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PERCEIVED USEFULNESS OF DIGITAL PLATFORMS FOR EDUCATIONAL PURPOSES

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ABSTRACT :

This paper presents an analytical descriptive survey aimed at determining the perceived usefulness of selected digital platforms for teaching, learning, and administrative purposes in secondary schools in Port Harcourt Local Government Area (PHALGA), Rivers State, Nigeria. A multistage sampling procedure was adopted using different sampling techniques to sample 742 participants, comprising 409 students, 297 teachers, and 36 administrators from 32 private secondary schools. Three (3) questionnaires, titled Teachers' E-learning Practice Questionnaire (TEPQ), Students' E-learning Practice Questionnaire (SEPQ), and Administrators' E-learning Practice Questionnaire (AEPQ) were used to collect data. Reliability index of 0.90, 0.78 and 0.91 were obtained for TEPQ, SEPQ and AEPQ respectively, using Cronbach alpha. The data were analysed using frequency, percentages, mean, standard deviation and chi-square test of independence. The findings of the study revealed that the digital platforms adopted were perceived as useful by more teachers, students and administrators. Also, gender did not influence the perceived usefulness of the digital platforms by teachers, students, and administrators. Thus, the researchers recommended that structures and processes need to be established to guide all stakeholders in implementing e-learning so that their experiences can be as meaningful and useful as intended. The need for continuous training was also recommended.

Keywords: Perceived usefulness, TAM, Secondary education, Digital platforms

Background

A consequence of the Covid-19 pandemic for education in Nigeria and around the world was the lockdown of schools. This was a result of the number of confirmed cases and deaths, which reached millions globally (British Broadcasting Corporation, 2021) and thousands in Nigeria (Nigeria Centre for Disease Control, 2021). The lockdown of schools left practically two options for schools. The first option was to wait out the unknown duration of the lockdown by remaining idle. In Port Harcourt, Nigeria, the lockdown lasted for over five (5) months before restructured face-to-face class sessions resumed. The other option schools had amidst the lockdown period was to go online. That is, to implement online learning.

Online learning requires the use of digital platforms. Digital platforms include social media platforms, meeting apps, digital assessment apps, and learning management systems, to mention a few. Some examples of social media platforms are WhatsApp, Telegram, Skype, Instagram and Twitter. Some examples of meeting apps are Zoom and Microsoft Teams. Some examples of digital assessment apps are Google Forms, Quizlet, GoSoapBox and Spiral (Ekaran, 2018; Sood, 2018; Mason, 2021; Dyer, 2021; Guhlin, 2022). Some examples of learning management systems are Moodle, Google Classroom and Blackboard (Radana, 2011).

During the lockdown period, some private secondary schools were able to use certain digital platforms to continue school activities. In other words, some teachers in some private secondary schools were able to use certain digital platforms for teaching purposes; some students in some private secondary schools were able to use certain digital platforms for learning purposes; some administrators were able to use certain digital platforms for administrative purposes. The duties of teachers, students and administrators define what tools to harness in digital platforms. Thus, their perception of the usefulness of a digital platform is related to their respective duties. Although the pandemic was a major disruption in education, it was a peak period that highlighted the need for online learning so that education could thrive.

Problem Statement

The position of schools during the lockdown period was a turning point that highlighted the need for digital platforms in education, as face-to-face school operations were not possible. If, at such a critical juncture with very limited options, teachers, students, and administrators still do not regard digital platforms as useful for educational purposes, then the drive for technology integration when schools have the option for face-to-face modalities will

encounter great resistance. Efforts to promote digital adoption will need to be strategic to convince schools, teachers, students, and administrators that they really need to become acquainted with using digital platforms for education. This has further implications on the survival of education amidst future disruptions.

Aim and Objectives

The aim of the paper was to ascertain teachers, students and administrators' perceived usefulness of digital technologies for their respective tasks. The specific objectives were to:

1. ascertain teachers' perceived usefulness of digital platforms for teaching.
2. find out students' perceived usefulness of digital platforms for learning.
3. determine administrators' perceived usefulness of digital platforms for administrative purposes.

Research Questions

1. What are teachers' perceived usefulness of digital platforms for teaching?
2. What are students' perceived usefulness of digital platforms for learning?
3. What are administrators perceived usefulness of digital platforms for administrative purposes?

Hypotheses

1. Teachers' perceived usefulness of digital platforms for teaching is not significantly dependent on their gender.
2. Students' perceived usefulness of digital platforms for learning is not significantly dependent on their gender.
3. Administrators' perceived usefulness of digital platforms for administrative purposes is not significantly dependent on their gender.

