.891	105	17.923		
	Total	1891.140	106			
2	Regression	89.304	2	44.652	2.577	.081[c]

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	Residual	1801.837	104	17.325		
	Total	1891.140	106			
3	Regression	344.429	3	114.810	7.646	.000[d]
	Residual	1546.711	103	15.017		
	Total	1891.140	106			

a. Dependent Variable: e-learning
b. Predictors: (Constant), lecturer/student
c. Predictors: (Constant), lecturer/student, Marital Status
d. Predictors: (Constant), lecturer/student, Marital Status, Age Group

The ANOVA results in Table 6 reveal that there is no significant difference in the degree to which e-learning platforms are used in Geography departments when considering only the role of lecturer/student ($F = 0.516$, $p = 0.474$). However, when marital status is added as a predictor, the model approaches significance ($F = 2.577$, $p = 0.081$), and when age group is also included, the model shows a significant difference ($F = 7.646$, $p = 0.000$). Given the final model's significance, the null hypothesis is rejected, indicating that factors like marital status and age group influence e-learning platform usage.

Hypothesis 2: There is no significant difference in the perceived organizational development strategies adopted by Geography departments in colleges of education in Anambra State.

Table 7: ANOVA Analysis of Organizational Development Strategies in Geography Departments

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.925	1	15.925	2.861	.094[b]
	Residual	584.542	105	5.567		
	Total	600.467	106			
2	Regression	94.104	2	47.052	9.664	.000[c]
	Residual	506.363	104	4.869		
	Total	600.467	106			
3	Regression	97.351	3	32.450	6.643	.000[d]
	Residual	503.117	103	4.885		
	Total	600.467	106			

a. Dependent Variable: Organisational development
b. Predictors: (Constant), lecturer/student
c. Predictors: (Constant), lecturer/student, Marital Status
d. Predictors: (Constant), lecturer/student, Marital Status, Age Group

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The ANOVA results in Table 7 show no significant difference in the perceived organizational development strategies when considering only the role of lecturer/student (F = 2.861, p = 0.094). However, the model becomes significant when marital status is added as a predictor (F = 9.664, p = 0.000) and remains significant when age group is included (F = 6.643, p = 0.000). Given the significant results in the latter models, the null hypothesis is rejected**,** indicating that factors such as marital status and age group significantly influence the organizational development strategies adopted by Geography departments.

Hypothesis 3: There is no significant difference in the perceived efficacy of e-learning on distant learning outcomes for courses in Geography in colleges of education across Anambra State.

Table 8: ANOVA Analysis of E-Learning Efficacy on Distance Learning Outcomes in Geography Courses

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	61.916	1	61.916	5.575	.020[b]
	Residual	1166.047	105	11.105		
	Total	1227.963	106			
2	Regression	150.363	2	75.181	7.256	.001[c]
	Residual	1077.600	104	10.362		
	Total	1227.963	106			
3	Regression	208.638	3	69.546	7.027	.000[d]
	Residual	1019.324	103	9.896		
	Total	1227.963	106			

a. Dependent Variable: Efficacy of e-learning
b. Predictors: (Constant), lecturer/student
c. Predictors: (Constant), lecturer/student, Marital Status
d. Predictors: (Constant), lecturer/student, Marital Status, Age Group

The ANOVA results in Table 8 indicate a significant difference in the perceived efficacy of e-learning on distance learning outcomes for Geography courses when considering the role of lecturer/student (F = 5.575, p = 0.020). The significance strengthens further when marital status is added (F = 7.256, p = 0.001) and remains significant with the inclusion of age group (F = 7.027, p = 0.000). Given the significance of all models, the null hypothesis is rejected**,** indicating that factors such as lecturer/student role, marital status, and age group significantly influence the perceived efficacy of e-learning in Geography courses.

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Hypothesis 4: There is no significant relationship between e-learning and Organisational development of Geography departments within colleges of education in Anambra State

Table 9: ANOVA Analysis of the Relationship Between E-Learning and Organizational Development

		Sum of Squares	df	Mean Square	F	Sig.
e-learning	Between Groups	9.249	1	9.249	.516	.474
	Within Groups	1881.891	105	17.923		
	Total	1891.140	106			
Organisational development	Between Groups	15.925	1	15.925	2.861	.094
	Within Groups	584.542	105	5.567		
	Total	600.467	106			

The ANOVA results in Table 9 for the relationship between e-learning and organizational development show no significant difference in both variables. For e-learning, the F-value is (0.516) with a p-value of (0.474), which is greater than the significance level of 0.05, indicating no significant effect. Similarly, for organizational development, the F-value is (2.861) with a p-value of (0.094), which also exceeds 0.05, suggesting no significant relationship. Therefore, the null hypothesis is accepted, meaning there is no significant relationship between e-learning and organizational development in Geography departments across colleges of education in Anambra State.

Discussion

Analysis of the research question 1 showed that in Geography departments across Anambra State, distance e-learning platforms are frequently used, with lecturers utilizing these platforms for course delivery. E-learning has become central to Geography course instruction, though its adoption remains inconsistent across departments. The usage of these platforms is extensive, but variations in their integration highlight gaps in consistent implementation. A related study by Ukpe (2023) found that e-learning platforms are consistently utilized across Nigerian higher education institutions, suggesting a more uniform approach compared to the findings from Anambra State. This finding agrees with the results by Ogunwuyi (2024), who noted that e-learning was central to course delivery in Geography departments in certain regions, emphasizing a shift towards digital learning. However, in a study by Eli-Chukwu et al, (2023), it was noted that the integration of e-learning platforms in some Nigerian institutions, particularly in rural areas, remains inconsistent, aligning with the observations made in Anambra State. Additionally, according to Farounbi (2024), while the adoption of e-learning platforms in various

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educational settings has increased, factors such as infrastructure and digital literacy contribute to the inconsistency of usage. This aligns with the conclusion in Anambra State that the adoption of e-learning remains inconsistent despite its central role in Geography instruction.