Literature Review

There are different factors that influence people's decision on whether or not to accept a technology. One of such factors is the perceived usefulness of the technology as stated by the Technology Acceptance Model (TAM) developed by Fred Davis in 1985 (Alshammari & Rosli, 2020). According to Hamida et al. (2016) and Okumuş et al. (2016), perceived usefulness (PU) is the extent to which a person believes that using a particular technology will enhance her/his job performance. In this context the job refers to learning for students, teaching for teachers and administrative duties for administrators. In other words, perceived usefulness is the degree to which a teacher, student or administrator believes that a digital platform or combination of digital platforms are useful for performing their respective tasks.

A comprehensive extension of TAM which considers factors that influence PU is TAM 2, developed by Venkatesh and Davis in 2000 is shown in figure 1.
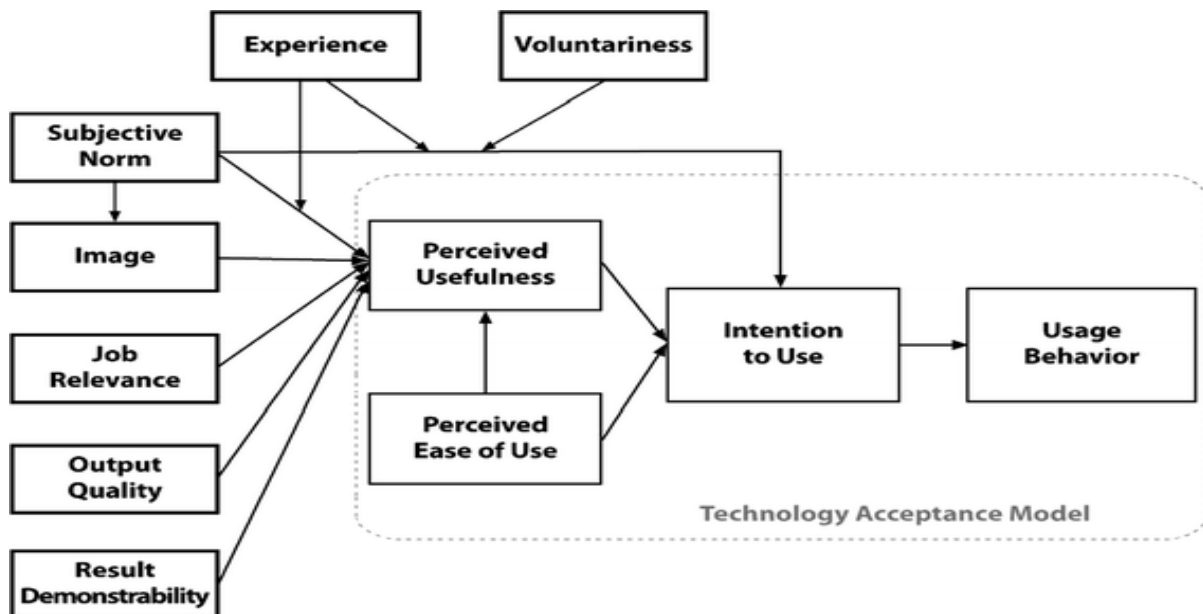

Figure 1: Technology Acceptance Model (TAM 2)

Source: https://www.bing.com/images/
Okumuş et al. (2016) stated that perceived ease of use is a factor that can influence perceived usefulness. In other words, people can perceive a digital platform as not useful if it is not easy to use. The perceived usefulness of a digital platform is also positively related to the continuance intention of users (Hamid et al., 2016). As online learning thrives with internet connectivity, the provision of internet facilities should be a top priority in today's education system (Mistar & Embi, 2016).

Several studies have highlighted certain areas of usefulness of certain digital platforms as perceived by users. Ventayen et al. (2017) reported that students perceived Google Classroom as useful for assignments and collaborative learning. Urien et al. (2019) noted that the digital platform WhatsApp is useful for communication. Ahad and Lim (2014) also attested to WhatsApp as being perceived by students as a useful tool for communication as it is inexpensive, offers quick information retrieval and transfer as well as real-time messaging. They also noted that it was useful for their group discussions and interactions. Widodo and Slamet (2020) stated that Google Classroom is useful to students in terms of submission of tasks. Nawi and Hamidaton (2022), in a study, reported that students perceived Microsoft Teams as useful for virtual learning. They recommended that teachers should feel the necessity to deliver academic lessons integrating Microsoft Teams to sustain learners' technical skills, as losing touch with the technology may negatively affect their perceived ease of use and usefulness of Microsoft Teams whenever a Covid-19-like situation arises in the future

Akpunonu and Fomsi (2021) recommended that while the usefulness of digital platforms is being recognized, the need to design and use engaging and interactive content should not be neglected. Olugbade and Olurinola (2021) as well as Fuaddah and Maharani (2021) emphasized the need for students to be ready to adapt to both offline and online approaches to learning in response to the recognition of the usefulness of certain digital platforms for educational purposes. In this study, perceived usefulness was measured using a 4-point Likert scale: Strongly agree, Agree, Disagree and Strongly disagree.

Methods

The study examined the perceived usefulness of certain digital platforms for educational purposes by teachers, students and administrators. An analytical descriptive research design was adopted and the study was delimited to some private secondary schools that implemented online learning during the lockdown period. The independent variables of the study were teachers, students and administrators. The dependent variable was perceived usefulness of digital platforms. The moderating variables were gender (male and female) and categories of digital platforms (Categories A-I). The area of study was Port Harcourt Local Government Area (PHALGA), Rivers State, Nigeria, which has twenty (20) electoral wards. Multi-stage sampling procedure was adopted for this study. In stage one, stratified sampling technique was used to group the government-approved private secondary schools based on the twenty (20) electoral wards in PHALGA. In the second stage, sampling random sampling was used to select eight (8) electoral wards through balloting. In the third stage, purposive sampling technique was used to select four (4) schools from each ward that implemented online learning during the lockdown period. A total of thirty-two (32) schools were involved in this study. Within a school, purposive sampling technique was again used to select only the teachers, students and administrators who used digital platforms for teaching, learning and administrative purposes respectively during the lockdown period.

The sample size was seven hundred and forty-two (742) participants which comprised four hundred and nine (409) SSS 2 students, two hundred and ninety-seven (297) teachers and thirty-six (36) administrators from the thirty-two (32) schools. The research instruments were three questionnaires titled Teachers' E-learning Practice Questionnaire (TEPQ), Students' E-learning Practice Questionnaire (SEPQ) and Administrators' E-learning Practice Questionnaire (AEPQ). The reliability indices of 0.90, 0.78 and 0.91 for TEPQ, SEPQ and AEPQ respectively, were calculated using Cronbach alpha. The researchers worked with five (5) research assistants to locate and obtain permission from government-approved secondary schools in the selected eight (8) electoral wards. An introduction video was used to enlighten the schools on the aim of the research. Hard copies of the questionnaires were delivered to the schools. The link to the online version of the questionnaires *(https://forms.gle/TjkkUTQLbLh8rLQJ8)* was also shared alongside the introduction video to some of the schools. Data analysis was conducted using Statistical Package for the Social Sciences) at 0.05 level of significance. The data were analysed using frequency, percentage, mean, standard deviation and Chi square test of independence. The criterion mean was 2.5.

The researchers conducted a preliminary study to identify the digital platforms that were used by the sampled schools. The results revealed several digital platforms which guided the grouping of the platforms into nine (9) categories based on how they were combined by the teachers, students and administrators. The categories are shown on table 1.

Table 1: Categories of Digital Platforms

S/n	Category	Digital platform(s)	Description
1.	A	WhatsApp only	Social media platform
2.	B	Zoom only	Meeting app
3.	C	Google Classroom only	Learning Management System
4.	D	Telegram only	Social media platform
5.	E	WhatsApp and Telegram	Social media platforms

6.	F	WhatsApp or Telegram and Zoom	Social media platforms and meeting app
7.	G	Zoom and Google Classroom	Meeting app and Learning Management System
8.	H	WhatsApp or Telegram and Google Classroom	Social media platform and Learning Management System
9.	I	WhatsApp or Telegram, Zoom and Google Classroom	Social media platform, meeting app and Learning Management System

Category G did not apply to administrators as none reported to have used the combination of only Zoom and Google Classroom for administrative purposes. The analysis on the perception of teachers, student and administrators was conducted based on the category of digital platforms used.

Results

Teachers' Perceived Usefulness of the Digital Platforms for Teaching
Table 2 shows the perceived usefulness of the digital platforms by teachers.