Results from research question 2 indicated that Geography departments across colleges of education in Anambra State engage in collaborative faculty workshops as a key strategy for enhancing organizational development. Resource management strategies focus on improving departmental efficiency, while faculty engagement in professional development is a major driver of organizational growth. Strategic partnerships also play a significant role in strengthening these departments, and the integration of Geographic Information Systems (GIS) is seen as vital for enhancing departmental growth. In contrast, a study by Okolie et al, (2022) emphasized that while collaborative workshops are common in some Nigerian institutions, resource management strategies were less emphasized compared to professional development. This finding agrees with the work of Osiesi et al, (2022), who found that faculty professional development was the primary focus for organizational growth in Nigerian Geography departments, with strategic partnerships being secondary. Similarly, in a related study by Awodiji et al, (2022), GIS integration was highlighted as a growing trend in urban universities, but its application in rural areas, like those in Anambra State, remains limited. However, the study by Olutimehin et al, (2024) revealed that strategic partnerships and resource management strategies were central to enhancing departmental efficiency, which aligns with the results from Anambra State.

Based on research question 3, e-learning has been found to enhance students' understanding of complex topics and improve their overall course performance. The integration of interactive, multimedia-rich e-learning materials has proven beneficial for students, increasing their motivation and academic performance. Furthermore, distance learning in Geography through e-learning platforms has yielded better learning outcomes overall. In contrast, a study by Wagino et al, (2024) highlighted that while e-learning platforms have enhanced student engagement in some regions, the impact on learning outcomes was less pronounced, particularly in rural areas. This finding agreed with the work of Ongor and Uslusoy (2023), which emphasized that the use of multimedia in e-learning could enhance motivation but did not significantly impact academic performance unless combined with effective teaching strategies. In a related study by Ozdemir and Ozturk (2022), it was found that Geography students in urban institutions showed marked improvements in performance due to e-learning's interactive features, aligning with the findings from this study. Additionally, Urinova (2024) found that e-learning platforms in Geography significantly boosted students' understanding of complex topics, especially when integrated with other instructional methods, confirming the positive role of distance learning in Geography courses. Therefore, while results vary based on location and resources, e-learning has consistently shown to benefit student learning in Geography.

The study found a significant positive correlation ($r = 0.471$, $p < 0.01$) between e-learning and organizational development in Geography departments in Anambra State colleges. This suggests that the more e-learning is utilized in these departments, the more

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likely they are to experience enhanced organizational development, particularly in terms of efficiency and growth. In contrast, a study by Mogea (2023) found a lower correlation between e-learning and organizational development, with e-learning contributing more to individual student success rather than organizational growth. This finding agreed with the work of Anand and Brix (2022), which highlighted that while e-learning positively influenced student engagement, its effects on broader departmental development were marginal. Similarly, a related study by Okoro (2021) in southeastern Nigeria confirmed that e-learning initiatives led to improved teaching methods but only moderately affected departmental infrastructure and organizational strategies. However, in a study by Dulamă et al, (2015), it was noted that the integration of e-learning platforms in Geography departments played a significant role in streamlining administrative tasks and improving resource management, aligning with the findings of this study.

The positive relationship between e-learning and organizational development in Geography departments aligns with Onyiorah (2022), who identified distance learning as an effective alternative to traditional classrooms, especially in changing contexts. Similarly, Oguejiofor and Onyiorah (2021) emphasized the importance of internet technologies in enhancing teaching effectiveness, supporting e-learning adoption. However, while Onyiorah (2021a) and (2023a) focused on factors like reading habits and family background influencing performance, they did not examine institutional development outcomes. Studies on professional development (Onyiorah, 2023b) and innovative strategies (Onyiorah, 2021b) suggest improvement pathways but lack direct linkage to e-learning systems, highlighting the present study's contribution.

Conclusion

In conclusion, this study on the effectiveness of e-learning in improving the distance learning system and organizational development in Geography departments in colleges of education in Anambra State has provided valuable insights into the role of e-learning in enhancing educational practices. The findings revealed that e-learning platforms are frequently used by lecturers and students in Geography departments, with significant positive correlations between e-learning usage and both academic performance and organizational growth. Moreover, e-learning has proven to be an essential tool in improving student engagement, understanding of complex topics, and overall academic outcomes. The adoption of e-learning strategies in these departments has also contributed to the improvement of organizational practices, such as resource management and faculty professional development. However, the study also highlighted inconsistencies in the adoption of e-learning, suggesting the need for more strategic planning and consistent implementation to maximize its potential benefits. The findings suggest that while e-learning has demonstrated considerable effectiveness, its full integration into the organizational framework of Geography departments requires further support, training, and alignment with institutional goals. Overall, e-learning has shown promise as a tool for enhancing both educational outcomes and organizational development, but continuous

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efforts are necessary to overcome the challenges hindering its more widespread adoption in Anambra State's colleges of education.

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