Table 2: Perceived Usefulness of the Digital Platforms by Teachers

| S/N | Categories of Digital platforms | Usefulness | | |
		Not Useful	Useful	Total
1)	A (WhatsApp only)	42	53	95
2)	B (Zoom only)	4	13	17
3)	C (Google Classroom only)	2	12	14
4)	D (Telegram only)	4	8	12
5)	E (WhatsApp and Telegram)	0	2	2
6)	F (WhatsApp (Telegram) and Zoom)	8	57	65
7)	G (Zoom and Google Classroom)	4	23	27
8)	H (WhatsApp and Google Classroom)	6	25	31
9)	I (WhatsApp (Telegram), Zoom and Google Classroom)	2	32	34
	Total	**72**	**225**	**297**

Table 2 shows that seventy-two (72) teachers stated that the platform(s) was not useful for teaching while two hundred and twenty-five (225) stated that the platform(s) was useful. This means that more teachers perceived the digital platforms as useful for the teaching while fewer teachers perceived the digital platforms as not useful for teaching. The teachers reported that the use of social media platforms alone was not so useful for teaching.

Table 3: Mean Score of Teachers' Perceived Usefulness of the Digital Platform(s) for Teaching

Platform Category		Teaching quality	Control	Speed	Cost	Communication	Overall usefulness
A	$\bar{x}$	2.59	**2.16**	2.77	**2.23**	2.54	2.87
(WhatsApp only)	n	95	95	95	95	95	95
	SD	0.89	0.85	0.83	0.86	0.97	0.76
B	$\bar{x}$	2.94	**2.12**	2.94	**2.00**	3.29	2.82
(Zoom only)	n	17	17	17	17	17	17
	SD	0.43	0.86	0.66	0.79	0.47	0.53
C	$\bar{x}$	2.86	2.86	3.00	**2.00**	2.57	3.00
(Google classroom only)	n	14	14	14	14	14	14
	SD	0.86	1.03	0.56	0.78	0.76	0.78
D	$\bar{x}$	3.00	2.50	2.67	2.50	2.67	3.00
	n	12	12	12	12	12	12

(Telegram only)	SD	0.85	0.52	1.30	1.31	1.15	0.85
	x̄	**2.00**	3.00	3.00	**2.00**	3.00	3.00
E	n	2	2	2	2	2	2
(WhatsApp and Telegram)	SD	0.00	0.00	0.00	0.00	0.00	0.00
	x̄	3.08	**2.29**	3.11	**2.38**	2.80	3.40
F	n	65	65	65	65	65	65
(WhatsApp (Telegram) and Zoom)	SD	0.71	0.76	0.59	0.93	0.87	0.61
	x̄	2.93	**2.00**	3.15	**2.04**	3.33	3.30
G	n	27	27	27	27	27	27
(Zoom and Google Classroom)	SD	0.73	0.88	0.66	0.76	0.62	0.72
	x̄	3.10	**2.35**	3.23	**2.16**	3.10	3.39
H	n	31	31	31	31	31	31
(WhatsApp and Google Classroom)	SD	0.94	0.80	0.67	0.97	0.70	0.72
	x̄	3.29	2.65	3.29	**2.41**	3.12	3.41
I	n	34	34	34	34	34	34
(WhatsApp (Telegram), Zoom and Google Classroom)	SD	0.84	1.04	0.84	0.86	0.69	0.78
	x̄	2.91	**2.30**	3.00	**2.25**	2.85	3.15
Total	n	297	297	297	297	297	297
	SD	0.85	0.87	0.77	0.89	0.88	0.75

Table 3 shows the mean and standard deviation of teachers' perceived usefulness of the different categories of the digital platforms for teaching. The areas that the teachers pointed out where the digital platforms were not useful according to the number of categories of digital platforms affected are cost, control and quality of teaching. These areas have cells that are below the criterion mean of 2.5.

Table 4: Male and Female Teachers' Perceived Usefulness of the Digital Platform(s)

	Usefulness		
Gender	**Not Useful**	**Useful**	**Total**
Male	34 (21%)	128 (79%)	162
Female	38 (28.1%)	97 (71.9%)	135
Total	**72**	**225**	**297**

Table 4 shows that a higher percentage of male and female teachers perceived the digital platforms as useful for teaching. However, a higher percentage of male teachers perceived the digital platforms as useful for teaching than their female counterparts.

Null hypothesis one: Teachers' perceived usefulness of digital platforms for teaching is not significantly dependent on their gender.

Table 5: Chi Square Test of Independence showing the Association between Teachers' Perceived Usefulness of Digital Platform and Gender

	Value	df	Asymptotic Significance (2-sided)	Decision
Pearson Chi-Square	2.056[a]	1	.152	
Continuity Correction[b]	1.684	1	.194	Not significant
Likelihood Ratio	2.049	1	.152	
N of Valid Cases	297			

Table 5 shows the Chi square value of 2.056 p > 0.05, i.e. p = 0.152 is greater than 0.05 and this is not statistically significant at the chosen alpha level of 0.05. This led to the retention of the null hypothesis. This shows that there is no association between gender and the teachers' perceived usefulness of the digital platforms for teaching purposes.

Students' Perceived Usefulness of the Digital Platforms for Learning
Table 6 shows the perceived usefulness of the digital platforms by students.

Table 6: Perceived Usefulness of the Digital Platforms by Students

		Usefulness		
S/N	Categories of Digital platforms	Not Useful	Useful	Total
1)	A (WhatsApp only)	44	143	187

2)	B (Zoom only)	10	24	34
3)	C (Google Classroom only)	4	10	14
4)	D (Telegram only)	0	16	16
5)	E (WhatsApp and Telegram)	2	6	8
6)	F (WhatsApp (Telegram) and Zoom)	4	39	43
7)	G (Zoom and Google Classroom)	8	34	42
8)	H (WhatsApp and Google Classroom)	8	55	63
9)	I (WhatsApp (Telegram), Zoom and Google Classroom)	0	2	2
	Total	**80**	**329**	**409**

Table 6 shows that eighty (80) students stated that the platform(s) was not useful for learning while three hundred and twenty-nine (329) stated that the platform(s) was useful.

Table 7: Mean Score of Students' Perceived Usefulness of the Digital Platform(s) for Learning

Platform Category		Learning quality	Control	Speed	Cost	Communication	Overall usefulness
A (WhatsApp only)	$\bar{x}$	2.74	**2.24**	2.89	2.55	2.95	3.13
	n	187	187	187	187	187	187
	SD	0.93	0.76	0.85	0.95	0.81	0.86
B (Zoom only)	$\bar{x}$	2.41	**2.21**	**2.38**	**2.35**	3.24	2.94
	n	34	34	34	34	34	34
	SD	0.61	0.64	0.82	0.77	0.50	0.55
C (Google classroom only)	$\bar{x}$	3.00	**2.29**	3.00	**2.43**	3.14	3.29
	n	14	14	14	14	14	14
	SD	0.78	0.91	0.78	1.22	0.86	0.73
D (Telegram only)	$\bar{x}$	3.00	2.63	2.88	2.63	3.13	3.50
	n	16	16	16	16	16	16
	SD	0.52	0.72	1.20	1.02	0.96	0.52
E (WhatsApp and Telegram)	$\bar{x}$	2.63	2.63	2.88	3.00	3.00	3.13
	n	8	8	8	8	8	8
	SD	0.74	0.74	0.99	1.07	0.93	0.83
F (WhatsApp (Telegram) and Zoom)	$\bar{x}$	3.05	**2.42**	3.44	2.77	2.88	3.47
	n	43	43	43	43	43	43
	SD	0.69	0.96	0.83	1.09	0.85	0.59
G (Zoom and Google Classroom)	$\bar{x}$	3.14	2.81	3.05	**2.05**	3.29	3.48
	n	42	42	42	42	42	42
	SD	0.90	0.92	0.79	1.03	0.89	0.59
H (WhatsApp and Google Classroom)	$\bar{x}$	2.95	2.65	3.32	**2.19**	2.86	3.32
	n	63	63	63	63	63	63
	SD	0.68	0.86	1.91	0.90	0.88	0.53
I (WhatsApp (Telegram), Zoom and Google Classroom)	$\bar{x}$	**2.00**	**2.00**	3.00	3.00	3.00	3.00
	n	2	2	2	2	2	2
	SD	0.00	0.00	0.00	0.00	0.00	0.00
	$\bar{x}$	2.83	**2.40**	2.99	**2.46**	3.00	3.23

Total	n	409	409	409	409	409	409
	SD	0.84	0.83	1.11	0.98	0.82	0.74

Table 7 shows the mean and standard deviation of students' perceived usefulness of the different categories of the digital platforms for learning. The areas that the students pointed out where the digital platforms were not useful according to the number of categories of digital platforms affected are control, cost, speed and quality of learning experience. These areas have cells that are below the criterion mean of 2.5.

Table 8: Male and Female Students' Perceived Usefulness of the Digital Platform(s)

	Usefulness		
Gender	**Not Useful**	**Useful**	**Total**
Male	47 (22.7%)	170 (78.3%)	217
Female	33 (17.2%)	159 (82.8%)	192
Total	**80**	**329**	**409**

Table 8 shows that a higher percentage of male and female students perceived the digital platforms as useful for learning. However, a higher percentage of female students perceived the digital platforms as useful for learning than their male counterparts.

Null hypothesis two: Students' perceived usefulness of digital platforms for learning is not significantly dependent on their gender.

Table 9: Chi Square Test of Independence showing the Association between Students' Perceived Usefulness of Digital Platform and Gender

	Value	df	Asymptotic Significance (2-sided)	Decision
Pearson Chi-Square	1.295[a]	1	.255	
Continuity Correction[b]	1.026	1	.311	Not significant
Likelihood Ratio	1.301	1	.254	
N of Valid Cases	409			

Table 9 shows the Chi square value of 1.295 p > 0.05, i.e. p = 0.255 is greater than 0.05 and this is not statistically significant at the chosen alpha level of 0.05. This led to the retention of the null hypothesis. This shows that there is no association between gender and the students' perceived usefulness of the digital platforms for learning purposes.

Administrators' Perceived Usefulness of the Digital Platforms for Administrative Purposes

Table 10 shows the perceived usefulness of the digital platforms by administrators for administrative purposes.

Table 10: Administrators' Perceived Usefulness of the Digital Platform(s)

		Usefulness		
S/N	**Categories of Digital platforms**	**Not Useful**	**Useful**	**Total**
1)	A (WhatsApp only)	1	8	9
2)	B (Zoom only)	0	2	2
3)	C (Google Classroom only)	0	5	5
4)	D (Telegram only)	0	1	1
5)	E (WhatsApp and Telegram)	0	1	1
6)	F (WhatsApp (Telegram) and Zoom)	2	6	8
7)	H (WhatsApp and Google Classroom)	0	1	1
8)	I (WhatsApp (Telegram), Zoom and Google Classroom)	0	9	9
	Total	**3**	**33**	**36**

From table 10, three (3) administrators stated that the platform(s) were not useful for administrative purposes while thirty-three (33) stated that the platform(s) were useful.

Table 11: Mean Score of Administrators Perceived Usefulness of the Digital Platforms for Administration

Platform Category		Administration quality	Control	Speed	Cost	Communication	Overall usefulness
A (WhatsApp only)	x̄	3.56	2.56	3.44	**2.44**	3.11	3.78
	n	9	9	9	9	9	9
	SD	0.53	0.88	0.73	1.01	0.93	0.44
B (Zoom only)	x̄	3.50	3.00	3.50	3.00	3.50	3.50
	n	2	2	2	2	2	2
	SD	0.71	0.00	0.71	0.00	0.71	0.71
C (Google classroom only)	x̄	2.80	3.20	2.60	**1.40**	3.60	3.00
	n	5	5	5	5	5	5
	SD	1.64	0.84	0.55	0.55	0.55	0.00
D (Telegram only)	x̄	4.00	**2.00**	3.00	**2.00**	4.00	3.00
	n	1	1	1	1	1	1
	SD						
E (WhatsApp and Telegram)	x̄	**2.00**	**2.00**	3.00	**2.00**	4.00	3.00
	n	1	1	1	1	1	1
	SD						
F (WhatsApp (Telegram) and Zoom)	x̄	3.00	**2.25**	2.75	**2.25**	3.00	3.00
	n	8	8	8	8	8	8
	SD	1.31	0.89	1.16	0.46	0.76	1.31
H (WhatsApp and Google Classroom)	x̄	4.00	**2.00**	3.00	4.00	**2.00**	3.00
	n	1	1	1	1	1	1
	SD						
I (WhatsApp (Telegram), Zoom and Google Classroom)	x̄	3.44	2.56	3.67	2.78	3.56	3.33
	n	9	9	9	9	9	9
	SD	0.53	1.01	0.50	1.30	0.73	0.50
Total	x̄	3.28	2.56	3.19	**2.39**	3.31	3.31
	n	36	36	36	36	36	36
	SD	0.97	0.88	0.82	0.99	0.79	0.75

Table 11 shows the mean and standard deviation of administrators' perceived usefulness of the different categories of the digital platforms for administrative purposes. The areas that the administrators pointed out where the digital platforms were not useful according to the number of categories of digital platforms affected are cost, control, quality of administration and communication. These areas have cells that are below the criterion mean of 2.5.

Table 12: Male and Female Administrators' Perceived Usefulness of the Digital Platform(s)

Gender	Usefulness		Total
	Not Useful	**Useful**	
Male	0 (0%)	20 (100%)	20
Female	3 (18.7%)	13 (81.3%)	16
Total	**3**	**33**	**36**

Table 12 shows that a higher percentage of male and female administrators perceived the digital platforms as useful for administrative purposes. However, a higher percentage of male administrators perceived the digital platforms as useful for administrative purposes than their female counterparts.

Null Hypothesis Three: Administrators' perceived usefulness of digital platforms for administrative purposes is not significantly dependent on their gender.

Table 13: Chi Square Test of Independence showing the Association between Administrators' Perceived Usefulness of Digital Platform and Gender

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Decision
Pearson Chi-Square	4.091[a]	1	.043		
Continuity Correction[b]	2.005	1	.157		
Likelihood Ratio	5.210	1	.022		Not significant
Fisher's Exact Test				.078	
N of Valid Cases	36				

Table 13 shows the Chi square value of 4.091 p > 0.05, i.e. p = 0.078 is greater than 0.05 and this is not statistically significant at the chosen alpha level of 0.05. This led to the retention of the null hypothesis. This shows that there is no association between gender and the administrators' perceived usefulness of the digital platforms for administrative purposes.

Discussion of findings :

Teachers' Perceived Usefulness of the Digital Platforms for Teaching

A higher percentage of teachers perceived the digital platforms as useful for teaching. However, there were certain areas that the teachers pointed out that the digital platforms were not as useful. The topmost concern was cost. Additionally, the use of only social media for teaching was not regarded as useful by teachers. Some other areas highlighted by teachers were control and quality of teaching.

Students' Perceived Usefulness of the Digital Platforms for Learning

A higher percentage of students perceived the digital platforms as useful for learning. However, there were certain areas that the students pointed out that the digital platforms were not as useful. The topmost was control, which ironically is meant to be one of the benefits of using digital platforms for learning, as it gives student control over their pace, place and time of learning. However, the kind of e-learning experiences provided can impede the quality of control students can have. An example is a case where the e-learning content is poorly designed and there is no or very limited opportunity for students to communicate with their teachers and peers. Other areas highlighted were speed and quality of learning experience. Students also complained of cost and this could be a reflection of parents' complaints. This finding is consistent with that of Hamid et al. (2016), Akpunonu and Fomsi (2021) as well as Kasumu and Idogor (2022) whose findings revealed that students perceived Google Classroom as a useful digital platform for learning.

Administrators' Perceived Usefulness of the Digital Platforms for Administrative Purposes

A higher percentage of administrators perceived the digital platforms as useful for administration. However, there were certain areas that the administrators pointed out that the digital platforms were not so useful. The topmost was cost. Other areas highlighted were control, quality of administration and communication.

Factors such as control, communication and quality of teaching, learning, and administrative experience highlight training needs for teachers, students and administrators to help them harness the potentials of digital platforms for their respective duties. The case of cost has multiple dimensions to it; practice and infrastructural provision. In practice, schools can implement effective ways of designing and optimizing media so it does not consume so much data. Infrastructural provision is related to the provision of basic amenities such as constant power supply and lower data subscription rates. These will not totally eliminate the cost. However, it will greatly reduce the burden on administrators, teachers, students and even parents/guardians.

Conclusions

In conclusion, the digital platforms identified in this study were useful for teaching, learning and administrative purposes. However, there were areas of concerns raised by the teachers, students and administrators. Furthermore, gender did not influence the perceived usefulness of the digital platforms by teachers, students and administrators

Recommendations

1. Structures and processes need to be established to guide all stakeholders in implementing online learning so that the experiences can be as meaningful and useful as intended.

2. There should be continuous trainings for teachers, students and administrators on best ways to leverage digital platforms for teaching, learning, and administrative purposes respectively.

REFERENCES :

1. Ahad, A. D. & Lim, S. M. A. (2014). Convenience or Nuisance?: The 'WhatsApp' Dilemma. *Procedia - Social and Behavioral Sciences*. 155, 189 – 196. doi: 10.1016/j.sbspro.2014.10.278

2. Akpunonu, H. N. & Fomsi, E. F. (2021). Perception of undergraduate students towards the use of Google classroom application for online learning in the 21st century. *British Journal of Education*, 9(8), 20-34. https://ssrn.com/abstract=3905127

3. Alshammari, S.H., & Rosli, M.S. (2020). A Review of Technology Acceptance Models and Theories. *Innovative Teaching and Learning Journal*, 4 (2), 12–22. https://www.researchgate.net/scientific-contributions/Mohamad-Razi-2217676393

4. British Broadcasting Corporation (2021, July 25). Covid map: Coronavirus cases, deaths, vaccinations by country. https://www.bbc.com.

5. Dyer, K. (2021, August 24). 75 digital tools and apps teachers can use to support formative assessment in the classroom [Blog Post]. https://www.nwea.org/blog/2021/75-digital-tools-apps-teachers-use-to-support-classroom-formative-assessment/

6. Ekaran, S. (2018, January 27). Top 10 tools for the digital classroom [Blog Post]. https://elearningindustry.com/tools-for-the-digital-classroom-top-10

7. Fuaddah, N. S. & Maharani, M. M. (2021). Microsoft Teams in the perspective of the users. *Journal of Advanced Multidisciplinary Research*. 2(2), 62-69. http://dx.doi.org/10.30659/jamr.2.2.62-69

8. Guhlin, M. (2022, February 9). Powerful and easy digital tools for formative assessment [Blog Post]. blog.tcea.org/digital-tools-formative-assessment

9. Hamida, A., A., Razakb, F. Z. A., Bakarc, A. A. & Abdullahc, W. S. W. (2016). The effects of perceived usefulness and perceived ease of use on continuance intention to use e-government. *Procedia Economics and Finance*, 35, 644 – 649. Doi: 10.1016/S2212-5671(16)00079-4

10. Kasumu, R. O., & Idogor, U. (2022). Perception of students on the use of Google Classroom for educational purposes. *Innovare Journal of Education*. 10(5), 1-5. DOI: 10.22159/ijoe.2022v10i5.45988

11. Mason, J. (2021, January 4). The 10 Best Tech Tools for Student Assessment [Blog Post]. https://www.weareteachers.com/best-tech-tools-for-student-assessment/

12. Mistar, I. B. & Embi, M. A. (2016). Students' perception on the use of WhatsApp as a learning tool in ESL classroom. *Journal of Education and Social Sciences*. 4, 96-106. https://www.jesoc.com/wp-content/uploads/2016/08/Edu-76.pdf

13. Nawi, A. & Hamidaton, U. (2022). Exploring student's readiness and behavioural towards virtual learning via Microsoft Teams. *Malaysian Journal of Social Sciences and Humanities (MJSSH)*. 7(2). doi: 10.474njm05/mjssh.v7i2.1273.

14. Nigeria Center for Disease Control (2021). NCDC Coronavirus COVID-19 microsite. https://covid19.ncdc.gov.ng.

15. Okumuş, S., Lewis, L., Wiebe, E., & Karen, H. (2016). Utility and usability as factors influencing teacher decisions about software integration. *Educational Technology Research and Development,* 64(6), 1227-1249. https://www.jstor.org/stable/26746593

16. Olugbade, D. & Olurinola, O. (2021). Teachers' perception of the use of Microsoft Teams for remote learning in Southwestern Nigerian schools. *African Journal of Teacher Education.* 10(1), 265–281. https://doi.org/10.21083/ajote.v10i1.6645

17. Radana, D. (2011). Getting started with Moodle. *Moodle for dummies*. Wiley Publishers.

18. Sood, I. (2018, October 17). 5 interesting tools to create digital quizzes [Blog Post]. https://elearningindustry.com/tools-to-create-digital-quizzes-interesting

19. Urien, B., Erro-Garcés, A. & Osca, A. (2019). WhatsApp usefulness as a communication tool in an educational context. *Education and Information Technologies.* 24, 2585–2602. https://doi.org/10.1007/s10639-019-09876-5

20. Ventayen, R. J. M., Estira, K. L. A., Guzman, M. J. D., Cabaluna, C. M. & Espinosa, N. N. (2017). Usability evaluation of Google Classroom: Basis for the adaptation of GSuite e-learning platform. *Asia Pacific Journal of Education, Arts and Sciences.* 5(1), 47-51. http://apjeas.apjmr.com/

21. Widodo, J. P. & Slamet, J. (2020). Students' perception towards google classroom as e-learning tool (A case study of master of english education of the second semester at STKIP PGRI Sidoarjo). *Magister Scientiae.* 48, 99-109. DOI: https://doi.org/10.33508/mgs.v2i48.2802